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For additional information about the 2005-06 National Family Health Survey (NFHS-3), please contact:

International Institute for Population Sciences
Govandi Station Road, Deonar, Mumbai - 400 088
Telephone: 022-2556-4883, 022-2558-3778
Fax: 022-2558-3778
E-mail: iipsnfhs@vsnl.com, iipsnfhs@gmail.com
Website: http://www.nfhsindia.org

For related information, visit http://www.iipsindia.org or http://www.mohfw.nic.in

CONTRIBUTORS

P.N. Mari Bhat
Fred Arnold
Kamla Gupta
Sunita Kishor
Sulabha Parasuraman
P. Arokiasamy
S.K. Singh
H. Lhungdim

In fond memory of the late
Prof. P.N. Mari Bhat

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सत्यमेव जयते

भारत सरकार
स्वास्थ्य एवं परिवार कल्याण मंत्रालय
निर्माण भवन, नई दिल्ली - 110011

Government of India
Ministry of Health & Family Welfare
Nirman Bhavan, New Delhi - 110011

Naresh Dayal
Health & FW Secretary
Tel.: 23061863 Fax : 23061252
e-mail : secyfw@nb.nic.in
ndayal@nic.in

FOREWORD

The Government has launched the National Rural Health Mission in April 2005 with the objectives of meeting the outcomes envisioned in the National Population Policy 2000, the Eleventh Plan, MDGs and the Vision 2020 India by improving the reproductive and child health delivery system along with the overall preventive and curative and preventable heath care system in the country.

In order to have an effectual set of policies and also to translate that into new programmes and initiatives, there is always a hunt for newer set of evidences of the ground realities. This is where the National Family Health Surveys (NFHS) have always played a crucial role. Like its predecessors, NFHS-1 (1992-93) and NFHS-2 (1998-99), present round, NFHS-3 (2005-06) was conducted when there was the need to have base line information on the crucial reproductive and Child Health, nutrition, life style and HIV/AIDs related indicators, due to the launching of the Phase II of the Reproductive and Child Health programme and the NACP-III programme for control of HIV/AIDS.

National Family Health Survey (2005-06) popularly known as NFHS-3 is not only large in its coverage of newer areas of data collection, it has covered for the first time unmarried women age 15-49 and married and unmarried men age 15-54 in addition to all ever-married women age 15-49. Thus, the number of individuals interviewed has also increased almost twice of that during previous rounds.

I hope that the information set in this round of NFHS would further strengthen India's demographic and health database. The efforts of all in the Ministry of Health & Family Welfare, NACO, International Institute of Population Sciences (IIPS), National AIDS Research Institute, the Chairmen & members of the Technical and Administrative Committees, partners from USAID, UNICEF, UNFPA, DFID, Bill and Melinda Gates Foundation and ORC Macro, USA who have assiduously worked and supported this project are acknowledged with appreciation.

Naresh Dayal

(Naresh Dayal)

सम्पर्क से पहले सोचो, एच आईवी/एडस से बचो **HIV/AIDS : Prevention is better than cure**

PREFACE

The National Family Health Surveys (NFHS) programme, initiated in the early 1990s, has emerged as a nationally important source of data on population, health, and nutrition for India and its states. The 2005-06 National Family Health Survey (NFHS-3), the third in the series of these national surveys, was preceded by NFHS-1 in 1992-93 and NFHS-2 in 1998-99. Like NFHS-1 and NFHS-2, NFHS-3 was designed to provide estimates of important indicators on family welfare, maternal and child health, and nutrition. In addition, NFHS-3 provides information on several new and emerging issues, including family life education, safe injections, perinatal mortality, adolescent reproductive health, high-risk sexual behaviour, tuberculosis, and malaria. Further, unlike the earlier surveys in which only ever-married women age 15-49 were eligible for individual interviews, NFHS-3 interviewed all women age 15-49 and all men age 15-54. Information on nutritional status, including the prevalence of anaemia, is provided in NFHS-3 for women age 15-49, men age 15-54, and young children.

A special feature of NFHS-3 is the inclusion of testing of the adult population for HIV. NFHS-3 is the first nationwide community-based survey in India to provide an estimate of HIV prevalence in the general population. Specifically, NFHS-3 provides estimates of HIV prevalence among women age 15-49 and men age 15-54 for all of India, and separately for Uttar Pradesh and for Andhra Pradesh, Karnataka, Maharashtra, Manipur, and Tamil Nadu, five out of the six states classified by the National AIDS Control Organization (NACO) as high HIV prevalence states. No estimate of HIV prevalence is being provided for Nagaland, the sixth high HIV prevalence state, due to strong local opposition to the collection of blood samples.

NFHS-3 covered all 29 states in India, which comprise more than 99 percent of India's population. NFHS-3 is designed to provide estimates of key indicators for India as a whole and, with the exception of HIV prevalence, for all 29 states by urban-rural residence. Additionally, NFHS-3 provides estimates for the slum and non-slum populations of eight cities, namely Chennai, Delhi, Hyderabad, Indore, Kolkata, Meerut, Mumbai, and Nagpur. NFHS-3 was conducted under the stewardship of the Ministry of Health and Family Welfare (MOHFW), Government of India, and is the result of the collaborative efforts of a large number of organizations. The International Institute for Population Sciences (IIPS), Mumbai, was designated by MOHFW as the nodal agency for the project. Funding for NFHS-3 was provided by the United States Agency for International Development (USAID), DFID, the Bill and Melinda Gates Foundation, UNICEF, UNFPA, and MOHFW. Macro International, USA, provided technical assistance at all stages of the NFHS-3 project. NACO and the National AIDS Research Institute (NARI) provided technical assistance for the HIV component of NFHS-3. Eighteen Research Organizations, including six Population Research Centres, shouldered the responsibility of conducting the survey in the different states of India and producing electronic data files.

The survey used a uniform sample design, questionnaires (translated into 18 Indian languages), field procedures, and procedures for biomarker measurements throughout the

country to facilitate comparability across the states and to ensure the highest possible data quality. The contents of the questionnaires were decided through an extensive collaborative process in early 2005. Based on provisional data, two national-level fact sheets and 29 state fact sheets that provide estimates of more than 50 key indicators of population, health, family welfare, and nutrition have already been released. The basic objective of releasing fact sheets within a very short period after the completion of data collection was to provide immediate feedback to planners and programme managers on key process indicators.

Given the vast amount of information collected in NFHS-3, the national report is being published in two volumes. The first volume contains comprehensive findings from NFHS-3, based on a standard tabulation plan developed at a workshop held at IIPS on 25 May 2006. According to the recommendations of the NFHS-3 Technical Advisory Committee, the tabulation plan was finalized by IIPS and tables and figures were produced for the final report. The second volume of the report includes the three NFHS-3 questionnaires, more detailed information on the sample design, sampling errors for key indicators, and data quality tables. The two volumes of this report were written jointly by authors from IIPS and Macro International.

We take great pride in presenting the NFHS-3 national report. We hope that the report will provide helpful insights into the changes that are taking place in the country and will provide policymakers and programme managers with up-to-date estimates of indicators that can be used for effective management of health and family welfare programmes, with an emphasis on both the reproductive and nutritional health of the population. The report should also contribute to the knowledge of researchers and analysts in the fields of population, health, and nutrition.

S. Lahiri
Officiating Director
International Institute for
Population Sciences
Mumbai

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The 2005-06 National Family Health Survey (NFHS-3) was successfully completed due to the efforts and involvement of numerous organizations and individuals at different stages of the survey. As far as possible, we would like to thank everyone who was involved in the survey and made it a success.

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Kamla Gupta
Sulabha Parasuraman
P. Arokiasamy
S.K. Singh
H. Lhungdim

NFHS-3 Coordinators, IIPS

SUMMARY OF FINDINGS

The third National Family Health Survey (NFHS-3), coordinated by the International Institute for Population Sciences (IIPS) under the aegis of the Government of India, was conducted in 2005-06. As did NFHS-1 (1992-93) and NFHS-2 (1998-99), NFHS-3 provides information on fertility, mortality, family planning, HIV-related knowledge, and important aspects of nutrition, health, and health care. Unlike the earlier surveys, however, NFHS-3 interviewed men age 15-54 and never married women age 15-49, as well as ever-married women, and included questions on several emerging issues such as perinatal mortality, male involvement in maternal health care, adolescent reproductive health, higher-risk sexual behaviour, family life education, safe injections, and knowledge about tuberculosis. In addition, NFHS-3 carried out blood testing for HIV to provide, for the first time in India, population-based data on HIV prevalence.

NFHS-3 collected information from a nationally representative sample of 109,041 households, 124,385 women age 15-49, and 74,369 men age 15-54. The NFHS-3 sample covers 99 percent of India's population living in all 29 states. From among all the women and men interviewed nationwide, 102,946 were tested for HIV. NFHS-3 provides estimates of HIV prevalence for adult women and men at the national level, for Uttar Pradesh and for five high HIV prevalence states (Andhra Pradesh, Karnataka, Maharashtra, Manipur, and Tamil Nadu). Additionally, health investigators tested blood haemoglobin levels of women and men and of children age 6-59 months to assess the prevalence of anaemia. NFHS-3 also collected information on population and health indicators for slum and non-slum populations in eight cities, namely Chennai, Delhi, Hyderabad, Indore, Kolkata, Meerut, Mumbai, and Nagpur.

Fieldwork for NFHS-3 was conducted in two phases from November 2005 to August 2006. Eighteen research organizations, including six Population Research Centres, collected the data and conducted data entry and editing operations. The HIV testing of blood samples was done by SRL Ranbaxy, Mumbai. External quality control for the HIV testing of blood samples was done by the National AIDS Research Institute (NARI), Pune.

Characteristics of the Household Population

A total of 515,507 individuals who stayed in the household the night before the interview were enumerated in the 109,041 NFHS-3 sample households. The age distribution of the population is typical of populations that have recently experienced fertility decline. Thirty-five percent of the population is under age 15, and only 5 percent is age 65 and older. Fourteen percent of heads of households are women. Over two-thirds (69 percent) of the population lives in rural areas.

Based on the religion of the household head, 82 percent of households are Hindu, 13 percent are Muslim, 3 percent are Christian, 2 percent are Sikh and 1 percent are Buddhist/Neo-Buddhist. All other religions together account for less than 1 percent of households. Nineteen percent of household heads belong to the scheduled castes, 8 percent to the scheduled tribes, and

40 percent to the other backward classes (OBC). About one-third do not belong to any of these three groups. Twenty-seven percent of households have a below poverty line (BPL) card.

The 2001 Indian census found a sex ratio of 927 girls per 1,000 boys for the population age 0-6 years. Approximately five years after the census, NFHS-3 finds the sex ratio of the population age 0-6 years (girls per 1,000 boys) to be 918 for India as a whole. The under-seven sex ratio in urban areas is the same in NFHS-3 as in the 2001 census; however, in rural areas, NFHS-3 finds a sex ratio for this population of 921, lower than the 934 found in the census.

Seventy-two percent of children of primary-school age attend primary school and 51 percent of secondary-school age children attend secondary school. There is little gender-disparity in age appropriate education at the primary school level; however, a higher proportion of boys (57 percent) than girls (46 percent) age 11-17 are in secondary school. Nationally, more than one in four children age 6-17 years are not in school at all.

Eighty-three percent of children below age 18 live with both their parents, and 4 percent live with neither parent. A slightly higher proportion of urban children live with both parents (87 percent) than rural children (81 percent).

NFHS-3 results suggest some improvements in housing conditions and the standard of living of households since NFHS-2, seven years earlier. Sixty-eight percent of households in India now have electricity. Most households (88 percent) have access to an improved source of drinking water, with greater access in urban areas. The most common improved source of drinking water for urban dwellers is piped water: 71 percent either have water piped into their living area or use a public tap. By contrast, only 28 percent of households in rural areas have access to piped water. Most people in rural areas obtain their drinking water from a tube well or borehole (53 percent). Fifty-three percent of urban households have an improved toilet facility, compared with only 18 percent of rural households. Nationally, 45 percent of households have any toilet facilities, up from 36 percent at the time of NFHS-2. Forty-six percent of households live in a *pucca* house.

Women's and Men's Literacy, Education, and Employment

Just over half (55 percent) of de facto women age 15-49 are literate, compared with 78 percent of de facto men in the same age group. Literacy has increased substantially over time, with recent cohorts being more literate than older cohorts; nonetheless, NFHS-3 shows that even among those in the age group 15-19, only 74 percent of women and 89 percent of men are literate.

Education levels vary widely throughout India. The percentage of women who have at least 12 or more years of education ranges from 5 percent in Bihar; 7 percent in Tripura, Rajasthan, and Chhattisgarh; and 8-9 percent in Jharkhand, Orissa, West Bengal, Andhra Pradesh, and Madhya Pradesh, to 37 percent in Delhi. The corresponding range for men is from 12 percent in Tripura to 38 percent in Delhi. Delhi, Manipur, Himachal Pradesh, Uttaranchal, Goa, and Kerala are the states with the highest proportion of persons who have completed at least 12 years of education. Notably, the gender gap in the proportions with 12 or more

completed years of education is less than 10 percentage points in all states except Manipur (11 percentage points) and Bihar (16 percentage points). In Punjab, Goa, and Kerala, slightly more women than men have completed 12 or more years of education.

Nationally, 35 percent of women and 18 percent of men are not regularly exposed to newspapers/magazines, television, radio, or cinema. For both women and men, media exposure is lowest in Jharkhand and highest in Delhi, Manipur, Goa, and Kerala.

Forty-three percent of women age 15-49 are employed, compared with 87 percent of men in the same age group. Men's employment varies little by urban-rural residence; however, urban women are much less likely than rural women to be employed. The majority of employed women are agricultural workers (59 percent); whereas, no single occupation accounts for the majority of employed men. Similar proportions of employed women and men (7 percent, each) are in professional, technical, administrative, and managerial occupations. Two-thirds of employed women earn cash, compared with 91 percent of employed men.

Marriage and Fertility

More than half of women are married before the legal minimum age of 18. Among women age 20-49, the median age at first marriage is 17.2 years. By contrast, men in the same age group get married six years later, at a median age of 23.4 years. Sixteen percent of men age 20-49 are married by age 18, 28 percent by age 20, and 58 percent by age 25.

Women today are waiting slightly longer to marry. In the late 1990s, the median age at first marriage was 16.7 years, 6 months earlier than it is now. The median age at first marriage in India is almost two years higher for women age 20-24 than for women age 40-49. Urban women marry more than two years later than rural women; the median age at marriage among urban women age 20-49 is 18.8 years, compared with 16.4 years among their rural counterparts.

Fertility continues to decline in India. The current total fertility rate (TFR) of 2.7 is down slightly from 2.9 children per woman at the time of NFHS-2, but is still well above the replacement level of just over two children per woman. In urban areas, the TFR has reached replacement levels (2.1), but in rural areas the TFR is 3.0.

Total fertility rates range from 1.8 in Goa, Andhra Pradesh, and Tamil Nadu to 4.0 in Bihar. Besides Bihar, other states with TFRs of 3.0 and above include Uttar Pradesh, Rajasthan, and Madhya Pradesh in the north, Jharkhand in the east, and Arunachal Pradesh, Meghalaya, and Nagaland in the northeast. Fertility is low in the western and southern states: with the exception of Gujarat (with a TFR of 2.4), the states in these regions all have replacement level fertility of 2.1 or fewer children per woman. Delhi, Himachal Pradesh, Punjab and Sikkim have also attained replacement level fertility.

The greatest differences in fertility are by education and household wealth. At current fertility rates, women in the poorest households will have two more children than women in the richest households. The TFR is 3.1 for the scheduled tribes, 2.9 for the scheduled castes, and 2.8 for the other backward classes. The TFR for Muslims (3.4) is higher than the TFR for Hindus

(2.6). Although fertility decreased for both groups in the seven years between NFHS-2 and NFHS-3, the fertility differential did not change over this period.

Unplanned pregnancies are relatively common. Among births in the five years before the survey, 10 percent were mistimed (wanted later) and 11 percent were not wanted at all. Among births to women age 30-49, more than one four births (29 percent) were not wanted at all. If all women were to have only the number of children they wanted, the total fertility rate would be 1.9 instead of 2.7.

Research shows that waiting at least three years between births significantly reduces the risk of infant mortality. In India, the median interval between births is 31 months. Eleven percent of births take place within 18 months of the last birth, and 28 percent occur within 24 months.

Teenage pregnancy is common. Overall, one in six women age 15-19 have begun childbearing: 12 percent have become mothers and 4 percent were pregnant with their first child at the time of the survey. Among women age 20-49, half had a birth before they were 20 years old, and more than one in four before they were 18 years old. Early childbearing is most common in rural areas and among women with no education.

Among currently married women and men with 2 or more children, at least four out of five do not want to have any more children. Two-thirds of Indian women and men consider the ideal family size to be two children or less. Most men and women would like to have at least one son and one daughter. Nonetheless, son preference is widespread; one in five women and men say that they would like more sons than daughters and only 2-3 percent say that they would like more daughters than sons.

Family Planning Knowledge and Use

Knowledge of contraception is nearly universal: 98 percent of women and 99 percent of men age 15-49 know one or more methods of contraception. Over 94 percent of women and men know about female sterilization. Male sterilization, by contrast, is known only by 79 percent of women and 87 percent of men. Ninety-three percent of men know about condoms, compared with 74 percent of women. More than four in five women and men know about contraceptive pills. Knowledge of contraception is widespread even among adolescents: 96 percent of young women and 97 percent of young men have heard of a modern method of contraception.

Two-thirds of currently married women have used a family planning method at some time in their lives. Since NFHS-2, ever use of any method among currently married women has increased by 11 percentage points. The increase is greatest for spacing methods; ever use of condoms and the rhythm method has increased by 6 percentage points each.

The contraceptive prevalence rate for currently married women in India is 56 percent, up from 48 percent in NFHS-2. Female sterilization, with a prevalence of 37 percent, accounts for 66 percent of all contraceptive use, down from 71 percent of all contraceptive use at the time of NFHS-2. The use of female sterilization is higher for women with less education and women who are employed for cash than for most other groups of women. The highest adoption rate of

female sterilization, at 67 percent, is among women with three children who have two sons. The most common spacing methods are condoms and the rhythm method, each used by 5 percent of currently married women.

Contraceptive use among currently married women varies markedly by education, religion, caste, and wealth. Just over half of women with no education (52 percent) use any method, compared with 62 percent of women with 12 or more years of education. Contraceptive prevalence is highest among Jains (75 percent), followed by Buddhists/Neo-Buddhists (68 percent), and Sikhs (67 percent). Contraceptive use ranges from 46 to 58 percent among Muslims, Hindus, and Christians. By caste or tribe, contraceptive prevalence is highest among women who do not belong to any scheduled caste, scheduled tribe, or other backward class (62 percent), followed by women belonging to the scheduled castes (55 percent) and other backward classes (54 percent). Contraceptive use is lowest among women from the scheduled tribes (48 percent). Wealth has a positive effect on contraceptive prevalence, with use increasing from 42 percent among currently married women in the lowest wealth quintile, to 68 percent among those in the highest wealth quintile.

Current use of contraception varies greatly with parity; first increasing from 34 percent for women with one child to 74 percent for women with three children, and then declining to 63 percent for women with 4 or more children. At each parity, women who have sons are much more likely than women who have no sons to be using contraception.

The contraceptive prevalence rate varies from 73 percent in Himachal Pradesh and 71 percent in West Bengal, to 30 percent in Nagaland and 24 percent in Meghalaya. Female sterilization is more prevalent in the South Region, than in any other region. Nationally, the median age at sterilization for women is 25.5 years, similar to the median at the time of NFHS-2 (25.7 years). Median age at sterilization is lowest at 23.3 years in Andhra Pradesh, followed by 23.9 years in Karnataka, and is highest in Manipur (29.9 years). In India as a whole, 77 percent of female sterilization adopters have never used any other method.

Seventy-one percent of modern contraceptive users obtained their method from a public sector source. However, the source of contraception varies greatly by method. Eighty-four percent of sterilized women had the operation in a government facility, usually in a government or municipal hospital. By contrast, just over half of IUD users utilized the private medical sector for their IUD insertion. Almost two-thirds of pill users got their most recent supply from the private medical sector, which is also the most common source for condoms. According to women's reports, 62 percent of pill users and 44 percent of condom users who knew the brand name of their method were using socially-marketed brands. Almost half (47 percent) of men who used a condom the last time they had sex used a socially-marketed brand. The use of socially marketed pills exceeds 80 percent of all current pill use in Manipur, Assam, Nagaland, and Bihar; and is lowest at 40 percent in Chhattisgarh. Less than 60 percent of condom users (according to women's reports) use socially marketed brands in every state except Uttar Pradesh and Orissa.

Discontinuation rates for temporary methods are fairly high: 39 percent of users of temporary methods discontinue use within 12 months of initiating use. About half of pill users

discontinue use within the first year of adopting the method, and discontinuation is also high for condoms (45 percent). One-year discontinuation rates are also substantial for users of the rhythm method (32 percent) and withdrawal (35 percent), the methods with the highest failure rates.

Unmet need for family planning among currently married women is 13 percent, down from16 percent in NFHS-2. Unmet need decreases with age, from 27 percent for women age 15-19, to 2 percent for women age 45-49. Younger women (age 15-24) have a greater unmet need for spacing than for limiting. Rural women have higher unmet need than urban women for both spacing and limiting. Unmet need for family planning varies greatly by state, from 5 percent in Andhra Pradesh to 35 percent in Meghalaya. In addition to Meghalaya, more than 20 percent of women have an unmet need for contraception in Nagaland, Jharkhand, Bihar, and Uttar Pradesh.

Slightly more than three in five women heard or saw a family planning message in the few months before the survey, most often on television or radio. By contrast, over 90 percent of men have been exposed to family planning messages in the past few months. Exposure to family planning messages is particularly limited in Nagaland, Jharkhand, Jammu and Kashmir, Rajasthan, Bihar, Uttar Pradesh, and Madhya Pradesh, where less than half the women were exposed to a family planning message in the past few months.

Informed choice of family planning methods is not common. Only about one-third of modern contraceptive users were informed about the side effects or problems of their method, and only one-quarter were told what to do about side effects. Less than 30 percent were ever informed about other types of family planning methods. IUD users were most likely to be provided with each of the three types of information, and users of female sterilization were least likely to be provided with this information. Informed choice is consistently higher in urban areas, and is somewhat more common in private than in public medical facilities.

Most men in India believe that women do not alone bear the responsibility for family planning (78 percent) and reject the idea that women using contraception may become promiscuous (84 percent). Nearly two-thirds of men know that a condom protects against pregnancy most of the time. Half of men, however, incorrectly believe that women who are breastfeeding cannot become pregnant.

Infant and Child Mortality

The infant mortality rate in India is steadily declining. The NFHS-3 estimate of infant mortality is 57 deaths per 1,000 live births, compared with the NFHS-2 estimate of 68 deaths per 1,000 live births and the NFHS-1 estimate of 79. Still, more than one in 18 children die within the first year of life, and more than one in 13 die before reaching age five.

Infant and child mortality rates are higher in rural areas. In 2001-05, the infant mortality rate was 50 percent higher in rural areas (62 deaths per 1,000 births) than in urban areas (42 deaths per 1,000 births). Children whose mothers have no education are more than twice as likely to die before their first birthday as children whose mothers have completed at least 10 years of school. Also, children from scheduled castes and tribes are at greater risk of dying than

other children. The infant mortality rate (deaths per 1,000 births) for births less than 2 years apart is 86, dropping to 50 for births 24-35 months apart, and to 30 for births 36-47 months apart. By state, infant mortality is highest in Uttar Pradesh (73) and lowest in both Kerala and Goa (15). Nationally, a girl child's disadvantage with regard to survival is most evident in the under-five mortality rate: 79 girls per 1,000 births die before their fifth birthday, compared with 70 boys per 1,000 births.

The perinatal mortality rate, which includes stillbirths and very early infant deaths (in the first week of life), is estimated at 49 deaths per 1,000 pregnancies that lasted 7 months or more for the 2001-05 period. The perinatal mortality rate for pregnancies within 15 months after a previous pregnancy is 71, compared with only 30 to 31 when the birth interval is 27 months or more. Perinatal mortality is also very high for very young mothers (67) and for first pregnancies (66). According to socio-economic characteristics, perinatal mortality is highest for rural mothers, mothers with no education and less than 5 years of education, and mothers in the lowest wealth quintile.

Maternal Health Care

Although 76 percent of women who had a live birth in the five years preceding the survey received antenatal care, only 44 percent started antenatal care during the first trimester of pregnancy, as recommended. Another 22 percent had their first visit during the fourth or fifth month of pregnancy. Just over half of mothers (52 percent) had three or more antenatal care visits. Urban women were much more likely to have three or more antenatal visits than rural women. The percentage of women who had three or more ANC visits ranges from 17 percent in Bihar and 27 percent in Uttar Pradesh to at least 90 percent in Kerala, Goa, and Tamil Nadu. Half of men with a child under age three years said that they were at an antenatal care visit with the child's mother; only 37 percent were ever told what to do if the mother had a major complication of pregnancy.

Many women do not receive high quality antenatal care. Less than three in four had their abdomen examined, and less than two in three received other services, including being weighed, having blood pressure measured, and urine and blood samples checked. Only 36 percent received information about pregnancy complications. Sixty-five percent received (or bought) iron and folic acid (IFA) supplements for their most recent birth, and only 23 percent took IFA for at least 90 days, as recommended. Seventy-six percent of mothers received the two or more tetanus toxoid injections during pregnancy for their most recent birth. Only 4 percent of women took a drug for intestinal parasites during their pregnancy.

IFA coverage and tetanus toxoid injections for older women, women with four or more children, women from rural areas, women with no education, and women in households in the lowest wealth quintile are well below the national average. In virtually all categories of women, only a fraction of women who received IFA said that they consumed IFA for at least 90 days as recommended. States where the provision of IFA was far below the national average include Nagaland, Bihar, Arunachal Pradesh, Jharkhand, Uttar Pradesh, and Meghalaya. The percentage of women who received two or more tetanus toxoid injections ranges from a low of 40 percent in

Arunachal Pradesh and 51-52 percent in Nagaland, Mizoram, and Meghalaya, to 90 percent or higher in Delhi, West Bengal, and Tamil Nadu.

One-fourth of all pregnancies in the five years preceding the survey underwent an ultrasound test. Forty-four percent of pregnancies to urban women underwent an ultrasound test, compared with 16 percent in rural areas. Pregnancies to women with at least 12 years of completed education were almost eight times as likely to have an ultrasound test as pregnancies to women with no education. A higher percentage of pregnancies to women with no living son had an ultrasound test, and this percentage declines as the number of living sons increases. An examination of the sex ratio of births after a pregnancy with an ultrasound test provides strong evidence that ultrasound testing is being used for sex determination followed by sex-selective abortions.

Thirty-nine percent of births in the five years preceding the survey took place in health facilities; more than half took place in the woman's own home; and 9 percent took place in parents' homes. For 72 percent of deliveries that took place at home, the mother reported that she did not feel that it was necessary to deliver in a health facility, and for more than a quarter (26 percent), the mother said that delivery in a health facility is too expensive. The more ANC visits that a woman had during pregnancy, the greater the likelihood that her delivery took place in a health facility. First births are more likely to be delivered in an institution than births at higher birth orders. Urban residence, education, and wealth are all strongly and positively associated with the likelihood of an institutional delivery. Only 13 percent of births to women in the lowest wealth quintile and 18 percent of births to both women with no education and to scheduled-tribe women are delivered in an institution. In the case of only one in five births delivered at home was the use of a disposable delivery kit (DDK) reported. However, in more than 9 in 10 home deliveries, the mother reported that a clean blade was used to cut the umbilical cord. Overall, less than 1 in 10 (9 percent) births in the five years preceding the survey were delivered by caesarean section. Among the 34 percent of births that were weighed at birth, over one in five (22 percent) were of low birth weight (less than 2.5 kg).

Forty-seven percent of births in the five years preceding the survey were assisted by health personnel, including 35 percent by a doctor and 10 percent by an auxiliary nurse midwife, nurse, midwife, or lady health visitor. More than one-third of births (37 percent) were assisted by a traditional birth attendant, and 16 percent were assisted by only friends, relatives, or other persons.

Few fathers with a child less than three years of age were provided information related to delivery care. Only half were told about the importance of proper nutrition for the mother during pregnancy and 43 percent were told about the importance of delivering the baby in a health facility. Among fathers whose child was not delivered in a health facility, 48 percent were told about the importance of using a new or unused blade to cut the umbilical cord, 44 percent were told about the importance of cleanliness at the time of delivery, and only about one-third were told about the importance of breastfeeding the baby (36%) and about keeping the baby warm immediately after birth (33 percent). Younger fathers were much less likely than older fathers to be provided this information.

Postnatal check-ups soon after delivery help safeguard the health of mother and baby, particularly for births occurring outside of health care facilities. Almost 6 in 10 women (58 percent) did not receive any postnatal check-up after their most recent birth. About one-quarter of women (27 percent) received a health check-up in the first four hours after delivery, and 37 percent received a health check-up within the critical first two days after delivery. Although the likelihood of a timely postnatal checkup is closely associated with having an institutional delivery, it is notable that 15-24 percent of births even in institutions did not receive a postnatal check-up. Among births delivered at home, only 9-12 percent of births received a postnatal checkup within two days of delivery.

Several states consistently perform well below the national average on each of the five safe motherhood indicators. These states include Rajasthan in the North Region, all states in the Central Region (Chhattisgarh, Madhya Pradesh, and Uttar Pradesh), Bihar and Jharkhand in the East Region, and Arunachal Pradesh, Assam, Meghalaya, and Nagaland in the Northeast Region. Uttaranchal also performs poorly on all the indicators except antenatal care. By contrast, Mizoram performs above the national average on the delivery care indicators and postnatal care indicators, but poorly on the antenatal care indicator.

Coverage and Utilization of ICDS

To provide information on the coverage of the Integrated Child Development Scheme (ICDS) programme, NFHS-3 collected data on the existence of *anganwadi* centres (AWC) and on the utilization of selected nutrition, health, and education services provided through AWCs by children under six years of age and by their mothers (during pregnancy and while breastfeeding). Nationally, 72 percent of the NFHS-3 sample enumeration areas were found to be covered by an AWC and 62 percent were covered by an AWC that had, by the time of the survey, existed for at least five years. The coverage of enumeration areas by an AWC ranges from 100 percent in Tripura to only 27 percent in Meghalaya. More than four in five children (81 percent) age 0-71 months are in areas covered by an *anganwadi* centre. While the coverage of children under age six years by an AWC is relatively high, only 28 percent of the children have received any service from an AWC in the year preceding the survey. In most states, the proportion of children who received services is less than one out of every three. Only about one in five mothers in areas covered by an *anganwadi* centre received any service from an AWC during pregnancy or during the lactation period. Overall, utilization of AWC services is higher in rural than in urban areas served by an AWC.

Among children under age six years in areas covered by an *anganwadi* centre, one in four (26 percent) received supplementary food from an AWC, one in five received an immunization from an AWC, and one in six went to an AWC for a health check-up in the 12 months preceding the survey. Nearly one-fourth of children age 36-71 months in areas served by an *anganwadi* centre went for early childhood care or preschool education to an AWC, and only 18 percent of children age 0-59 months had their weight measured in an AWC. Mothers of only half of the children age 0-59 months who were weighed received counselling services from an AWC after their child was weighed.

Child Nutrition

While breastfeeding is nearly universal in India, very few children are put to the breast immediately after birth. Only one-quarter of last-born children who were ever breastfed started breastfeeding within half an hour of birth, as is recommended, and almost half (45 percent) did not start breastfeeding within one day of birth. Most mothers (57 percent) gave their last-born child something to drink other than breast milk in the three days after delivery. Only 69 percent of children under two months of age are exclusively breastfed. Exclusive breastfeeding drops to 51 percent at 2-3 months of age and 28 percent at 4-5 months of age. Overall, slightly less than half of children under six months of age are exclusively breastfed.

At age 6-8 months, only about half of children (53 percent) are given timely complementary feeding (breast milk and complementary food). The timely complementary feeding rate increases to 74 percent at age 9-11 months and 81 percent at age 12-17 months. Use of bottles with nipples is not common in India. Bottle feeding increases from 5 percent under age two months to 18 percent at age 9-11 months and declines at older ages.

It is recommended that breastfeeding children age 6-23 months be fed from three or more different food groups, infants age 6-8 months be fed at least twice a day, and children age 9-23 months be fed at least three times a day. Nonbreastfeeding children age 6-23 months should be fed milk or milk products every day; in addition, they should be fed from at least four food groups, and they should be fed four or more times a day. NFHS-3 finds that only 44 percent of breastfed children are fed at least the minimum number of times recommended and only half of them also consume food from three or more food groups. Feeding recommendations are followed even less often for nonbreastfeeding children. Overall only 21 percent of breastfeeding and nonbreastfeeding children are fed according to the infant and young child feeding recommendations.

The Government of India recommends that children should be given vitamin A supplements every six months until they reach three years of age, starting at age 9 months. NFHS-3 found that only one-quarter of children age 12-35 received vitamin A supplements in the six months before the survey. This figure drops further, to only 18 percent, among children age 6-59 months. Compared with other children, those age 12-17 months are most likely to have received vitamin A supplementation in the last six months.

Almost half of children under five years of age (48 percent) are stunted and 43 percent are underweight. The proportion of children who are severely undernourished is also notable: 24 percent are severely stunted and 16 percent are severely underweight. Wasting is quite a serious problem in India, affecting 20 percent of children under five years of age. Very few children under five years of age are overweight.

Overall, girls and boys are about equally likely to be undernourished. Undernutrition is generally lower for first births than for subsequent births, and increases consistently with increasing birth order for all measures of nutritional status. Short birth intervals are associated with higher levels of stunting and underweight. Undernutrition is substantially higher in rural areas than in urban areas. Even in urban areas, however, 40 percent of children are stunted and

33 percent are underweight. Inadequate nutrition is a problem throughout India, but undernutrition is most pronounced in Madhya Pradesh, Bihar, and Jharkhand. Nutritional problems are also substantially higher than average in Meghalaya and (for stunting) in Uttar Pradesh. Nutritional problems are least evident in Mizoram, Sikkim, Manipur, and Kerala, and relatively low levels of undernutrition are also notable in Goa and Punjab. Even in these states, however, levels of undernutrition are unacceptably high.

Anaemia is very common in India. Almost 7 in 10 children age 6-59 months are anaemic, including 40 percent who are moderately anaemic and 3 percent who are severely anaemic. The prevalence of anaemia does not vary by sex of the child. Anaemia is considerably higher in rural areas, among children of women with no education, among scheduled castes and tribes, and among children in households in the lower wealth quintiles. Children's anaemia status is closely linked with the anaemia status of the mother. Although state differentials in the prevalence of anaemia are marked, a high prevalence of anaemia is found in every state. The only states in which less than half of children are anaemic are Goa (38 percent), Manipur (41 percent), Mizoram (44 percent), and Kerala (45 percent). The prevalence of anaemia among children 6-35 months has increased from 74 percent in NFHS-2 to 79 percent in NFHS-3. This increase is largely due to a sharp increase in anaemia among young children in rural areas.

Child Health

Children are considered fully immunized if they receive one BCG injection to protect against tuberculosis, three doses each of DPT (diphtheria, pertussis, tetanus) and polio vaccines, and one measles vaccine. In India, only 44 percent of children age 12-23 months are fully vaccinated, and 5 percent have not received any vaccinations. Less than one-third of children are fully vaccinated in Nagaland, Uttar Pradesh, Rajasthan, Arunachal Pradesh, and Assam. At the other end of the spectrum, at least three-quarters of children have received all the recommended vaccinations in Tamil Nadu, Goa, and Kerala.

Immunization coverage has improved substantially since NFHS-1, when only 36 percent of children were fully vaccinated and 30 percent had not been vaccinated at all. There is very little change, however, in full immunization coverage between NFHS-2 (42 percent) and NFHS-3 (44 percent).

Coverage of individual vaccines has increased considerably and is much higher than would appear from information on full coverage alone. Coverage for BCG, DPT, and polio (except Polio 0) vaccinations is much higher than the coverage of all required vaccinations combined. BCG, the first dose of DPT, and all three doses of polio vaccine have each been received by at least 76 percent of children. Fifty-five percent of children have received three doses of DPT. The relatively low percentages of children vaccinated with the third dose of DPT and with the measles vaccine are mainly responsible for the low proportion of children fully vaccinated.

NFHS-3 collected information on the prevalence and treatment of three health problems in children—acute respiratory infection (ARI), fever, and diarrhoea. Six percent of children under age five years showed symptoms of ARI in the two weeks preceding the survey. Treatment

was sought from a health facility or provider for 69 percent of children with symptoms of ARI, and 13 percent received antibiotics. Fifteen percent of children under age five years had a fever during the two weeks before the survey. Eight percent of children with fever took an antimalarial drug and 13 percent took an antibiotic drug.

Nationally, 9 percent of children under age five had diarrhoea in the two weeks preceding the survey. Sixty percent of children with diarrhoea were taken to a health facility; 43 percent were treated with oral rehydration therapy (ORT) or increased fluids, including 20 percent who received oral rehydration salts (ORS). More than a quarter (26 percent) of children with diarrhoea did not receive any type of treatment at all. Treatment of diarrhoea with any ORT ranges from 81 percent in Kerala and 70 percent in Himachal Pradesh to 21 percent in Rajasthan, 22 percent in Uttar Pradesh, and 25 percent in Assam. Only 10 percent received more liquids than normal, as recommended. Almost 4 in 10 children with diarrhoea received less to drink than normal, increasing the risk of dehydration. Children with diarrhoea should be treated with ORT, given increased fluids, and receive continued feeding. However, the recommended guidelines were followed in the case of only one in three children with diarrhoea.

Women's and Men's Nutrition

NFHS-3 collected information on the height and weight of women age 15-49 and men age 15-54. The height and weight measurements provide an estimate of the body mass index (BMI), a measure of nutritional status. The BMI is defined as weight in kilograms divided by height in metres squared (kg/m^2). A cut-off point of 18.5 is used to define thinness or acute undernutrition, and a BMI of 25 or above indicates overweight or obesity.

More than one-third (36 percent) of women age 15-49 in India have a BMI below 18.5 indicating chronic nutritional deficiency, including 16 percent who are moderately to severely thin. The proportion of ever-married women who are thin (33 percent) has decreased slightly from 36 percent in NFHS-2. Women who are undernourished themselves are also much more likely than other women to have children who are undernourished. The proportion of women who are undernourished is highest in Bihar (45 percent), Chhattisgarh (43 percent), Madhya Pradesh (42 percent), and Orissa (41 percent). It is lowest in Sikkim (11 percent) and Mizoram (14 percent).

Nationally, 34 percent of men age 15-49 have a BMI below18.5, and more than half of these men are moderately to severely undernourished. The highest proportion of undernourished men, two in five, are in Madhya Pradesh and Rajasthan.

Obesity, the other side of poor nutrition, is a substantial problem among several groups of women in India, particularly urban women, well-educated women, women from households with a high standard of living, and among Sikhs. Fifteen percent of ever-married women are overweight or obese, up from 11 percent in NFHS-2. Obesity is particularly prevalent for both men and women in Delhi, Kerala, and Punjab.

Anaemia is a major health problem for adults as well as children, affecting 55 percent of women and 24 percent of men. The prevalence of anaemia for ever-married women has

increased from 52 percent in NFHS-2 to 56 percent in NFHS-3. Pregnant women are much more likely than nonpregnant women to be moderately to severely anaemic.

Using iodized salt prevents iodine deficiency, a condition which can lead to miscarriage, goitre (enlargement of the thyroid gland), and mental retardation. Just over half of households in India (51 percent) were using sufficiently iodized salt at the time of the survey, virtually the same as the percentage observed at the time of NFHS-2 (50 percent). Use of iodized salt varies greatly by region; it is highest in the Northeast Region, in some states in the North Region, and in Kerala, and is over 90 percent in Manipur.

The consumption of a wide variety of nutritious foods is important for women's and men's health. NFHS-3 asked women and men how often they consume various types of food. In general, women's food consumption is less balanced than that of men. Ninety percent or more women and men consume dark green, leafy vegetables and pulses or beans weekly; however, 55 percent of women, compared with 67 percent of men, consume milk or curd weekly. Consumption of fruits and other foods is less common among both women and men. Only 40 percent of women, compared with 47 percent of men, consume fruits weekly; 32 percent of women, compared with 41 percent of men, consume eggs weekly; and 35 percent of women, compared with 41 percent of men, consume fish or chicken/meat weekly. Gender differentials in the daily consumption of most of these foods are even more marked.

Adult Health and Health Care

NFHS-3 collected information on the prevalence of tuberculosis (TB) based on reports from household heads. The survey found that 418 out of every 100,000 persons have been medically treated for TB. Tuberculosis is more common in rural than in urban areas, and in the East (except for Orissa) and Northeast Regions of the country than in other regions. Both sex and age differentials are more pronounced in rural areas than in urban areas.

NFHS-3 also asked individuals several questions on TB-related knowledge and attitudes. Despite being a curable disease, TB is still a stigmatizing illness, due mainly to people's ignorance of its aetiology and transmission. NFHS-3 finds that knowledge of TB is common, but not universal. Eighty-five percent of women and 92 percent of men age 15-49 have heard of TB. However, only about half the population that has heard of TB knows that it is spread through the air by coughing or sneezing. While correct knowledge of transmission varies by population subgroups, misconceptions occur across all subgroups. About half the population that has heard of TB has some misconceptions regarding its transmission. Further, one in every six women and men report they would want the TB positive status of a family member to remain a secret. Seventy-nine percent of women and 86 percent of men who have heard of TB know that it can be cured.

All women and men interviewed with the Individual Questionnaire were asked whether they have diabetes, asthma, or goitre or any other thyroid disorder. Diabetes affects all ages but increases markedly with age. According to self reports, over two percent of women and men age 35-49 are suffering from diabetes. By age 50-54, over five percent of men are suffering from diabetes. Prevalence of diabetes for persons in the highest wealth quintile is far greater than prevalence for persons in the lowest wealth quintile. Less than two percent of adults suffer from

asthma (1,600 persons per 100,000). The highest levels of asthma are seen among older persons and those who are less educated. The prevalence of goitre or other thyroid disorders is 2.5 times higher among women than among men (949 per 100,000 women, compared with 383 per 100,000 men). The number of persons with goitre or other thyroid disorders increases with age, especially among women.

Accessibility and availability of health care is important for ensuring a community's general health status and reflects the coverage of health facilities. Nearly two-thirds of all households (65 percent) in India generally seek health care from the private medical sector, while one-third of households use the public medical sector. Forty-six percent of urban households and 36 percent of rural households go to a private doctor or private clinic for health care. The next most common sources for health care are public and private hospitals, followed by community health centres. The most common reason given for not using public sector health care facilities is poor quality of the service, followed by non-availability of a facility nearby. While most respondents are generally satisfied with the health care they receive, ratings on quality of services are lower for both urban and rural public-sector facilities than for private sector and NGO facilities.

Despite the emergence of a number of health insurance programmes and health schemes, only 5 percent of households report that any household member is covered by any kind of health insurance. Medical coverage is about five times as common in urban areas as in rural areas.

Tobacco use is much more prevalent among men than among women age 15-49; 57 percent of men, compared with 11 percent of women use some form of tobacco. One-third of men smoke cigarettes or *bidis*, and 37 percent use *paan* (betel quid), *paan masala*, *gutkha*, or other chewing tobaccos. By contrast, only 1 percent of women smoke cigarettes or *bidis*, and 8 percent chew *paan*, *paan masala*, *gutkha*, or other tobacco products. Almost one-third of men drink alcohol, compared with only two percent of women.

HIV/AIDS Knowledge and Sexual Behaviour

Although the spread of HIV/AIDS is a major concern in India, only 61 percent of women age 15-49 and 84 percent of men age 15-49 have heard of AIDS. While awareness of AIDS has increased over time among both rural and urban women, awareness still remains low among women who are not regularly exposed to media, scheduled-tribe women, women with no education, women living in households with a low standard of living, and rural women.

Knowledge of HIV/AIDS prevention methods differs markedly between women and men age 15-49. Overall, approximately 4 in 10 women and 7 in 10 men know each of the three ABC methods of prevention—abstinence, being faithful, and condoms. Knowledge of each prevention method rises with increasing education and wealth. Women and men with regular exposure to mass media are twice as likely to know each of the three methods of prevention as do adults without access to media.

Nationwide, only 17 percent of women and 33 percent of men have 'comprehensive knowledge' of HIV/AIDS. 'Comprehensive knowledge' means they know that a healthy-looking

person can have HIV, that HIV/AIDS cannot be transmitted through mosquito bites or by sharing food, and that condom use and fidelity help prevent HIV/AIDS. Knowledge about HIV/AIDS is relatively widespread in Mizoram (where two-thirds of both women and men have comprehensive knowledge of HIV/AIDS) and in Delhi and Manipur (where more than two in five women and three in five men have comprehensive knowledge). At the other extreme, in Assam, West Bengal, and Meghalaya, less than 15 percent of men—and even fewer women—have comprehensive knowledge of HIV/AIDS.

Misconceptions about HIV/AIDS are common. Only 38 percent of women and 61 percent of men know that a healthy-looking person can have HIV/AIDS. About two-thirds of women and half of men erroneously believe that HIV/AIDS can be transmitted by mosquito bites. Larger proportions of women and men are aware that HIV/AIDS cannot be transmitted by hugging someone who has AIDS (43 and 64 percent, respectively) and by sharing food with a person who has HIV/AIDS. However, only a minority of women (31 percent) and men (45 percent) reject all three misconceptions.

Less than half of women age 15-49 (47 percent) and almost two-thirds of men (63 percent) know that HIV can be transmitted from a mother to her baby, but only one-fifth of women and men know that the risk of such transmission can be reduced with the use of certain drugs. Particularly notable is the comparatively low level of knowledge of transmission from a mother to her child even among currently pregnant women. Only 40 percent of currently pregnant women know that HIV/AIDS can be transmitted from a mother to her child and only 15 percent are aware that transmission from a mother to her baby can be reduced by taking certain drugs.

Knowledge and beliefs about HIV/AIDS affect how people treat those they know to be living with the infection. In NFHS-3, respondents were asked a number of questions to assess their attitudes toward HIV-infected people. About three out of four women and men are willing to take care of a relative sick with HIV/AIDS in their own household and to allow a female teacher with HIV/AIDS who is not sick to continue teaching; less than two-thirds are willing to buy fresh vegetables from a vegetable seller who has HIV/AIDS. About two-thirds of women (64 percent) and men (65 percent) say that they would not want to keep secret that a family member was infected with HIV/AIDS. The percentage expressing accepting attitudes on all four of these indicators is low (34 percent among women and 37 percent among men).

NFHS-3 asked women and men whether they had ever been tested for HIV/AIDS (prior to NFHS-3) and, if tested, whether they got the result. Only 3 percent of women and 4 percent of men had ever been tested for HIV, and some who were tested did not get the result of the test. The proportion of women age 15-49 who had ever been tested for HIV/AIDS and got the results ranges from only 0.2 percent in Rajasthan to 15 percent in Goa. Coverage of HIV/AIDS testing among men reveals a similar variation across states, with a minimum in Rajasthan, Assam, Uttar Pradesh, and Meghalaya (1 percent each) and a maximum in Goa (14 percent).

In the context of HIV/AIDS prevention, limiting the number of sexual partners and having protected sex are crucial for combating the epidemic. Among women and men age 15-49 who had sex in the 12 months preceding the survey, only 1 in every 1,000 women (0.1 percent)

and 2 in every 100 men (2 percent) report having had two or more sexual partners in the previous 12 months. While reported prevalence of multiple sex partners is very low, the proportion of women and men who had sexual intercourse with someone other than a spouse or cohabiting partner in the 12 months prior to the survey is somewhat higher (1 in every 500 women and 5 in every 100 men). Men who had sex with a non-marital and non-cohabiting partner during the year before the survey were more than twice as likely as women to report condom use at such sex (38 percent). Men who have ever had sex report an average of 1.49 lifetime sexual partners and women who have ever had sex report an average of only 1.02 lifetime sexual partners. The mean number of sexual partners for men who ever had sex is highest among never married men (2.5) and men who have been married more than once (2.3).

Less than 1 percent of men reported engaging in paid sex in the 12 months preceding the survey. Overall, 62 percent of men who reported having engaged in paid sex in the 12 months preceding the survey used a condom the last time they paid for sex. Condom use during paid sex is higher for men with 10 or more years of education and men in the highest wealth quintile.

NHFS-3 asked women and men questions on whether they had ever received a blood transfusion and the number of injections, if any, they had received from health personnel in the 12 months preceding the survey. Nationally, 4 percent of women and 3 percent of men age 15-49 have ever received a blood transfusion. Women are somewhat more likely than men to have received at least one injection (39 percent and 36 percent, respectively) given by health personnel in the 12 months preceding the survey. The average number of injections received from health personnel was 2.1 among women and 1.8 among men.

Information about the incidence of sexually transmitted infections (STIs) is not only useful as a marker of unprotected sexual intercourse, but also as a co-factor for HIV transmission. NFHS-3 asked respondents who had ever had sex whether they had an STI, had a genital sore or ulcer, or had experienced any abnormal (for men) or bad smelling abnormal (for women) genital discharge in the 12 months prior to the survey. Based on self reports, 11 percent of women and 5 percent of men age 15-49 who have ever had sex had an STI or STI symptom in the 12 months preceding the survey.

HIV Prevalence

All women age 15-49 and all men age 15-54 living in sample households in Andhra Pradesh, Karnataka, Maharashtra, Manipur, Nagaland, Tamil Nadu, and Uttar Pradesh were eligible for the HIV testing component of NFHS-3. However, blood for HIV testing could not be collected in Nagaland due to local opposition. In the remaining 22 states, six households per enumeration area were chosen for HIV testing, and all women age 15-49 and all men age 15-54 in those six households were eligible for HIV testing. HIV tests were conducted for 85 percent of the 62,182 eligible women and 78 percent of the 64,175 eligible men in India. For both sexes combined, coverage was 82 percent. Six percent of women and 14 percent of men did not complete individual interviews, so they were not eligible for blood tests. In addition, 6 percent of women and 5 percent of men who completed individual interviews refused to provide blood for HIV testing. Only a small number of interviewed women (1 percent) and interviewed men (2 percent) were not at home at the time of the blood collection.

Nationwide, the HIV prevalence rate for the population age 15-49 is 0.28 percent. This translates into 1.7 million HIV positive persons age 15-49 in India in April 2006, the midpoint of the NFHS-3 survey. The HIV prevalence rate is 0.22 percent for women and 0.36 percent for men age 15-49. The prevalence rates for the six states are: Manipur: 1.13 percent; Andhra Pradesh: 0.97 percent; Karnataka: 0.69 percent; Maharashtra: 0.62 percent; Tamil Nadu: 0.34 percent; and Uttar Pradesh: 0.07 percent.

This important new information about HIV prevalence has spurred the Government of India and international agencies to greatly reduce the official estimate of HIV prevalence for India to 2.47 million Indians, down from the official estimate of 5.2 million for the previous year. This new national estimate reflects the availability of improved data (from NFHS-3 and an expanded surveillance system) rather than a substantial decrease in actual HIV prevalence in India.

Family Life Education

For the first time, NFHS-3 has collected information on the acceptability of providing information in schools on HIV/AIDS and related family-life topics. Virtually all Indian adults agree that children should be taught moral values in school, and a large majority also agree that children should be taught in school about the changes that occur during puberty. Women and men differ somewhat on whether children should be taught about contraception in school. About half of women and two-thirds of men think that girls should learn about contraception in school. Both women and men are slightly less likely to think contraception should be part of boys' education in school. Most women (63 percent) and men (81-82 percent) believe information on HIV/AIDS should be part of the school curriculum for both boys and girls. More than 60 percent of men say that boys and girls should be taught about sex and sexual behaviour in school, but less than half of women feel that this is an appropriate topic to be taught to girls or boys in school.

Women's Empowerment

As part of an increasing emphasis on women's empowerment, NFHS-3 asked married women who in their household usually makes decisions on their health care, on making large household purchases, making purchases for daily household needs, and on visiting their family or relatives. Questions were also asked about access to money and credit, freedom of movement, and gender-role attitudes.

Only 37 percent of currently married women participate (make the decision alone or jointly with their husband) in making all four decisions. There is no decision for which a majority of currently married women alone are the main decision makers. Women's participation in decision making is highest in all of the states in the northeast except Tripura, as well as in Delhi, Tamil Nadu, Kerala, and Goa. Half of currently married men say that, in a couple, the wife should have at least an equal say in five decisions they were asked about, and only 4 percent say that the wife should not participate in any of the decisions.

Forty-five percent of women say they have some money that they can use; 15 percent have a bank or savings account they themselves use; 39 percent know of a programme that gives money to women to start or expand a business of their own; and 4 percent of all women have ever taken a loan from such a programme. Only one-third of women are allowed to go by themselves to the market, to a health facility, and to places outside their own community.

More than half of women in India (54 percent) believe that it is justifiable for a husband to beat his wife. Women are most likely to say wife-beating is justified if the woman shows disrespect for her in-laws (41 percent) or if she neglects the house or children (35 percent). Men are only slightly less likely to agree: 51 percent say wife-beating is justified, including 37 percent who believe disrespect to in-laws is justification for wife-beating. The percentage of women who agree with one or more reasons for wife beating ranges from 28 percent in Himachal Pradesh to 90 percent in Manipur; the percentage of men who agree with one or more reasons for wife beating ranges from 23 percent in Uttaranchal to 85 percent in Manipur.

Most women and men believe a woman is justified in refusing her husband sex if she knows he has a sexually transmitted disease, if she knows he has sex with other women, or if she is tired or not in the mood. Nationally, about three in four women agree with each of the three reasons asked about, 68 percent agree with all three, and 13 percent do not agree with any of the three. The percentage of men agreeing with all three reasons, 70 percent, is only slightly higher than the percentage of women doing so.

Domestic Violence

More than a third (34 percent) of women age 15-49 have experienced physical violence, and 9 percent have experienced sexual violence. In all, 35 percent of women age 15-49 in India have experienced physical or sexual violence. By state, women's experience of physical or sexual violence ranges from a low of 6 percent in Himachal Pradesh to 40 percent or more in Rajasthan, Madhya Pradesh, and Tripura, and to a high of 56 percent in Bihar.

Thirty-seven percent of ever-married women have experienced spousal physical or sexual violence and 16 percent have experienced spousal emotional violence. One percent of ever-married women have initiated violence against their husbands. The percentage of women initiating violence against their husband is higher for women who have experienced spousal violence (2 percent), than for women who have never experienced spousal violence (0.2 percent).

Slapping is the most common form of physical violence experienced by ever-married women at the hands of their husband. The majority of ever-married women who report having experienced spousal emotional violence or having experienced spousal physical or sexual violence have also experienced such violence in the 12 months preceding the survey. Spousal violence, if it occurs, starts early in marriage: 62 percent of ever-married women who report having experienced spousal physical or sexual violence started experiencing such violence within two years of marriage. Among all ever-married women who reported ever experiencing physical or sexual violence, 36 percent report cuts, bruises, or aches, 9 percent report eye injuries, sprains, dislocations or burns, 7 percent report deep wounds, broken bones, broken teeth, or other serious injury, and 2 percent report severe burns. All of these percentages are

higher for women who report violence in the 12 months preceding the survey. Notably, 38 percent of women experiencing physical or sexual violence report having experienced at least one of these groups of injuries.

One in four abused women have ever sought help to end the violence they have experienced. A large majority of women who have experienced sexual violence, but not physical violence, have never told anyone about the violence (85 percent), and only 8 percent have ever sought help. Abused women most often seek help from their own families.

INTRODUCTION 1

1.1 BACKGROUND OF THE NATIONAL FAMILY HEALTH SURVEYS

The National Family Health Surveys (NFHS) are nationwide surveys conducted with a representative sample of households throughout the country. The Ministry of Health and Family Welfare (MOHFW), Government of India (GOI), initiated the NFHS surveys to provide high quality data on population and health indicators. The three NFHS surveys conducted to date are a major landmark in the development of a demographic and health data base for India. An important objective of the NFHS surveys has been to provide national and state estimates of fertility, family planning, infant and child mortality, reproductive and child health, nutrition of women and children, the quality of health and family welfare services, and socioeconomic conditions. The NFHS surveys use standardized questionnaires, sample designs, and field procedures to collect data. The information provided by NFHS surveys assists policymakers and programme administrators in planning and implementing population, health, and nutrition programmes. The MOHFW designated the International Institute for Population Sciences (IIPS), Mumbai, as the nodal agency for each of the three rounds of NFHS.

NFHS-1

The country's first National Family Health Survey (NFHS-1) was conducted in 1992-93. An important objective of NFHS-1 was to strengthen the survey research capabilities of the 18 Population Research Centres (PRCs) in the country. Interviews were conducted with a nationally representative sample of 88,562 households and 89,777 ever-married women age 13-49 years in 24 states and the National Capital Territory of Delhi. The East-West Centre, Hawaii, USA, and Macro International, Maryland, USA, provided technical assistance for NFHS-1. Funding was provided by the United States Agency for International Development (USAID).

NFHS-2

The second National Family Health Survey (NFHS-2), conducted in 1998-99, was an important step in strengthening the database for implementation of the Reproductive and Child Health (RCH) approach adopted by India after the International Conference on Population and Development (ICPD) in 1994 in Cairo. In addition to the population and health components covered in NFHS-1, NFHS-2 collected information on the quality of health and family welfare services, reproductive health problems, the status of women, and domestic violence. Height and weight measurements were extended to cover ever-married women. Ever-married women and their children below three years of age had their haemoglobin levels measured to provide the first national estimates of the prevalence of anaemia. In Delhi and Mumbai, a test was also done to measure the lead content in the blood of children below age three years. A test was also conducted for the iodine content of household cooking salt.

NFHS-2 covered a representative sample of over 91,000 ever-married women age 15-49 years across all 26 states of India. NFHS-2 also provided estimates at the regional level for five

states (Bihar, Jammu and Kashmir, Madhya Pradesh, Rajasthan, and Uttar Pradesh) and estimates for three metro cities (Chennai, Kolkata, and Mumbai), as well as slum areas in Mumbai. NFHS-3 was funded by the United States Agency for International Development, with additional support from the United Nations Children's Fund (UNICEF). Technical assistance for NFHS-2 was provided by Macro International, Maryland, USA, and the East-West Centre, Hawaii, USA.

NFHS-3

The third National Family Health Survey (NFHS-3) was conducted in 2005-06. In addition to the indicators covered in NFHS-2, NFHS-3 provides information on several new and emerging issues such as perinatal mortality, male involvement in the use of health and family welfare services, adolescent reproductive health, high risk sexual behaviour, family life education, safe injections, and knowledge about tuberculosis. A major new component of NFHS-3 is blood testing for HIV prevalence and behaviour-related information among adult men and women. In addition to interviewing ever-married women age 15-49, NFHS-3 included never married women age 15-49 and both ever-married and never married men age 15-54 as eligible respondents.

Interviews were conducted with 124,385 women age 15-49 and 74,369 men age 15-54 from all 29 states. Throughout India, 102,946 women and men were tested for HIV in NFHS-3. NFHS-3 provides estimates of HIV prevalence for adult women and men at the national level, for Uttar Pradesh and for five high HIV prevalence states (Andhra Pradesh, Karnataka, Maharashtra, Manipur, and Tamil Nadu). NFHS-3 also provides estimates of population and health indicators for slum and non-slum populations for eight cities, namely Chennai, Delhi, Hyderabad, Indore, Kolkata, Meerut, Mumbai, and Nagpur. Fieldwork for NFHS-3 was conducted in two phases from November 2005 to August 2006.

Funding for NFHS-3 was provided by the United Sates Agency for International Development (USAID), the United Kingdom Department for International Development (DFID), the Bill and Melinda Gates Foundation, UNICEF, UNFPA, and the Government of India. Technical assistance for NFHS-3 was provided by Macro International, Maryland, USA. Eighteen research organizations conducted fieldwork for NFHS-3. Thirteen of these are private sector research organizations and five are Population Research Centres (PRCs) established by the GOI in various states. Each research organization had responsibility for collecting the data in one or more states. A complete list of these research organizations is given in Appendix A.

1.2 Demographic Profile of India

The population of India rose from 361 million in 1951 to 1,028 million in 2001, nearly tripling in size. Between 1961-71 and 1971-81, the exponential growth rate of the population peaked at 2.2 percent. The growth rate declined marginally to 2.1 percent in 1981-91 and to 1.95 percent in 1991-2001. The female to male sex ratio has declined substantially since the beginning of this century, resulting in a substantial female deficit in the population. The sex ratio declined from 972 females per 1,000 males in 1901 to 930 in 1971, but it has been fairly constant since 1971. The density of the population per km^2 increased from 117 in 1951 to 325 in 2001, a nearly threefold increase in the last five decades. According to the 2001 Census, 35 percent of

the population is in the childhood ages (0-14 years), 8 percent is age 60 and over, and 57 percent is in the working-age group 15-59. The percentage of the population living in urban areas was 20 percent in 1971 and increased to 28 percent in 2001. The country's annual exponential growth rate of urban population peaked at 3.8 percent in 1971-81. Since then the urban growth rate has been decelerating, to 3.1 percent in 1981-91 and 2.7 percent in 1991-2001. The annual growth rate of the rural population was 1.8 percent in 1981-91 and 1.7 percent in 1991-2001. According to the 2001 Census, 16 percent of India's population belonged to scheduled castes and 8 percent belonged to scheduled tribes[1] (Registrar General, 2006a).

1.3 Performance of Indian Economy

India currently has one of the 10 fastest growing economies in the world. India's gross national product (at factor cost) rose from Rs. 20.7 trillion in 2001-02 to Rs. 32.5 trillion in 2005-06 at current prices, a rise of almost 60 percent in five years (Ministry of Finance, 2007). The Tenth Five Year Plan set a target of 8.0 percent GDP growth for 2002-07 and 9.3 percent in the Eleventh Five Year Plan (2007-12), with the aim of doubling per capita income by 2012. In accordance with this goal, the annual rate of growth of GDP has accelerated to 8.0 percent in 2006-07, compared with 6.1 percent per annum during the 1990s. The 1990s marked a period of structural reforms in the Indian economy, and the growth rate of GDP in this period was higher than the annual average GDP growth rate of about 4 percent during the four decades of 1950-1990 (Reddy, 2002). Between 1950-51 and 1998-99, gross domestic savings and gross domestic capital formation as a percentage of the gross domestic product (GDP) increased from around 10 percent to 22 percent. In recent years, both the gross domestic savings rate and the gross domestic investment rate have been increasing at a faster pace, from 23.5 and 23.8 percent in 2000-01 to 31.1 and 31.5 percent in 2004-05 (Ministry of Finance, 2007).

India's agricultural production increased nearly fourfold during the four decades from 1951-90, mainly due to the success of the green revolution since the 1970s. As a result, the country successfully emerged from being dependent on imports of food grains to becoming a marginal exporter of food grains. The country's production of food grains peaked at over 200 million tonnes in 2000-01. Although agriculture and allied sectors have been growing moderately, at 3.0 percent per annum in the last six years, the total production of food grains has plateaued, with the production of pulses remaining stagnant. The deceleration of agricultural growth in recent years is the result of the cumulative effect of inadequate policies related to agriculture and the degradation of natural resources (Ministry of Finance, 2007; Kapila and Kapila, 2002). With the slowdown in agricultural growth, the contribution of agriculture to GDP declined from 25 percent in 2000-01 to 19 percent in 2006-07. The drag in agriculture growth is a cause of concern because more than half of the population depends directly on this sector (Ministry of Finance, 2007).

On the other hand, India's GDP growth (at factor cost and at 1999-2000 prices) in the industrial and service sectors has been accelerating over the last five years, attaining double-digit growth in 2006-07, at 10.0 and 11.1 percent, respectively (Ministry of Finance, 2007). The share

[1] Scheduled castes and scheduled tribes are castes and tribes that the Government of India officially recognizes as socially and economically backward and in need of special protection from injustice and exploitation.

of the industrial and service sectors in GDP has grown in recent years, reaching 26.4 percent and 55.1 percent, respectively. The buoyancy in service sector growth contributed more than two-thirds of the overall growth in GDP between 2002-03 and 2006-07 (Ministry of Finance, 2007). The remarkable surge in the industrial and service sectors is the result of reforms undertaken in the 1980s and 1990s to increase India's competitiveness in the global market. This is in contrast to the weak industrial base that existed from independence into the 1970s.

1.4 Performance of Social and Health Sectors

In addition to setting economic goals, the Tenth Five Year Plan recognized the importance of introducing additional quantifiable targets related to social sector development. These are considered to be central to the attainment of the overall objectives of the plan. While economic policies in the 1990s have been able to remove the constraints on economic growth, the policies to remove impediments toward progress in social development and health have not been adequately addressed. There have been substantial improvements in literacy, some health indicators, and poverty reduction, with substantial variations between different indicators of human development and among the states in the last five decades. However, India's current picture with regard to literacy, health, and sanitation is not encouraging. India's relative rank in human development among 177 countries has risen by only two positions from 128 in 1999 to 126 in 2004 (United Nations Development Program, 2006). Therefore, the National Development Council (NDC) has emphasized that attaining targets in key human development areas such as education, health, and poverty reduction is extremely important and intimately linked to economic growth objectives (Ministry of Finance, 2007).

The percentage of the population living below the poverty line decreased from 55 percent in 1973-74 to 36 percent in 1993-94 (Central Statistical Organization, 1999). Evidence from the 61st round of NSSO data shows that the extent of poverty decreased further from 26.1 percent in 1999-2000 to 22.0 percent in 2004-05 (Ministry of Finance, 2007). India's literacy rate increased from 18 percent in 1951 to 66 percent in 2001. An important concern is the substantial gender gap in the literacy rate, with 54 percent of females and 76 percent of males being literate in 2001 (Registrar General, 2006a). Gross enrolment as a percentage of the total child population age 6-10 years increased from 43 percent in 1950-51 to 98 percent in 2003-04. The corresponding increase among children age 11-14 was from 13 percent to 63 percent (Central Statistical Organization, 2006).

An assessment of the country's performance in the areas of health, demographic behaviour, and family planning indicates the following improvements in the past five decades (Central Bureau of Health Intelligence, 2006; Registrar General, 2006a). The crude death rate declined from 25 per 1,000 population in 1951 to 8 in 2001. The infant mortality rate has been halved, from 120 per 1,000 live births in the 1970s to 60 in 2003. The expectation of life at birth has risen from 36 years in 1951 to 62.5 years in 1998-2002. The crude birth rate declined from 42 in 1951 to 25 in 2002 and the total fertility rate decreased from 6.0 in 1951 to 2.9 in 2003. The maternal mortality ratio is estimated to have declined from 400 maternal deaths per 100,000 live births in 1997-98 to 300 in 2001-03 (Registrar General, 2006b). However, these achievements have not met the population and health goals set by the Government of India, and the changes have been considerably slower than in many other Asian countries such as China, Indonesia, Thailand, Malaysia, the Republic of Korea, and Sri Lanka.

India is also grappling with major adult health problems such as tuberculosis, malaria, diarrhoea, and HIV/AIDS. In the coming years, the burden of chronic diseases is likely to rise further with the growing size of the elderly population. The country's population, which is currently more than 1.1 billion, is expected to reach 1.26 billion by March 2016 (Central Bureau of Health Intelligence, 2006). In view of the slow progress in health and demographic indicators during the 1990s, the Government of India has initiated several new population and health measures to remove impediments and to promote more broad-based success of health and population stabilization programmes.

1.5 Population and Health Related Policies and Programmes

India's family planning programme was initiated in 1951 in an effort to regulate the growth of the country's population. Since then, the programme has undergone a number of changes in policy, approach, and implementation. In the last five decades, the programme has embraced six major approaches. In chronological sequence, these are the clinic approach (1951-61), extension and education approach - low intensity HITTS (Health department operated, Incentive based, Target-oriented, Time-bound, and Sterilization-focused programme) approach (1962-69), high intensity HITTS approach (1969-75), coercive approach (1976-77), recoil and recovery phase (1977-94), and reproductive and child health approach (since 1995). The services provided under the programme have been expanded during the transition to each new phase.

From 1951-61, under the clinic-based approach, family planning coverage was negligible, with the couple protection rate (CPR) remaining at about 0.2 percent. With the introduction of the extension and education approach in 1962, the CPR rose to 15 percent in 1975. The programme, however, suffered a setback during the coercive approach of 1976-77. In the subsequent recovery phase, the scope of the programme broadened significantly by integrating family planning with maternal and child services. Since 1977, family planning has been provided as part of a variety of services to mothers and children, including antenatal, delivery, and postnatal care, immunization of children against various vaccine-preventable diseases, and counselling on maternal and child health problems and nutrition. The CPR increased from 24 percent in 1977 to 45 percent in 1992-93. In 1992, the government launched the Child Survival and Safe Motherhood (CSSM) Programme as part of the Family Welfare Programme. The aim was to have an integrated package of interventions for the betterment of the health status of mothers and children. The additional components of this programme were treatment of diarrhoea and acute respiratory infections, essential newborn care, and strengthening of emergency obstetric care services.

In 1994, a committee was constituted by the Government of India under the chairmanship of Dr. M.S. Swaminathan to draft a new National Population Policy. The report of the committee consisted of a number of important recommendations, one of which was to abolish the target-oriented approach. In the aftermath of United Nations 10th International Conference on Population and Development (ICPD), the Government of India launched the Reproductive and Child Health (RCH) programme in 1995. Under the RCH approach, Community Needs Assessment was introduced and treatment of reproductive tract infections (RTIs) and sexually transmitted diseases (STDs) was added to existing services provided under the family welfare and CSSM programmes. Under the new RCH approach, state-wide family planning targets were

abolished, contraceptive services were offered on demand, and gender equity was emphasized to promote male methods of contraception and to reduce reliance on female methods. The purpose of the RCH initiative was to overcome several shortcomings in the family planning programme, such as the reliance on sterilization targets among high parity couples, unhealthy competition, poor quality of services and care, and lack of focus on informed choice, counselling, and follow-up services to clients. However, despite the expansion of services and higher per capita input cost under the RCH programme, progress on various RCH indicators has been slow in the last 10 years.

The new National Population Policy (NPP), released in 2000, paid special attention to the health and education of women and children to achieve population stabilization for the country by 2045. The policy document begins with the statement that 'the overriding objective of economic and social development is to improve the quality of lives that people lead, to enhance their well-being, and to provide them with opportunities and choices to become productive assets in society (Ministry of Health and Family Welfare, 2000). The NPP has elaborated 12 strategies to achieve its socio-demographic goals. The policy proposes decentralized planning and programme implementation. Overall, the policy envisages free and compulsory school education up to age 14, a reduction in the infant mortality rate to less than 30 infant deaths per 1,000 live births, and a reduction in the maternal mortality ratio to less than 100 maternal deaths per 100,000 live births. The policy also aims to achieve universal immunization of children, delivery assistance by trained personnel for all births, and 100 percent registration of births, deaths, marriages, and pregnancies. Another important emphasis of the policy is the need to promote delayed marriages for girls, the provision of a wider choice and universal access to family planning information and services, and the prevention of major infectious diseases, including reproductive tract infections and AIDS. All these goals are to be achieved by 2010 to realize replacement level fertility by that year with an estimated population of 1.11 billion and population stabilization by 2045.

Following NPP, in the broader context of health system goals, the Government of India formulated a new National Health Policy in 2002 to cater to the changes in the determining factors related to the health sector since the National Health Policy of 1983. The previous health policy was revised and restructured based on the United Nations Millennium Development Goals. The National Health Policy of India (2002) noted the significant improvements achieved in the health status of the population in terms of indicators such as infant mortality and life expectancy (Ministry of Health and Family Welfare, 2002). However, the statistics also brought out the uneven progress across rural-urban areas and wide differences between the attainment of health goals in better and poorer performing states. Given a situation in which the national averages on most indices are themselves at unacceptably low levels, the wide interstate disparities imply that for vulnerable sections of society in several states, access to public health services is nominal and health standards are still grossly inadequate. The main objective of the National Health Policy 2002 is to achieve an acceptable standard of good health among the general population of the country. The approach aims to increase access to the decentralized public health system by establishing new infrastructure in existing institutions. A comprehensive evidence base is stated to be an important input for effective health policy interventions. The national goals of the National Health Policy (2002) have been revised under the National Rural Health Mission.

In 2005, recognizing the importance of health in the process of economic and social development and improving the quality of life of the people, the Government of India launched the National Rural Health Mission (NRHM) to undertake necessary corrections in the basic health care system (Ministry of Health and Family Welfare, 2005). The goal of NRHM is to improve the availability of and access to quality health care, especially for those residing in rural areas, the poor, women, and children. The Plan of Action includes an increase in health expenditures, reduction of regional imbalances, integration of organization structure, optimization of health manpower, decentralization and district management of health programmes, pooling resources, community participation and ownership of assets, induction of management and financial personnel into the district health system, and operationalization of Community Health Centres into functional hospitals meeting Indian public health standards in each block of the country.

The NRHM seeks to focus on 18 states which have weak public health infrastructure and indicators. These states are Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Himachal Pradesh, Jharkhand, Jammu and Kashmir, Manipur, Mizoram, Meghalaya, Madhya Pradesh, Nagaland, Orissa, Rajasthan, Sikkim, Tripura, Uttaranchal and Uttar Pradesh. The expected national outcomes from the Mission during 2005-2012 are:

- Infant mortality rate reduced to 30 per 1,000 live births by 2012
- Maternal mortality reduced to 100 per 100,000 live births by 2012
- Total fertility rate reduced to 2.1 by 2012
- Malaria mortality reduction rate of 50% up to 2010, and an additional 10% by 2012
- Kala Azar mortality reduction rate of 100% by 2010 and sustaining elimination until 2012
- Filaria/microfilaria reduction rate of 70% by 2010, 80% by 2012, and elimination by 2015
- Dengue mortality reduction rate of 50% by 2010 and sustaining that level until 2012
- Cataract operations increasing to 46 *lakhs* until 2012
- Leprosy prevalence rate reduction from 1.8 per 10,000 in 2005 to less than 1 per 10,000 thereafter
- Tuberculosis DOTS series maintenance of an 85% cure rate through the entire mission period and sustaining the planned case detection rate
- Upgrading all Community Health Centres to Indian public health standards
- Increasing the bed occupancy rate of First Referral units from less than 20% of referred cases to over 75%
- Engaging 400,000 female Accredited Social Health Activists (ASHAs)

1.6 QUESTIONNAIRES

Each round of NFHS has had two specific goals: a) to provide essential state and national level data to monitor health and family welfare programmes and policies implemented by the Ministry of Health and Family Welfare and other ministries and agencies, and b) to provide information on important emerging health and family welfare issues.

NFHS-3 used three types of questionnaires: the Household Questionnaire, the Women's Questionnaire, and the Men's Questionnaire. The overall content and format of the questionnaires were determined through a series of workshops and meetings held in 2005-06. The workshops were attended by representatives of a wide range of research and development organizations in the population and health fields, officials from the Ministry of Health and Family Welfare and other government agencies, representatives from international agencies, and experts working on gender and HIV/AIDS issues. The questionnaires for each state were bilingual, with questions in both the principal language of the state and English.

The ***Household Questionnaire*** was used to list all usual residents in each sample household plus any visitors who stayed in the household the night before the interview. For each person listed, information was collected on age, sex, marital status, relationship to the head of the household, and education. For children age 0-4 years, information was collected on birth registration. Questions were asked about school/college attendance for children age 5-18 years, and questions were asked about the activities of children age 5-14 years. The Household Questionnaire also collected information on the main source of drinking water, type of toilet facility, source of lighting, type of cooking fuel, religion and caste/tribe of the household head, ownership of a house, ownership of agricultural land, ownership of livestock, ownership of other selected items, and whether the household had a BPL (Below Poverty Line) card. Information was also collected on health issues such as the prevalence of tuberculosis, use of private or public health facilities, and ownership of mosquito nets. In addition, a test was conducted to assess whether the household uses cooking salt fortified with iodine.

Biomarker Measurement: The Household Questionnaire also included several biomarker measurements. Two health investigators on each survey team measured the height and weight of women age 15-49, men age 15-54, and children born since January 2000 (in states where fieldwork started in 2005) or January 2001 (in states where fieldwork started in 2006) [see Table 1.2 for the month and year of fieldwork in each state]. Height and weight data are used for assessing nutritional levels of the population. The health investigators also took blood samples from women age 15-49, men age 15-54, and children age 6-59 months to measure haemoglobin levels, which indicate the prevalence of anaemia. Haemoglobin levels were measured in the field using portable HemoCue instruments that provide test results in less than one minute. All respondents were given an informational brochure about anaemia and proper nutrition. Severely anaemic adults and children were referred to local public health facilities for treatment.

HIV testing: One of the major biomarker components incorporated in NFHS-3 was the collection of Dried Blood Spots (DBS) on filter paper cards to test for HIV. This component of the survey was included in response to the urgent need to have nationally-representative data on HIV prevalence and comprehensive information on knowledge and attitudes about HIV/AIDS, high-risk sexual behaviour, and practices related to HIV testing in India. Blood spots from a

finger prick were collected on filter paper cards for HIV testing. If the respondent gave consent for blood collection for both HIV and anaemia testing, the standard protocol was to first collect 3-5 blood spots on the filter paper card for HIV testing, and then to collect an additional drop of blood from the same finger prick in a microcuvette for anaemia testing. The blood spots on filter paper cards were dried overnight in special drying boxes. The packaged filter paper cards were delivered to SRL Ranbaxy blood collections centres throughout the country, and they were shipped by courier from the blood collection centres to the SRL Ranbaxy laboratory in Mumbai for HIV testing. DBS were collected from consenting women age 15-49 and men age 15-54 to provide HIV prevalence estimates at the national level and for each of the six high HIV prevalence states identified by the National AIDS Control Organization (NACO), namely Andhra Pradesh, Karnataka, Maharashtra, Manipur, Nagaland, and Tamil Nadu. However, blood for HIV testing and anaemia testing could not be collected in Nagaland due to local opposition. It was also decided to provide estimates of HIV prevalence for one low HIV prevalence state, Uttar Pradesh.

The HIV testing was anonymous. No names or other contact information were recorded on the DBS samples. Instead, a bar code label with randomly generated numbers was pasted on the filter paper sample and on the questionnaires. Respondents were not given the HIV test results since the protocol design made it impossible for the survey staff to know the HIV status of individual participants. All of the information obtained from the household and individual interviews, however, can be linked to the HIV test results through the bar codes. In order to preserve the anonymity of the results, the original cluster and household identifiers were replaced in the data set by randomly generated cluster and household numbers. All individuals who were eligible for testing in the survey, whether they accepted the testing or not, received referrals for free HIV counseling and testing at a local health facility.

The ***Women's Questionnaire*** was employed to interview all women (ever-married and never-married) age 15-49 who were usual residents of the sample household or visitors who stayed in the sample household the night before the survey. The questionnaire covered the following topics:

Background characteristics: age, marital status, caste/tribe, religion, education, employment status, exposure to mass media, place of residence, and husband's background.

Reproductive behaviour and intentions: dates and survival status of all births, current pregnancy status, pregnancy losses, use of ultrasound for recent pregnancies, and future childbearing intentions.

Marriage and cohabitation: duration of marriage and cohabitation, number of times married.

Knowledge and use of contraception: knowledge and use of specific contraceptive methods, source of family planning methods, and reasons for non-use of contraception and intentions not to use contraception in the future.

Quality of care and contacts with health personnel: quality of family planning and health services.

Antenatal, delivery, and postnatal care: antenatal and postnatal care, antenatal services received, place of delivery, attendance at delivery, and complications during pregnancy for recent births.

General health: smoking, alcohol use, injections, tuberculosis, asthma, diabetes, and thyroid disorders.

Child immunizations, child health, and child feeding practices: immunization coverage, breastfeeding and feeding practices, and recent occurrences of diarrhoea, fever, and cough for young children.

Women's and children's nutrition: food intake and nutrition-related practices for women and children.

Utilization of ICDS Services: utilization of various services of the Integrated Child Development Services (ICDS) Scheme for women and children.

Status of women and spousal violence: women's autonomy, gender relations, men's involvement in health care for women, and various forms of physical and sexual violence experienced by women.

Sexual life: sexual intercourse (first and recent intercourse), high-risk sexual behaviour, number of sexual partners, age difference between partners, and duration of sexual relationships.

HIV/AIDS and other sexually transmitted infections: knowledge of AIDS and the sources of knowledge, knowledge of ways to avoid getting HIV/AIDS, prior HIV testing, knowledge of places for HIV testing and medications for HIV/AIDS, perceptions and stigma related to HIV infected persons, attitudes about family life education for children, and knowledge and prevalence of other sexually transmitted infections.

The ***Men's Questionnaire*** was employed to interview men age 15-54 who were usual residents of the sample household or visitors who stayed in the sample household the night before the survey. The Men's Questionnaire contains a subset of questions that are covered in the Women's Questionnaire, plus some additional questions only administered to men. The questionnaire covered the following topics:

Background characteristics: age, marital status, caste/tribe, religion, education, employment status, exposure to mass media, and place of residence.

Reproductive behaviour and intentions: number of children, number of surviving children, fertility preferences, and future intentions to have children.

Knowledge and use of contraception: knowledge and use of specific contraceptive methods, and sources of family planning methods.

Male involvement in health care: men's involvement in health care for their child and the mother of their children, and quality of health services obtained by men.

Sexual life: sexual intercourse (first and recent intercourse), high-risk sexual behaviour, number of sexual partners, age difference between partners, and duration of sexual relationships.

Health and nutrition: food intake, smoking, alcohol use, injections, tuberculosis, asthma, diabetes, and thyroid disorders.

Attitude toward gender roles: attitude about gender roles, attitude about spousal violence, and men's perception of wife's involvement in decision making.

HIV/AIDS and other sexually transmitted infections: knowledge of AIDS and the sources of knowledge, knowledge of ways to avoid getting HIV/AIDS, prior HIV testing, knowledge of places for HIV testing and medications for HIV/AIDS, perceptions and stigma related to HIV-infected persons, knowledge and prevalence of other sexually transmitted infections, and attitudes about family life education for children.

1.7 Sample Design and Implementation

Sample size

Since a large number of the key indicators to be estimated from NFHS-3 refer to ever-married women in the reproductive ages of 15-49, the target sample size for each state in NFHS-3 was estimated in terms of the number of ever-married women in the reproductive ages to be interviewed.

The initial target sample size was 4,000 completed interviews with ever-married women in states with a 2001 population of more than 30 million, 3,000 completed interviews with ever-married women in states with a 2001 population between 5 and 30 million, and 1,500 completed interviews with ever-married women in states with a population of less than 5 million. In addition, because of sample-size adjustments required to meet the need for HIV prevalence estimates for the high HIV prevalence states and Uttar Pradesh and for slum and non-slum estimates in eight selected cities, the sample size in some states was higher than that fixed by the above criteria. The target sample was increased for Andhra Pradesh, Karnataka, Maharashtra, Manipur, Nagaland, Tamil Nadu, and Uttar Pradesh to permit the calculation of reliable HIV prevalence estimates for each of these states. The sample size in Andhra Pradesh, Delhi, Maharashtra, Tamil Nadu, Madhya Pradesh, and West Bengal was increased to allow separate estimates for slum and non-slum populations in the cities of Chennai, Delhi, Hyderabad, Indore, Kolkata, Mumbai, Meerut, and Nagpur.

The target sample size for HIV tests was estimated on the basis of the assumed HIV prevalence rate, the design effect of the sample, and the acceptable level of precision. With an assumed level of HIV prevalence of 1.25 percent and a 15 percent relative standard error, the estimated sample size was 6,400 HIV tests each for men and women in each of the high HIV prevalence states. At the national level, the assumed level of HIV prevalence of less than 1 percent (0.92 percent) and less than a 5 percent relative standard error yielded a target of 125,000 HIV tests at the national level.

Blood was collected for HIV testing from all consenting ever-married and never married women age 15-49 and men age 15-54 in all sample households in Andhra Pradesh, Karnataka,

Maharashtra, Manipur, Tamil Nadu, and Uttar Pradesh. All women age 15-49 and men age 15-54 in the sample households were eligible for interviewing in all of these states plus Nagaland. In the remaining 22 states, all ever-married and never married women age 15-49 in sample households were eligible to be interviewed. In those 22 states, men age 15-54 were eligible to be interviewed in only a subsample of households. HIV tests for women and men were carried out in only a subsample of the households that were selected for men's interviews in those 22 states. The reason for this sample design is that the required number of HIV tests is determined by the need to calculate HIV prevalence at the national level and for some states, whereas the number of individual interviews is determined by the need to provide state level estimates for attitudinal and behavioural indicators in every state. For statistical reasons, it is not possible to estimate HIV prevalence in every state from NFHS-3 as the number of tests required for estimating HIV prevalence reliably in low HIV prevalence states would have been very large.

Sample Design

The urban and rural samples within each state were drawn separately and, to the extent possible, unless oversampling was required to permit separate estimates for urban slum and non-slum areas, the sample within each state was allocated proportionally to the size of the state's urban and rural populations. A uniform sample design was adopted in all states. In each state, the rural sample was selected in two stages, with the selection of Primary Sampling Units (PSUs), which are villages, with probability proportional to population size (PPS) at the first stage, followed by the random selection of households within each PSU in the second stage. In urban areas, a three-stage procedure was followed. In the first stage, wards were selected with PPS sampling. In the next stage, one census enumeration block (CEB) was randomly selected from each sample ward. In the final stage, households were randomly selected within each selected CEB.

Sample Selection in Rural Areas

In rural areas, the 2001 Census list of villages served as the sampling frame. The list was stratified by a number of variables. The first level of stratification was geographic, with districts being subdivided into contiguous regions. Within each of these regions, villages were further stratified using selected variables from the following list: village size, percentage of males working in the nonagricultural sector, percentage of the population belonging to scheduled castes or scheduled tribes, and female literacy. In addition to these variables, an external estimate of HIV prevalence, i.e., 'High', 'Medium' or 'Low', as estimated for all the districts in high HIV prevalence states, was used for stratification in high HIV prevalence states. Female literacy was used for implicit stratification (i.e., villages were ordered prior to selection according to the proportion of females who were literate) in most states although literacy was an explicit stratification variable in a few states.

In every state, a mapping and household listing operation was carried out in each sample area. The listing provided the necessary frame for selecting households at the second stage. The household listing operation involved preparing up-to-date notional and layout sketch maps of each selected PSU, assigning numbers to structures, recording addresses or the location of these structures, identifying residential structures, and listing the names of the heads of all the households in residential structures in the selected PSUs. Large sample villages (with more than

a specified number of households, usually 500) were segmented, and two segments were selected randomly using the PPS method. Household listing in the segmented PSUs was carried out only in the selected segments. Each household listing team comprised one lister and one mapper. Senior field staff of the concerned research organization supervised the listing operation.

The households to be interviewed were selected with equal probability from the household list in each area using systematic sampling. The interval applied for the selection was determined to obtain a self-weighting sample of households within each domain. On average, 30 households were initially targeted for selection in each selected enumeration area. To avoid extreme variations in the workload, minimum and maximum limits were put on the number of households that could be selected from any area, at 15 and 60, respectively. Each survey team supervisor was provided with the original household listing, layout sketch map, and the list of selected households for each PSU. All the households which were selected were contacted during the main survey, and no replacement was made if a selected household was absent during data collection. However, if a PSU was inaccessible, a replacement PSU with similar characteristics was selected by IIPS and provided to the research organization.

Sample Selection in Urban Areas

The procedure adopted for the first stage of the sample design in urban areas was similar to the one followed in rural areas. The 2001 Census list of wards was arranged according to districts and within districts by the level of female literacy, and a sample of wards was selected systematically with probability proportional to size. Next, one census enumeration block, consisting of approximately 150-200 households, was selected from each selected ward using the PPS method. As in rural areas, a household listing operation was carried out in each selected census enumeration block, which provided the necessary frame for selecting households in the third stage of sample selection. On average, 30 households were targeted for selection from each census enumeration block with minimum and maximum limits from any area of 15 and 60 households.

Sample Weights

NFHS-3 is designed for self weighting at the domain level. The domains are the urban and rural areas of each state, and the slum and non-slum areas of each of the eight selected cities. This means that all households and individuals in the same domain will share a common household weight and individual weight, respectively. The design weight is the inverse of the overall sampling fraction in each domain. The overall sampling fraction is the product of the selection probabilities at each sampling stage (two stages in rural areas and three stages in urban areas). The design weight was adjusted for household non-response in the calculation of the household sampling weight. The household sampling weight was further adjusted for individual non-response to obtain the individual sampling weight. Both adjustments for non-response were done at the domain level in order to preserve the self-weighting nature of the sample within domains. The sampling weights were further normalized at the national level to obtain national standard weights and at the state level to obtain standard state weights for each of the 29 states. The national standard weights were normalized so that the total number of weighted cases equals the total number of unweighted cases at the national level. The state standard weights were calculated to ensure that the total number of weighted cases equals the total number of

unweighted cases for each state. Weights for the men's subsample, the HIV subsample, and the subsample of women selected for the domestic violence section of the questionnaire were calculated in a similar way.

Sample Implementation and Data Collection

NFHS-3 fieldwork was carried out in two phases, in order to achieve better coordination and supervision in the implementation of the survey. Twelve states were canvassed in the first phase and the remaining 17 states were canvassed in the second phase. First-phase data collection was carried out from November 2005 to May 2006. Second-phase data collection was carried out from April to August 2006.

The first phase of fieldwork covered Andhra Pradesh, Assam, Chhattisgarh, Delhi, Gujarat, Maharashtra, Meghalaya, Orissa, Punjab, Rajasthan, Uttar Pradesh, and West Bengal. The second-phase states were Arunachal Pradesh, Bihar, Goa, Haryana, Himachal Pradesh, Jammu and Kashmir, Jharkhand, Karnataka, Kerala, Manipur, Madhya Pradesh, Mizoram, Nagaland, Sikkim, Tamil Nadu, Tripura, and Uttaranchal.

Table 1.1 shows the number of household interviews, the number of interviews with women and men, and response rates for the entire country by urban-rural residence. Table 1.2 shows the period of fieldwork, number of households and eligible women and men interviewed, and response rates for each state. A total of 109,041 households were interviewed. The household response rate, i.e., the number of households interviewed per 100 occupied households, was 98 percent for India as a whole, 97 percent in urban areas, and 99 percent in rural areas. The household response rate was 96 percent or higher in all states.

Table 1.1 Results of the household and individual interviews

Number of households, number of interviews with women and men, and response rates, according to residence, India, 2005-06

Result	Residence		Total
	Urban	Rural	
Household interviews			
Households selected	54,453	62,199	116,652
Households occupied	51,846	59,713	111,559
Households interviewed	50,236	58,805	109,041
Household response rate[1]	96.9	98.5	97.7
Interviews with women age 15-49			
Number of eligible women	61,028	70,568	131,596
Number of eligible women interviewed	56,961	67,424	124,385
Eligible women response rate[2]	93.3	95.5	94.5
Interviews with men age 15-54			
Number of eligible men	45,133	40,240	85,373
Number of eligible men interviewed	38,199	36,170	74,369
Eligible men response rate[2]	84.6	89.9	87.1

Note: Eligible women and men are women age 15-49 and men age 15-54 who stayed in the household the night before the household interview (including both usual residents and visitors). This table is based on the unweighted sample.
[1] Households interviewed/households occupied.
[2] Respondents interviewed/eligible respondents.

In the interviewed households, individual interviews were completed with 124,385 women out of 131,596 who stayed in the household the night before the household interview. The individual response rate, i.e., the number of completed interviews per 100 eligible women identified in the households, was 95 percent for the country as a whole (93 percent in urban areas and 96 percent in rural areas). The response rate for eligible women varied from 90 percent in Maharashtra and Meghalaya to 99 percent in Madhya Pradesh and Chhattisgarh. Individual interviews were completed with 74,369 eligible men out of 85,373 who stayed in the household the night before the household interview. The response rate for eligible men was 87 percent for the country as a whole (85 percent in urban areas and 90 percent in rural areas). The response rate for eligible men varied from 76 percent in Delhi to 98 percent in Madhya Pradesh.

Table 1.2 Number of households, women, and men interviewed by state

Month and year of fieldwork, number of households, women, and men interviewed, and response rates by state, India, 2005-06

State	Month and year of fieldwork		Households interviewed		Women interviewed		Men interviewed	
	From	To	Number	Response rate	Number	Response rate	Number	Response rate
India	11/05	8/06	109,041	97.7	124,385	94.5	74,369	87.1
North								
Delhi	12/05	4/06	3,324	96.1	3,349	91.1	1,436	75.9
Haryana	4/06	6/06	2,302	98.8	2,790	95.5	1,083	85.3
Himachal Pradesh	4/06	7/06	2,790	96.3	3,193	95.0	1,067	88.2
Jammu & Kashmir	4/06	8/06	2,415	97.3	3,281	92.2	1,076	77.8
Punjab	12/05	3/06	2,968	98.0	3,681	93.5	1,329	82.2
Rajasthan	12/05	4/06	3,282	99.0	3,892	98.4	1,471	95.5
Uttaranchal	4/06	7/06	2,659	97.5	2,953	91.2	983	81.5
Central								
Chhattisgarh	11/05	3/06	3,031	99.4	3,810	98.6	1,384	96.6
Madhya Pradesh	4/06	8/06	5,488	99.1	6,427	98.8	2,725	98.1
Uttar Pradesh	12/05	4/06	10,026	96.6	12,183	93.9	11,458	86.9
East								
Bihar	4/06	7/06	3,016	98.5	3,818	97.3	1,214	92.7
Jharkhand	4/06	8/06	2,483	96.3	2,983	94.0	996	86.5
Orissa	11/05	4/06	3,910	98.9	4,540	96.1	1,592	92.7
West Bengal	12/05	5/06	5,992	97.8	6,794	95.6	2,669	90.0
Northeast								
Arunachal Pradesh	4/06	7/06	1,526	98.8	1,647	96.9	711	94.7
Assam	12/05	4/06	3,437	98.3	3,840	95.0	1,394	85.7
Manipur	5/06	8/06	3,498	98.7	4,512	94.7	3,951	88.4
Meghalaya	12/05	5/06	1,900	97.8	2,124	89.8	720	78.0
Mizoram	5/06	7/06	1,513	99.7	1,791	98.3	665	97.4
Nagaland	4/06	8/06	3,866	97.9	3,896	95.1	3,971	91.6
Sikkim	4/06	7/06	1,902	98.7	2,127	95.6	810	92.4
Tripura	4/06	7/06	1,574	97.7	1,906	97.4	711	91.6
West								
Goa	4/06	7/06	3,231	97.2	3,464	91.0	1,185	79.5
Gujarat	12/05	3/06	3,216	97.7	3,729	95.4	1,428	88.7
Maharashtra	12/05	3/06	8,315	95.9	9,034	89.5	8,867	77.9
South								
Andhra Pradesh	12/05	4/06	6,668	97.8	7,128	93.5	7,128	89.4
Karnataka	4/06	7/06	5,342	96.7	6,008	92.3	5,528	83.4
Kerala	4/06	8/06	3,023	99.3	3,566	96.4	1,121	90.3
Tamil Nadu	4/06	7/06	6,344	98.6	5,919	97.6	5,696	95.6

Note: This table is based on the unweighted sample; all subsequent tables are based on the weighted sample unless otherwise specified. The number of women and men is based on the de facto population. The household response rate is defined as the number of households interviewed per 100 occupied households. The response rates for women and men are the percentages of eligible women and men with completed interviews.

1.8 RECRUITMENT, TRAINING, AND FIELDWORK

Survey manuals

To maintain standardized survey procedures across states and to minimize non-sampling errors, eight different manuals were prepared for various training programmes. These manuals were the manual for household listing and mapping, the interviewer's manual, the supervisor's and editor's manual, the health investigator's manual, the manual on household relations, training guidelines, the manual for data entry coordinators, and a project director's manual.

The *manual for household listing and mapping* describes the procedures for drawing location and layout maps of sampled areas, listing households, and selecting households for the survey. This manual also describes the roles and responsibilities of mappers and listers. The *interviewer's manual* describes standard interviewing techniques and procedures for completing questionnaires. The manual also includes a discussion on individual questions in all three questionnaires and an explanation of all fieldwork procedures. The *supervisor's and editor's manual* describes the roles and responsibilities of supervisors and editors, including the preparation, organization, and monitoring of fieldwork. The *manual on household relations* is an addendum to the interviewer's manual. Domestic violence is a sensitive issue and some women may be reluctant to disclose experiences of violence; thus, the training guidelines are geared to develop the necessary awareness and skills for facilitating disclosure without placing respondents or staff at risk.

The *health investigator's manual* describes all the field procedures to be followed in the process of measurement of biomarkers, including illustrative diagrams and photographs. The steps to be followed in the measurement of height, weight, and haemoglobin content in the blood of children and adults are discussed in detail. Comprehensive procedures for blood collection, creating Dried Blood Spots (DBS), and transporting DBS to the collection centres of the central laboratory for HIV testing are described. Ethical issues, including informed consent procedures, are covered. The protocol for disposal of biohazardous waste is also described. The *training guidelines* provide standards for all organizations involved in implementing NFHS-3 fieldwork. The manual covers important aspects of the organization and implementation of the training programme for field staff. The *manual for data entry coordinators* describes methods for data entry and secondary editing. The *project director's manual* provides a list of all the activities and protocols involved in NFHS-3. This manual is designed for the Project Director and other senior staff in the central office who are in charge of NFHS-3 in each state. In addition, several laboratory manuals covered all laboratory protocols and procedures.

Training

Many organizations were involved in NFHS-3 and a large number of individuals with various skills were required to successfully implement all stages of the survey. Centralized training workshops were held to train representatives of each of the 18 field organizations, as well as personnel at IIPS who assisted with supervision and monitoring of all NFHS-3 activities. Persons who were trained in each workshop subsequently trained the staff in each state according to the standard procedures discussed in the Training Workshops. The purpose of these workshops was to ensure uniformity in data collection procedures in different states.

The following five types of training workshops were held for personnel involved in NFHS-3 project implementation:

Health Coordinator Training: A training workshop for health coordinators was conducted in June 2005 for two weeks at IIPS, Mumbai. Eight health coordinators, who had some medical background, were employed by IIPS for the supervision of data collection for biomarkers. They were trained in methods of blood collection, haemoglobin measurement, height/weight measurement, ethical requirements, and biohazard waste disposal. Biomarker specialists from Macro International served as resource persons. The training involved classroom teaching, practice sessions in the classroom, and practice sessions at health centres and in the community.

Household Listing and Mapping Workshops: Two household listing and mapping workshops of three days' duration were organized at IIPS, one for each phase of fieldwork. The workshop for the states participating in the first phase of fieldwork was held on 8-10 September 2005, and for the second-phase states the training workshop was held on 15-18 January 2006. Two persons responsible for coordinating mapping and household listing from each Research Organization were trained in mapping and household listing operations. The training involved classroom sessions and field practice in rural and urban areas. IIPS coordinators and a consultant from Macro International imparted the training.

Training of Trainers (ToT) Workshops: Two training workshops were conducted to train the trainers who would in turn train the field investigators in each state. At least two trainers for each state were trained in the training of interviewers, supervisors, and editors. The ToT for the first-phase states was held from 16 September to 5 October 2005 in Goa, and the ToT for the second-phase states was held from 30 January to 15 February 2006 in Ooty. The training involved field procedures, the content of questionnaires, guest lectures on HIV/AIDS, domestic violence, and family planning methods, and classroom and field practice. NFHS-3 coordinators from IIPS and Macro International consultants imparted the training.

Health Investigator Training: Two centralized training courses of two weeks' duration were organized at IIPS for all the health investigators, separately for Phase 1 and Phase 2 states. Health investigator training was not held at the state level. The training programme was conducted on 7-19 November 2005 for the first-phase states and on 10-23 March 2006 for the second-phase states. More than 250 health investigators participated in each training workshop. IIPS health coordinators and Macro International consultants served as resource persons. Training included classroom lectures, demonstrations, classroom practice, and practice in public hospitals and in the community.

Data Processing Training: Two data coordinators from each Research Organization were trained at IIPS in office editing of questionnaires and in use of the data entry and editing software (CSPro). A separate training course of two weeks' duration was conducted at IIPS for each phase of data collection. The training for first-phase states was conducted from 28 November to 9 December 2005 and the training for second-phase states was conducted from 3-14 April 2006. Consultants from Macro International imparted the training.

Fieldwork

The fieldwork in each state was carried out by a number of interviewing teams, each team consisting of one field supervisor, one female field editor, four interviewers, and two health investigators. In the states in which all sample households were eligible for the men's interviews, two of the interviewers were males and the other two were females. In the remaining states, each team included three female interviewers and one male interviewer. The number of interviewing teams in each state varied according to the sample size. In each state, interviewers were hired by the Research Organizations specifically for NFHS-3, taking into consideration their educational background, experience, and other relevant qualifications. Male and female interviewers were assigned respondents of the same sex to ensure that respondents felt comfortable talking about topics that they may find somewhat sensitive. Assignment of Primary Sampling Units (PSUs) to the teams and various logistical decisions were made by the survey coordinators from each Research Organization. Each interviewer was required to make a minimum of three callbacks if no suitable informant was available for the household interview or if an eligible woman or man in the household was not present at the time of the interviewer's visit.

The main responsibility of the field editor was to examine questionnaires for completeness, consistency, and legibility of the information collected, and to ensure that all necessary corrections and clarifications were made while still in the field. Special attention was paid to missing information, skip instructions, filter questions, age information, and completeness of the birth history and the health section. If major problems were detected, such as discrepancies between the birth history and the health section, the interviewers were required to revisit the respondent to rectify the inconsistencies. An additional duty of the field editor was to observe ongoing interviews and verify the accuracy of the method of asking questions, recording answers, and following skip instructions.

The field supervisor was responsible for the overall management of the field team. In addition, the field supervisor conducted spot-checks to verify the accuracy of key information, particularly with respect to the eligibility of respondents. IIPS also appointed one or more research officers in each state for monitoring and supervision throughout the training and fieldwork period to ensure that correct survey procedures were followed and that data quality was maintained. Project directors and other senior staff from the Research Organizations, project coordinators from IIPS, senior research officers, and technical consultants from Macro International also visited the field sites to monitor data collection operations. Health coordinators appointed by IIPS and a medical consultant from Macro International monitored the biomarker component of the survey. Field data were quickly entered into microcomputers, and field-check tables were produced on a regular basis to identify certain types of errors that might have occurred in eliciting information and filling out questionnaires. Information from the field-check tables was fed back to the interviewing teams and their supervisors during the fieldwork so that their performance could be improved, if required.

1.9 DATA PROCESSING

NFHS-3 data processing involved office editing, data entry using CSPro software, verification of data entry, and secondary editing by the research organizations. Final data

cleaning and recoding of the data into a standard structure and variable naming conventions was done at IIPS.

All completed questionnaires were sent to the office of the concerned Research Organization for editing and data processing (including office editing, coding, data entry, and machine editing). Although field editors examined every completed questionnaire in the field, the questionnaires were re-edited at the research organization headquarters by specially trained office editors. The office editors checked all skip sequences, response codes that were circled, and information recorded in filter questions. Special attention was paid to the consistency of responses to age questions and the accurate completion of the birth history. In the second stage of office editing, appropriate codes were assigned for open-ended responses on occupation. For each state, the data were processed with microcomputers using the CSPro data entry and editing software. The data were entered directly from the precoded questionnaires, usually starting within one week of the receipt of the first set of completed questionnaires. Data entry and editing operations were usually completed a few days after the end of fieldwork in each state. Computer-based checks were used to clean the data, and inconsistencies were resolved on the basis of information recorded in the questionnaires. All completed data sets were sent to IIPS for final processing. At this stage, secondary editing programs were run again to detect any remaining errors and inconsistencies. Age imputation was also completed at this stage for records that did not have complete age information. Age variables such as the woman's current age and the year and month of birth of all of her children were imputed for those cases in which information was missing or incorrect entries were detected. Another major activity at this stage was the manual review of all responses that were recorded verbatim in the 'other' response categories. There were more than 100,000 such responses. Some of these responses were added to the coding scheme if a large number of cases had the same response, other responses were recoded into an existing category if appropriate, and the remaining responses were left as recorded on the questionnaire.

1.10 NFHS-3 PUBLICATIONS

Fact sheets presenting key indicators were prepared for each state and India as a whole within three months of the end of data collection in the last state. These fact sheets have been widely distributed to policymakers and programme administrators responsible for appropriate interventions in health and family welfare programmes and to other key stakeholders.

The current publication is the first volume of the NFHS-3 national report, which was prepared by IIPS in collaboration with Macro International. The second volume of the national report provides additional information on sampling and on standard errors of key indicators, as well as the questionnaires used in NFHS-3. An additional report on key findings from NFHS-3 has been prepared as a companion volume to the comprehensive national report. Short state reports will also be produced with a summary discussion on major population, health, and nutrition indicators, and selected state-level tables. Several specialized subject reports on key topics will also be published.

HOUSEHOLD POPULATION AND HOUSING CHARACTERISTICS

2

This chapter provides a profile of the demographic and socioeconomic characteristics of the households in the 2005-06 National Family Health Survey (NFHS-3) sample and describes key housing characteristics of the household population. Information on household characteristics and housing conditions provides a context for understanding the demographic, health, and nutritional situation of the population.

NFHS-3 collected information about all usual residents as well as visitors who stayed in the selected households the night before the household interview. Those who stayed in the household on the night before the household interview, be they usual residents or visitors, together form the *de facto* population. Usual residents, whether they stayed in the household on the previous night or not, form the *de jure* population. The de facto and de jure populations will differ from each other as a result of temporary population movements. In this report, unless otherwise stated, all tables are based on the de facto population.

2.1 HOUSEHOLD POPULATION BY AGE AND SEX

Age and sex are basic demographic characteristics which have an important role in the study of family health, mortality, fertility, and nuptiality. Table 2.1 shows the distribution of the de facto household population in five-year age groups by residence and sex. A total of 515,507 individuals, usual residents and visitors, were enumerated in the 109,041 households interviewed

Table 2.1 Household population by age, sex, and residence

Percent distribution of the de facto household population by age, according to residence and sex, India, 2005-06

	Urban			Rural			Total		
Age	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4	9.3	8.8	9.1	12.4	11.1	11.8	11.4	10.4	10.9
5-9	9.9	9.8	9.8	13.5	12.5	13.0	12.4	11.7	12.0
10-14	11.3	10.2	10.8	13.1	12.0	12.5	12.5	11.4	12.0
15-19	10.0	10.0	10.0	8.9	9.5	9.2	9.2	9.7	9.5
20-24	10.1	10.0	10.0	7.3	8.7	8.0	8.2	9.0	8.6
25-29	8.7	9.4	9.0	7.0	8.2	7.6	7.5	8.5	8.0
30-34	7.5	7.6	7.5	5.9	6.8	6.4	6.4	7.1	6.7
35-39	7.3	7.6	7.5	6.4	6.5	6.5	6.7	6.8	6.8
40-44	5.9	5.7	5.8	5.1	4.9	5.0	5.4	5.1	5.3
45-49	5.2	4.8	5.0	4.6	4.0	4.3	4.8	4.2	4.5
50-54	3.9	4.4	4.1	3.3	3.8	3.6	3.5	4.0	3.7
55-59	3.8	3.5	3.6	3.2	3.4	3.3	3.4	3.4	3.4
60-64	2.7	2.9	2.8	3.3	3.3	3.3	3.1	3.2	3.1
65-69	1.9	2.0	2.0	2.4	2.1	2.3	2.2	2.1	2.2
70-74	1.4	1.5	1.4	1.8	1.6	1.7	1.7	1.6	1.6
75-79	0.7	0.7	0.7	0.8	0.7	0.7	0.8	0.7	0.7
80 +	0.7	0.9	0.8	0.9	0.9	0.9	0.8	0.9	0.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	82,562	77,488	160,050	175,144	180,313	355,457	257,707	257,801	515,507
Sex ratio, all ages[1]	na	na	939	na	na	1,030	na	na	1,000
Sex ratio, age 0-6 years[1]	na	na	908	na	na	921	na	na	918

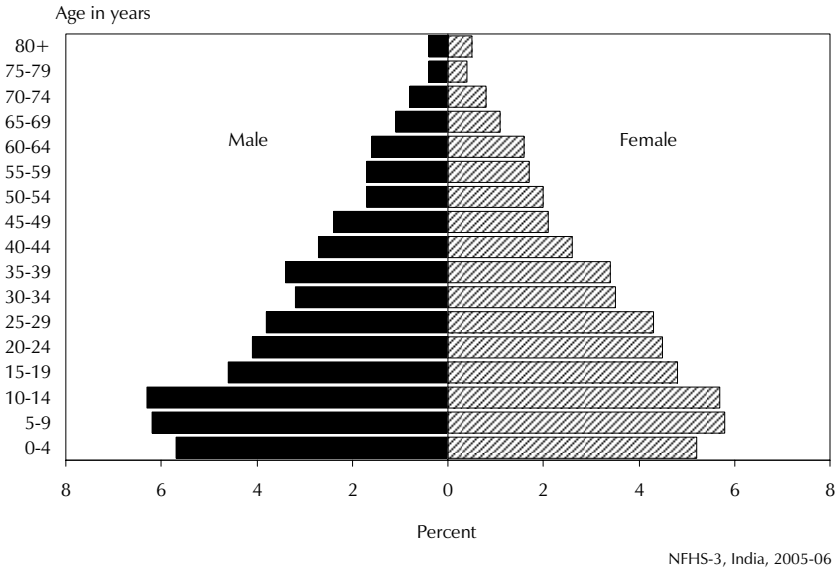
na = Not applicable
[1] Females per 1,000 males.

in NFHS-3. The sex ratio of the de facto population is 1,000 females per 1,000 males, implying an almost equal number of women and men in the enumerated population. The sex ratio is much higher in rural areas (1,030 females per 1,000 males), than in urban areas (939 females per 1,000 males) which is in keeping with the greater share of males in the rural-urban migration flows.

The sex ratio of the population below six years of age is affected both by the sex ratio at birth and differential mortality by sex after birth. While the sex ratio at birth can be affected by sex-selective abortions targeting the female foetus, deliberate discrimination against the girl child can result in higher mortality rates for girls than for boys. Ever since the preliminary results of the 2001 Indian census were released in April 2001 showing a sex ratio in India of 927 girls per 1,000 boys for the population age 0-6 years, the low and declining proportion of girls in the child population has been a major concern of policy makers, demographers, social scientists, and activists. The NFHS-3 results do not, however, suggest any reversal in the declining number of females relative to males in the child population. Approximately five years after the 2001 census, NFHS-3 finds the sex ratio of the population age 0-6 years (girls per 1,000 boys) to be 918 for India as a whole, lower than what the census found. The under-seven sex ratio in urban areas is the same in NFHS-3 as it is in the 2001 census; however, in rural areas, NFHS-3 finds a sex ratio for the under-seven population of 921, which is lower than the 934 found in the census.

The sex and age distribution of the population is shown in Table 2.1 and in the population pyramid in Figure 2.1. The age structure of the population is typical of a developing country which has experienced declining mortality and fertility, with faster declines in fertility in its more recent history. More than one-third of the population (35 percent) is below 15 years of age and 9 percent is above age 59, with the remaining 56 percent in the 15-59 age group. Children below age 15 comprise a larger proportion of the population in rural areas (37 percent) than in urban areas (30 percent), indicative of higher rural fertility (Table 2.1).

Figure 2.1 Population Pyramid



2.2 HOUSEHOLD COMPOSITION

Table 2.2 shows the distribution of surveyed households by sex of the head of the household and by the number of usual members of the household, separately for urban and rural areas, and for the country as a whole. Fourteen percent of households are headed by females, up from 10 percent in NFHS-2. The proportion of female-headed households is slightly higher in rural areas (15 percent) than in urban areas (13 percent).

The mean household size is 4.8 persons per household, and it is slightly larger in rural areas (4.9 persons) than in urban areas (4.6 persons). Household size has declined by more than half of one person since NFHS-2, when mean household size was 5.4 persons. The decline in household size is observed in both rural and urban households. NFHS-3 indicates a sizeable proportion of small households as one in every six households in both urban and rural areas has only one or two usual members. Although household size is shrinking, about one-fifth of households are still comprised of seven or more members. Households of seven or more members comprise a larger proportion of rural households (21 percent) than they do of urban households (15 percent).

Table 2.2 Household composition

Percent distribution of households by sex of head of household, household size, and household structure, according to residence, India, 2005-06

Characteristic	Urban	Rural	Total
Household headship			
Male	86.8	85.1	85.6
Female	13.2	14.9	14.4
Total	100.0	100.0	100.0
Number of usual members			
0	0.1	0.0	0.0
1	5.6	5.0	5.2
2	10.6	11.0	10.9
3	16.1	13.1	14.0
4	23.6	18.9	20.4
5	18.2	18.1	18.1
6	11.1	13.3	12.6
7	5.9	8.2	7.5
8	3.4	5.0	4.5
9+	5.5	7.4	6.8
Total	100.0	100.0	100.0
Mean household size	4.6	4.9	4.8
Household structure[1]			
Nuclear	63.0	59.3	60.5
Non-nuclear	37.0	40.7	39.5
Total	100.0	100.0	100.0
Number of households	35,579	73,462	109,041

Note: Table is based on de jure members, i.e., usual residents.
[1] Nuclear households are households comprised of a married couple or a man or a woman living alone or with unmarried children (biological, adopted, or fostered) with or without unrelated individuals.

Three in five households in India are nuclear. Nuclear households are defined in NFHS-3 as households that are comprised of a married couple or a man or a woman living alone or with unmarried children (biological, adopted, or fostered), with or without unrelated individuals. The proportion of nuclear households is higher in urban areas (63 percent) than in rural areas (59 percent).

The percent distribution of households by religion and caste/tribe of the head of the household is presented in Table 2.3 for India by residence and for each state. In the vast majority of households in India, the household head is Hindu (82 percent). Thirteen percent of households are Muslim, 3 percent are Christian, 2 percent are Sikh, 1 percent are Buddhist/Neo-Buddhist, less than 1 percent are Jain, and the remainder (less than 1 percent) belong to all of the other religions including Zoroastrian and Doni-polo in Arunachal Pradesh. Households headed by Muslims, Christians, Jains, and Buddhists/Neo-Buddhists comprise a slightly higher proportion of urban than rural households.

Table 2.3 Religion and caste/tribe of household head by state

Percent distribution of households by religion and caste/tribe of the household head, according to residence and state, India, 2005-06

	Religion of household head									Caste/tribe of household head						
State	Hindu	Muslim	Christian	Sikh	Buddhist/ Neo-Buddhist	Jain	Other[1]	Missing	Total	Scheduled caste	Scheduled tribe	Other backward class	Other	Don't know	Missing	Total
India	81.6	12.5	2.7	1.6	0.9	0.3	0.4	0.0	100.0	19.2	8.4	39.6	31.9	0.5	0.3	100.0
Urban	78.2	14.7	3.6	1.4	1.1	0.9	0.1	0.0	100.0	16.2	2.9	37.6	42.6	0.4	0.2	100.0
Rural	83.3	11.5	2.3	1.6	0.8	0.1	0.5	0.0	100.0	20.7	11.1	40.6	26.7	0.5	0.4	100.0
North																
Delhi	85.9	8.6	1.6	3.3	0.0	0.6	0.0	0.0	100.0	17.3	1.2	14.3	67.2	0.0	0.0	100.0
Haryana	88.3	6.4	0.0	5.0	0.0	0.1	0.0	0.0	100.0	24.6	0.2	22.9	52.1	0.0	0.1	100.0
Himachal Pradesh	96.4	1.0	0.1	1.0	1.2	0.0	0.2	0.0	100.0	19.8	4.8	13.7	61.5	0.0	0.2	100.0
Jammu & Kashmir	37.7	60.0	0.2	2.0	0.1	0.0	0.0	0.1	100.0	12.7	8.7	10.2	68.2	0.0	0.2	100.0
Punjab	43.3	2.6	0.9	52.6	0.0	0.0	0.6	0.0	100.0	32.0	0.1	9.5	56.0	0.0	2.4	100.0
Rajasthan	88.3	10.0	0.2	0.3	0.0	1.1	0.0	0.0	100.0	18.5	14.3	45.3	21.8	0.0	0.0	100.0
Uttaranchal	87.4	7.1	0.2	4.7	0.2	0.4	0.0	0.0	100.0	20.5	2.8	15.1	61.6	0.0	0.0	100.0
Central																
Chhattisgarh	95.2	2.8	1.2	0.1	0.4	0.3	0.0	0.0	100.0	13.5	29.8	45.3	11.4	0.0	0.0	100.0
Madhya Pradesh	90.6	6.7	0.2	0.4	0.7	1.4	0.0	0.0	100.0	17.9	21.4	39.9	20.7	0.0	0.0	100.0
Uttar Pradesh	81.9	17.3	0.2	0.5	0.0	0.1	0.0	0.0	100.0	25.2	1.0	49.7	24.1	0.0	0.1	100.0
East																
Bihar	82.9	17.0	0.0	0.0	0.0	0.0	0.1	0.0	100.0	18.7	0.4	58.6	22.2	0.0	0.1	100.0
Jharkhand	73.0	13.1	3.6	0.5	0.1	0.0	9.7	0.0	100.0	11.3	27.9	44.7	16.0	0.0	0.1	100.0
Orissa	97.1	1.2	1.3	0.1	0.0	0.0	0.2	0.2	100.0	19.7	23.2	26.5	29.8	0.0	0.8	100.0
West Bengal	72.7	26.2	0.5	0.2	0.1	0.2	0.0	0.0	100.0	25.7	5.1	4.4	63.8	0.9	0.1	100.0
Northeast																
Arunachal Pradesh	33.2	2.9	27.2	0.2	9.0	0.0	27.5	0.0	100.0	6.3	62.4	5.4	25.4	0.0	0.5	100.0
Assam	70.2	24.3	4.9	0.1	0.5	0.0	0.0	0.0	100.0	13.3	9.6	21.5	49.7	0.0	5.9	100.0
Manipur	53.1	8.9	26.1	0.1	0.1	0.1	11.7	0.0	100.0	6.7	25.6	11.6	56.0	0.0	0.0	100.0
Meghalaya	17.1	4.8	66.0	0.1	0.2	0.0	11.8	0.0	100.0	7.0	80.5	3.4	9.1	0.0	0.0	100.0
Mizoram	3.1	1.4	92.5	0.0	3.0	0.0	0.0	0.0	100.0	1.4	95.4	0.8	2.4	0.0	0.0	100.0
Nagaland	11.0	5.9	82.7	0.0	0.0	0.1	0.2	0.0	100.0	5.2	72.8	13.6	8.4	0.0	0.0	100.0
Sikkim	57.8	1.9	9.7	0.0	30.0	0.0	0.5	0.0	100.0	8.8	36.0	41.4	13.8	0.0	0.0	100.0
Tripura	88.5	8.8	0.4	0.0	2.1	0.0	0.1	0.1	100.0	22.9	17.1	20.5	39.3	0.0	0.2	100.0
West																
Goa	64.5	7.9	27.4	0.1	0.0	0.0	0.1	0.1	100.0	4.7	4.8	16.6	70.0	3.0	0.8	100.0
Gujarat	90.5	8.8	0.4	0.2	0.0	0.1	0.0	0.0	100.0	14.7	10.6	38.7	36.0	0.0	0.0	100.0
Maharashtra	79.9	10.2	1.2	0.2	7.4	1.0	0.1	0.0	100.0	15.6	10.6	26.3	47.3	0.1	0.1	100.0
South																
Andhra Pradesh	85.0	9.3	5.6	0.0	0.0	0.0	0.0	0.0	100.0	17.6	6.5	49.4	26.5	0.0	0.1	100.0
Karnataka	85.2	10.3	3.3	0.0	0.0	0.4	0.6	0.1	100.0	15.2	6.2	57.3	15.2	6.1	0.1	100.0
Kerala	59.5	23.1	17.1	0.1	0.0	0.0	0.2	0.0	100.0	11.2	2.0	30.7	55.7	0.3	0.1	100.0
Tamil Nadu	89.3	3.9	6.7	0.0	0.0	0.2	0.0	0.0	100.0	22.2	0.8	74.5	2.4	0.0	0.0	100.0

[1] Includes Jews, Parsis/Zoroastrians, Doni-polo (Arunachal Pradesh), other religions, and those with no religion.

The distribution of households by religion (determined here by the religion of the household head) is similar to the national pattern in most states, with the majority of households belonging to the Hindu religion. Hindus do not comprise the majority in only five states of India. In Jammu and Kashmir, Muslim households are in the majority (60 percent), in Punjab, Sikh households are in the majority (53 percent), and in Mizoram, Nagaland, and Meghalaya, Christian households are in the majority (93, 83, and 66 percent, respectively). The share of Muslim households is about one in four in Kerala, Assam, and West Bengal. Apart from the three northeastern states where Christians constitute a majority, a significant proportion of households are Christian in Kerala (17 percent), Manipur (26 percent), Goa and Arunachal Pradesh (27 percent each). A sizeable proportion of households are Buddhist/Neo-Buddhist in Sikkim (30 percent), Arunachal Pradesh (9 percent), and Maharashtra (7 percent). More than 1 in 10 households from the northeastern states of Arunachal Pradesh, Manipur, and Meghalaya belong to the 'other' religion category (28, 12, and 12 percent, respectively).

Nineteen percent of households in India belong to the scheduled castes (as determined by the caste status of the household head), 8 percent belong to the scheduled tribes, and 40 percent belong to other backward classes; the remaining 32 percent do not belong to a scheduled caste, scheduled tribe, or other backward class. Half a percent of households were unable to provide the caste status of the household head. A higher proportion of households in rural than in urban areas belong to the scheduled castes, scheduled tribes, and other backward classes. Forty-three percent of urban households belong to the 'other' caste/tribe category, compared with 27 percent of rural households.

Based on the caste/tribe status of the household head, one-fourth or more of households belong to the scheduled castes in Haryana (25 percent), Uttar Pradesh (25 percent), West Bengal (26 percent), and Punjab (32 percent). The proportion belonging to the scheduled tribes is very high in all northeastern states except Assam and Tripura. Households belonging to the scheduled tribes comprise the majority in Mizoram (95 percent), Meghalaya (81 percent), Nagaland (73 percent), and Arunachal Pradesh (62 percent). More than one-fifth of households belong to scheduled tribes in Sikkim (36 percent), Chhattisgarh (30 percent), Jharkhand (28 percent), Manipur (26 percent), Orissa (23 percent), and Madhya Pradesh (21 percent). One-half or more of households in Uttar Pradesh (50 percent), Karnataka (57 percent), Bihar (59 percent), and Tamil Nadu (75 percent) belong to the other backward classes.

Another aspect of household composition is the coresidence of parents and children. This topic is of particular interest since the separation of children from their parents as a result of the parental death or for any other reason is likely to have a negative influence on children's development. Accordingly, to further the study of the linkages between child development and the absence of parents, NFHS-3 collected data on the living arrangements and orphanhood status of all children below 18 years of age. Table 2.4 presents the percent distribution of de jure children under age 18 by children's living arrangements and the survival status of their biological parents, and the percentage of children with one or both parents dead, according to age of the child, residence, and sex.

Table 2.4 Children's living arrangements and orphanhood

Percent distribution of de jure children under age 18 years by their living arrangements and survival status of their parents, and percentage of children with one or both parents dead, according to background characteristics, India, 2005-06

Background characteristic	Living with both parents	Living with mother but not with father		Living with father but not with mother		Not living with either parent				Total	Percentage with one or both parents dead	Number of children
		Father alive	Father dead	Mother alive	Mother dead	Both alive	Only mother alive	Only father alive	Both dead			
Age												
<2	88.1	10.8	0.5	0.1	0.1	0.4	0.0	0.1	0.0	100.0	0.7	21,471
2-4	86.2	10.2	1.0	0.2	0.4	1.6	0.0	0.2	0.1	100.0	1.7	34,425
5-9	83.8	8.8	2.1	0.5	1.1	2.9	0.2	0.3	0.2	100.0	3.9	62,351
10-14	81.3	7.4	4.2	0.7	1.7	3.7	0.2	0.4	0.4	100.0	6.9	62,475
15-17	75.3	6.1	6.0	0.9	2.2	8.2	0.4	0.6	0.5	100.0	9.6	29,031
Residence												
Urban	86.6	4.8	2.8	0.7	0.9	3.5	0.1	0.3	0.3	100.0	4.4	57,083
Rural	81.3	9.8	3.0	0.4	1.3	3.4	0.2	0.3	0.3	100.0	5.1	152,669
Sex												
Male	83.4	8.4	2.9	0.5	1.3	2.8	0.2	0.3	0.3	100.0	4.9	108,241
Female	82.0	8.6	2.9	0.5	1.2	4.0	0.2	0.3	0.3	100.0	4.9	101,512
Total age <15	83.9	8.8	2.4	0.4	1.1	2.6	0.1	0.3	0.2	100.0	4.1	180,721
Total age <18	82.7	8.5	2.9	0.5	1.2	3.4	0.2	0.3	0.3	100.0	4.9	209,752

Nationally, 83 percent of children below age 18 years live with both their parents, 11 percent live with their mother but not their father, 2 percent live with their father but not their mother, and the remaining 4 percent live with neither parent. Three-quarters of the children living only with their mother have a father who is still alive but living elsewhere; whereas, for the majority of the small proportion of children living with their father but not with their mother, the mother is not alive. The proportion of children living with both parents declines with children's age, is slightly higher in urban areas (87 percent) than in rural areas (81 percent), and varies little by the sex of the child.

Five percent of children under age 18 have experienced the death of one or both parents. Three percent of children have experienced the death of their father, 2 percent have experienced the death of their mother, and a very small proportion (0.3 percent) have experienced the death of both parents. The proportion of children who have experienced the death of one or both parents increases with age and is 10 percent for children age 15-17. Among children below 15 years of age, the percentage living with both parents is slightly higher, and the extent of orphanhood is slightly lower, compared with children below 18 years of age.

Table 2.5 presents the percent distribution of de jure children under age 18 years by children's living arrangements and the survival status of their biological parents, and the percentage of children with one or both parents dead, by state. At least 70 percent of children under age 18 years live with both their parents in every state. For children not living with both parents, the most common living arrangement in all but six states is living with their mother while their father is living elsewhere. At least one in 10 children live with their mother while their father lives elsewhere in Kerala (22 percent), Bihar (21 percent), Himachal Pradesh (13 percent), Uttar Pradesh (12 percent), Goa and Tamil Nadu (10 percent each). A sizeable proportion of children below age 18 years do not live with either parent even though both parents

Table 2.5 Children's living arrangements and orphanhood by state

Percent distribution of de jure children under age 18 by children's living arrangements and survival status of parents, and percentage of children with one or both parents dead, according to state, India, 2005-06

State	Living with both parents	Living with mother but not with father		Living with father but not with mother		Not living with either parent				Total	Percentage with one or both parents dead
		Father alive	Father dead	Mother alive	Mother dead	Both alive	Only mother alive	Only father alive	Both dead		
India	82.7	8.5	2.9	0.5	1.2	3.4	0.2	0.3	0.3	100.0	4.9
North											
Delhi	90.0	1.6	2.9	0.5	1.2	3.1	0.1	0.2	0.4	100.0	4.8
Haryana	87.9	4.2	3.5	0.1	0.9	2.7	0.0	0.3	0.3	100.0	5.0
Himachal Pradesh	80.4	13.1	2.1	0.7	0.6	2.8	0.1	0.1	0.1	100.0	3.0
Jammu & Kashmir	86.6	5.9	2.4	0.4	1.6	2.6	0.1	0.1	0.3	100.0	4.5
Punjab	87.1	5.2	2.8	0.6	0.9	2.8	0.2	0.2	0.2	100.0	4.3
Rajasthan	85.6	5.9	2.7	0.4	1.1	3.7	0.1	0.3	0.2	100.0	4.4
Uttaranchal	84.0	8.1	3.1	0.6	1.8	1.8	0.1	0.3	0.2	100.0	5.6
Central											
Chhattisgarh	86.6	2.2	3.2	0.6	1.7	4.9	0.3	0.3	0.2	100.0	5.7
Madhya Pradesh	90.3	1.9	2.8	0.4	1.5	2.4	0.2	0.3	0.2	100.0	5.0
Uttar Pradesh	80.3	11.5	2.8	0.4	1.7	2.5	0.1	0.4	0.3	100.0	5.3
East											
Bihar	70.0	21.2	2.8	0.3	1.6	3.4	0.1	0.4	0.2	100.0	5.1
Jharkhand	80.9	8.0	4.1	0.3	1.6	3.8	0.3	0.5	0.6	100.0	7.0
Orissa	82.0	6.8	3.1	0.5	2.2	4.3	0.2	0.4	0.4	100.0	6.4
West Bengal	83.1	7.6	3.0	0.5	0.9	4.3	0.3	0.2	0.1	100.0	4.6
Northeast											
Arunachal Pradesh	77.1	4.2	3.8	1.3	2.1	8.1	1.4	1.0	1.0	100.0	9.4
Assam	82.3	6.4	4.3	0.3	1.3	3.8	0.5	0.5	0.7	100.0	7.2
Manipur	82.7	7.5	3.4	1.1	0.6	4.1	0.2	0.1	0.2	100.0	4.6
Meghalaya	77.4	7.9	5.1	0.8	1.3	5.7	0.1	0.8	0.9	100.0	8.3
Mizoram	78.6	9.0	1.8	3.1	0.9	5.7	0.6	0.2	0.1	100.0	3.6
Nagaland	77.5	5.5	2.7	1.7	1.6	9.6	0.5	0.4	0.5	100.0	5.7
Sikkim	74.5	4.9	2.4	2.6	2.0	11.9	0.7	0.4	0.5	100.0	6.1
Tripura	86.3	4.4	3.1	0.3	1.6	3.6	0.3	0.2	0.2	100.0	5.5
West											
Goa	81.5	9.9	3.5	1.1	0.2	3.6	0.1	0.0	0.0	100.0	3.9
Gujarat	91.0	2.6	1.9	0.7	0.4	3.0	0.1	0.1	0.2	100.0	2.7
Maharashtra	87.6	3.8	2.9	0.7	0.7	3.8	0.2	0.1	0.1	100.0	4.0
South											
Andhra Pradesh	83.9	5.9	2.8	1.3	1.0	4.4	0.2	0.2	0.4	100.0	4.5
Karnataka	84.7	5.4	3.8	0.5	0.7	4.2	0.1	0.2	0.4	100.0	5.3
Kerala	72.8	22.0	1.5	0.7	0.1	2.3	0.1	0.3	0.1	100.0	2.2
Tamil Nadu	81.8	9.5	2.9	0.5	0.9	3.6	0.2	0.3	0.2	100.0	4.5

are alive in Sikkim (12 percent), Nagaland (10 percent), and Arunachal Pradesh (8 percent). The proportion of children who have experienced the death of one or both parents ranges from 2 percent in Kerala to 8 percent in Meghalaya and 9 percent in Arunachal Pradesh.

2.3 EDUCATIONAL ATTAINMENT

Education is not only one of the most important socioeconomic factors that is known to significantly influence individual behaviour and attitudes, but educational attainment is a fundamental indicator of a country's level of human capital development. Table 2.6 shows the percent distribution of the de facto female and male population age six and over by level of education and the median number of years of schooling, according to age and residence. In order

Table 2.6 Educational attainment of household population

Percent distribution of the de facto female and male household populations age six and over by highest number of years of education completed and median number of years completed, according to age and residence, India, 2005-06, and NFHS-2 and NFHS-1

Background characteristic	Level of education							Total	Median number of years of schooling completed
	No education	<5 years complete	5-7 years complete	8-9 years complete	10-11 years complete	12 or more years complete	Don't know/ missing		
				FEMALE					
Age									
6-9	24.9	73.4	1.4	0.0	0.0	0.0	0.3	100.0	0.5
10-14	12.9	33.6	41.2	11.9	0.4	0.0	0.1	100.0	4.2
15-19	20.3	7.4	19.5	24.7	18.3	9.9	0.1	100.0	7.3
20-24	30.4	6.3	16.0	16.3	11.1	19.6	0.2	100.0	6.5
25-29	40.4	7.2	14.2	13.1	9.7	15.2	0.2	100.0	4.4
30-34	48.2	7.7	13.4	10.7	8.0	11.8	0.1	100.0	1.6
35-39	54.7	7.7	12.5	8.8	7.3	8.9	0.1	100.0	0.0
40-44	55.8	8.7	13.0	7.9	6.7	7.7	0.1	100.0	0.0
45-49	59.0	8.6	12.7	6.9	6.2	6.6	0.1	100.0	0.0
50-54	63.2	8.4	11.0	5.2	5.7	6.1	0.4	100.0	0.0
55-59	69.6	8.6	9.4	3.9	4.3	3.8	0.3	100.0	0.0
60-64	78.5	6.3	7.4	2.8	2.6	2.0	0.4	100.0	0.0
65+	81.2	7.1	6.0	1.8	1.8	1.3	0.8	100.0	0.0
Residence									
Urban	25.3	15.5	17.4	13.3	11.4	17.1	0.2	100.0	5.5
Rural	48.6	19.3	14.9	8.9	4.6	3.4	0.2	100.0	0.0
Total	41.5	18.1	15.7	10.2	6.7	7.6	0.2	100.0	1.9
NFHS-2 (1998-99)	44.4	20.9	14.8	8.1	6.0	5.6	0.2	100.0	0.6
NFHS-1 (1992-93)	54.7	14.6	12.5	6.6	5.0	4.2	2.4	100.0	0.0
				MALE					
Age									
6-9	23.0	75.3	1.3	0.0	0.0	0.0	0.3	100.0	0.5
10-14	7.7	35.5	44.5	11.8	0.4	0.0	0.0	100.0	4.4
15-19	9.8	7.0	20.0	31.7	21.8	9.7	0.1	100.0	8.1
20-24	12.4	7.0	16.1	21.7	15.4	27.2	0.1	100.0	8.4
25-29	17.3	7.3	15.8	20.5	14.1	24.8	0.2	100.0	8.1
30-34	21.1	8.2	14.7	17.3	14.1	24.4	0.3	100.0	7.8
35-39	26.0	9.9	15.0	15.8	13.5	19.6	0.2	100.0	6.8
40-44	29.7	10.9	14.5	14.2	12.6	17.8	0.2	100.0	5.9
45-49	30.1	10.8	16.8	13.6	12.2	16.3	0.1	100.0	5.3
50-54	29.3	11.3	15.8	12.6	14.2	16.6	0.2	100.0	5.7
55-59	32.3	11.9	15.5	10.9	13.2	15.9	0.3	100.0	4.7
60-64	45.5	12.7	13.6	7.9	10.0	9.7	0.5	100.0	2.1
65+	49.4	15.0	13.5	7.0	7.6	6.8	0.6	100.0	0.1
Residence									
Urban	12.5	15.9	17.4	16.2	14.4	23.5	0.2	100.0	7.6
Rural	26.5	23.4	18.9	14.1	8.7	8.1	0.2	100.0	4.0
Total	21.9	20.9	18.4	14.8	10.6	13.2	0.2	100.0	4.9
NFHS-2 (1998-99)	21.7	24.3	18.6	13.0	10.8	11.2	0.4	100.0	4.5
NFHS-1 (1992-93)	29.2	19.3	17.3	11.6	10.2	9.5	3.0	100.0	4.0

Note: Total includes persons whose age is not known or missing, who are not shown separately.

to observe trends in educational attainment at different points of time, comparative figures from NFHS-1 and NFHS-2 are also provided.

A large proportion of the Indian population continues to have little or no education, and this proportion is much higher for females than males. Among the population age six and over, 42 percent of females and 22 percent of males have never attended school, and 18 percent of females and 21 percent of males have less than 5 years of completed education. Eight percent of females and 13 percent of males have completed 12 or more years of schooling; 7 percent of females and 11 percent of males have completed 10-11 years of schooling. This shows that only

14 percent of females and 24 percent of males six or more years of age have completed 10 or more years of education. The median number of completed years of schooling for women age 6 years or more is 2 years; for men the corresponding figure is 5 years.

Although educational attainment in rural areas is lower than in urban areas for both females and males, the urban-rural differential is greater for females than males. For females, the urban-rural differential in the median years of schooling is 6 years, whereas for males, it is 4 years. Testifying to the spread of education is the fact that among females and males age 10 and above, the proportion having no education declines steadily with decreasing age and the proportion with 10 or more years of schooling among those age 20 years or more increases steadily with declining age. A comparison of NFHS-3 data on education with data from NFHS-2 and NFHS-1, however, reveals a rather slow rate of change for the population as a whole. The proportion with no education in the population age 6 and above among females has declined between NFHS-2 and NFHS-3 by only three percentage points but has not declined at all for males. Also, the proportions of females and males who have completed at least 12 years of education has increased by only 2 percentage points each in the seven years between the two surveys. The pace of change had also been similar between NFHS-1 and NFHS-2.

The percent distribution of females and males by education, according to state is shown in Table 2.7. Among all the states, Kerala ranks first with the lowest proportion of females and males with no education (10 and 5 percent, respectively), followed closely by Mizoram. Delhi ranks first in terms of educational attainment. Twenty-eight percent of females and 32 percent of males in Delhi have completed 12 or more years of education. While males in Delhi also have the highest median number of years of education (9 years) of any state, it is females in Kerala who have the highest median number of years of education (8 years) of any state. Other states with relatively higher educational attainment for both females and males are Manipur, Himachal Pradesh, and Goa, where the median number of years of schooling for females is five or more years and for males is 8 years. At the other extreme, Bihar has the highest proportions of both females (60 percent) and males (35 percent) who have no education. Other states in which at least half of females age six years or more have no education, include Rajasthan, Uttar Pradesh, and Jharkhand. At least one in four males have no education in Nagaland, Rajasthan, Uttar Pradesh, Madhya Pradesh, Andhra Pradesh, Jharkhand, Arunachal Pradesh and Meghalaya. The lowest level of educational attainment for males is found in Bihar, Meghalaya, and Arunachal Pradesh, where the median number of years of schooling for males is three years or less.

Table 2.7 Educational attainment of household population by state

Percent distribution of the de facto female and male household populations age six and over by highest number of years of education completed and median number of years completed by sex, according to state, India, 2005-06

State	Level of education							Total	Median number of years of schooling completed
	No education	<5 years complete	5-7 years complete	8-9 years complete	10-11 years complete	12 or more years complete	Don't know/ missing		
				FEMALE					
India	41.5	18.1	15.7	10.2	6.7	7.6	0.2	100.0	1.9
North									
Delhi	22.5	12.2	14.8	10.3	12.1	27.7	0.4	100.0	7.0
Haryana	40.2	13.5	18.5	9.8	9.2	8.7	0.0	100.0	3.0
Himachal Pradesh	26.7	12.7	20.1	11.9	15.4	13.1	0.2	100.0	4.9
Jammu & Kashmir	42.3	14.4	12.0	13.1	8.4	9.6	0.2	100.0	1.8
Punjab	33.0	12.5	18.0	10.7	13.1	12.7	0.1	100.0	4.4
Rajasthan	56.2	17.1	13.0	6.4	2.7	4.5	0.0	100.0	0.0
Uttaranchal	34.9	14.9	16.2	13.2	7.3	13.2	0.3	100.0	4.0
Central									
Chhattisgarh	46.6	20.7	16.5	8.2	3.4	4.6	0.0	100.0	0.1
Madhya Pradesh	48.0	19.5	15.0	8.5	3.3	5.6	0.0	100.0	0.1
Uttar Pradesh	49.6	17.8	12.8	8.8	4.5	6.4	0.3	100.0	0.0
East									
Bihar	60.3	15.4	10.4	5.8	5.0	2.7	0.3	100.0	0.0
Jharkhand	53.3	19.0	10.4	7.3	4.9	4.7	0.4	100.0	0.0
Orissa	42.2	20.2	16.3	11.3	4.9	4.8	0.3	100.0	1.6
West Bengal	36.0	25.9	16.4	10.8	4.8	6.2	0.0	100.0	2.6
Northeast									
Arunachal Pradesh	44.5	23.1	13.3	9.4	3.3	5.8	0.6	100.0	0.5
Assam	29.5	26.1	14.8	16.6	6.0	6.6	0.3	100.0	3.3
Manipur	29.8	17.5	12.5	17.7	8.6	13.7	0.3	100.0	4.5
Meghalaya	33.7	24.5	15.6	11.7	5.9	8.5	0.1	100.0	2.6
Mizoram	10.5	29.3	23.4	19.5	8.5	8.9	0.0	100.0	5.4
Nagaland	31.5	23.0	18.2	14.8	6.2	6.4	0.0	100.0	3.3
Sikkim	34.6	22.9	17.1	10.8	6.7	8.0	0.0	100.0	2.8
Tripura	24.3	26.9	20.9	16.9	5.7	4.9	0.3	100.0	3.8
West									
Goa	21.5	14.5	15.1	14.0	15.4	19.0	0.5	100.0	6.8
Gujarat	34.2	18.6	20.0	11.2	6.9	8.6	0.4	100.0	3.4
Maharashtra	29.4	19.3	17.5	12.9	9.9	10.8	0.3	100.0	4.2
South									
Andhra Pradesh	45.1	14.9	19.2	7.0	7.8	5.8	0.2	100.0	1.4
Karnataka	37.4	15.3	18.0	10.3	9.6	9.0	0.4	100.0	3.4
Kerala	10.0	19.0	17.9	20.9	15.5	16.5	0.3	100.0	7.5
Tamil Nadu	30.6	14.5	19.3	14.9	9.0	11.6	0.0	100.0	4.5
				MALE					
India	21.9	20.9	18.4	14.8	10.6	13.2	0.2	100.0	4.9
North									
Delhi	10.8	12.4	16.1	13.4	15.6	31.5	0.2	100.0	8.5
Haryana	19.0	15.9	21.4	13.3	16.1	14.3	0.0	100.0	6.3
Himachal Pradesh	11.6	13.5	19.1	14.1	22.5	19.2	0.1	100.0	7.7
Jammu & Kashmir	22.0	15.5	15.4	19.7	13.2	13.9	0.1	100.0	6.4
Punjab	20.8	16.1	19.2	13.4	17.2	13.2	0.1	100.0	6.1
Rajasthan	25.2	21.7	20.5	14.6	7.2	10.8	0.0	100.0	4.3
Uttaranchal	14.2	18.1	18.3	18.9	12.1	18.2	0.2	100.0	6.8
Central									
Chhattisgarh	22.4	26.8	20.8	12.5	6.8	10.6	0.1	100.0	4.1
Madhya Pradesh	26.5	20.6	21.1	13.6	6.4	11.8	0.0	100.0	4.3
Uttar Pradesh	25.6	21.6	16.0	15.9	8.4	12.1	0.3	100.0	4.3
East									
Bihar	35.3	21.1	13.1	10.1	10.0	10.2	0.2	100.0	2.5
Jharkhand	28.2	21.7	15.9	13.8	9.1	11.1	0.2	100.0	4.0
Orissa	22.4	25.0	20.1	15.5	7.2	9.6	0.1	100.0	4.3
West Bengal	22.1	26.8	16.8	14.0	7.9	12.3	0.1	100.0	4.2
Northeast									
Arunachal Pradesh	28.9	25.1	17.1	13.1	5.1	10.0	0.7	100.0	3.3
Assam	16.7	28.4	16.8	18.4	8.6	10.6	0.6	100.0	4.9
Manipur	12.8	19.5	13.4	20.4	11.8	21.6	0.6	100.0	7.5
Meghalaya	31.6	25.3	14.3	12.3	6.4	10.0	0.1	100.0	2.8
Mizoram	6.8	26.4	24.7	20.3	9.3	12.5	0.0	100.0	6.1
Nagaland	25.0	22.9	18.9	15.3	8.1	9.8	0.0	100.0	4.3
Sikkim	21.5	25.7	19.4	12.9	7.8	12.7	0.0	100.0	4.3
Tripura	15.5	27.9	19.9	19.0	8.0	9.1	0.6	100.0	4.7
West									
Goa	10.8	15.9	16.3	16.3	19.2	21.2	0.4	100.0	8.0
Gujarat	16.1	20.9	21.0	17.3	11.9	12.3	0.5	100.0	6.0
Maharashtra	12.1	20.6	17.8	17.5	14.3	17.4	0.2	100.0	6.9
South									
Andhra Pradesh	27.0	18.7	20.4	9.0	12.1	12.6	0.2	100.0	4.4
Karnataka	21.6	17.8	19.5	13.2	12.3	15.3	0.3	100.0	5.8
Kerala	4.9	18.4	19.0	24.5	16.1	16.7	0.3	100.0	8.0
Tamil Nadu	14.6	16.0	23.7	16.9	13.1	15.6	0.0	100.0	6.3

Information on school attendance any time during the school year 2005-06 was collected for the household population age 5-18 years. The net attendance ratios (NAR) and gross attendance ratios (GAR) for the de facto household population are shown in Table 2.8 by sex and residence for the primary and middle, secondary, and higher secondary school levels. The NAR indicates participation in primary schooling for the population age 6-10 years and middle, secondary or higher secondary schooling for the population age 11-17 years. The GAR measures participation at each level of schooling among those of any age. The GAR is nearly always higher than the NAR for the same level of schooling because the GAR includes participation by those who may be older or younger than the official age range for that level[1]. A NAR of 100 percent would indicate that all those in the official age range for the level are attending at that level. The GAR can exceed 100 percent if there is significant overage or underage participation at a given level of schooling.

Table 2.8 School attendance ratios

Net attendance ratios (NAR), gross attendance ratios (GAR), and Gender Parity Index (GPI) for the de facto household population by level of schooling and sex, according to residence, India, 2005-06

Residence	Net attendance ratio[1]			Gender Parity Index[3]	Gross attendance ratio[2]			Gender Parity Index[3]
	Male	Female	Total		Male	Female	Total	
PRIMARY SCHOOL								
Urban	73.9	73.7	73.8	1.00	82.9	80.7	81.9	0.97
Rural	72.9	69.4	71.2	0.95	85.6	81.2	83.5	0.95
Total	73.2	70.5	71.9	0.96	84.9	81.1	83.1	0.95
MIDDLE, SECONDARY, AND HIGHER SECONDARY SCHOOL								
Urban	61.4	59.5	60.5	0.97	71.5	70.1	70.8	0.98
Rural	54.7	40.1	47.2	0.73	64.8	47.7	56.0	0.74
Total	56.8	45.6	51.2	0.80	66.9	54.1	60.5	0.81

Note: In this table, children's age refers to their age at the start of the 2005-06 school year (assumed here to be April 2005).
[1] The NAR for primary school (standards 1-5) is the percentage of the primary-school age population (6-10 years) that is attending primary school. The NAR for middle, secondary, and higher secondary school (standards 6-12) is the percentage of the population in the appropriate age group for those school levels (11-17 years) that is attending those school levels. By definition the NAR cannot exceed 100.0 percent.
[2] The GAR for primary school (standards 1-5) is the total number of primary school students, expressed as a percentage of the official primary-school-age population (6-10 years). The GAR for middle, secondary, and higher secondary school (standards 6-12) is the total number of students in those school levels, expressed as a percentage of the official population that is the appropriate age to be attending those school levels. If there are significant numbers of overage and underage students at a given level of schooling, the GAR can exceed 100.0.
[3] The Gender Parity Index for primary school is the ratio of the primary school NAR (GAR) for females to the NAR (GAR) for males. The Gender Parity Index for middle, secondary, and higher secondary school is the ratio of the NAR (GAR) for females to the NAR (GAR) for males at those levels of school.

Only 72 percent of children who should have been attending primary school (children age 6-10 years) did attend primary school (standards 1-5) during the 2005-06 school year and 51 percent of middle, secondary, or higher secondary-school-age children (children age 11-17) who should have been attending this level of schooling (standards 6-12) attended this level during the 2005-06 school year. Overall, 43 percent of boys age 11-17 did not attend middle, secondary, or higher secondary school as they should have in 2005-06, and among girls, this proportion is even higher at 54 percent. At the primary level, the rural and urban NARs are similar for boys, but for girls the urban NAR is somewhat higher. The rural-urban differential in the NAR is much greater at the higher level of schooling. Sixty-one percent of boys and 60 percent of girls age 11-17 are

[1] Students who are overage for a given level of schooling may have started school overage, may have repeated one or more grades in school, or may have dropped out of school and later returned.

attending middle, secondary, and higher secondary school in urban areas, compared with 55 percent of boys and 40 percent of girls in rural areas. These data indicate that a significant proportion of children in India are not attending standards appropriate for their age, and the situation is worse at schooling levels beyond primary and in rural than in urban areas.

The gross attendance ratios (GAR) for primary school and for middle, secondary, or higher secondary school are 83 and 61, respectively. The GAR at the primary-school level in rural areas is higher than that in the urban areas by 2 percentage points overall, indicating that there is greater underage and/or overage primary school attendance in rural than in urban areas. However, at higher levels of schooling, GARs in rural areas are much lower than in urban areas, especially for girls. At both the primary-school level and the middle, secondary, and higher secondary school level, the NAR and GAR Gender Parity Index (GPI) is 1 or almost 1 in urban areas; however, in rural areas the index is somewhat below 1 for primary school and far below 1 for the higher level of schooling. This suggests that although there is relative gender equality in age-appropriate access to education in urban areas; in rural areas, girls' access to age-appropriate education is much less than that of boys, particularly at schooling levels beyond the primary.

The school attendance rate for the de facto population age 6-17 years is shown in Table 2.9 for each state, by sex and residence. School attendance rates indicate participation in schooling at any level, from primary through higher levels of education. Less than three in four children in India age 6-17 years are attending school (Figure 2.2). The school attendance rate for boys is about the same in urban and rural areas, and in urban areas, school attendance rates of girls and boys are about the same. In rural areas, however, the school attendance rate for girls is lower than that of boys by 12 percentage points, and among girls, school attendance is lower in rural than in urban areas by 13 percentage points. School attendance rates for both boys and girls in urban and rural areas decrease as age increases. At age 15-17, 49 percent of boys and 34 percent of girls were attending school.

With the exception of a few outliers, states do not differ much in terms of children's school attendance rates. In every state except Bihar, more than three-fifths of children age 6-17 are attending school. School attendance for children varies from 90 percent in Kerala, 89 percent in Himachal Pradesh, and 85 percent in Tamil Nadu to 56 percent in Bihar and 64 percent in Jharkhand. In most states, school attendance rates are higher in urban areas than in rural areas. The only exceptions are Himachal Pradesh, Uttaranchal, and Sikkim. School attendance rates are lower among girls than among boys in all states except Delhi, Meghalaya, Nagaland, Sikkim, and Kerala. Notably, however, in urban areas, school attendance rates are higher among girls than among boys in about half (13) of the states.

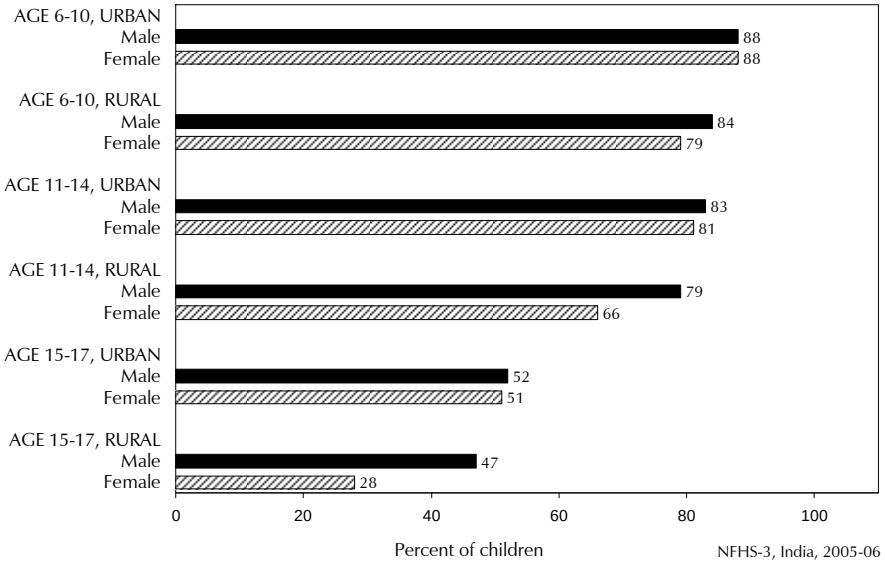
Table 2.9 School attendance by state

Percentage of de facto household population age 6-17 years attending school in the 2005-06 school year by sex, residence, age, and state, India, 2005-06

	Male			Female			Total		
Age/state	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
India									
Age									
6-10 years	87.6	83.6	84.6	88.3	78.5	81.0	87.9	81.1	82.9
11-14 years	82.8	78.6	79.9	80.8	66.4	70.4	81.9	72.6	75.3
15-17 years	52.1	47.1	48.8	50.5	27.7	34.4	51.3	36.7	41.3
6-14 years	85.4	81.5	82.6	84.9	73.4	76.4	85.2	77.5	79.6
6-17 years	77.1	74.7	75.4	76.1	62.9	66.4	76.6	68.8	71.0
North									
Delhi	78.0	77.0	77.9	81.8	80.1	81.6	79.7	78.4	79.5
Haryana	77.3	79.0	78.5	79.8	69.5	72.0	78.4	74.5	75.5
Himachal Pradesh	86.8	90.9	90.5	89.9	87.8	88.0	88.1	89.3	89.2
Jammu & Kashmir	83.2	81.3	81.7	84.1	72.3	74.9	83.6	76.8	78.4
Punjab	75.0	78.2	77.1	79.3	73.1	75.1	76.8	75.9	76.2
Rajasthan	79.6	76.5	77.2	70.6	53.2	57.2	75.4	65.2	67.6
Uttaranchal	78.5	87.9	85.5	78.8	78.2	78.4	78.6	83.2	82.0
Central									
Chhattisgarh	83.9	74.7	76.6	85.1	61.7	66.6	84.5	68.1	71.5
Madhya Pradesh	73.9	73.3	73.4	76.0	64.8	67.4	74.9	69.1	70.5
Uttar Pradesh	69.4	75.6	74.2	70.4	62.4	64.2	69.9	69.1	69.3
East									
Bihar	68.0	64.3	65.0	66.3	45.8	48.7	67.2	54.4	56.4
Jharkhand	77.2	69.2	71.2	73.6	51.6	56.5	75.5	60.1	63.8
Orissa	75.4	69.5	70.5	74.6	57.2	60.0	75.0	63.3	65.2
West Bengal	74.1	68.7	70.1	73.3	67.4	68.7	73.8	68.0	69.4
Northeast									
Arunachal Pradesh	72.5	72.1	72.2	66.4	63.9	64.5	69.4	68.2	68.5
Assam	78.7	76.9	77.2	78.6	74.0	74.7	78.6	75.5	75.9
Manipur	86.9	79.2	81.4	84.1	74.2	77.0	85.5	76.7	79.2
Meghalaya	83.9	57.4	63.1	87.1	62.4	68.0	85.5	59.8	65.5
Mizoram	88.2	76.7	82.5	84.1	74.9	79.4	86.3	75.8	81.1
Nagaland	76.8	67.5	70.1	79.2	71.8	73.8	78.0	69.7	72.0
Sikkim	78.3	74.1	74.7	71.8	77.3	76.3	75.0	75.6	75.5
Tripura	82.1	78.0	78.5	83.2	77.2	78.0	82.7	77.6	78.3
West									
Goa	87.3	85.7	86.6	82.8	82.9	82.8	85.1	84.3	84.8
Gujarat	76.3	74.3	75.2	70.9	62.8	65.8	73.9	68.7	70.8
Maharashtra	83.4	78.2	80.7	80.9	69.6	74.7	82.2	73.9	77.8
South									
Andhra Pradesh	76.7	76.8	76.7	73.3	62.6	66.1	74.9	69.6	71.3
Karnataka	78.6	76.1	77.0	77.8	65.3	69.7	78.2	70.5	73.3
Kerala	90.0	88.5	89.0	90.1	90.6	90.4	90.1	89.5	89.7
Tamil Nadu	86.2	88.6	87.5	86.1	79.9	82.5	86.1	84.3	85.1

Note: In this table, children's age refers to their age at the start of the 2005-06 school year (assumed here to be April 2005).

Figure 2.2 School Attendance by Age, Sex and Residence



The main reason for not attending school was sought for all children age 6-17 years who were not attending school during the 2005-06 school year. Table 2.10 gives the percent distribution of de facto children age 6-17 years who have dropped out of school at some time before the 2005-06 school year by the main reason for not attending school during 2005-06, according to sex and residence. The survey reveals that the most common reason for school drop out is 'not interested in studies'. This reason is given for 36 percent of boys and 21 percent of girls age 6-17 years for dropping out of school. The next most commonly reported reason for dropout is 'costs too much' for both boys and girls, followed by 'required for outside work for payment in cash or kind' for boys and 'required for household work' for girls. Other reasons given relatively often include 'repeated failure' for both boys and girls and 'required for work on family farm/family business' for boys. For 7 percent of boys who have dropped out of school, the main reason is 'required for household work' suggesting that the demands of work at home is a reason not only for school drop out among girls (15 percent), but also for almost one out of 10 boys. For 6 percent of girls in rural areas and 2 percent of girls in urban areas who dropped out of school, marriage is the main reason given for having dropped out.

Table 2.10 Reasons for children dropping out of school

Percent distribution of de facto children age 6-17 years who dropped out of school before the 2005-06 school year by the main reason for not attending school in that school year, according to residence and sex, India, 2005-06

	Urban		Rural		Total	
Main reason	Male	Female	Male	Female	Male	Female
School too far away	0.6	2.1	1.4	7.0	1.1	5.8
Transport not available	0.0	0.2	0.4	1.9	0.3	1.5
Further education not considered necessary	3.7	5.4	2.5	3.8	2.9	4.2
Required for household work	6.5	15.6	7.2	15.0	7.0	15.2
Required for work on farm/family business	6.0	2.1	7.7	3.4	7.2	3.1
Required for outside work for payment in cash or kind	10.8	5.6	7.9	2.6	8.8	3.3
Costs too much	16.7	21.2	18.4	17.4	17.9	18.3
No proper school facilities for girls	0.2	0.6	0.3	2.3	0.2	1.9
Not safe to send girls	0.0	1.6	0.2	2.9	0.1	2.6
No female teacher	0.0	0.2	0.1	0.3	0.1	0.3
Required for care of siblings	0.3	0.6	0.2	0.8	0.3	0.7
Not interested in studies	37.7	22.6	35.3	20.5	36.0	21.0
Repeated failures	7.0	6.6	5.5	5.5	5.9	5.8
Got married	0.0	2.4	0.2	5.8	0.1	4.9
Did not get admission	1.8	2.9	3.2	2.8	2.8	2.8
Other	5.7	6.9	5.6	4.8	5.6	5.3
Don't know/missing	3.0	3.4	4.0	3.3	3.7	3.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of children	2,110	1,929	4,745	5,968	6,855	7,897

2.4 HOUSEHOLD CHARACTERISTICS

Access to basic amenities, such as proper housing, safe drinking water and sanitation, and clean cooking fuel, is not only an important measure of the socioeconomic status of the household but is also fundamental to the health of its members. NFHS-3 provides information on several household characteristics that affect living conditions. In this section, household access to water and sanitation facilities is discussed first, followed by a discussion of other household characteristics including type of housing and fuel used for cooking. Information on household characteristics is based on questions answered by the respondents of the Household Questionnaire and, in the case of the type of housing, interviewer observations.

Respondents to the Household Questionnaire were asked for the main source of drinking water for the household. Table 2.11 presents the percent distribution of households by source of household drinking water, time to obtain drinking water, person who usually collects the drinking water (for households that do not have water on the premises), and the treatment of drinking water to make it potable by residence. Also included in the table is the percent distribution of the de jure population by each of these household characteristics.

Most households in India (88 percent) have access to an improved source of drinking water, with access in urban areas being higher than in rural areas (95 percent and 85 percent, respectively). An improved source of drinking water includes, in addition to water piped into the dwelling, yard or plot, water available from a public tap or standpipe, a tube well or borehole, a protected dug well, a protected spring, and rainwater. Additionally, households that drink bottled water are defined as having an improved source of water only if the source of water they use for cooking and/or hand washing is from an improved source. The most common improved source

Table 2.11 Household drinking water

Percent distribution of urban, rural, and total households and de jure population by source, time to collect, and person who usually collects drinking water, and the percentage of urban, rural, and total households and de jure population by treatment of drinking water, India, 2005-06

Drinking water characteristics	Urban	Rural	Total	De jure population
Source of drinking water				
Improved source	95.0	84.5	87.9	87.6
Piped water into dwelling/yard/plot	50.7	11.8	24.5	23.5
Public tap/standpipe	20.3	16.1	17.5	15.3
Tube well or borehole	21.3	53.2	42.8	45.8
Protected dug well	1.8	2.8	2.5	2.4
Protected spring	0.1	0.3	0.2	0.2
Rainwater	0.0	0.2	0.1	0.1
Bottled water, improved source for cooking, handwashing[1]	0.8	0.1	0.3	0.3
Non-improved source	4.8	15.4	11.9	12.2
Unprotected dug well	2.9	12.4	9.3	9.6
Unprotected spring	0.1	0.8	0.6	0.6
Tanker truck/cart with small tank	0.9	0.3	0.5	0.5
Surface water	0.8	1.8	1.5	1.5
Bottled water, non-improved source for cooking, handwashing[1]	0.1	0.0	0.0	0.0
Other source	0.2	0.1	0.2	0.1
Total	100.0	100.0	100.0	100.0
Time to obtain drinking water (round trip)				
Water on premises	70.5	42.1	51.3	52.9
Less than 30 minutes	22.4	43.3	36.5	34.7
Thirty minutes or longer	6.9	14.4	11.9	12.1
Don't know/missing	0.2	0.2	0.2	0.2
Total	100.0	100.0	100.0	100.0
Person who usually collects drinking water[2]				
Adult female 15+	74.2	82.7	81.0	81.8
Adult male 15+	20.3	10.7	12.6	10.8
Female child under age 15	3.3	4.7	4.4	5.5
Male child under age 15	1.2	1.1	1.1	1.3
Other	0.6	0.4	0.4	0.3
Missing	0.5	0.4	0.4	0.4
Total	100.0	100.0	100.0	100.0
Water treatment prior to drinking[3]				
Boil	16.0	7.7	10.4	9.4
Use alum	2.1	0.9	1.3	1.3
Add bleach/chlorine	2.2	2.4	2.3	2.3
Strain through cloth	19.1	15.4	16.6	16.8
Use ceramic, sand or other water filter	13.4	3.3	6.6	6.0
Use electronic purifier	3.4	0.1	1.2	1.1
Allow water to stand and settle	0.8	0.5	0.6	0.6
Other	0.5	0.3	0.4	0.4
No treatment	51.0	72.7	65.6	66.8
Number	35,579	73,462	109,041	522,027

[1] Because the quality of bottled water is not known, households using bottled water are classified according to the source of water used for cooking and handwashing.
[2] Excludes those who have source of water on premises.
[3] Total percentages may add to more than 100.0 because multiple answers are allowed.

of drinking water for urban dwellers is piped water: 51 percent of households use water that is piped into their living area and 20 percent use a public tap. On the other hand, only 28 percent of households in rural areas have access to piped water. Most people in rural areas obtain their drinking water from a tube well or borehole (53 percent); however, one in eight rural households get their drinking water from unprotected wells or springs.

In NFHS-3, households that did not have access to water on their residential premises, were asked for the typical time it takes to go to the water source, get water, and return with the water, and for the person who usually goes to collect the water. Half the households in India reported having drinking water on their premises, 37 percent of households do not have water on

their premises and it takes less than 30 minutes for a round trip to fetch drinking water and for the remaining 12 percent who also do not have water on their premises, one round-trip to fetch water takes more than half an hour. Urban households are more likely to have a source of drinking water on their premises (71 percent) than are rural households (42 percent). In rural areas, for one in seven households, each round trip to collect water takes at least half an hour. In 81 percent of households that do not have a source of drinking water on the premises, it is an adult female who usually collects the water. Female children under age 15 are more than four times as likely as male children the same age to go to fetch drinking water.

In NFHS-3, all households were asked whether they treat their drinking water prior to drinking it. A majority of households (66 percent) do not treat drinking water. Urban households are somewhat more likely than rural households to treat drinking water. Straining water through a cloth (17 percent) and boiling (10 percent) are the most commonly used methods.

Table 2.11 also shows that 88 percent of the population of the country has access to an improved water source, 53 percent lives in households with water on the premises, and 67 percent do not treat their drinking water to improve its potability.

Table 2.12 gives the percent distribution of households and the de jure population by type of toilet facilities. A majority of households (55 percent) and a similar majority of the population (56 percent) in India have no toilet facility. The proportion of households without any toilet facility is much greater in rural areas (74 percent) than in urban areas (17 percent). Overall, 29 percent of households have toilet facilities that are improved and not shared with any other household. Improved toilet facilities include toilet facilities with a flush or a pour flush that is connected to a sewer system, septic tank or pit latrine, a ventilated improved pit (VIP) latrine, a biogas latrine, a pit latrine with slab, and a twin pit, composting toilet. If a household has any of these types of toilet facilities but shares them with other households, the household is considered not to have an improved toilet facility. Urban households are three times as likely as rural households to have access to improved toilet facilities (53 and 18 percent, respectively). The most commonly used improved facility in both urban and rural areas is a system that flushes or pours to a septic tank.

Table 2.12 Household sanitation facilities

Percent distribution of urban, rural, and total households and de jure population by type of toilet/latrine facilities, India, 2005-06

Type of toilet/latrine facility	Urban	Rural	Total	De jure population
Improved, not shared	52.8	17.6	29.1	29.4
Flush/pour flush to piped sewer system	18.8	0.6	6.6	6.5
Flush/pour flush to septic tank	27.6	10.6	16.1	16.3
Flush/pour flush to pit latrine	4.7	4.1	4.3	4.4
Ventilated improved pit (VIP) latrine/biogas latrine	0.2	0.1	0.2	0.2
Pit latrine with slab	1.4	2.2	1.9	2.0
Twin pit, composting toilet	0.0	0.0	0.0	0.0
Not improved	46.7	82.2	70.6	70.3
Any facility shared with other households	24.2	5.3	11.5	10.2
Flush/pour flush not to sewer/septic tank/pit latrine	4.4	0.2	1.6	1.4
Pit latrine without slab/open pit	0.7	2.2	1.7	1.8
Dry toilet	0.5	0.6	0.5	0.7
No facility/open space/field	16.8	74.0	55.3	56.2
Other	0.4	0.1	0.2	0.2
Missing	0.2	0.1	0.1	0.1
Total	100.0	100.0	100.0	100.0
Number	35,579	73,462	109,041	522,027

Information on housing characteristics such as availability of electricity, type of house, number of rooms for sleeping, type of fuel used for cooking, place for cooking and type of cooking facility among households using biomass are shown in Table 2.13. Two-thirds of households (68 percent) in India have electricity, up from 60 percent in NFHS-2. However, the proportion of households with electricity varies widely by place of residence. Ninety-three percent of households in urban areas have access to electricity, compared with 56 percent of rural households. Overall, 14 percent of households live in *kachha* houses, 40 percent live in semi-*pucca* houses, and the remaining 46 percent live in *pucca* houses. A large majority of urban households live in *pucca* houses (81 percent), whereas the majority of rural households live in semi-*pucca* houses (52 percent). Note that houses made from mud, thatch, or other low-quality materials are called *kachha* houses, houses that use partly low-quality and partly high-quality materials are called semi-*pucca* houses, and houses made with high quality materials throughout, including the floor, roof, and exterior walls, are called *pucca* houses.

To assess levels of residential crowding, data were collected on the number of rooms that are used for sleeping, and Table 2.13 presents the percent distribution of households and population by the number of usual members per sleeping room. Forty-four percent of households have little or no crowding with only 0-2 persons per sleeping room; notably, however, only a third of the population lives in such households. In 34 percent of households, three to four persons share a single room for sleeping. Although households with five or more persons per one sleeping room account for one in five households, almost one-third of the population (29 percent) lives in such households. Residential crowding is only marginally higher in rural households than in urban households.

Table 2.13 Housing characteristics

Percent distribution of urban, rural, and total households and de jure population by housing characteristics, India, 2005-06

Housing characteristic	Urban	Rural	Total	De jure population
Electricity				
Yes	93.1	55.7	67.9	67.2
No	6.9	44.3	32.1	32.8
Total	100.0	100.0	100.0	100.0
Type of house[1]				
Kachha	2.5	19.1	13.7	13.4
Semi-*pucca*	15.8	51.6	39.9	41.6
Pucca	81.2	28.8	45.9	44.5
Missing	0.4	0.5	0.5	0.5
Total	100.0	100.0	100.0	100.0
Persons per room used for sleeping				
<3	47.3	41.9	43.7	34.1
3-4	34.3	34.5	34.4	36.7
5-6	14.2	17.1	16.2	19.7
7+	4.0	6.4	5.6	9.4
Missing	0.1	0.1	0.1	0.1
Total	100.0	100.0	100.0	100.0
Cooking fuel				
Electricity	0.9	0.1	0.4	0.4
LPG/natural gas	58.7	8.2	24.7	22.9
Biogas	0.5	0.4	0.5	0.5
Kerosene	8.2	0.8	3.2	2.6
Coal/lignite	4.3	0.8	1.9	1.9
Charcoal	0.5	0.3	0.4	0.4
Wood	22.0	61.7	48.7	49.3
Straw/shrubs/grass	0.5	7.6	5.3	5.4
Agricultural crop waste	0.8	5.4	3.9	4.0
Dung cakes	2.8	14.4	10.6	12.6
Other	0.8	0.2	0.4	0.1
Total	100.0	100.0	100.0	100.0

Continued…

Table 2.13 Housing characteristics—*Continued*

Housing characteristic	Urban	Rural	Total	De jure population
Place for cooking				
In the house, separate room	58.9	34.1	42.2	43.0
In the house, no separate room	27.2	33.9	31.7	30.7
In a separate building	4.3	9.9	8.1	8.5
Outdoors	8.7	21.8	17.5	17.5
Other	0.6	0.2	0.3	0.1
Missing	0.2	0.1	0.2	0.1
Total	100.0	100.0	100.0	100.0
Number	35,579	73,462	109,041	522,027
Type of fire/stove among households using solid fuels[2]				
Stove with chimney	0.1	0.0	0.0	0.0
Open fire/*chullah* under a chimney	9.0	8.2	8.3	8.5
Stove without chimney	0.4	0.1	0.2	0.2
Open fire/*chullah* not under a chimney	89.6	90.8	90.7	90.5
Other	0.3	0.0	0.0	0.0
Missing	0.6	0.8	0.7	0.8
Total	100.0	100.0	100.0	100.0
Number using solid fuel	10,986	66,251	77,236	383,715

[1] Houses made from mud, thatch, or other low-quality materials are called *kachha* houses, houses that use partly low-quality and partly high-quality materials are called semi-*pucca* houses, and houses made with high quality materials throughout, including the floor, roof, and exterior walls, are called *pucca* houses.
[2] Includes coal/lignite, charcoal, wood, straw/shrubs/grass, agricultural crop waste, and dung cakes.

Smoke from solid cooking fuels is a serious health hazard. Solid cooking fuels include coal/lignite, charcoal, wood, straw, shrubs, grass, agricultural crop waste and dung cakes. To study the potential for exposure to cooking smoke from solid fuels, NFHS-3 collected information on the type of fuel used for cooking, the place that the cooking is done, and whether cooking is done under a chimney or not. Forty-nine percent of households in India cook with wood and 25 percent cook with LPG/natural gas (Table 2.13). These percentages, however, mask the vast difference in the types of cooking fuel used in rural and urban areas. In rural areas, cooking is largely done with solid fuels. Sixty-two percent of households in rural areas use wood for cooking, 14 percent cook with dung cakes, and 13 percent use straw, shrubs, grass, and agricultural crop waste. Although the majority of urban households (59 percent) cook with LPG/natural gas, it is notable that even in urban areas, 22 percent of households use wood as their cooking fuel. Additionally, 8 percent of urban households cook with kerosene.

Overall, these data show that the vast majority of rural households (90 percent) and one-third of urban households (31 percent) use solid fuels for cooking that generate smoke and unhealthy conditions when inhaled. Additionally, 74 percent of households cook their meals in the house; the remaining quarter cook outside the house or in a separate building. About one-third of households (32 percent) cook inside the house, without having a separate room for cooking. In both urban and rural areas, 9 in 10 households that use solid fuels, cook on an open fire, without diverting the smoke through a chimney.

2.5 HOUSEHOLD POSSESSIONS

In order to further assess the living standard of the population, NFHS-3 collected information on household ownership of 19 different types of durable goods and four different means of transportation, possession of a bank account, and coverage by a health scheme. Households were also asked if they had a Below Poverty Line (BPL) card which is issued by the

government and identifies households below the official poverty line. Information was also sought on whether households have a mosquito net that can be used for sleeping. This information is presented for households and the de jure population in Table 2.14.

Of the items asked about, only a few are owned by a majority of households: a cot/bed (83 percent), a watch/clock (78 percent), a mattress (57 percent), a chair (54 percent), and an electric fan (54 percent). Various forms of media or communication are still owned by a minority of the population. Forty-four percent of households have a television, 31 percent have a radio or a transistor, 17 percent have a mobile telephone, and 14 percent have any other (non-mobile) telephone. Computers are owned by 3 percent of all households, but 8 percent of urban households. In general, households in rural India are much less likely to possess consumer items such as televisions, telephones, or refrigerators. A small proportion of both rural and urban households possess a water pump (10 percent). A thresher and tractor are each owned by 2 percent of rural households. One percent of urban households and 4 percent of rural households do not possess any of the 19 sets of items asked about in the survey.

Table 2.14 Household possessions

Percentage of urban, rural, and total households and de jure population possessing various household goods and means of transport, and percentage with a bank account, health insurance, a BPL card, or a mosquito net, India, 2005-06

Household possessions	Urban	Rural	Total	De jure population
Household goods				
Mattress	75.4	48.7	57.4	59.4
Pressure cooker	69.9	22.1	37.7	38.6
Chair	76.1	43.8	54.3	55.4
Cot or bed	86.3	81.2	82.9	85.0
Table	65.0	32.9	43.4	44.6
Electric fan	84.7	38.6	53.7	54.0
Radio or transistor	38.9	27.0	30.9	32.4
Television (black and white)	25.6	18.7	21.0	22.8
Television (colour)	51.5	12.5	25.2	25.6
Any television	73.2	30.1	44.2	45.9
Sewing machine	30.9	12.6	18.6	21.2
Mobile telephone	36.3	7.4	16.8	17.6
Any other type of telephone	26.7	8.0	14.1	14.6
Computer	8.0	0.6	3.0	2.8
Refrigerator	33.5	6.6	15.3	15.7
Watch or clock	91.0	71.4	77.8	80.5
Water pump	11.0	9.9	10.2	11.7
Thresher	0.4	2.2	1.6	2.4
Tractor	0.5	2.3	1.7	2.6
None of the above	1.2	4.4	3.4	2.5
Means of transport				
Bicycle	50.1	51.6	51.1	56.5
Motorcycle or scooter	30.5	10.8	17.2	19.0
Animal-drawn cart	1.0	7.4	5.3	6.7
Car	6.1	1.0	2.7	2.8
None of the above	36.4	43.0	40.9	35.6
Percentage having a bank account/ post office account[1]	56.6	32.3	40.2	42.0
Percentage covered by a health scheme/health insurance[1]	10.4	2.2	4.9	4.7
Percentage owning a BPL card	15.8	32.9	27.3	27.5
Percentage with a mosquito net that can be used for sleeping	32.2	37.1	35.5	37.3
Number	35,579	73,462	109,041	522,027

[1] Any usual household member.
BPL = Below poverty line

Bicycles continue to be the most commonly owned means of transport, owned by 50 percent of urban and 52 percent of rural households. About one-third of urban households own a motorcycle or a scooter, and 6 percent own a car. By contrast, 11 percent of rural households own a motorcycle or a scooter, 7 percent own an animal driven cart, and only 1 percent owns a car. Thirty-six percent of urban households and 43 percent of rural households do not possess any of the four means of transportation asked about in the survey.

Nationally, two in five households have a bank account or an account with the post office. The proportion of households with a bank or post-office account is 57 percent in urban areas and 32 percent in rural areas. Only a small proportion of households (5 percent) are

covered under any health scheme or insurance. The proportion of urban households covered under a health scheme or insurance is 10 percent, compared with only 2 percent of rural households.

About one-fourth (27 percent) of households in India have a BPL card. In rural areas, the proportion of households having a BPL card (33 percent) is about double that in urban areas (16 percent). Thirty-six percent of households in India have a mosquito net that can be used while sleeping and mosquito-net ownership is somewhat higher in rural than in urban areas.

Table 2.15 presents information by residence on ownership of agricultural land (irrigated and non-irrigated), a house, and farm animals. Farm animals asked about were cows, bulls, buffaloes, camels, horses, donkeys, mules, goats, sheep, chickens, and ducks. Most households in India do not own any agricultural land (54 percent); although this proportion is much higher for urban households (81 percent) than for rural households (42 percent). Among rural households, 30 percent own only irrigated agricultural land, 20 percent own only non-irrigated agricultural land, and 9 percent own both irrigated and non-irrigated land. Most households that own land have parcels of land that are of five or less acres.

The vast majority of households, 88 percent, own a house, and this proportion is higher in rural areas (93 percent) than in urban areas (78 percent). Two-thirds of rural households own a farm animal, compared with only 15 percent of urban households. Overall, about half of all households own a farm animal.

Table 2.15 Household ownership of agricultural land, house, and farm animals

Percent distribution of urban, rural, and total households and de jure population owning agricultural land and percentage owning a house and farm animals, India, 2005-06

Asset	Urban	Rural	Total	De jure population
No agricultural land	81.0	41.5	54.4	50.6
Irrigated land only				
<1 acre	2.9	11.2	8.5	9.1
1-5 acres	5.6	15.1	12.0	13.3
6+ acres	1.9	3.2	2.8	3.5
Non-irrigated land only				
<1 acre	1.2	5.4	4.1	4.0
1-5 acres	3.7	12.3	9.5	9.6
6+ acres	1.0	2.3	1.9	2.1
Both irrigated and non-irrigated land				
<1 acre	0.2	0.9	0.7	0.7
1-5 acres	1.1	5.0	3.7	4.0
6+ acres	0.9	2.7	2.1	2.6
Missing	0.6	0.3	0.4	0.4
Total	100.0	100.0	100.0	100.0
Percentage owning a house	78.2	93.2	88.3	89.9
Percentage owning farm animals[1]	15.1	65.1	48.8	55.0
Number	35,579	73,462	109,041	522,027

[1] Cows, bulls, buffaloes, camels, horses, donkeys, mules, goats, sheep, chickens, or ducks.

Table 2.16 reveals the substantial variation across states in basic housing characteristics. While more than 95 percent of households have electricity in four states (Delhi, Himachal Pradesh, Goa, and Punjab), there are five states where fewer than half the households have electricity: Orissa (45 percent), Uttar Pradesh (43 percent), Jharkhand (40 percent), Assam (38 percent), and Bihar (28 percent). While household access to improved sources of drinking water exceeds 95 percent in three states (Punjab, Haryana, and Bihar), there are four states in which more than one-third of households obtain drinking water from an unimproved source (Manipur, Jharkhand, Meghalaya, and Nagaland). The proportion of households with access to a toilet facility ranges from 25 percent or less in four states: (Chhattisgarh, Orissa, Jharkhand, and Bihar) to over 95 percent in Manipur, Kerala, Tripura, and Mizoram.

Table 2.16 Housing characteristics by state

Selected housing characteristics by state, India, 2005-06

State	Percentage of households: With electricity	With improved source of drinking water[1]	With toilet facility	Using solid fuel for cooking[2]	Living in a *pucca* house	Mean number of persons per room used for sleeping
India	67.9	87.9	44.6	70.8	45.9	3.3
North						
Delhi	99.3	92.1	92.4	9.3	94.9	3.1
Haryana	91.5	95.6	52.4	69.1	61.1	3.3
Himachal Pradesh	98.4	88.4	46.4	68.9	52.7	2.5
Jammu & Kashmir	93.2	80.8	61.7	59.5	50.3	2.9
Punjab	96.3	99.5	70.8	54.9	68.9	3.1
Rajasthan	66.1	81.8	30.8	77.2	50.1	3.6
Uttaranchal	80.0	87.4	56.8	61.7	49.8	3.0
Central						
Chhattisgarh	71.4	77.9	18.7	86.7	21.7	3.0
Madhya Pradesh	71.4	74.2	27.0	80.3	26.2	3.6
Uttar Pradesh	42.8	93.7	33.1	81.7	28.8	3.8
East						
Bihar	27.7	96.1	25.2	89.7	20.4	3.3
Jharkhand	40.2	57.0	22.6	89.1	28.3	3.2
Orissa	45.4	78.4	19.3	88.6	31.9	3.1
West Bengal	52.5	93.7	59.6	79.2	39.5	3.1
Northeast						
Arunachal Pradesh	76.9	85.0	80.6	67.7	20.8	2.7
Assam	38.1	72.4	76.4	75.8	19.8	2.7
Manipur	87.0	52.1	95.6	64.7	10.7	2.6
Meghalaya	70.4	63.1	71.3	72.2	35.1	2.9
Mizoram	92.3	85.0	98.0	34.1	22.9	3.5
Nagaland	82.9	62.8	85.6	76.0	20.7	2.6
Sikkim	92.1	77.6	89.0	52.4	51.0	2.3
Tripura	68.8	76.1	96.7	80.4	12.1	2.9
West						
Goa	96.4	80.1	76.0	33.3	73.6	2.7
Gujarat	89.3	89.8	54.6	52.3	67.3	3.6
Maharashtra	83.5	92.7	52.9	48.1	59.0	3.5
South						
Andhra Pradesh	88.4	94.0	42.4	66.3	56.3	3.2
Karnataka	89.3	86.2	46.5	63.8	55.1	3.4
Kerala	91.0	69.1	96.1	71.4	85.1	2.2
Tamil Nadu	88.6	93.5	42.9	60.5	69.9	2.9

[1] See Table 2.11 for list of improved sources.
[2] Includes coal/lignite, charcoal, wood, straw/shrubs/grass, agricultural crop waste, and dung cakes.

The smoke from solid fuels poses a health hazard when inhaled. The proportion of households relying on solid fuels for cooking range from a low in Delhi (9 percent) to a high of over 85 percent in four states: Chhattisgarh, Orissa, Jharkhand, and Bihar. Other states with particularly low use of solid fuels are Mizoram and Goa, where only one-third of households rely on solid fuels for cooking. In fact, with the exception of Delhi, in all other states, at least one in three households rely on solid fuels for cooking.

The highly urbanized state of Delhi has the highest proportion of households living in a *pucca* house (95 percent). Two-thirds or more of households live in a *pucca* house in five other states: Kerala (85 percent), Goa (74 percent), Tamil Nadu (70 percent), Punjab (69 percent), and Gujarat (67 percent). At the other extreme are the states in which fewer than 15 percent of households live in a *pucca* house, namely Tripura (12 percent) and Manipur (11 percent).

Mean number of persons per room used for sleeping is an indicator that assesses the level of crowding in a house. The number of persons per sleeping room lies in the narrow range of 3.0 to 3.5 in most states, while Uttar Pradesh has the largest number of persons per room (3.8), and Kerala (2.2) and Sikkim (2.3) have the least.

2.6 WEALTH INDEX

One of the background characteristics used throughout this report is an index of the economic status of households called the wealth index. The wealth index has been developed and tested in a large number of countries in relation to inequalities in household income, use of health services, and health outcomes (Rutstein et al., 2000). It is an indicator of the level of wealth that is consistent with expenditure and income measures (Rutstein, 1999). The economic index was constructed using household asset data and housing characteristics[2].

Each household asset is assigned a weight (factor score) generated through principal components analysis, and the resulting asset scores are standardized in relation to a normal distribution with a mean of zero and standard deviation of one (Gwatkin et al., 2000). Each household is then assigned a score for each asset, and the scores were summed for each household; individuals are ranked according to the score of the household in which they reside. The sample is then divided into quintiles i.e., five groups with an equal number of individuals in each. In NFHS-3, one wealth index has been developed for the whole sample and for the country as a whole. Thus, at the national level, 20 percent of the household population is in each wealth quintile although this is not necessarily true at the state level.

Table 2.17 presents the population separated into wealth quintiles by urban-rural residence and by state. Forty-eight percent of the population in urban areas is in the highest wealth quintile; in contrast only 7 percent of the rural population is in the highest wealth quintile. The distribution of the population across wealth quintiles shows large variations across states,

[2] The NFHS-3 wealth index is based on the following 33 assets and housing characteristics: household electrification; type of windows; drinking water source; type of toilet facility; type of flooring; material of exterior walls; type of roofing; cooking fuel; house ownership; number of household members per sleeping room; ownership of a bank or post-office account; and ownership of a mattress, a pressure cooker, a chair, a cot/bed, a table, an electric fan, a radio/transistor, a black and white television, a colour television, a sewing machine, a mobile telephone, any other telephone, a computer, a refrigerator, a watch or clock, a bicycle, a motorcycle or scooter, an animal-drawn cart, a car, a water pump, a thresher, and a tractor.

with Delhi (70 percent) and Goa (55 percent) having over one-half of their populations in the highest quintile and Chhattisgarh, Orissa, Bihar, and Tripura, having only about one-tenth or less of their populations in the highest quintile. In Jharkhand, half of the population falls into the lowest wealth quintile. By contrast, in about half of the states, less than 10 percent of households are in the lowest wealth quintile.

Table 2.17 Wealth quintiles

Percent distribution of the de jure population by wealth quintiles, according to residence and state, India, 2005-06

Residence/state	Wealth quintile					Total
	Lowest	Second	Middle	Fourth	Highest	
India	20.0	20.0	20.0	20.0	20.0	100.0
Urban	3.0	6.4	13.8	28.9	47.9	100.0
Rural	27.7	26.1	22.8	16.0	7.4	100.0
North						
Delhi	0.2	2.7	8.6	18.9	69.6	100.0
Haryana	4.1	12.6	24.6	27.8	31.0	100.0
Himachal Pradesh	1.2	8.8	24.1	30.8	35.1	100.0
Jammu & Kashmir	2.8	12.3	29.8	29.5	25.6	100.0
Punjab	1.4	6.3	15.3	28.8	48.1	100.0
Rajasthan	24.2	17.7	21.8	17.3	19.1	100.0
Uttaranchal	6.0	15.3	22.1	23.8	32.8	100.0
Central						
Chhattisgarh	39.6	26.9	14.7	8.7	10.2	100.0
Madhya Pradesh	36.9	24.2	13.1	12.7	13.1	100.0
Uttar Pradesh	25.3	24.9	19.4	16.8	13.6	100.0
East						
Bihar	28.2	29.2	18.7	14.6	9.4	100.0
Jharkhand	49.6	15.5	11.1	11.9	11.9	100.0
Orissa	39.5	19.9	17.3	13.4	9.9	100.0
West Bengal	25.2	24.4	18.7	17.8	13.9	100.0
Northeast						
Arunachal Pradesh	21.1	25.6	20.8	16.1	16.4	100.0
Assam	19.8	30.7	22.6	15.0	11.8	100.0
Manipur	2.4	15.7	33.4	31.8	16.7	100.0
Meghalaya	11.3	21.8	26.5	24.0	16.4	100.0
Mizoram	2.5	6.1	19.2	33.4	38.8	100.0
Nagaland	7.8	22.6	28.9	25.7	15.0	100.0
Sikkim	1.9	10.6	22.9	31.7	32.8	100.0
Tripura	11.0	24.4	42.0	15.0	7.6	100.0
West						
Goa	2.2	5.3	14.2	22.9	55.3	100.0
Gujarat	7.2	14.2	19.1	27.6	31.9	100.0
Maharashtra	10.9	14.9	17.4	24.3	32.5	100.0
South						
Andhra Pradesh	10.8	17.6	29.2	25.4	17.1	100.0
Karnataka	10.8	22.2	24.0	23.2	19.8	100.0
Kerala	1.0	4.1	12.2	37.8	44.8	100.0
Tamil Nadu	10.6	15.6	29.9	24.4	19.5	100.0

The percent distribution of the de jure population by wealth quintiles, according to the religion and the caste/tribe of the head of household is shown in Table 2.18. Hindu, Muslim and Buddhist/Non-Buddhist households (as defined by the religion of the household head) are almost evenly distributed across the wealth quintiles. However, the majority of persons in Jain (87 percent) and Sikh (53 percent) households and almost one-third of persons in Christian households are in the highest wealth quintile. Half of the persons in scheduled-tribe households and about one in four (27 percent) persons in scheduled-caste households are in the lowest wealth quintile. Among the four caste/tribe groups, those in the other backward classes are the

Table 2.18 Religion and caste/tribe by wealth quintiles

Percent distribution of the de jure population by wealth quintiles, according to religion and caste/tribe, India, 2005-06

	Wealth quintile					Total	De jure population
	Lowest	Second	Middle	Fourth	Highest		
Religion of household head							
Hindu	20.7	20.6	20.2	19.2	19.2	100.0	418,056
Muslim	18.9	19.7	20.6	23.6	17.2	100.0	74,718
Christian	12.1	13.0	20.8	22.9	31.1	100.0	11,885
Sikh	1.5	6.3	12.6	26.9	52.7	100.0	8,988
Buddhist/Neo-Buddhist	18.2	21.0	18.0	20.5	22.3	100.0	4,342
Jain	1.6	1.8	1.6	8.3	86.8	100.0	1,784
Other	54.6	14.9	14.6	9.2	6.7	100.0	2,120
Caste/tribe of household head							
Scheduled caste	27.9	24.6	20.8	16.6	10.2	100.0	99,556
Scheduled tribe	49.9	23.6	13.4	8.0	5.2	100.0	44,231
Other backward class	18.1	22.1	23.2	21.1	15.6	100.0	209,000
Other	9.8	13.6	17.1	23.9	35.6	100.0	165,517
Don't know	12.1	25.6	29.6	23.7	9.0	100.0	2,115
Total	20.0	20.0	20.0	20.0	20.0	100.0	522,027

Note: Total includes de jure population with missing information on religion of household head and caste/tribe of household head, which is not shown separately.

most typical of the population as a whole: they are most evenly distributed across the wealth quintiles.

2.7 BIRTH REGISTRATION

India is signatory to the United Nations Convention on the Rights of the Child that has recognized birth registration as one of the first rights of children. It is the right of every child to have his or her birth registered and provided with a birth certificate free of charge. A birth certificate is the first legal document confirming identity of the individual. In India, the registration of births and deaths is compulsory under the Registration of Births and Deaths (RBD) Act of 1969. Under this act, institutional heads are responsible for registering all births that take place within their institution within 21 days of their occurrence. Heads of households are responsible for registering any births that take place within their homes. After registration, the birth certificate is obtained by applying to the registrar or sub-registrar of the area, either on plain paper or by filling in a form. The National Population Policy 2000 has set the goal of achieving universal birth registration by the year 2010.

In NFHS-3, information was obtained for all children in the household age 0-4 years on whether they have a birth certificate, and if not, whether their birth was registered with the civil authority. Table 2.19 shows the percentage of de jure children whose births are registered and whose birth certificate is available, by background characteristics.

Nationally, 41 percent of children under age five years have had their births registered with the civil authorities. However, only 27 percent of children under age five years have a birth certificate. The extent of registration of births among children age less than two years and age two to four years is about the same; this suggests that, despite efforts to increase birth registration, there is as yet no change in registration. Girls and boys are equally likely to have their births registered and to have birth certificates. It is the children with more educated mothers and fathers and children from the higher wealth quintiles who are more likely to have their births

registered and to have birth certificates. The births of less than one-fourth of children who belong to households in the lowest wealth quintile have been registered and only 1 in 10 have a birth certificate. Children living in households headed by Jains, Sikhs, and Buddhists/Neo-Buddhists are more likely to have their births registered than are children living in households headed by members of other religions.

Table 2.19 Birth registration of children under age five

Percentage of de jure children under age five years whose birth was registered with the civil authorities, according to background characteristics, India, 2005-06

Background characteristic	Percentage of children whose birth was registered			De jure children
	Registered, has a birth certificate	Registered, does not have a birth certificate	Total registered	
Age				
<2	25.0	15.5	40.5	21,471
2-4	28.1	13.5	41.5	34,425
Sex				
Male	27.1	13.9	41.0	29,123
Female	26.7	14.6	41.3	26,773
Residence				
Urban	46.0	13.3	59.3	14,448
Rural	20.2	14.6	34.8	41,448
Mother's education				
No education	13.0	10.8	23.8	27,321
<5 years complete	33.1	18.5	51.6	3,824
5-7 years complete	32.6	19.7	52.3	7,793
8-9 years complete	38.0	16.7	54.6	6,520
10-11 years complete	46.9	17.0	63.9	4,314
12 or more years complete	58.1	16.1	74.2	4,987
Mother not listed in the household schedule	25.6	13.9	39.5	1,028
Father's education				
No education	15.2	11.8	27.0	13,463
<5 years complete	26.3	20.1	46.4	4,438
5-7 years complete	28.8	17.6	46.4	8,088
8-9 years complete	28.9	14.0	42.9	8,783
10-11 years complete	35.1	15.6	50.8	6,031
12 or more years complete	42.8	15.5	58.3	7,982
Father not listed in the household schedule	20.1	9.1	29.3	7,016
Religion of household head				
Hindu	25.6	14.7	40.4	43,474
Muslim	28.6	10.7	39.3	9,761
Christian	41.7	15.1	56.8	1,130
Sikh	56.1	22.3	78.4	708
Buddhist/Neo-Buddhist	31.1	33.5	64.5	427
Jain	59.5	27.1	86.7	108
Other	12.9	5.6	18.4	277
Caste/tribe of household head				
Scheduled caste	23.8	12.9	36.7	11,539
Scheduled tribe	17.6	21.4	39.0	5,288
Other backward class	21.6	12.4	34.1	22,815
Other	39.5	15.5	55.0	15,835
Don't know	50.7	13.2	63.9	210
Wealth index				
Lowest	11.2	12.7	23.9	14,057
Second	17.3	13.8	31.0	12,351
Middle	25.0	14.4	39.4	11,021
Fourth	37.6	16.2	53.8	10,210
Highest	57.3	15.1	72.4	8,256
Total	26.9	14.3	41.1	55,895

Note: Total includes children with missing information on mother's education, father's education, religion of household head, and caste/tribe of household head and children whose mother's education or father's education is not known, who are not shown separately.

Table 2.20 shows the percentage of de jure children under five years of age whose births have been registered with the civil authorities, according to residence and state. The extent of birth registration varies substantially across states, ranging from the highest in Goa (95 percent) to the lowest in Bihar (6 percent). Four-fifths or more children below age five years are registered in Mizoram (93 percent), Himachal Pradesh and Kerala (both at 89 percent), Sikkim, Gujarat, and Tamil Nadu (all at 86 percent), and Maharashtra (80 percent). On the other hand, more than four-fifths of children have not had their births registered in Rajasthan, Jharkhand, and Uttar Pradesh. Registration of births generally tends to be higher in urban areas than in rural areas in most states; however, those states with overall high levels of registration tend to have much narrower urban rural differentials.

Table 2.20 Birth registration of children under five by state

Percentage of de jure children under age five years whose birth was registered with the civil authorities, according to residence and state, India, 2005-06

State	Urban	Rural	Total
India	59.3	34.8	41.1
North			
Delhi	61.9	67.6	62.4
Haryana	75.5	70.5	71.7
Himachal Pradesh	86.7	89.2	89.0
Jammu & Kashmir	56.1	30.6	35.8
Punjab	76.7	76.9	76.8
Rajasthan	38.3	10.8	16.4
Uttaranchal	56.1	32.4	38.4
Central			
Chhattisgarh	76.2	72.3	73.0
Madhya Pradesh	37.3	27.5	29.7
Uttar Pradesh	22.7	3.2	7.1
East			
Bihar	13.7	4.7	5.8
Jharkhand	21.8	6.0	9.1
Orissa	62.8	56.1	57.0
West Bengal	85.4	73.2	75.8
Northeast			
Arunachal Pradesh	49.4	26.8	32.4
Assam	67.4	40.0	43.0
Manipur	40.4	26.6	30.4
Meghalaya	66.0	38.8	43.3
Mizoram	94.6	92.1	93.3
Nagaland	43.8	35.0	36.9
Sikkim	93.3	84.2	85.7
Tripura	84.3	72.8	74.4
West			
Goa	95.3	93.9	94.7
Gujarat	88.4	84.0	85.6
Maharashtra	84.5	76.2	80.0
South			
Andhra Pradesh	49.4	35.6	40.3
Karnataka	72.3	49.8	58.3
Kerala	91.0	87.5	88.6
Tamil Nadu	90.3	81.9	85.8

2.8 CHILDREN'S WORK

While the Government of India has been proactive in tackling the problem of child labour in India, child labour continues to pose a challenge for the nation. Article 32 of the UN Convention on the Rights of the Child recognizes the right of children to be protected from economic exploitation, from performing any work that is hazardous, interferes with their education, or is harmful to their health or physical, mental, spiritual, moral or social development. The article calls on states to provide for a minimum age for admission to employment and for appropriate regulation of work hours.

To assess how much children are working in India, NFHS-3 included a set of questions on the participation by each child age 5-14 years in the household in different types of work. The types of work asked about included work for persons other than members of the household, work in a household business, farm, or selling goods in the street, and work doing household chores. The number of hours worked in the seven days preceding the survey was recorded for all children engaged in any type of work. For work that was done for any person who is not a member of the household, a question was also asked to determine whether the child was paid or not paid for the work. Table 2.21 presents the percentage of de jure children age 5-14 years, who were engaged in different activities in the seven days preceding the interview, by background characteristics. A child worker is defined by UNICEF as any child age 5-11 who, in the seven days preceding the survey, worked for someone who is not a member of the household, with or without pay, or did household chores for 28 or more hours, or engaged in any family business

Table 2.21 Children's work

Percentage of de jure children age 5-14 who were engaged in different activities in the seven days preceding the interview by type of work, according to background characteristics, India, 2005-06

Background characteristic	Work for someone who is not a member of the household[1]		Household chores for 28 or more hours per week	Other family work[2]	Total working[3]	Number of children
	Paid work	Unpaid work				
Sex and age						
Male	2.4	3.2	1.6	5.5	11.6	64,749
5-7 years	0.7	3.1	0.2	1.5	5.2	19,405
8-11 years	2.0	5.1	1.1	7.0	13.9	25,539
12-14 years	4.7	0.8	3.5	7.5	15.0	19,806
Female	2.0	2.6	4.7	4.0	11.9	60,077
5-7 years	0.6	2.6	0.5	1.1	4.6	18,224
8-11 years	1.9	4.2	3.0	5.4	13.0	23,682
12-14 years	3.6	0.4	11.1	5.0	17.7	18,171
Residence						
Urban	2.2	3.3	1.7	1.9	8.6	33,336
Rural	2.3	2.7	3.5	5.8	12.9	91,490
Mother's education						
No education	2.8	2.6	3.8	6.1	13.7	71,329
<5 years complete	1.8	3.5	2.1	4.9	11.2	8,289
5-7 years complete	1.3	3.6	1.7	2.6	8.5	14,398
8-9 years complete	1.1	3.6	0.9	2.3	7.5	9,688
10-11 years complete	0.8	3.1	0.8	1.1	5.6	6,829
12 or more years complete	0.6	3.3	0.4	0.8	5.0	6,494
Mother not listed in the household	3.5	2.4	6.5	6.5	16.9	7,611
Father's education						
No education	3.2	2.6	3.9	6.6	14.6	35,962
<5 years complete	2.8	3.4	3.3	5.7	13.6	11,440
5-7 years complete	2.0	3.0	2.8	4.3	11.0	16,484
8-9 years complete	1.4	3.5	2.3	4.0	10.4	15,633
10-11 years complete	0.9	3.8	1.9	3.3	9.0	11,961
12 or more years complete	0.7	2.8	1.3	2.1	6.6	13,879
Father not listed in the household	3.0	2.1	4.1	4.7	12.5	19,234
Religion of household head						
Hindu	2.2	3.1	3.1	5.1	12.1	97,755
Muslim	2.8	2.1	2.9	3.6	10.8	20,875
Christian	1.3	1.5	2.7	2.5	7.4	2,452
Sikh	1.2	4.1	2.5	2.5	9.5	1,843
Jain	0.0	3.3	0.1	3.7	7.1	288
Buddhist/Neo-Buddhist	2.6	1.5	1.4	5.0	9.7	1,010
Other	2.5	1.9	7.5	4.5	15.3	564
Caste/tribe of household head						
Scheduled caste	2.6	2.8	3.0	4.3	11.6	24,906
Scheduled tribe	3.6	3.3	4.5	7.3	16.6	11,643
Other backward class	2.0	2.8	3.4	5.4	12.2	51,652
Other	1.9	2.9	2.2	3.4	9.7	35,786
Don't know	2.0	0.9	2.9	3.2	8.6	467
Wealth index						
Lowest	3.1	2.0	4.5	6.4	14.2	31,068
Second	2.7	2.7	3.8	6.4	14.0	28,194
Middle	2.2	3.2	3.0	5.2	12.2	24,957
Fourth	1.6	3.7	1.8	2.9	9.3	22,270
Highest	0.9	3.3	1.2	1.2	6.4	18,338
Total	2.2	2.9	3.1	4.8	11.8	124,826

Note: Total includes children with missing information on mother's education, father's education, religion of household head, and caste/tribe of household head and children whose mother's education or father's education is not known, who are not shown separately.

[1] Any work, paid or unpaid, for someone who is not a member of the household by children age 5-11 and for 14 or more hours by children age 12-14.

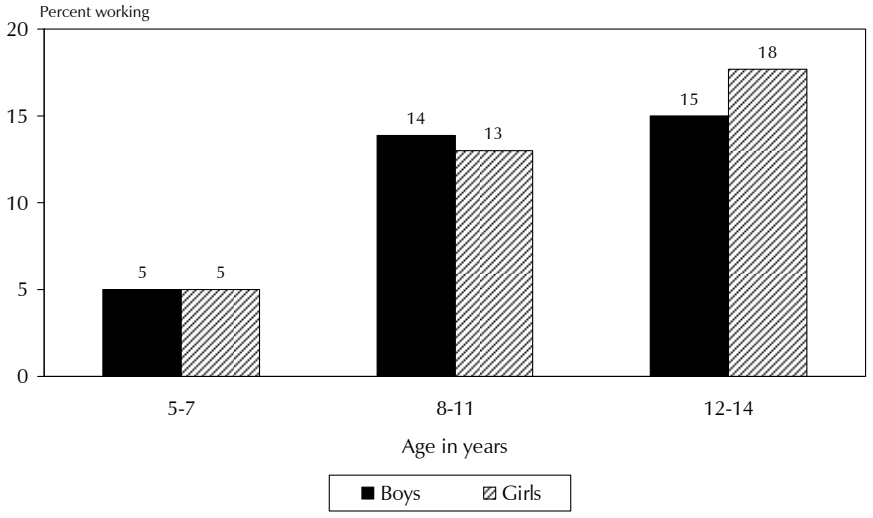
[2] Includes any work on the farm, in a business, or selling goods in the street by children age 5-11 and for 14 or more hours by children age 12-14.

[3] Includes children age 5-11 years who in the 7 days preceding the survey, worked for someone who is not a member of the household, with or without pay, or did household chores for 28 or more hours or engaged in any other family work and children age 12-14 years who in the 7 days preceding the survey, worked for someone who is not a member of the household, with or without pay, for 14 or more hours or did household chores for 28 or more hours or engaged in any other family work for 14 or more hours.

and any child age 12-14 years who, in the seven days preceding the survey, worked for someone who is not a member of the household, with or without pay, for 14 or more hours, or did household chores for 28 or more hours, or engaged in any other family work for 14 or more hours.

Nearly one in every eight (12 percent) children age 5-14 years works either for their own household or for somebody else. Two percent of children are engaged in paid work, 3 percent are engaged in unpaid work for someone who is not a member of their household, 3 percent are engaged in household chores for 28 or more hours in a week, and 5 percent are engaged in work in a family business. Since children are involved in multiple activities, the total work participation rate of 12 percent is less than the sum of the percentages of children engaged in each type of work. The work participation rate is the same for girls (12 percent) as it is for boys (12 percent). The age and sex specific work participation rates show increasing work participation with age (Figure 2.3) Rates increase from 5 percent among boys age 5-7 years to 15 percent among boys age 12-14 years, and from 5 percent among girls age 5-7 years to 18 percent among girls age 12-14 years. The very young children (age 5-7 years), both boys and girls, are mainly doing unpaid work for someone who is not a member of their household. The older boys age 12-14 are mainly engaged in paid work or family work, whereas girls in these ages are involved mainly in household chores or family work. Notably, at all ages, girls are more likely than boys to be doing chores and boys are more likely than girls to be working for someone who is not a member of the household or doing other family work.

Figure 2.3 Children's Work by Sex and Age



Note: See Table 2.21 for definition of children's work.

NFHS-3, India, 2005-06

Rural children age 5-14 (13 percent) are more likely to be engaged in work than their urban counterparts (9 percent). The percentage of children engaged in work activities decreases steadily with mother's increasing education, father's increasing education, and increasing wealth quintile. With parents' higher education and greater household wealth, there is a substantial reduction in the extent of paid work, involvement in household chores, and other family work,

Table 2.22 Children's work by state

Percentage of de jure children age 5-14 who were engaged in different activities in the seven days preceding the interview by type of work, according to state, India, 2005-06

State	Work for someone who is not a member of the household[1]		Household chores for 28 or more hours per week	Other family work[2]	Total working[3]
	Paid work	Unpaid work			
India	2.2	2.9	3.1	4.8	11.8
North					
Delhi	1.7	8.9	1.5	1.3	12.8
Haryana	1.5	3.4	3.3	1.8	9.6
Himachal Pradesh	0.5	0.3	1.7	3.1	5.0
Jammu & Kashmir	0.8	0.2	1.3	3.9	5.8
Punjab	1.9	6.3	1.8	2.0	11.2
Rajasthan	1.7	7.0	4.6	9.2	19.6
Uttaranchal	1.3	0.9	3.8	9.6	13.5
Central					
Chhattisgarh	0.7	0.1	1.9	2.6	5.1
Madhya Pradesh	2.1	1.9	4.3	4.6	12.1
Uttar Pradesh	1.5	1.8	3.3	6.0	11.7
East					
Bihar	1.6	1.4	5.2	5.6	12.2
Jharkhand	2.2	1.0	5.3	3.0	10.6
Orissa	3.2	0.6	2.9	5.2	11.1
West Bengal	2.7	1.3	2.2	4.3	9.7
Northeast					
Arunachal Pradesh	1.7	1.4	8.2	12.8	20.1
Assam	3.6	3.0	2.2	3.9	11.7
Manipur	0.8	3.4	1.7	3.2	8.4
Meghalaya	0.8	0.1	5.8	1.0	7.2
Mizoram	0.5	0.1	1.9	1.9	4.0
Nagaland	1.0	0.4	5.3	2.1	8.3
Sikkim	0.9	0.3	3.3	2.5	6.7
Tripura	1.8	7.3	3.5	3.4	14.2
West					
Goa	0.8	0.4	0.7	1.3	3.0
Gujarat	5.5	19.5	3.7	7.3	31.6
Maharashtra	2.3	2.4	1.6	3.6	9.0
South					
Andhra Pradesh	4.6	0.6	1.5	4.7	9.2
Karnataka	3.2	0.2	2.9	3.5	8.8
Kerala	0.8	1.7	0.3	0.4	3.0
Tamil Nadu	1.2	3.6	0.8	1.0	6.1

[1] Any work, paid or unpaid, for someone who is not a member of the household by children age 5-11 and for 14 or more hours by children age 12-14.
[2] Includes any work on the farm, in a business, or selling goods in the street by children age 5-11 and for 14 or more hours by children age 12-14.
[3] Includes children age 5-11 years who, in the 7 days preceding the survey, worked for someone who is not a member of the household, with or without pay, or did household chores for 28 or more hours or engaged in any other family work and children age 12-14 years who in the 7 days preceding the survey, worked for someone who is not a member of the household, with or without pay, for 14 or more hours or did household chores for 28 or more hours or engaged in any other family work for 14 or more hours.

but involvement in unpaid work for someone who is not a member of the household remains more or less the same. Children from households headed by Hindus or by a member of a scheduled tribe are somewhat more likely to be engaged in work, compared with most of their counterparts.

The percentage of children engaged in work activities is shown by state in Table 2.22. The percentage of children age 5-14 who worked in the seven days preceding the survey varies

from 5 percent or less in Chhattisgarh, Himachal Pradesh, Mizoram, Goa, and Kerala to 20 percent in Rajasthan and Arunachal Pradesh and 32 percent in Gujarat. One in five children in Gujarat is engaged in unpaid work for a non-household member; whereas, in Rajasthan and Arunachal Pradesh, a larger proportion of working children are engaged in family work. With the exception of Chhattisgarh, school attendance rates are very high in states with lower percentages of working children (see Table 2.9).

CHARACTERISTICS OF SURVEY RESPONDENTS 3

The health, nutrition, and demographic behaviours of women and men vary by their own characteristics, such as age, marital status, religion, and caste, as well as the characteristics of their households, such as wealth status. Additionally, education and media exposure are important catalysts for health and demographic change. Socioeconomic differentials are of particular concern for the population and health policies of the Government of India that seek to improve the health of all population groups, including minorities and vulnerable groups.

This chapter presents a profile of the demographic and socioeconomic characteristics of de facto female and male respondents who were identified as eligible by the NFHS-3 Household Questionnaire and completed an individual questionnaire. Unlike the preceding NFHS surveys (NFHS-1 in 1992-93 and NFHS-2 in 1998-99) in which only ever-married women in the reproductive ages were eligible to be interviewed, in NFHS-3, eligibility for the individual interview depended only on age. Specifically, in NFHS-3, all women age 15-49 were eligible for an interview with the Woman's Questionnaire in all sample households in all states of India and all men age 15-54 were eligible for an interview with the Man's Questionnaire in all sample households in seven states, namely Andhra Pradesh, Karnataka, Maharashtra, Manipur, Nagaland, Tamil Nadu, and Uttar Pradesh. In the remaining 22 states, all men age 15-54 were eligible for interview in less than half (38 percent) of sample households. NFHS-3 interviewed a total of 124,385 de facto women age 15-49 and 74,369 de facto men age 15-54 in the 29 states of India. Of all the men interviewed, 94 percent were in the same ages (15-49) as interviewed women.

The characteristics of respondents profiled in some detail in the remainder of this chapter, particularly characteristics such as age, residence, education, marital status, religion, caste/tribe, and economic status, furnish the basis for socio-demographic analyses in subsequent chapters. For comparability between women and men, the main body of the tables include women and men age 15-49; information for men in the age group 50-54 years and a total for all men age 15-54 are typically provided at the end of each table that includes men.

3.1 BACKGROUND CHARACTERISTICS

Table 3.1 presents the percentage distribution of female and male respondents by age, residence, education, marital status, religion, caste/tribe, and wealth status. The age distributions of female and male respondents are very similar, with both declining with age. Specifically, the age distribution of female respondents declines from 20 percent in the age group 15-19 years to 8 percent in the age group 45-49 years. Similarly, the age distribution of male respondents declines from 19 percent in the age group 15-19 years to 10 percent in the age group 45-49 years. Notably, of all men interviewed, 6 percent were age 50-54.

Table 3.1 Background characteristics of respondents

Percent distribution of women and men age 15-49 by selected background characteristics, India, 2005-06

Background characteristic	Weighted percent		Number of women		Number of men	
	Women	Men	Weighted	Unweighted	Weighted	Unweighted
Age						
15-19	19.9	18.6	24,811	23,955	13,008	13,078
20-24	18.3	17.2	22,779	22,807	11,989	12,460
25-29	16.4	15.6	20,417	20,653	10,854	11,057
30-34	14.2	14.0	17,656	17,867	9,744	9,764
35-39	12.8	13.3	15,866	16,158	9,302	9,140
40-44	10.5	11.6	13,049	13,138	8,105	7,794
45-49	7.9	9.7	9,807	9,807	6,750	6,541
Residence						
Urban	32.8	36.6	40,817	56,961	25,504	35,930
Rural	67.2	63.4	83,568	67,424	44,247	33,904
Education						
No education	40.6	18.0	50,487	39,769	12,571	9,772
<5 years complete	8.0	10.2	9,918	9,717	7,109	6,305
5-7 years complete	15.1	16.5	18,820	18,879	11,523	11,169
8-9 years complete	14.0	20.6	17,383	20,066	14,398	14,999
10-11 years complete	10.4	14.9	12,887	15,365	10,380	11,181
12 or more years complete	12.0	19.7	14,882	20,577	13,754	16,380
Missing	0.0	0.0	8	12	17	28
Marital status						
Never married	19.8	35.7	24,635	30,191	24,872	28,162
Currently married	74.8	62.4	93,089	87,925	43,501	40,574
Married, *gauna* not performed	0.7	0.6	827	470	435	248
Widowed	3.2	0.8	4,023	3,921	530	415
Divorced	0.3	0.1	343	504	94	138
Separated	0.8	0.3	1,040	931	206	213
Deserted	0.3	0.2	427	443	112	84
Religion						
Hindu	80.5	81.9	100,151	89,957	57,112	51,223
Muslim	13.6	12.5	16,936	16,742	8,747	9,153
Christian	2.5	2.2	3,053	10,977	1,567	6,252
Sikh	1.8	1.8	2,222	2,772	1,270	947
Buddhist/Neo-Buddhist	0.8	0.9	1,010	1,765	596	1,076
Jain	0.3	0.3	406	539	213	302
Jewish	0.0	0.0	7	11	2	5
Zoroastrian/Parsi	0.0	0.0	2	3	3	3
Doni-polo	0.0	0.0	30	385	16	134
Other	0.3	0.3	416	1,032	203	711
No religion	0.0	0.0	29	44	8	14
Missing	0.1	0.0	123	158	14	14
Caste/tribe						
Scheduled caste	18.6	18.9	23,125	20,397	13,188	11,967
Scheduled tribe	8.1	8.2	10,119	16,537	5,725	8,462
Other backward class	39.3	39.0	48,880	39,035	27,219	25,172
Other	33.1	33.3	41,207	47,270	23,214	23,788
Don't know	0.5	0.3	649	686	177	214
Missing	0.3	0.3	406	460	229	231
Wealth index						
Lowest	17.5	15.8	21,718	14,077	11,031	6,683
Second	19.0	18.2	23,616	17,652	12,666	9,706
Middle	20.2	20.5	25,088	23,682	14,301	14,027
Fourth	21.0	22.2	26,106	30,136	15,493	18,281
Highest	22.4	23.3	27,856	38,838	16,260	21,137
Total age 15-49	100.0	100.0	124,385	124,385	69,751	69,834
Age 50-54	na	6.2	na	na	4,618	4,535
Total age 15-54	na	100.0	na	na	74,369	74,369

na = Not applicable

Overall, about one-third of the population age 15-49 is in urban areas. The distribution of respondents by residence shows that male respondents are somewhat more likely to be urban (37 percent) than female respondents (33 percent). This is consistent with the higher rural-urban migration rates among men than women.

The distribution of the population by completed number of years of education reveals a low overall educational attainment among women and men in India, as well as persistent gender inequality in education. Forty-one percent of women, compared with 18 percent of men age 15-49, have no education and an additional 8 percent of women and 10 percent of men have been to school but have not completed primary school. Only 22 percent of women have 10 or more years of education, compared with 35 percent of men. Thus, despite the increasing need for an educated labour force, the majority of the reproductive age population has little or no education.

Since only women and men in the reproductive ages are eligible for interview in NFHS-3, it is to be expected that the majority of respondents will be married. Seventy-five percent of women and 62 percent of men are currently married, and an additional 5 percent of women and 1 percent of men are widowed, divorced, separated or deserted. A small proportion of women and men are in the category of 'married, *gauna* not performed'. Respondents who are never married account for 20 percent of female respondents and 36 percent of male respondents. The greater share of never-married individuals in the men's sample than in the women's sample is a consequence of the higher age at marriage of men relative to women.

In keeping with the religious mix of the Indian population, the majority of women and men are Hindu (81 and 82 percent, respectively) and a minority are Muslim (14 and 13 percent, respectively), followed by Christians, Sikhs, and Buddhists/Neo-Buddhists. All other religions together account for less than 1 percent each of the female and male respondents. Nineteen percent of women and men belong to the scheduled castes, 8 percent to the scheduled tribes, and 39 percent to the other backward class. One-third do not belong to any of these three groups.

The distributions of women and men by the wealth index are similar, although women are slightly less likely to be in the upper wealth quintiles and more likely to be in the lowest wealth quintile than men. Specifically, 18 percent of women are in the lowest wealth quintile, compared with 16 percent of men, and 46 percent of men are in the top two wealth quintiles, compared with 43 percent of women.

3.2 EDUCATIONAL ATTAINMENT

The educational attainment of a society's population is an important indicator of the society's stock of human capital and its level of socioeconomic development. Education also enhances the ability of individuals to achieve desired demographic and health goals. In this section, differentials in educational attainment of women and men are discussed by selected background characteristics.

Table 3.2.1 Respondent's level of education: Women

Percent distribution of women age 15-49 by number of years of education completed, according to background characteristics, India, 2005-06

Background characteristic	Respondent's level of education: No education	<5 years complete	5-7 years complete	8-9 years complete	10-11 years complete	12 or more years complete	Total	Number of women
Age								
15-19	21.7	7.7	19.4	23.6	18.1	9.4	100.0	24,811
20-24	31.4	6.6	15.8	16.4	10.6	19.2	100.0	22,779
25-29	40.8	7.3	14.5	13.3	9.3	14.8	100.0	20,417
30-34	47.6	8.4	13.4	10.8	8.1	11.6	100.0	17,656
35-39	53.3	8.5	13.0	8.8	7.2	9.2	100.0	15,866
40-44	54.9	9.7	13.0	8.1	6.7	7.6	100.0	13,049
45-49	57.3	9.3	13.4	7.2	6.2	6.5	100.0	9,807
Residence								
Urban	22.0	6.1	15.5	16.5	15.6	24.4	100.0	40,817
Rural	49.7	8.9	15.0	12.7	7.8	5.9	100.0	83,568
Marital status								
Never married	12.6	5.8	15.6	24.2	19.3	22.4	100.0	25,462
Currently married	47.2	8.4	15.1	11.5	8.3	9.6	100.0	93,089
Widowed/divorced/ separated/deserted	57.5	11.4	14.1	8.2	4.5	4.2	100.0	5,834
Religion								
Hindu	40.5	7.9	15.0	14.1	10.3	12.2	100.0	100,151
Muslim	47.9	8.9	16.3	12.0	8.3	6.6	100.0	16,936
Christian	19.7	9.2	14.2	17.5	15.9	23.5	100.0	3,053
Sikh	24.7	3.5	17.2	14.7	20.0	19.8	100.0	2,222
Buddhist/Neo-Buddhist	28.2	11.9	16.2	22.7	11.4	9.7	100.0	1,010
Jain	1.6	1.3	6.9	15.7	22.3	52.1	100.0	406
Other	65.9	7.6	9.5	9.0	3.4	4.6	100.0	484
Caste/tribe								
Scheduled caste	50.9	8.4	14.7	12.6	7.2	6.3	100.0	23,125
Scheduled tribe	61.7	8.7	10.7	10.4	4.6	3.9	100.0	10,119
Other backward class	43.9	7.6	15.5	13.6	9.6	9.8	100.0	48,880
Other	25.6	7.8	16.0	16.2	14.6	19.9	100.0	41,207
Don't know	44.3	13.9	18.1	13.2	6.9	3.5	100.0	649
Wealth index								
Lowest	76.6	8.0	9.2	4.6	1.3	0.4	100.0	21,718
Second	59.4	11.1	14.8	10.4	3.2	1.1	100.0	23,616
Middle	44.0	10.5	19.1	14.9	7.6	3.9	100.0	25,088
Fourth	24.9	7.9	20.8	20.7	14.8	10.9	100.0	26,106
Highest	8.2	3.1	11.2	17.2	21.9	38.4	100.0	27,856
Total	40.6	8.0	15.1	14.0	10.4	12.0	100.0	124,385

Note: Total includes women with missing information on religion and caste/tribe, who are not shown separately.

Table 3.2.1 shows the distribution of female respondents age 15-49 by number of years of education completed according to background characteristics. As expected, women in urban areas are much more likely than women in rural areas to have attended school. The proportion of urban women who have completed 10 or more years of education, at 40 percent, is about three times as high as the proportion of rural women who have an equivalent level of education. Nonetheless, even among urban women, only one in four have received 12 or more years of education.

The educational distribution of women in different age groups illustrates the spread of education over a period of about three decades. As expected, the proportion of women who have never attended school declines steadily with age, from 57 percent for women age 45-49 to 31 percent for women age 20-24 and 22 percent for women age 15-19. Despite the increase in the proportions of women receiving formal education, less than one in three women have

completed at least 10 years of education in any age group. Women currently age 20-24 have the highest educational attainment of any age group, but even among these women, only one in five have completed 12 or more years of education. Given the strong cohort effect on education, it is not surprising that never married women who tend to be the younger women, have much higher educational attainment than ever-married women. Additionally, since formal education for women is rarely continued after marriage in India, age at marriage is positively related to education. This implies that in the younger age groups, a married woman will have less education than an unmarried woman of the same age.

The proportion of women who have never attended school is higher among Muslims (48 percent) than among Hindus (41 percent) and most of the other religions. Muslim women are also less likely than women of most other religions to have completed secondary education. Educational attainment is highest among Jain women, 52 percent of whom have completed 12 or more years of schooling. By caste/tribe status, the proportion of women who have never attended school is highest, at 62 percent, for women belonging to the scheduled tribes, followed by 51 percent for women belonging to the scheduled castes, and 44 percent for women belonging to the other backward classes.

Educational attainment varies more with relative wealth status as measured by the wealth index, than by any other background characteristic. The proportion of women who have never attended school declines steadily from 77 percent for women belonging to the lowest wealth quintile to 8 percent for women belonging to the highest quintile. By contrast, the proportion of women with 12 or more years of education increases only slowly from less than 1 percent for women belonging to the lowest wealth quintile to 11 percent for women belonging to the fourth wealth quintile, and then jumps to 38 percent for women belonging to the highest wealth quintile.

Educational attainment for men by selected background characteristics is shown in Table 3.2.2. While men have substantially higher educational attainment than women in every subgroup of the population, the variation in men's educational attainment by most background characteristics is similar to the variation in women's educational attainment. Nine in 10 men in urban areas have ever attended school, compared with about three out of four men in rural areas. Nonetheless, even among urban men, less than one in three has completed 12 or more years of education. The proportion of men who have the highest level of education in rural areas is only 14 percent.

As with women, the proportions of men who have completed at least 10 years of education declines and the proportion who have no education increases sharply with age. Nonetheless, even among men age 20-24, only 27 percent have completed 12 years or more of education. Muslim men are less likely than men of most other religions to have ever been to school and to have completed 10 years or more of education. By caste/tribe, educational attainment is lowest among men belonging to the scheduled tribes, followed by men belonging to the scheduled castes, compared with other men who know their caste/tribe status. The proportion of men who have completed at least 12 years of education among men who do not belong to a scheduled caste, scheduled tribe, or other backward class, at

Table 3.2.2 Respondent's level of education: Men

Percent distribution of men age 15-49 by number of years of education completed, according to background characteristics, India, 2005-06

Background characteristic	Respondent's level of education: No education	<5 years complete	5-7 years complete	8-9 years complete	10-11 years complete	12 or more years complete	Total	Number of men
Age								
15-19	7.4	6.9	18.3	32.0	24.7	10.6	100.0	13,008
20-24	12.3	8.4	17.1	21.8	13.4	27.0	100.0	11,989
25-29	16.1	9.2	16.8	21.0	13.5	23.3	100.0	10,854
30-34	19.8	10.6	14.7	17.4	13.3	24.2	100.0	9,744
35-39	25.6	12.1	15.0	16.1	11.8	19.3	100.0	9,302
40-44	27.5	13.7	16.0	14.4	10.9	17.4	100.0	8,105
45-49	27.3	14.0	17.1	14.4	12.0	15.3	100.0	6,750
Residence								
Urban	9.5	6.8	14.9	20.3	18.1	30.5	100.0	25,504
Rural	23.0	12.1	17.5	20.9	13.0	13.5	100.0	44,247
Marital status								
Never married	7.6	6.4	15.5	26.5	20.5	23.5	100.0	25,307
Currently married	23.8	12.3	17.1	17.3	11.8	17.8	100.0	43,501
Widowed/divorced/ separated/deserted	33.2	16.9	16.1	17.4	8.5	7.8	100.0	942
Religion								
Hindu	17.1	9.8	16.1	21.1	15.1	20.7	100.0	57,112
Muslim	26.3	13.4	19.4	17.8	11.4	11.7	100.0	8,747
Christian	11.7	11.5	15.8	21.3	17.0	22.7	100.0	1,567
Sikh	14.0	3.6	18.6	19.6	24.0	20.3	100.0	1,270
Buddhist/Neo-Buddhist	9.5	12.3	13.4	25.8	19.7	19.3	100.0	596
Jain	0.4	0.0	1.6	12.4	23.1	62.4	100.0	213
Other	36.4	14.2	19.2	15.6	5.2	9.3	100.0	232
Caste/tribe								
Scheduled caste	22.8	11.8	18.6	21.4	11.9	13.4	100.0	13,188
Scheduled tribe	34.2	15.0	17.4	17.7	7.1	8.7	100.0	5,725
Other backward class	17.6	9.7	17.3	21.4	15.4	18.6	100.0	27,219
Other	11.7	8.5	14.2	20.1	17.9	27.6	100.0	23,214
Don't know	30.3	16.7	18.7	20.9	8.0	5.4	100.0	177
Wealth index								
Lowest	46.5	16.2	17.2	13.7	3.9	2.4	100.0	11,031
Second	27.5	16.0	20.1	21.6	8.6	6.2	100.0	12,666
Middle	17.0	12.2	21.5	23.5	14.8	11.0	100.0	14,301
Fourth	7.8	7.7	17.8	25.5	19.5	21.7	100.0	15,493
Highest	2.0	2.1	7.7	17.6	22.9	47.7	100.0	16,260
Total age 15-49	18.0	10.2	16.5	20.6	14.9	19.7	100.0	69,751
Age 50-54	26.1	15.0	16.1	13.6	13.3	15.9	100.0	4,618
Total age 15-54	18.5	10.5	16.5	20.2	14.8	19.5	100.0	74,369

Note: Total includes men with missing information on religion and caste/tribe, who are not shown separately.

28 percent, is three times the proportion of scheduled tribe men and twice the proportion of scheduled caste men who have this level of education. As is the case for women, differentials in educational attainment of men are greatest across the different wealth categories. The proportion of men who have never attended school declines from 47 percent for men in the lowest wealth quintile to only 2 percent for men in the highest wealth quintile; and the corresponding increase in the proportion of men who have completed at least 12 years of education from the lowest to the highest wealth quintile is from 2 percent to 48 percent. Nonetheless, it is notable that even among men in the highest wealth quintile, more than half have not completed 12 years of education.

3.3 LITERACY

Basic literacy, i.e., the ability to read and write, is a fundamental aspect of the ability of individuals to fully participate and take advantage of socioeconomic development and health and nutritional advancements. In NFHS-1 and NFHS-2, the literacy measure was based on self-reported literacy. In NFHS-3, by contrast, respondents who had not completed at least standard six were given a literacy test. Each respondent who had not completed standard six was given a card with pre-printed sentences and asked to read a sentence. In most states, the card contained sentences in all the major languages in the state. According to their performance on this reading test, respondents were assigned to one of three categories: cannot read at all; able to read only parts of sentence; or able to read whole sentence. Persons who were visually impaired were excluded from the test. In a small number of cases, an individual could not be tested because there was no sentence in the required language. Accordingly, in this report, literate persons are those who have either completed six years of education or 'passed' the literacy test by being able to read all or part of the sentence on the card given to them in their language of choice. Tables 3.3.1 and 3.3.2 give the distributions of women and men, respectively, according to their performance on the literacy test and the

Table 3.3.1 Literacy: Women

Percent distribution of women age 15-49 by literacy, according to background characteristics, India, 2005-06

Background characteristic	Completed standard 6 or higher	No schooling or completed less than standard 6: Can read a whole sentence	Can read part of a sentence	Cannot read at all	No card with required language	Blind/ visually impaired	Missing	Total	Number of women	Percent-age literate[1]
Age										
15-19	62.9	5.7	5.0	26.1	0.2	0.0	0.1	100.0	24,811	73.7
20-24	55.1	4.8	4.5	35.2	0.2	0.0	0.1	100.0	22,779	64.4
25-29	45.6	4.8	5.0	44.3	0.2	0.0	0.1	100.0	20,417	55.3
30-34	38.0	5.3	5.0	51.3	0.3	0.0	0.1	100.0	17,656	48.3
35-39	32.0	5.8	4.6	57.1	0.2	0.1	0.1	100.0	15,866	42.5
40-44	28.7	6.2	5.4	59.0	0.2	0.4	0.1	100.0	13,049	40.3
45-49	26.5	6.1	5.3	61.1	0.2	0.6	0.2	100.0	9,807	37.9
Residence										
Urban	65.8	4.7	4.2	24.8	0.3	0.1	0.1	100.0	40,817	74.8
Rural	34.4	5.8	5.3	54.1	0.2	0.1	0.1	100.0	83,568	45.5
Marital status										
Never married	75.9	4.4	3.6	15.8	0.2	0.1	0.1	100.0	25,462	83.9
Currently married	37.4	5.7	5.2	51.2	0.2	0.1	0.1	100.0	93,089	48.4
Widowed/divorced/ separated/deserted	24.4	5.8	5.9	63.3	0.2	0.1	0.2	100.0	5,834	36.1
Religion										
Hindu	44.9	5.2	4.8	44.8	0.1	0.1	0.1	100.0	100,151	54.9
Muslim	36.4	7.4	5.7	49.3	0.9	0.1	0.2	100.0	16,936	49.5
Christian	66.0	5.5	4.4	23.1	0.9	0.0	0.1	100.0	3,053	75.9
Sikh	60.7	5.4	5.9	28.1	0.0	0.0	0.0	100.0	2,222	71.9
Buddhist/Neo-Buddhist	56.1	2.5	5.3	35.6	0.3	0.0	0.2	100.0	1,010	63.9
Jain	94.1	2.2	0.8	2.5	0.0	0.4	0.0	100.0	406	97.1
Other	23.1	2.2	3.8	70.6	0.3	0.0	0.0	100.0	484	29.1
Caste/tribe										
Scheduled caste	34.1	4.9	4.9	55.9	0.1	0.1	0.1	100.0	23,125	43.8
Scheduled tribe	25.1	3.5	4.8	66.0	0.4	0.1	0.1	100.0	10,119	33.4
Other backward class	41.3	5.5	5.1	47.9	0.1	0.1	0.1	100.0	48,880	51.8
Other	59.8	6.2	4.8	28.5	0.4	0.2	0.1	100.0	41,207	70.9
Don't know	36.8	2.7	3.7	54.0	2.5	0.4	0.0	100.0	649	43.1

Continued…

Table 3.3.1 Literacy: Women—*Continued*

Background characteristic	Completed standard 6 or higher	No schooling or completed less than standard 6: Can read a whole sentence	Can read part of a sentence	Cannot read at all	No card with required language	Blind/ visually impaired	Missing	Total	Number of women	Percent-age literate[1]
Wealth index										
Lowest	10.6	4.0	4.0	81.0	0.2	0.1	0.0	100.0	21,718	18.6
Second	22.3	6.1	6.2	64.9	0.3	0.2	0.1	100.0	23,616	34.6
Middle	36.7	7.2	6.2	49.4	0.2	0.1	0.1	100.0	25,088	50.2
Fourth	58.7	6.6	5.6	28.5	0.3	0.1	0.2	100.0	26,106	70.9
Highest	84.3	3.3	2.7	9.4	0.1	0.0	0.1	100.0	27,856	90.4
Total	44.7	5.4	4.9	44.5	0.2	0.1	0.1	100.0	124,385	55.1

Note: Total includes women with missing information on religion and caste/tribe, who are not shown separately.
[1] Refers to women who can read a whole sentence or part of a sentence and women who completed standard 6 or higher (who are assumed to be literate). Literacy status could not be determined for 0.4 percent of women.

Table 3.3.2 Literacy: Men

Percent distribution of men age 15-49 by literacy, according to background characteristics, India, 2005-06

Background characteristic	Completed standard 6 or higher	No schooling or completed less than standard 6: Can read a whole sentence	Can read part of a sentence	Cannot read at all	No card with required language	Blind/ visually impaired	Missing	Total	Number of men	Percent-age literate[1]
Age										
15-19	80.1	4.9	3.8	11.1	0.1	0.0	0.0	100.0	13,008	88.7
20-24	73.2	5.9	4.6	16.1	0.1	0.1	0.1	100.0	11,989	83.7
25-29	68.0	7.1	5.5	19.2	0.1	0.1	0.0	100.0	10,854	80.6
30-34	63.9	6.4	5.5	23.9	0.2	0.1	0.1	100.0	9,744	75.8
35-39	55.1	9.1	5.9	29.7	0.1	0.1	0.1	100.0	9,302	70.1
40-44	51.4	10.1	7.5	30.6	0.2	0.1	0.1	100.0	8,105	69.1
45-49	50.6	11.1	6.7	31.1	0.2	0.1	0.1	100.0	6,750	68.4
Residence										
Urban	78.3	5.8	3.8	11.7	0.2	0.0	0.1	100.0	25,504	88.0
Rural	57.7	8.3	6.3	27.4	0.1	0.1	0.1	100.0	44,247	72.3
Marital status										
Never married	81.1	4.3	3.6	10.8	0.1	0.0	0.1	100.0	25,307	88.9
Currently married	56.6	9.1	6.4	27.6	0.1	0.1	0.1	100.0	43,501	72.1
Widowed/divorced/ separated/deserted	41.2	9.7	8.4	40.2	0.3	0.3	0.0	100.0	942	59.3
Religion										
Hindu	66.7	7.0	5.2	20.9	0.1	0.1	0.0	100.0	57,112	78.9
Muslim	52.3	10.7	7.2	29.2	0.4	0.0	0.1	100.0	8,747	70.2
Christian	72.4	6.5	5.6	15.2	0.2	0.0	0.1	100.0	1,567	84.6
Sikh	75.5	4.7	3.4	16.4	0.0	0.0	0.0	100.0	1,270	83.6
Buddhist/Neo-Buddhist	73.3	6.5	7.5	12.4	0.1	0.0	0.2	100.0	596	87.3
Jain	99.6	0.0	0.0	0.4	0.0	0.0	0.0	100.0	213	99.6
Other	43.1	2.3	6.2	48.2	0.0	0.0	0.2	100.0	232	51.6
Caste/tribe										
Scheduled caste	57.9	8.2	6.2	27.4	0.1	0.1	0.1	100.0	13,188	72.4
Scheduled tribe	44.3	8.1	7.6	39.5	0.3	0.3	0.0	100.0	5,725	59.9
Other backward class	65.4	7.8	5.3	21.3	0.1	0.1	0.0	100.0	27,219	78.5
Other	74.7	6.2	4.6	14.2	0.2	0.0	0.1	100.0	23,214	85.5
Don't know	47.4	2.7	4.3	45.5	0.0	0.0	0.0	100.0	177	54.5
Wealth index										
Lowest	29.2	9.8	8.4	52.2	0.1	0.2	0.0	100.0	11,031	47.4
Second	47.7	10.3	8.6	33.3	0.1	0.1	0.1	100.0	12,666	66.5
Middle	62.5	9.3	6.4	21.6	0.1	0.0	0.1	100.0	14,301	78.2
Fourth	78.1	6.7	4.3	10.7	0.2	0.1	0.1	100.0	15,493	89.0
Highest	93.6	2.5	1.2	2.5	0.1	0.0	0.0	100.0	16,260	97.3
Total age 15-49	65.2	7.4	5.4	21.7	0.1	0.1	0.1	100.0	69,751	78.1
Age 50-54	52.1	11.4	6.2	29.9	0.1	0.3	0.0	100.0	4,618	69.7
Total age 15-54	64.4	7.6	5.5	22.2	0.1	0.1	0.1	100.0	74,369	77.5

Note: Total includes men with missing information on religion and caste/tribe, who are not shown separately.
[1] Refers to men who can read a whole or part of a sentence and men who completed standard 6 or higher (who are assumed to be literate). Literacy status could not be determined for 0.3 percent of men.

percentage literate by selected background characteristics. The tables show that 55 percent of women age 15-49 are literate, compared with 78 percent of men in the same age group. Further, even among those tested, namely those with no education and those who had completed less than six years of education, the gender differential in the ability to read at all is evident: 81 percent of women tested could not read at all, compared with 63 percent of men.

Among both women and men, a higher proportion of those in urban areas are literate, compared with their rural counterparts. However, the urban-rural differential is much greater (29 percentage points) for women than for men (16 percentage points). Literacy increases more or less steadily from the oldest to the youngest age groups for both women and men; however, for women, the increase is much sharper, from 38 percent among women age 45-49 to 74 percent among women age 15-19, than for men (from 68 percent to 89 percent between the corresponding age groups). While these data do show that the literacy gap between women and men is narrowing rapidly, it also points to the fact that one in four women and one in 10 men age 15-19 remain illiterate. Notably, literacy is much higher for never married women and men compared with ever-married women and men and the gender gap in literacy among never married women (84 percent) and men (89 percent) is narrow.

Differentials in literacy are similar for women and men to differentials in educational attainment. Muslim women and men, followed by Hindu women and men, are less likely to be literate than women and men of most other religions, although the differentials by religion are much greater for women than for men. Among those who know their caste/tribe, literacy is least among women and men from the scheduled tribes; literacy is somewhat higher among women and men from scheduled castes, followed by those who belong to the other backward classes. Those who do not belong to any of these groups have the highest literacy rates. However, even among the latter group, only 71 percent of women and 86 percent of men are literate. Differentials by wealth are large for both women and men with the gender gap narrowing with increasing wealth. Notably, only 19 percent of women and 47 percent of men in the lowest wealth quintile are literate, compared with 90 percent of women and 97 percent of men in the highest quintile. These wealth differentials for both women and men suggest a failure of education programmes to reach the poorest sections of the population, and particularly women.

Tables 3.4.1 and 3.4.2 show the educational attainment and literacy levels for women and men age 15-49 by state. The tables show that there are large variations in the spread of education and literacy in India. The percentage of women who have 12 or more completed years of education ranges from 5 percent in Bihar, 7 percent in Tripura, Rajasthan, and Chhattisgarh, and 8-10 percent in Jharkhand, Orissa, West Bengal, Andhra Pradesh, Madhya Pradesh, Arunachal Pradesh, and Assam, to 37 percent in Delhi. The corresponding range for men is from 12 percent in Tripura to 38 percent in Delhi. Delhi, Himachal Pradesh, Uttaranchal, Manipur, Goa, and Kerala are the states with the highest proportions of persons who have completed at least 12 years of education. Notably, the gender gap in the proportions with 12 or more completed years of education is less than 10 percentage points in

Table 3.4.1 Respondent's level of education and literacy by state: Women

Percent distribution of women age 15-49 by number of years of education completed and percentage literate, by state, India, 2005-06

State	Respondent's level of education						Total	Percentage literate[1]
	No education	<5 years complete	5-7 years complete	8-9 years complete	10-11 years complete	12 or more years complete		
India	40.6	8.0	15.1	14.0	10.4	12.0	100.0	55.1
North								
Delhi	21.4	1.8	11.1	12.5	16.0	37.2	100.0	77.3
Haryana	37.6	2.9	17.5	12.4	15.3	14.3	100.0	60.4
Himachal Pradesh	18.5	3.6	18.8	14.5	23.2	21.4	100.0	79.5
Jammu & Kashmir	41.0	4.3	9.6	18.7	12.4	14.2	100.0	53.9
Punjab	28.5	3.2	16.5	13.4	19.3	19.1	100.0	68.7
Rajasthan	61.1	5.1	12.5	9.6	4.4	7.3	100.0	36.2
Uttaranchal	32.6	3.5	13.1	17.3	11.5	22.0	100.0	64.6
Central								
Chhattisgarh	49.9	8.8	16.7	12.3	4.9	7.4	100.0	44.9
Madhya Pradesh	50.1	7.7	16.0	12.2	5.2	8.8	100.0	44.4
Uttar Pradesh	53.5	3.6	11.8	12.7	7.6	10.7	100.0	44.8
East								
Bihar	62.1	5.5	10.8	8.4	8.4	4.9	100.0	37.0
Jharkhand	58.5	6.0	9.9	10.4	7.4	7.8	100.0	37.1
Orissa	40.3	12.9	15.5	15.7	7.6	8.0	100.0	52.2
West Bengal	36.3	15.9	17.3	14.9	7.0	8.6	100.0	58.8
Northeast								
Arunachal Pradesh	41.9	12.5	16.0	14.5	5.5	9.6	100.0	52.7
Assam	30.2	14.3	12.5	23.7	9.1	10.2	100.0	63.0
Manipur	21.8	8.3	11.2	25.0	12.9	20.9	100.0	72.6
Meghalaya	29.5	13.8	15.8	18.0	9.5	13.4	100.0	69.5
Mizoram	5.6	14.2	24.1	28.6	13.2	14.3	100.0	94.0
Nagaland	21.7	12.4	20.8	23.6	10.6	10.9	100.0	75.2
Sikkim	26.7	14.5	20.2	16.1	10.1	12.5	100.0	72.3
Tripura	22.4	16.1	22.3	24.0	8.5	6.7	100.0	68.5
West								
Goa	12.7	7.8	13.2	17.4	20.8	28.1	100.0	83.6
Gujarat	32.4	8.4	20.5	15.1	10.3	13.2	100.0	63.8
Maharashtra	23.5	9.9	16.9	19.0	14.3	16.4	100.0	70.3
South								
Andhra Pradesh	45.4	8.1	18.1	6.9	12.8	8.8	100.0	49.6
Karnataka	33.6	8.4	16.9	13.3	14.3	13.5	100.0	59.7
Kerala	3.9	7.8	12.7	26.9	23.0	25.7	100.0	93.0
Tamil Nadu	21.7	10.1	18.3	18.0	12.7	19.2	100.0	69.4

[1] Refers to women who can read a whole sentence or part of a sentence and women who completed standard 6 or higher (who are assumed to be literate). Literacy status could not be determined for 0.4 percent of women, ranging from 0.1 percent in several states to 2.9 percent in Manipur.

all states except Manipur (11 percentage points) and Bihar (16 percentage points). In Punjab, Goa, and Kerala slightly more women than men have completed 12 or more years of education.

Table 3.4.2 Respondent's level of education and literacy by state: Men

Percent distribution of men age 15-49 by number of years of education completed and percentage literate, by state, India, 2005-06

State	Respondent's level of education							Total	Percentage literate[1]
	No education	<5 years complete	5-7 years complete	8-9 years complete	10-11 years complete	12 or more years complete	Missing		
India	18.0	10.2	16.5	20.6	14.9	19.7	0.0	100.0	78.1
North									
Delhi	9.6	2.4	14.0	17.8	18.3	38.0	0.0	100.0	90.2
Haryana	14.4	7.1	20.6	14.3	23.7	20.0	0.0	100.0	83.4
Himachal Pradesh	5.3	5.0	11.9	16.3	31.4	30.1	0.0	100.0	94.0
Jammu & Kashmir	15.3	5.5	13.7	29.0	17.1	19.3	0.2	100.0	78.1
Punjab	14.0	5.8	19.1	20.0	23.9	17.2	0.0	100.0	82.9
Rajasthan	24.3	7.0	21.4	21.1	10.6	15.7	0.0	100.0	73.9
Uttaranchal	11.6	3.4	14.5	25.5	14.8	29.9	0.2	100.0	86.3
Central									
Chhattisgarh	21.0	14.9	21.1	17.7	9.8	15.4	0.0	100.0	74.1
Madhya Pradesh	22.9	9.4	20.3	20.1	9.1	18.1	0.0	100.0	73.5
Uttar Pradesh	21.4	6.6	13.8	25.6	12.7	19.8	0.1	100.0	76.2
East									
Bihar	27.7	11.1	12.1	14.0	14.4	20.8	0.0	100.0	70.4
Jharkhand	27.1	10.4	13.9	17.7	13.9	17.0	0.0	100.0	68.5
Orissa	21.6	14.4	17.4	20.3	9.7	16.4	0.2	100.0	74.1
West Bengal	22.9	16.0	15.8	18.7	10.5	16.0	0.0	100.0	73.9
Northeast									
Arunachal Pradesh	22.4	12.0	22.3	20.4	7.3	14.8	0.7	100.0	78.9
Assam	14.4	19.1	11.5	25.8	13.8	15.3	0.0	100.0	76.4
Manipur	5.6	6.1	11.5	27.5	17.7	31.5	0.0	100.0	91.5
Meghalaya	24.4	15.9	17.1	18.0	10.6	14.0	0.0	100.0	72.7
Mizoram	5.5	9.1	25.5	31.0	13.0	16.0	0.0	100.0	93.2
Nagaland	15.3	11.9	20.7	23.6	12.4	16.3	0.0	100.0	83.1
Sikkim	11.5	19.1	23.2	17.7	10.2	18.2	0.0	100.0	83.1
Tripura	11.1	20.1	20.1	27.0	10.0	11.7	0.0	100.0	77.1
West									
Goa	6.0	7.3	13.7	23.8	23.6	25.1	0.4	100.0	90.3
Gujarat	13.2	9.7	20.9	23.6	15.3	17.3	0.0	100.0	83.0
Maharashtra	7.3	10.1	14.1	25.1	19.4	24.1	0.0	100.0	88.3
South									
Andhra Pradesh	23.2	10.9	18.6	11.3	17.7	18.4	0.0	100.0	71.7
Karnataka	17.2	12.5	16.0	16.3	16.8	21.1	0.0	100.0	75.3
Kerala	1.3	7.9	12.9	29.8	23.3	24.8	0.0	100.0	95.5
Tamil Nadu	9.3	10.2	20.7	20.5	16.2	23.2	0.0	100.0	84.1

[1] Refers to men who can read a whole or part of a sentence and men who completed standard 6 or higher (who are assumed to be literate). Literacy status could not be determined for 0.3 percent of men, ranging from 0.1 percent in several states to 2.9 percent in Meghalaya.

The percentage of women literate ranges from 36 percent in Rajasthan to 93 percent in Kerala and 94 percent in Mizoram. Overall, there are seven states (including Rajasthan) where less than half of women are literate, and including Kerala and Mizoram, there are only six states where at least three out of four women are literate. For men, the percentage literate ranges from 69 percent in Jharkhand to 96 percent in Kerala. In all states except Mizoram, more men than women are literate. In 12 states, the percentage of men 15-49 who are literate exceeds the percentage of women 15-49 who are literate by at least 20 percentage points. These states are Rajasthan, Bihar, Uttar Pradesh, Jharkhand, Chhattisgarh, Madhya Pradesh, Arunachal Pradesh, Jammu and Kashmir, Haryana, Andhra Pradesh, Orissa, and Uttaranchal.

3.4 EXPOSURE TO MEDIA

In NFHS-3, respondents' media exposure was measured by asking women and men about the frequency (almost every day; at least once a week; less than once a week; or not at all) with which they read a newspaper or magazine, watch television, or listen to the radio. In addition, all respondents were asked whether they 'usually go to a cinema hall or theatre to see a movie at least once a month'. Individuals who do not read a newspaper or magazine, watch television, or listen to the radio at least once a week, or see a movie at least once a month are considered to not be regularly exposed to any media. Tables 3.5.1 and 3.5.2 give information on regular media exposure of women and men to each of the different types of media and the proportions not regularly exposed to any media by background characteristics. Overall, 35 percent of women and 18 percent of men age 15-49 are not regularly exposed to any media. Thus, not only are one in three women not regularly exposed to media, but there is a large gender differential in media exposure evident from these data. This differential is also evident for each of the different types of media.

Table 3.5.1 Exposure to mass media: Women

Percentage of women age 15-49 who usually read a newspaper or magazine, watch television, or listen to the radio at least once a week, who usually visit the cinema or theatre at least once a month, and who are not regularly exposed to any of these media by background characteristics, India, 2005-06

Background characteristic	Exposure to mass media					Number of women
	Reads a newspaper or magazine at least once a week	Watches television at least once a week	Listens to the radio at least once a week	Visits the cinema/ theatre at least once a month	Not regularly exposed to any media	
Age						
15-19	28.6	59.4	34.3	7.6	28.5	24,811
20-24	25.5	58.0	30.9	7.8	31.3	22,779
25-29	21.9	54.5	26.9	5.8	35.7	20,417
30-34	20.5	52.6	26.6	4.2	37.8	17,656
35-39	19.6	51.7	25.8	4.4	38.3	15,866
40-44	19.4	51.4	26.2	3.5	38.9	13,049
45-49	18.5	52.8	25.9	2.9	38.5	9,807
Residence						
Urban	41.6	82.0	31.7	9.2	12.6	40,817
Rural	13.7	41.9	27.3	3.9	45.4	83,568
Education						
No education	0.2	29.4	18.1	2.5	60.3	50,487
<5 years complete	6.1	51.7	28.5	4.0	36.5	9,918
5-7 years complete	19.1	62.8	30.6	5.5	25.3	18,820
8-9 years complete	36.1	72.1	37.7	6.0	16.3	17,383
10-11 years complete	52.9	82.5	39.7	9.5	7.9	12,887
12 or more years complete	74.2	90.9	42.9	13.9	3.0	14,882
Marital status						
Never married	40.6	70.8	38.5	8.5	18.9	25,462
Currently married	18.7	51.2	26.4	5.0	38.4	93,089
Widowed/divorced/ separated/deserted	12.4	47.4	23.4	3.8	43.9	5,834
Religion						
Hindu	22.7	55.6	29.1	6.0	34.4	100,151
Muslim	18.0	45.5	27.3	3.2	41.7	16,936
Christian	40.2	68.6	30.5	5.7	20.3	3,053
Sikh	33.0	80.4	20.2	4.6	16.0	2,222
Buddhist/Neo-Buddhist	30.3	66.2	32.0	6.1	26.5	1,010
Jain	76.7	90.1	37.5	19.1	3.1	406
Other	9.0	22.2	16.7	4.8	68.0	484

Continued…

Table 3.5.1 Exposure to mass media: Women—*Continued*

Background characteristic	Exposure to mass media: Reads a newspaper or magazine at least once a week	Watches television at least once a week	Listens to the radio at least once a week	Visits the cinema/ theatre at least once a month	Not regularly exposed to any media	Number of women
Caste/tribe						
Scheduled caste	15.6	50.6	26.5	5.1	38.9	23,125
Scheduled tribe	10.0	30.3	20.9	3.6	57.4	10,119
Other backward class	19.9	53.1	28.1	5.3	36.8	48,880
Other	33.9	66.0	32.8	6.9	24.1	41,207
Don't know	15.2	53.8	29.1	5.3	33.6	649
Wealth index						
Lowest	2.0	13.9	16.3	2.5	73.7	21,718
Second	5.5	29.6	24.3	3.5	55.1	23,616
Middle	12.3	51.9	29.7	4.9	34.9	25,088
Fourth	27.0	75.3	33.6	5.4	16.2	26,106
Highest	59.7	92.5	36.8	10.7	3.9	27,856
Total	22.9	55.0	28.8	5.6	34.6	124,385

Note: Total includes women with missing information on education, religion, and caste/tribe, who are not shown separately.

Table 3.5.2 Exposure to mass media: Men

Percentage of men age 15-49 who usually read a newspaper or magazine, watch television, or listen to the radio at least once a week, who usually visit the cinema or theatre at least once a month, and who are not regularly exposed to any of these media by background characteristics, India, 2005-06

Background characteristic	Exposure to mass media: Reads a newspaper or magazine at least once a week	Watches television at least once a week	Listens to the radio at least once a week	Visits the cinema/ theatre at least once a month	Not regularly exposed to any media	Number of men
Age						
15-19	55.7	71.2	48.8	26.9	11.8	13,008
20-24	57.7	69.5	48.8	33.3	12.2	11,989
25-29	54.9	65.4	45.4	25.2	15.5	10,854
30-34	53.1	60.8	41.8	15.2	20.1	9,744
35-39	49.1	57.5	40.9	10.7	24.2	9,302
40-44	48.0	54.3	39.4	6.6	26.3	8,105
45-49	47.7	54.7	39.7	5.0	25.7	6,750
Residence						
Urban	69.4	83.9	45.3	26.3	6.2	25,504
Rural	43.6	51.2	43.7	15.6	25.3	44,247
Education						
No education	1.6	31.8	30.6	11.2	48.8	12,571
<5 years complete	17.9	47.9	40.8	15.6	29.8	7,109
5-7 years complete	45.2	59.5	42.0	18.9	18.9	11,523
8-9 years complete	65.5	68.7	48.6	19.1	10.4	14,398
10-11 years complete	79.6	78.6	49.0	24.1	5.3	10,380
12 or more years complete	91.5	85.4	52.3	26.5	2.0	13,754
Marital status						
Never married	62.0	74.7	49.6	31.2	9.8	25,307
Currently married	48.2	56.8	41.2	12.9	22.9	43,501
Widowed/divorced/ separated/deserted	35.7	45.0	41.3	10.2	33.4	942
Religion						
Hindu	53.8	63.3	44.7	19.4	18.0	57,112
Muslim	45.0	57.2	43.7	21.0	21.7	8,747
Christian	60.1	71.9	43.0	22.8	13.3	1,567
Sikh	56.0	84.0	32.3	6.6	10.7	1,270
Buddhist/Neo-Buddhist	61.1	70.4	43.2	21.2	15.5	596
Jain	95.5	90.4	46.1	31.9	0.0	213
Other	21.5	30.4	34.8	14.3	46.5	232

Continued…

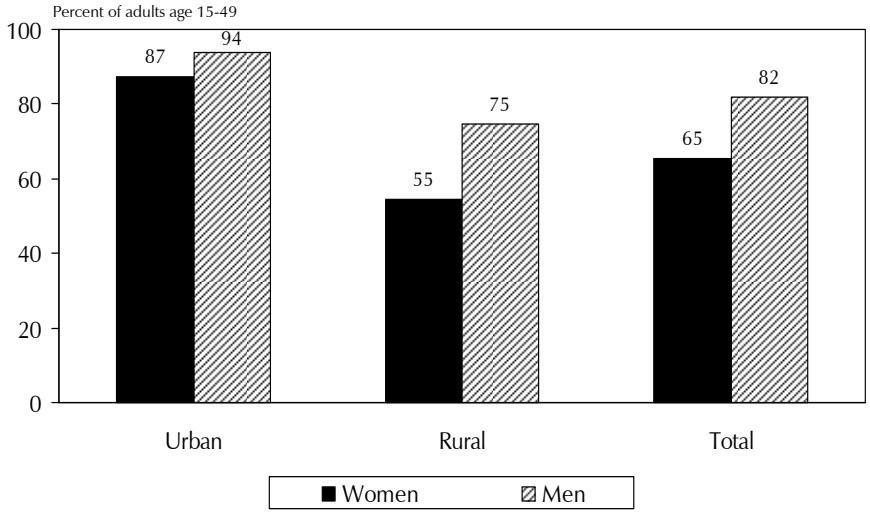
Table 3.5.2 Exposure to mass media: Men—*Continued*

Background characteristic	Exposure to mass media					Number of men
	Reads a newspaper or magazine at least once a week	Watches television at least once a week	Listens to the radio at least once a week	Visits the cinema/ theatre at least once a month	Not regularly exposed to any media	
Caste/tribe						
Scheduled caste	45.1	59.5	43.8	18.9	21.1	13,188
Scheduled tribe	29.5	39.5	36.3	13.6	37.8	5,725
Other backward class	54.1	63.1	46.2	21.0	17.4	27,219
Other	62.3	71.1	44.2	19.4	13.0	23,214
Don't know	41.6	73.2	54.3	30.3	10.4	177
Wealth index						
Lowest	17.1	24.5	34.4	10.8	49.3	11,031
Second	33.3	40.5	43.3	15.7	29.4	12,666
Middle	48.7	61.1	46.5	20.9	16.0	14,301
Fourth	65.3	79.8	48.2	22.9	6.7	15,493
Highest	84.8	93.1	46.1	23.8	1.7	16,260
Total age 15-49	53.0	63.2	44.3	19.5	18.3	69,751
Age 50-54	48.5	54.9	38.6	3.8	26.8	4,618
Total age 15-54	52.7	62.7	43.9	18.5	18.8	74,369

Note: Total includes men with missing information on education, religion, and caste/tribe, who are not shown separately.

The most common form of media for both women and men is television: 55 percent of women and 63 percent of men watch television at least once a week. However, among women, the next most common media source is the radio, whereas, for men, it is newspapers or magazines. Given the large gender differential in literacy, it is not surprising that only 23 percent of women have regular exposure to newspapers and magazines, compared with 53 percent of men. Men are also much more likely than women to be exposed to the cinema in a cinema hall or theatre: 6 percent of women, compared with 20 percent of men, usually see a movie in a hall or theatre at least once a month.

Figure 3.1 Mass Media Exposure by Residence and Sex



NFHS-3, India, 2005-06

For both women and men, media exposure is much higher in urban than in rural areas (Figure 3.1). Only 13 percent of women and 6 percent of men in urban areas are not regularly exposed to any media, compared with 45 percent of women and 25 percent of men in rural areas. The differential in exposure by residence for both women and men is least for exposure to radio and greatest for television and the cinema. Exposure to each type of media is highest for the age group 15-24; although for women, television viewing varies little by age. Never married women and men are more exposed to the media than ever-married women and men.

Muslims are less likely than women and men of most other religions to be regularly exposed to any media. Jains have the highest exposure to all forms of media. After the Jains, regular television viewing is most common among the Sikhs and exposure to newspapers and magazines is most common among Christians. Variation by religion is least with regard to radio listening. Notably, however, no matter what the type of media or the religion, women have lower exposure than men. By caste/tribe, scheduled tribe women and men have the lowest media exposure, compared with others who know their caste/tribe. Fifty-seven percent of scheduled tribe women and 38 percent of scheduled tribe men are not regularly exposed to media.

Finally, as expected, media exposure is strongly and positively related to wealth for both women and men. However, gender differentials in media exposure are significant in every wealth quintile and for most media. The proportion with no regular exposure to media declines sharply with the wealth index from 74 percent for women and 49 percent for men in the lowest wealth quintile to only 4 percent for women and 2 percent for men in the highest wealth quintile. What is particularly interesting is that gender differentials in media exposure remain large in all wealth quintiles and for all types of media except television. In the case of television, regular exposure increases between the lowest and the highest wealth quintile from 14 percent to 93 percent for women and from 25 percent to 93 percent for men. Thus, in the wealthiest quintile of the population, men and women are equally exposed to television. This is not true for any other form of media.

Tables 3.6.1 and 3.6.2 give information on exposure for women and men by type of media, according to state. In every state, as also in India as a whole, women are less likely than men to be regularly exposed to any media. The proportion with no regular exposure to media is highest for both women (60 percent) and men (40 percent) in Jharkhand. In the case of women, Bihar (58 percent) and Rajasthan (53 percent) follow Jharkhand, with only somewhat lower percentages of women with no regular exposure to media; whereas, in the case of men, Jharkhand is followed by Meghalaya (32 percent), Madhya Pradesh (31 percent) and Chhattisgarh (30 percent). Delhi, Manipur, Goa, and Kerala are the four states in which both women (90-92 percent) and men (94-98 percent) have the highest level of exposure to one or more forms of media.

Table 3.6.1 Exposure to mass media by state: Women

Percentage of women age 15-49 who usually read a newspaper or magazine, watch television, or listen to the radio at least once a week, who usually visit the cinema or theatre at least once a month, or who are not regularly exposed to any of these media by state, India, 2005-06

State	Exposure to mass media				
	Reads a newspaper or magazine at least once a week	Watches television at least once a week	Listens to the radio at least once a week	Visits the cinema/ theatre at least once a month	Not regularly exposed to any media
India	22.9	55.0	28.8	5.6	34.6
North					
Delhi	47.0	89.5	47.8	13.8	7.6
Haryana	25.0	62.1	19.0	3.0	32.3
Himachal Pradesh	32.5	72.4	34.5	2.4	21.3
Jammu & Kashmir	24.4	64.5	58.5	2.2	17.6
Punjab	31.9	80.4	19.0	4.8	15.7
Rajasthan	18.2	40.4	13.9	2.2	53.1
Uttaranchal	26.1	66.3	20.8	3.7	26.8
Central					
Chhattisgarh	11.7	44.8	18.4	2.2	47.4
Madhya Pradesh	17.7	43.0	24.5	2.8	46.9
Uttar Pradesh	14.3	40.1	29.7	1.6	47.5
East					
Bihar	10.8	23.1	27.7	2.5	58.2
Jharkhand	9.9	31.8	12.6	3.5	60.0
Orissa	11.5	52.1	22.3	2.8	38.8
West Bengal	18.5	51.6	33.7	5.7	36.0
Northeast					
Arunachal Pradesh	10.1	54.5	24.0	4.8	35.4
Assam	19.8	44.4	35.4	2.2	38.6
Manipur	44.1	71.6	79.7	18.1	9.0
Meghalaya	30.3	49.3	19.2	1.8	40.1
Mizoram	66.7	79.1	36.7	1.8	12.6
Nagaland	27.0	53.3	21.9	1.1	37.3
Sikkim	18.1	67.0	13.7	13.0	26.0
Tripura	18.8	67.2	23.8	1.8	25.7
West					
Goa	57.0	87.3	41.7	9.6	7.6
Gujarat	31.2	62.0	23.4	6.4	28.4
Maharashtra	39.2	69.4	33.7	7.0	23.6
South					
Andhra Pradesh	21.6	74.3	19.8	17.7	18.1
Karnataka	27.2	69.5	32.4	10.4	22.1
Kerala	59.6	73.0	41.5	8.1	9.5
Tamil Nadu	27.5	81.4	46.8	7.9	11.2

The most common form of media for women is television in all states except Bihar and Manipur, where the most common source is radio. For men too, television is the most common source in all states except Kerala and Rajasthan (where newspapers and magazines are the most common source) and Bihar, Jammu and Kashmir, Uttar Pradesh, and Manipur (where radio is the most common source). In general, television is the only media source in which gender differentials are low or even reversed. Notably, in Delhi, Goa, Jammu and Kashmir, and Sikkim women are somewhat more likely than men to be regularly exposed to television.

Exposure to newspapers or magazines ranges from 10 percent for women in Jharkhand and Arunachal Pradesh to 60 percent in Kerala and 67 percent in Mizoram. For men, exposure to newspapers or magazines varies from a low of 21 percent in Arunachal

Table 3.6.2 Exposure to mass media by state: Men

Percentage of men age 15-49 who usually read a newspaper or magazine, watch television, or listen to the radio at least once a week, who usually visit the cinema or theatre at least once a month, or who are not regularly exposed to any of these media by state, India, 2005-06

State	Exposure to mass media				
	Reads a newspaper or magazine at least once a week	Watches television at least once a week	Listens to the radio at least once a week	Visits the cinema/ theatre at least once a month	Not regularly exposed to any media
India	53.0	63.2	44.3	19.5	18.3
North					
Delhi	64.8	87.8	65.4	13.5	4.8
Haryana	50.6	63.1	30.6	5.9	21.8
Himachal Pradesh	64.6	79.9	48.9	7.2	7.0
Jammu & Kashmir	45.2	62.6	64.3	3.9	12.8
Punjab	55.7	84.8	30.5	7.4	9.5
Rajasthan	57.3	55.0	32.6	10.7	26.4
Uttaranchal	56.6	70.4	29.1	7.1	16.6
Central					
Chhattisgarh	44.2	55.6	30.7	8.0	30.2
Madhya Pradesh	40.9	49.8	38.2	10.0	30.8
Uttar Pradesh	49.7	50.1	52.0	8.3	23.1
East					
Bihar	40.4	33.4	50.7	19.4	27.3
Jharkhand	33.3	36.8	25.7	16.9	40.2
Orissa	43.6	60.8	38.8	14.1	24.8
West Bengal	43.9	56.9	43.2	15.4	22.3
Northeast					
Arunachal Pradesh	21.3	56.7	39.2	5.5	27.5
Assam	39.1	56.6	44.8	10.2	22.1
Manipur	70.1	73.2	85.9	24.1	4.4
Meghalaya	37.7	56.4	34.0	6.5	32.2
Mizoram	72.2	83.3	44.1	4.8	8.2
Nagaland	38.6	61.9	37.9	4.8	24.4
Sikkim	30.4	66.0	24.6	21.8	21.0
Tripura	45.6	73.3	26.6	1.3	18.5
West					
Goa	70.9	85.9	43.8	26.4	5.6
Gujarat	59.0	69.5	45.6	17.6	15.3
Maharashtra	68.0	76.3	48.8	23.3	10.5
South					
Andhra Pradesh	51.6	78.4	21.3	54.2	8.4
Karnataka	59.1	80.4	57.4	38.3	7.8
Kerala	87.6	80.7	49.1	35.6	1.7
Tamil Nadu	67.8	83.9	63.1	31.1	5.1

Pradesh to a high of 72 percent in Mizoram and 88 percent in Kerala. Radio listening among both women and men is most common in Manipur; however, radio listening is least common in Jharkhand for women and in Andhra Pradesh for men. In general, going to the cinema to watch movies is not common among women. This proportion is highest for women, at 18 percent, in Manipur and Andhra Pradesh; and in only three other states (Delhi, Sikkim, and Karnataka) is this proportion 10 percent or higher. By contrast, in Andhra Pradesh, more than half of the men (54 percent) say that they visit the cinema hall or theatre at least once a month to see a movie, and this proportion is 30 percent or more for men in Karnataka, Kerala, and Tamil Nadu. Going to the cinema is also relatively more common among men in Manipur, Sikkim, Goa, and Maharashtra (22-26 percent).

The overall pattern of exposure to media in India by sex, background characteristics, and state, shows great variation in access to different types of media, as well as to any media.

It also shows the much greater penetration of television than any other form of media in most states and for most groups of the population. The large gender and socioeconomic differentials in any media exposure and in exposure to different types of media need to be taken into consideration when IEC health or other strategies are being planned.

3.5 EMPLOYMENT STATUS

The ability of a country's economy to provide gainful employment to its population is an important aspect of the country's level of development. Paid employment of women, in particular, has been recognized as important for achieving the goal of population stabilization in India (Ministry of Health and Family Welfare, 2000). However, the empowering effects of employment for women in particular are likely to depend on their occupation, the continuity of their workforce participation, and whether they earn income.

NFHS-3 asked women and men several questions regarding their labour force participation through a sequence of questions. First women and men were asked if they had done any work in the seven days preceding the survey. In order to minimize under-reporting of women's work, women were asked an additional question to probe for informal work participation in the past seven days. Persons found to be not employed in the past seven days were asked if they were employed at any time in the 12 months preceding the survey. Employed persons were then asked about their occupation and about the type of payment they received for the work. Employed women were asked additional questions regarding who they were working for (for a family member; for someone else; or self-employed), their place of work (at home or away from home), and the continuity of their work (throughout the year; seasonal/part of the year; or once in a while).

Table 3.7.1 and 3.7.2 give the percent distributions of women and men by employment status, according to background characteristics. Currently employed persons are persons who were employed in the seven days preceding the survey and include those who did not work in the past seven days but who were absent from their regular work due to illness, leave, or any other such reason. Overall, 36 percent of women and 85 percent of men age 15-49 were currently employed. An additional 7 percent of women and 3 percent of men were not currently employed but were employed sometime in the 12 months preceding the survey. These data show that women are about half as likely as men in India to be employed.

The current employment of women increases with age from 27 percent for women age 15-19 to 46 percent for women age 35-39 and then falls to 41 percent for women in the oldest age group. For men, by contrast, the percentage employed increases from 47 percent in the age group 15-19 to 96-97 percent for men age 30 and above. Notably, almost half of even the adolescent men (age 15-19) are employed.

Table 3.7.1 Employment status: Women

Percent distribution of women age 15-49 by employment status, according to background characteristics, India, 2005-06

Background characteristic	Employed in the 12 months preceding the survey		Not employed in the 12 months preceding the survey	Total	Number of women
	Currently employed[1]	Not currently employed			
Age					
15-19	26.6	6.8	66.6	100.0	24,811
20-24	28.0	6.7	65.2	100.0	22,779
25-29	36.3	6.4	57.3	100.0	20,417
30-34	42.9	6.6	50.4	100.0	17,656
35-39	45.7	6.1	48.2	100.0	15,866
40-44	45.0	6.5	48.5	100.0	13,049
45-49	41.4	6.0	52.6	100.0	9,807
Residence					
Urban	27.0	2.3	70.7	100.0	40,817
Rural	40.8	8.6	50.6	100.0	83,568
Education					
No education	47.3	9.7	43.0	100.0	50,487
<5 years complete	41.3	7.5	51.2	100.0	9,918
5-7 years complete	33.2	5.2	61.5	100.0	18,820
8-9 years complete	24.0	4.4	71.7	100.0	17,383
10-11 years complete	19.5	2.8	77.7	100.0	12,887
12 or more years complete	28.4	2.6	69.0	100.0	14,882
Marital status					
Never married	31.4	5.4	63.2	100.0	25,462
Currently married	36.0	6.8	57.2	100.0	93,089
Widowed/divorced/ separated/deserted	62.8	6.1	31.1	100.0	5,834
Number of living children					
0	31.1	6.1	62.8	100.0	36,450
1-2	33.8	5.6	60.6	100.0	43,482
3-4	42.9	7.2	49.9	100.0	32,994
5+	43.2	9.4	47.3	100.0	11,459
Wealth index					
Lowest	47.7	14.7	37.6	100.0	21,718
Second	45.5	8.9	45.6	100.0	23,616
Middle	41.4	5.8	52.7	100.0	25,088
Fourth	30.0	3.4	66.5	100.0	26,106
Highest	20.8	1.7	77.5	100.0	27,856
Total	36.3	6.5	57.2	100.0	124,385

Note: Total includes women with missing information on education, who are not shown separately.

[1] 'Currently employed' is defined as having done work in the past seven days. Includes persons who did not work in the past seven days but who are regularly employed and were absent from work for leave, illness, vacation, or any other such reasons.

Men's employment varies little by urban-rural residence (83-86 percent); however, only 27 percent of urban women are employed, compared with 41 percent of rural women. The proportion employed among both women and men tends to decline with education, increasing somewhat only for those with at least 12 complete years of education. This generally negative association of education with employment is to be expected because the more educated tend to be younger and employment increases with age. In keeping with the age-employment association, never married women and men are less likely than their married counterparts to be employed and women and men with no children are less likely to be employed than those with children. Employment of women declines sharply with the wealth index from 48 percent among women in the lowest wealth quintile to 21 percent among

Table 3.7.2 Employment status: Men

Percent distribution of men age 15-49 by employment status, according to background characteristics, India, 2005-06

Background characteristic	Employed in the 12 months preceding the survey: Currently employed[1]	Employed in the 12 months preceding the survey: Not currently employed	Not employed in the 12 months preceding the survey	Missing	Total	Number of men
Age						
15-19	47.4	3.0	49.5	0.1	100.0	13,008
20-24	81.6	3.2	15.1	0.1	100.0	11,989
25-29	94.0	2.4	3.6	0.1	100.0	10,854
30-34	96.6	2.4	1.0	0.0	100.0	9,744
35-39	97.0	2.0	1.0	0.0	100.0	9,302
40-44	96.9	1.6	1.4	0.0	100.0	8,105
45-49	96.4	2.0	1.6	0.0	100.0	6,750
Residence						
Urban	82.5	1.5	16.0	0.1	100.0	25,504
Rural	85.7	3.1	11.2	0.0	100.0	44,247
Education						
No education	96.1	2.5	1.4	0.0	100.0	12,571
<5 years complete	94.4	3.1	2.4	0.1	100.0	7,109
5-7 years complete	90.9	2.7	6.3	0.0	100.0	11,523
8-9 years complete	79.4	2.7	17.9	0.1	100.0	14,398
10-11 years complete	72.7	2.0	25.2	0.1	100.0	10,380
12 or more years complete	77.7	2.0	20.2	0.1	100.0	13,754
Marital status						
Never married	63.4	2.9	33.6	0.1	100.0	25,307
Currently married	96.6	2.2	1.2	0.0	100.0	43,501
Widowed/divorced/ separated/deserted	94.3	2.3	3.4	0.0	100.0	942
Number of living children						
0	68.7	3.0	28.2	0.1	100.0	30,608
1-2	97.1	1.8	1.1	0.0	100.0	20,187
3-4	97.0	1.9	1.1	0.0	100.0	14,207
5+	95.6	3.6	0.8	0.1	100.0	4,748
Wealth index						
Lowest	89.4	4.4	6.1	0.1	100.0	11,031
Second	88.2	3.0	8.8	0.0	100.0	12,666
Middle	86.2	2.3	11.5	0.0	100.0	14,301
Fourth	83.9	2.0	14.1	0.0	100.0	15,493
Highest	77.5	1.3	21.1	0.1	100.0	16,260
Total age 15-49	84.5	2.5	13.0	0.1	100.0	69,751
Age 50-54	94.3	2.2	3.5	0.0	100.0	4,618
Total age 15-54	85.1	2.5	12.4	0.1	100.0	74,369

Note: Total includes men with missing information on education, who are not shown separately.
[1] 'Currently employed' is defined as having done work in the past seven days. Includes persons who did not work in the past seven days but who are regularly employed and were absent from work for leave, illness, vacation, or any other such reasons.

women in the highest wealth quintile. For men, although current employment does decline with wealth, the decline is relatively small: 89 percent of men in the lowest wealth quintile are employed, compared with 78 percent in the highest wealth quintile.

Table 3.8 shows information on the employment status of women and men by state. Current employment among women varies from a low of 21 percent in Punjab and 22-24 percent in Delhi, Assam, Haryana, and Bihar to 50 percent or higher in Andhra Pradesh (50 percent), Chhattisgarh (52 percent), Arunachal Pradesh (56 percent), and Manipur (59 percent). Current employment of men varies much less by state than current employment for

Table 3.8 Employment status of women and men by state

Percent distribution of women and men age 15-49 by employment status, according to state, India, 2005-06

State	Women				Men				
	Employed in the 12 months preceding the survey		Not employed in the 12 months preceding the survey	Total	Employed in the 12 months preceding the survey		Not employed in the 12 months preceding the survey	Missing	Total
	Currently employed[1]	Not currently employed			Currently employed[1]	Not currently employed			
India	36.3	6.5	57.2	100.0	84.5	2.5	13.0	0.1	100.0
North									
Delhi	22.1	0.7	77.1	100.0	79.6	1.2	19.2	0.0	100.0
Haryana	23.1	5.2	71.7	100.0	83.7	1.2	15.1	0.0	100.0
Himachal Pradesh	28.3	1.4	70.1	100.0	70.7	2.9	26.0	0.4	100.0
Jammu & Kashmir	36.9	1.8	61.3	100.0	76.6	1.8	21.3	0.3	100.0
Punjab	20.9	3.9	75.2	100.0	85.6	0.6	13.6	0.1	100.0
Rajasthan	46.0	9.4	44.6	100.0	82.6	2.5	14.9	0.0	100.0
Uttaranchal	42.0	2.8	55.2	100.0	79.5	2.2	18.2	0.1	100.0
Central									
Chhattisgarh	51.7	17.5	30.9	100.0	85.0	6.2	8.7	0.0	100.0
Madhya Pradesh	40.4	13.6	46.0	100.0	83.4	3.8	12.8	0.0	100.0
Uttar Pradesh	28.1	6.0	65.8	100.0	82.5	3.4	14.1	0.1	100.0
East									
Bihar	23.5	10.6	66.0	100.0	78.6	5.0	16.3	0.0	100.0
Jharkhand	29.2	27.7	43.2	100.0	77.7	7.7	14.6	0.0	100.0
Orissa	28.6	8.3	63.1	100.0	86.7	2.6	10.4	0.4	100.0
West Bengal	31.8	3.3	64.9	100.0	88.8	1.1	10.0	0.0	100.0
Northeast									
Arunachal Pradesh	56.0	16.7	27.3	100.0	81.5	3.3	15.0	0.2	100.0
Assam	22.5	7.2	70.2	100.0	80.8	3.1	15.9	0.3	100.0
Manipur	59.2	4.8	35.9	100.0	78.1	3.9	18.0	0.0	100.0
Meghalaya	33.7	7.5	58.8	100.0	76.8	2.9	20.3	0.0	100.0
Mizoram	40.2	5.4	54.4	100.0	84.1	3.4	12.3	0.2	100.0
Nagaland	41.6	4.2	54.1	100.0	76.9	1.1	22.0	0.0	100.0
Sikkim	26.8	4.5	68.7	100.0	82.2	2.8	15.0	0.0	100.0
Tripura	30.3	1.8	67.9	100.0	84.2	2.5	13.3	0.0	100.0
West									
Goa	34.7	4.0	61.4	100.0	81.8	2.4	15.8	0.0	100.0
Gujarat	49.1	3.9	47.0	100.0	91.4	1.1	7.5	0.0	100.0
Maharashtra	45.5	2.8	51.7	100.0	84.2	2.3	13.4	0.1	100.0
South									
Andhra Pradesh	49.6	2.5	47.8	100.0	87.5	0.8	11.7	0.0	100.0
Karnataka	40.2	6.1	53.7	100.0	89.3	1.1	9.6	0.0	100.0
Kerala	27.9	2.4	69.7	100.0	84.4	2.4	13.2	0.0	100.0
Tamil Nadu	46.2	3.6	50.2	100.0	86.4	0.9	12.6	0.0	100.0

[1] 'Currently employed' is defined as having done work in the past seven days. Includes persons who did not work in the past seven days but who are regularly employed and were absent from work for leave, illness, vacation, or any other such reasons.

women. Specifically, the percentage of men currently employed ranges from 71 percent in Himachal Pradesh to 91 percent in Gujarat. Men in every state are more likely than women to be employed and gender differentials are particularly large in states where women are least likely to be employed. In Punjab, for example, the proportion of men currently employed is four times the proportion of women currently employed.

Table 3.9 shows the occupational distribution of women and men employed in the 12 months preceding the survey by residence. The majority of employed women are agricultural workers (59 percent); whereas, no single occupation accounts for the majority of employed men. Over one-third of men are skilled or unskilled production workers and one-third are agricultural workers. Notably, however, similar proportions of employed women and men (7 percent, each) are in professional, technical, administrative, and managerial occupations.

The occupational distribution of women and men varies greatly by urban-rural residence. In rural areas, most employed women are either agricultural workers (73 percent) or skilled or unskilled production workers (18 percent); the rest of the occupations account for only 9 percent of rural employed women. Urban employed women have much greater occupational diversity. Thirty-six percent of urban employed women are skilled or unskilled production workers, 20 percent are service workers, 19 percent are in professional, technical, administrative, and managerial occupations, 11 percent are agricultural workers, and 9 percent are sales workers. For rural men, agricultural (49 percent), skilled and unskilled production (32 percent), and sales (9 percent) occupations account for most of the employed. For urban men, by contrast, skilled and unskilled production occupations are the most common (45 percent), followed by sales (23 percent), professional, technical, administrative, and managerial (12 percent), and service (8 percent) occupations. Notably, urban employed women are more likely than urban employed men to be in professional, technical, administrative, and managerial occupations.

Table 3.9 Occupation

Percent distribution of women and men age 15-49 employed in the 12 months preceding the survey by occupation, according to residence, India, 2005-06

Occupation	Urban	Rural	Total
WOMEN			
Professional[1]	18.6	2.9	6.5
Sales worker	8.7	2.3	3.7
Service worker	20.2	2.9	6.8
Production worker[2]	35.9	18.2	22.1
Agricultural worker	10.6	72.7	58.7
Other worker	5.4	0.8	1.8
Missing	0.6	0.2	0.3
Total	100.0	100.0	100.0
Number of women	11,974	41,273	53,247
MEN			
Professional[1]	11.5	4.0	6.7
Sales worker	22.5	9.0	13.8
Service worker	8.3	3.5	5.2
Production worker[2]	45.2	31.9	36.6
Agricultural worker	4.9	49.0	33.4
Other worker	7.1	2.1	3.9
Missing	0.5	0.5	0.5
Total	100.0	100.0	100.0
Number of men	21,411	39,257	60,668

[1] Includes technical, administrative, and managerial occupations.
[2] Includes skilled and unskilled manual occupations.

Table 3.10 shows the percent distributions of women age 15-49 employed in the 12 months preceding the survey by type of employer, continuity of employment, and type of earnings, and the percent distribution of men age 15-49 employed in the 12 months preceding the survey by type of earnings. The table also shows these distributions for women and men by type of occupation (agricultural and non-agricultural). Overall, 59 percent of women and 33 percent of men are in agricultural occupations.

Forty-four percent of all employed women work for a family member, and 15 percent are self employed. As expected, a majority of women doing agricultural work, work for a family member (58 percent) and the majority doing non-agricultural work are employed by non-family members (55 percent). Employed women are twice as likely to be self-employed if they are engaged in non-agricultural work (21 percent) than if they are engaged in agricultural work (11 percent). Three out of five employed women (60 percent) work throughout the year. The proportion working throughout the year is 78 percent among women doing non-agricultural work, compared with 46 percent doing agricultural work. Half of the women doing agricultural work are working seasonally. Notably, only 1 in 20 employed women work only occasionally.

Table 3.10 Type of employment

Percent distribution of women age 15-49 employed in the 12 months preceding the survey by type of employer and continuity of employment, and percent distributions of women and men age 15-49 employed in the 12 months preceding the survey by type of earnings, according to the type of occupation (agricultural or non-agricultural), India, 2005-06

Employment characteristic	Type of occupation		Total[1]
	Agricultural work	Non-agricultural work	
WOMEN			
Type of employer			
Employed by family member	58.3	24.6	44.4
Employed by non-family member	31.1	54.5	40.7
Self-employed	10.6	20.8	14.8
Missing	0.0	0.1	0.1
Total	100.0	100.0	100.0
Continuity of employment			
All year	46.3	78.3	59.5
Seasonal	49.7	14.9	35.4
Occasional	3.9	6.7	5.1
Missing	0.1	0.1	0.1
Total	100.0	100.0	100.0
Type of earnings			
Cash only	31.2	88.3	54.6
Cash and in-kind	17.0	5.4	12.3
In-kind only	17.2	1.2	10.6
Not paid	34.6	4.9	22.4
Missing	0.0	0.1	0.1
Total	100.0	100.0	100.0
Number of women	31,282	21,798	53,247
MEN			
Type of earnings			
Cash only	32.0	94.5	73.3
Cash and in-kind	44.4	3.8	17.4
In-kind only	9.5	0.3	3.4
Not paid	14.0	1.4	5.8
Missing	0.0	0.1	0.1
Total	100.0	100.0	100.0
Number of men	20,279	40,098	60,668

[1] Includes women/men with missing information on type of occupation who are not shown separately.

Fifty-five percent of employed women are paid only in cash and an additional 12 percent receive a combination of cash and in-kind payments for their work. Thus, 67 percent of employed women earn cash. More than one in five (22 percent) are not paid at all. The likelihood of being paid in cash varies greatly by the type of occupation. Eighty-eight percent of women in non-agricultural occupations are paid only in cash and an additional 5 percent are paid cash in part. By contrast, only 31 percent of women doing agricultural work are paid only in cash and another 17 percent receive cash and in-kind payments. Only 5 percent of women in non-agricultural occupations are not paid at all, compared with 35 percent in agricultural occupations.

In NFHS-3 employed men, like employed women were asked about the form of payment they receive for the work they do. Overall, 91 percent of employed men earn cash: 73 percent are paid only in cash and 17 percent receive both cash and in-kind payments.

Almost all men (98 percent) employed in non-agricultural work earn cash. In agricultural occupations, 44 percent of men receive a combination of cash and in-kind payments and only one-third receive only cash payments.

These data show that with regard to employment, women are doubly disadvantaged. Not only are women much less likely than men to be employed, when employed they are only 74 percent as likely as men to earn cash. The gender differential in cash earnings is much greater for those employed in agricultural work than in non-agricultural work, however. Whereas in urban areas, employed women are only marginally less likely than employed men to earn cash, in rural areas, employed women are only 63 percent as likely as employed men to earn cash.

FERTILITY AND FERTILITY PREFERENCES 4

A major objective of NFHS-3 is to provide detailed information on fertility levels, differentials, and trends. This chapter presents a description of current and past fertility, cumulative fertility and family size, birth order, birth intervals, age at first birth, and teenage pregnancy and motherhood. Also discussed are fertility preferences, the ideal and actual number of children, preference for sons or daughters, planning status of pregnancies, and wanted and actual total fertility rates. A major addition in NFHS-3 is the provision of information for men on fertility preferences, the ideal and actual number of children, and preference for sons or daughters. Also, data from the three rounds of NFHS surveys allow estimation of fertility trends.

Most of the fertility measures presented in this chapter are based on the complete birth histories collected from women age 15-49 years. Several measures and procedures were used to obtain complete and accurate reporting of births, deaths, and the timing of these events. First, women were asked a series of questions aimed at recording all the live births that had occurred in their lifetime. Second, for each live birth, information was collected on the age, sex, and survival status of the child. For dead children, age at death was recorded. Interviewers were given extensive training in probing techniques designed to help respondents report this information accurately. For example, interviewers were instructed to check any documents (such as horoscopes, school certificates, or vaccination cards) that might provide additional information on dates of birth, and to probe for any additional births in each birth interval in order to prevent the omission of births, especially of children who died soon after birth. Information was also collected on non-live births in the five years before the survey.

Despite these measures to improve data quality, NFHS-3 is subject to the same types of errors that are inherent in all retrospective sample surveys—namely, the omission of some births (especially births of children who died at a very young age) and the difficulty of determining the date of birth of each child accurately. These difficulties are likely to somewhat bias the estimates of fertility levels and trends.

4.1 FERTILITY LEVELS

NFHS-3 provides estimates of age-specific fertility rates (ASFR), total fertility rates (TFR), and crude birth rates (CBR) for the three-year period preceding the survey, which corresponds roughly to the period 2003-05. This three-year period was chosen as a compromise between the need to obtain recent information (suggesting the use of a short period closer to the survey date) and the need to reduce sampling variation and minimize problems related to displacement of births from recent years to earlier years (suggesting the use of a longer period). The ASFR for any specific age group is calculated by dividing the number of births to women in that age group during the period 1-36 months preceding the survey by the number of woman-years lived by women in that age group during the same three-year time period. The TFR is a summary measure, based on the ASFRs, that indicates the number of children a woman would bear during her reproductive years if she were to experience the ASFRs prevailing at the time of

the survey. Mathematically, the TFR is five times the sum of all the ASFRs for the five-year age groups. The CBR is defined as the annual number of births per 1,000 population.

Table 4.1 presents the trends in ASFR, TFR, and CBR from NFHS-1, NFHS-2, and NFHS-3. Based on estimates for the three-year period before NFHS-3, the CBR was 23.1 births per 1,000 population and the TFR was 2.7 births per woman. The CBR is 25.0 in rural areas and 18.8 in urban areas, slightly lower than 2004 CBR estimates of 25.9 in rural areas and 19.0 in urban areas from the Sample Registration System (Office of the Registrar General, 2006b). The total fertility rate is almost one child higher in rural areas (3.0) than in urban areas (2.1). Age-specific fertility rates are lower at all ages in urban areas than in rural areas. Seventy percent of urban total fertility and 63 percent of rural total fertility are concentrated in the prime childbearing ages 20-29. There is also a moderate amount of early childbearing at age 15-19. Fertility at age 15-19 accounts for 14 percent of total fertility in urban areas and 18 percent in rural areas. Fertility at ages 35 and older accounts for only 4 percent of total fertility in urban areas and 7 percent in rural areas.

Table 4.1 Current fertility

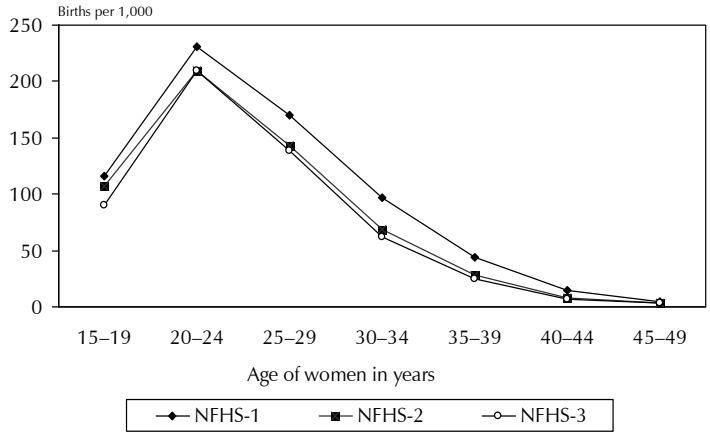
Age-specific and total fertility rates and crude birth rates from NFHS-3, NFHS-2, and NFHS-1 by residence, India

	NFHS-3			NFHS-2			NFHS-1		
Age	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
15-19	0.057	0.105	0.090	0.068	0.121	0.107	0.075	0.131	0.116
20-24	0.166	0.231	0.209	0.179	0.222	0.210	0.203	0.243	0.231
25-29	0.123	0.146	0.139	0.127	0.150	0.143	0.154	0.177	0.170
30-34	0.048	0.069	0.062	0.057	0.075	0.069	0.071	0.108	0.097
35-39	0.013	0.031	0.025	0.018	0.033	0.028	0.027	0.051	0.044
40-44	0.004	0.009	0.007	0.003	0.011	0.008	0.006	0.019	0.015
45-49	0.001	0.004	0.003	0.001	0.004	0.003	0.004	0.006	0.005
TFR 15-44	2.06	2.96	2.66	2.27	3.06	2.84	2.68	3.64	3.36
TFR 15-49	2.06	2.98	2.68	2.27	3.07	2.85	2.70	3.67	3.39
CBR	18.8	25.0	23.1	20.9	26.2	24.8	24.1	30.4	28.7

Note: Rates are for the period 1-36 months preceding the survey (approximately 1990-92 for NFHS-1, 1996-98 for NFHS-2, and 2003-05 for NFHS-3). Age-specific fertility rates are expressed per woman. Rates for the age group 45-49 might be slightly biased due to truncation.
TFR = Total fertility rate expressed per woman
CBR = Crude birth rate, expressed per 1,000 population

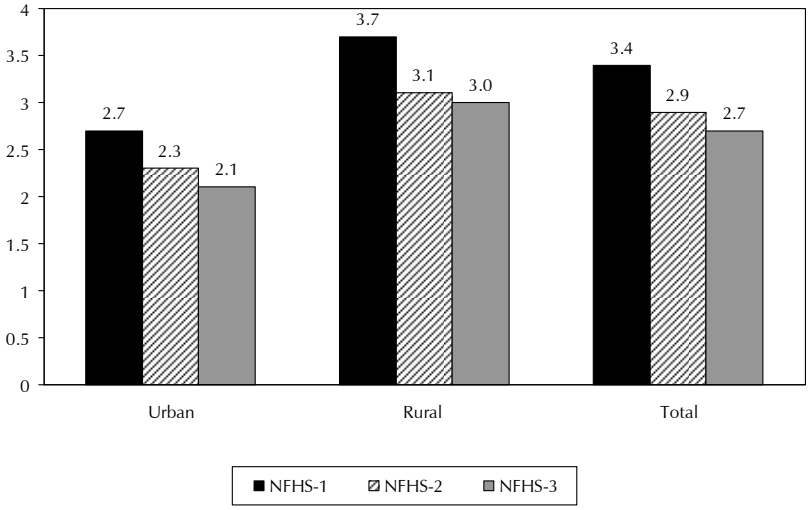
The CBR fell from 28.7 to 24.8 between NFHS-1 and NFHS-2, a decline of 14 percent in approximately six and one-half years. However, between NFHS-2 and NFHS-3, the CBR declined only half as fast, from 24.8 to 23.1 in almost the same time span. Between NFHS-1 and NFHS-2, the TFR fell by 0.54 children, from 3.39 to 2.85 (a decline of 16 percent). Between NFHS-2 and NFHS-3, the TFR however, declined by a meagre 0.17 children, from 2.85 to 2.68. Between NFHS-1 and NFHS-2, fertility fell mainly at ages 20 and above and very little at age 15-19 (Figure 4.1). Although fertility fell at ages 40-44 and 45-49, fertility at these ages was already very low in NFHS-1, so that fertility declines above age 40 had a negligible impact on the changes in the CBR and TFR between the two surveys. Between NFHS-2 and NFHS-3, the decline in ASFR was very small at all ages, with ASFR for women age 20-24 showing a very small increase in rural areas.

Figure 4.1 **Trends in Age-Specific Fertility Rates NFHS-1, NFHS-2, and NFHS-3**



The trend suggests a clear slowdown in fertility decline in the seven years between NFHS-2 and NFHS-3 compared with the earlier period between NFHS-1 and NFHS-2. This slowdown in fertility decline is mainly due to plateauing of fertility in rural areas (Figure 4.2).

Figure 4.2 **Trends in Total Fertility Rates by Residence**



4.2 FERTILITY DIFFERENTIALS AND TRENDS

Table 4.2 shows variations in the total fertility rate, the percentage of women currently pregnant, and the mean number of children ever born to women age 40-49 by background characteristics. The TFR for India is 1.8 children higher for women with no education than for women with 12 or more years of education. The TFR for Muslims is 0.8 children higher than the TFR for Hindus, and both of these groups have higher fertility than other major religious groups. The Hindu-Muslim fertility differential in NFHS-3 is the same as it was in NFHS-2. By

caste/tribe, the TFR is 0.6 children higher for scheduled-caste women, 0.8 children higher for scheduled-tribe women, and 0.4 children higher for women belonging to other backward classes (OBC) than for women who do not belong to any of these groups.

Table 4.2 Fertility by background characteristics

Total fertility rate for the three years preceding the survey, percentage of women age 15-49 currently pregnant, and mean number of children ever born to women age 40-49 by background characteristics, India, 2005-06

Background characteristic	Total fertility rate	Percentage currently pregnant	Mean number of children ever born to women age 40-49 years
Residence			
Urban	2.06	3.9	3.36
Rural	2.98	5.8	4.33
Education			
No education	3.55	5.9	4.71
<5 years complete	2.45	4.4	3.64
5-7 years complete	2.51	5.2	3.52
8-9 years complete	2.23	4.9	2.97
10-11 years complete	2.08	4.4	2.63
12 or more years complete	1.80	4.1	2.15
Religion			
Hindu	2.59	5.0	3.91
Muslim	3.40	6.8	5.08
Christian	2.34	4.0	3.06
Sikh	1.95	3.0	3.29
Buddhist/Neo-Buddhist	2.25	3.5	3.67
Jain	(1.54)	1.6	2.96
Other	3.98	6.9	4.30
Caste/tribe			
Scheduled caste	2.92	5.6	4.45
Scheduled tribe	3.12	5.9	4.59
Other backward class	2.75	5.4	4.12
Other	2.35	4.4	3.52
Don't know	1.98	3.5	3.55
Wealth index			
Lowest	3.89	7.2	5.17
Second	3.17	6.2	4.70
Middle	2.58	5.0	4.15
Fourth	2.24	4.6	3.68
Highest	1.78	3.3	2.98
Total	2.68	5.2	4.00

Note: Total includes women with missing information on education, religion, and caste/tribe, who are not shown separately.
( ) Based on 125-249 unweighted woman-years of exposure.

The TFR decreases steeply by the household's wealth index, from 3.9 children for women living in households in the lowest wealth quintile to 1.8 children for women living in households in the highest wealth quintile. Fertility transitions in other countries have shown that fertility differentials typically diverge early in the transition and reconverge (though rarely completely) toward the end of the transition as fertility approaches the replacement level. NFHS-3 shows that India as a whole still has substantial fertility differentials with the largest differentials in TFR by the wealth index quintiles.

Overall, 5.2 percent of women age 15-49 are currently pregnant. The direction of differentials in the percentage of women who are currently pregnant generally parallels the direction of differentials in the TFR. The percentage of currently pregnant women is relatively high in rural areas and among women with no education, Muslims, scheduled tribes, and women living in households in the lowest wealth quintiles.

The last column of Table 4.2 shows the mean number of children ever born to women age 40-49 at the time of the survey. The average number of children ever born for these women, who are at the end of their childbearing years, is 4.0. The substantial decline in fertility in India over time is evident from the difference of 1.3 children between the average number of children for women who are currently in their forties and the number of children women would have in their lifetime if they were subject to the current age-specific fertility rates (the last column and first column of Table 4.2). In almost every case, the pattern of differentials in the mean number of children ever born parallels the pattern of differentials in the TFR. The differentials by religion are a partial exception. For example, Sikhs and Buddhists/Neo-Buddhists have a moderately high number of children at age 40-49, but the lowest TFR of any religious group. Such exceptions can occur because the mean number of children ever born at age 40-49 reflects fertility in the past, whereas the TFR only reflects fertility in the three years preceding the survey.

Table 4.3 shows fertility levels and trends in urban and rural areas of each state. There is a wide diversity of fertility levels among the states. Total fertility rates range from 1.8 in Goa, Andhra Pradesh, and Tamil Nadu to 4.0 in Bihar (Figure 4.3). Eighteen of the 29 states have TFRs lower than the national TFR of 2.68. This skewed pattern occurs because the mean is strongly affected by the relatively high fertility in a handful of populous states in the northern half of the country—Bihar (with a TFR of 4.0), Uttar Pradesh (3.8), Rajasthan (3.2), and Madhya Pradesh (3.1). Jharkhand in the East Region and Arunachal Pradesh, Meghalaya, and Nagaland in Northeast Region also have high fertility, with TFRs of 3.0 and above. Fertility is low in the West and South Regions, where all states except Gujarat (with a TFR of 2.4) have replacement level fertility of 2.1 or fewer children per woman. In addition to these states, three states in the North Region (Delhi, Himachal Pradesh, and Punjab) and Sikkim in the Northeast Region have attained replacement level fertility or lower. Eleven states have TFRs between 2.2 to 2.9.

Table 4.3 Fertility by residence and state

Age-specific and total fertility rates (TFR) and crude birth rates for NFHS-3, and TFRs for NFHS-2 and NFHS-1, for the three-year period preceding the survey, according to residence and state, India, 2005-06

State	NFHS-3 age-specific fertility rates							Total fertility rate 15-49			NFHS-3 crude birth rate
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	NFHS-3	NFHS-2	NFHS-1	
URBAN											
India	0.057	0.166	0.123	0.048	0.013	0.004	0.001	2.06	2.27	2.70	18.8
North											
Delhi	0.041	0.158	0.143	0.063	0.012	0.002	0.000	2.10	2.37	3.00	18.0
Haryana	0.045	0.192	0.127	0.052	0.018	(0.000)	(0.000)	2.17	2.24	3.14	18.7
Himachal Pradesh	0.023	0.122	0.115	0.042	0.012	0.000	*	1.57	1.74	2.03	14.6
Jammu & Kashmir	0.013	0.082	0.134	0.070	0.028	0.000	(0.000)	1.63	1.66	na	15.0
Punjab	0.033	0.151	0.147	0.037	0.009	0.000	(0.000)	1.88	1.79	2.48	17.7
Rajasthan	0.069	0.177	0.129	0.057	0.004	0.008	0.000	2.21	2.98	2.77	19.8
Uttaranchal	0.024	0.162	0.182	0.060	0.013	0.000	*	2.21	2.14	na	18.5
Central											
Chhattisgarh	0.058	0.141	0.113	0.035	0.008	0.000	(0.000)	1.78	2.12	na	17.1
Madhya Pradesh	0.053	0.209	0.153	0.071	0.015	0.006	0.009	2.58	2.68	na	22.1
Uttar Pradesh	0.059	0.207	0.199	0.084	0.032	0.010	0.000	2.95	2.91	na	23.5
East											
Bihar	0.065	0.209	0.178	0.068	0.028	0.022	(0.004)	2.87	2.61	na	23.5
Jharkhand	0.072	0.188	0.142	0.038	0.024	0.000	(0.000)	2.32	2.95	na	21.0
Orissa	0.055	0.137	0.111	0.060	0.009	0.006	(0.000)	1.89	2.19	2.53	17.7
West Bengal	0.059	0.124	0.086	0.032	0.010	0.006	0.000	1.59	1.69	2.14	14.3
Northeast											
Arunachal Pradesh	0.078	0.154	0.165	(0.105)	(0.000)	*	*	2.51	1.77	nc	26.3
Assam	0.049	0.096	0.077	0.050	0.014	0.000	(0.000)	1.43	1.50	2.53	13.6
Manipur	0.026	0.110	0.131	0.131	0.057	0.015	0.000	2.35	2.36	nc	21.6
Meghalaya	0.032	0.116	0.150	0.061	0.049	(0.023)	*	2.28	2.75	nc	21.1
Mizoram	0.054	0.156	0.150	0.091	0.041	0.007	(0.000)	2.50	2.37	nc	23.3
Nagaland	0.050	0.144	0.147	0.110	0.053	0.031	(0.000)	2.68	2.66	nc	23.8
Sikkim	0.028	0.094	0.071	0.056	0.007	(0.000)	*	1.29	Nc	na	13.5
Tripura	0.081	(0.104)	0.078	(0.064)	(0.006)	(0.000)	*	1.66	1.36	nc	17.8
West											
Goa	0.033	0.090	0.123	0.082	0.023	0.004	(0.000)	1.77	1.69	1.80	16.6
Gujarat	0.050	0.183	0.105	0.034	0.013	0.000	0.000	1.92	2.33	2.65	18.2
Maharashtra	0.064	0.165	0.111	0.033	0.008	0.001	0.001	1.91	2.24	2.54	18.2
South											
Andhra Pradesh	0.071	0.174	0.066	0.029	0.006	0.001	0.000	1.73	2.07	2.35	17.7
Karnataka	0.052	0.167	0.104	0.040	0.009	0.005	0.000	1.89	1.89	2.38	18.6
Kerala	0.022	0.113	0.143	0.056	0.012	0.000	0.000	1.73	1.51	1.78	15.4
Tamil Nadu	0.054	0.131	0.102	0.041	0.010	0.002	0.000	1.70	2.11	2.36	16.0
RURAL											
India	0.105	0.231	0.146	0.069	0.031	0.009	0.004	2.98	3.07	3.67	25.0
North											
Delhi	(0.038)	*	*	*	*	*	*	2.50	nc	nc	18.1
Haryana	0.082	0.274	0.127	0.054	0.022	0.016	(0.008)	2.92	3.13	4.32	23.7
Himachal Pradesh	0.027	0.193	0.125	0.043	0.007	0.001	0.000	1.98	2.18	3.07	18.8
Jammu & Kashmir	0.038	0.174	0.181	0.099	0.022	0.014	0.012	2.69	3.00	na	23.2
Punjab	0.038	0.204	0.123	0.037	0.008	0.003	0.000	2.06	2.42	3.09	19.2
Rajasthan	0.109	0.273	0.189	0.097	0.036	0.013	0.006	3.62	4.06	3.87	27.9
Uttaranchal	0.053	0.232	0.154	0.073	0.015	0.007	0.000	2.67	2.76	na	23.1
Central											
Chhattisgarh	0.103	0.214	0.144	0.067	0.031	0.012	0.005	2.88	2.95	na	24.2
Madhya Pradesh	0.112	0.265	0.155	0.075	0.043	0.009	0.009	3.34	3.73	na	26.0
Uttar Pradesh	0.109	0.289	0.216	0.123	0.062	0.022	0.005	4.13	4.39	na	30.9

Continued…

Table 4.3 Fertility by residence and state—*Continued*

State	NFHS-3 age-specific fertility rates							Total fertility rate 15-49			NFHS-3 crude birth rate
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	NFHS-3	NFHS-2	NFHS-1	
East											
Bihar	0.139	0.288	0.209	0.114	0.072	0.015	0.009	4.22	3.82	na	34.0
Jharkhand	0.139	0.235	0.173	0.100	0.045	0.018	(0.028)	3.69	2.72	na	28.8
Orissa	0.077	0.201	0.133	0.056	0.019	0.007	0.002	2.48	2.50	3.00	23.0
West Bengal	0.142	0.201	0.107	0.038	0.012	0.001	0.005	2.54	2.49	3.25	24.2
Northeast											
Arunachal Pradesh	0.067	0.190	0.166	0.117	0.069	(0.033)	(0.000)	3.21	2.68	4.38	23.4
Assam	0.094	0.167	0.138	0.076	0.046	0.010	0.000	2.65	2.39	3.68	23.9
Manipur	0.050	0.148	0.188	0.139	0.068	0.013	0.008	3.07	3.41	3.03	26.8
Meghalaya	0.062	0.219	0.215	0.166	0.118	0.067	(0.028)	4.38	5.16	3.80	31.0
Mizoram	0.099	0.192	0.155	0.133	0.049	(0.039)	*	3.33	3.47	(2.30)	26.6
Nagaland	0.065	0.189	0.221	0.156	0.130	0.047	(0.023)	4.15	4.06	3.60	30.1
Sikkim	0.067	0.156	0.117	0.064	0.028	0.012	(0.000)	2.22	2.87	na	19.2
Tripura	0.114	0.157	0.109	0.077	0.008	0.002	0.000	2.34	1.99	2.91	22.8
West											
Goa	0.013	0.081	0.135	0.095	0.033	0.007	0.000	1.81	1.83	1.99	16.7
Gujarat	0.084	0.242	0.157	0.059	0.015	0.003	0.000	2.80	3.03	3.17	24.3
Maharashtra	0.105	0.232	0.088	0.030	0.005	0.000	0.000	2.31	2.74	3.12	19.3
South											
Andhra Pradesh	0.114	0.166	0.054	0.017	0.010	0.004	0.000	1.82	2.32	2.67	16.8
Karnataka	0.107	0.179	0.099	0.040	0.011	0.001	0.000	2.19	2.25	3.08	20.2
Kerala	0.042	0.162	0.140	0.050	0.012	0.001	0.000	2.03	2.07	2.09	16.9
Tamil Nadu	0.058	0.171	0.115	0.029	0.007	0.000	0.000	1.90	2.23	2.54	16.8
TOTAL											
India	0.090	0.209	0.139	0.062	0.025	0.007	0.003	2.68	2.85	3.39	23.1
North											
Delhi	0.040	0.165	0.141	0.065	0.014	0.002	0.000	2.13	2.40	3.02	18.1
Haryana	0.072	0.248	0.127	0.054	0.021	0.011	0.005	2.69	2.88	3.99	22.1
Himachal Pradesh	0.027	0.186	0.124	0.043	0.008	0.001	0.000	1.94	2.14	2.97	18.3
Jammu & Kashmir	0.032	0.148	0.167	0.089	0.024	0.009	0.007	2.38	2.71	na	20.9
Punjab	0.036	0.184	0.132	0.037	0.008	0.002	0.000	1.99	2.21	2.92	18.6
Rajasthan	0.098	0.245	0.171	0.085	0.026	0.012	0.004	3.21	3.78	3.63	25.7
Uttaranchal	0.045	0.214	0.162	0.069	0.015	0.005	0.000	2.55	2.61	na	21.8
Central											
Chhattisgarh	0.092	0.197	0.137	0.059	0.025	0.010	0.004	2.62	2.79	na	22.7
Madhya Pradesh	0.096	0.248	0.154	0.074	0.035	0.008	0.009	3.12	3.43	na	24.9
Uttar Pradesh	0.096	0.268	0.212	0.112	0.053	0.019	0.003	3.82	4.06	na	29.1
East											
Bihar	0.128	0.274	0.204	0.106	0.065	0.016	0.008	4.00	3.70	na	32.4
Jharkhand	0.122	0.222	0.165	0.084	0.040	0.012	0.017	3.31	2.76	na	26.8
Orissa	0.073	0.190	0.129	0.057	0.017	0.006	0.002	2.37	2.46	2.92	22.1
West Bengal	0.121	0.178	0.101	0.036	0.012	0.003	0.003	2.27	2.29	2.92	21.2
Northeast											
Arunachal Pradesh	0.070	0.178	0.165	0.113	0.053	0.026	(0.000)	3.03	2.52	4.25	24.1
Assam	0.086	0.154	0.127	0.071	0.039	0.007	0.000	2.42	2.31	3.53	22.1
Manipur	0.043	0.136	0.169	0.136	0.064	0.013	0.005	2.83	3.04	2.76	25.0
Meghalaya	0.054	0.190	0.197	0.136	0.100	0.055	0.027	3.80	4.57	3.73	28.7
Mizoram	0.074	0.172	0.152	0.109	0.044	0.020	(0.000)	2.86	2.89	2.30	24.8
Nagaland	0.060	0.175	0.200	0.142	0.112	0.042	0.016	3.74	3.77	3.26	28.5
Sikkim	0.059	0.141	0.108	0.062	0.024	0.010	(0.000)	2.02	2.75	na	18.2
Tripura	0.109	0.147	0.103	0.075	0.007	0.002	0.000	2.22	1.87	2.67	21.9

Continued…

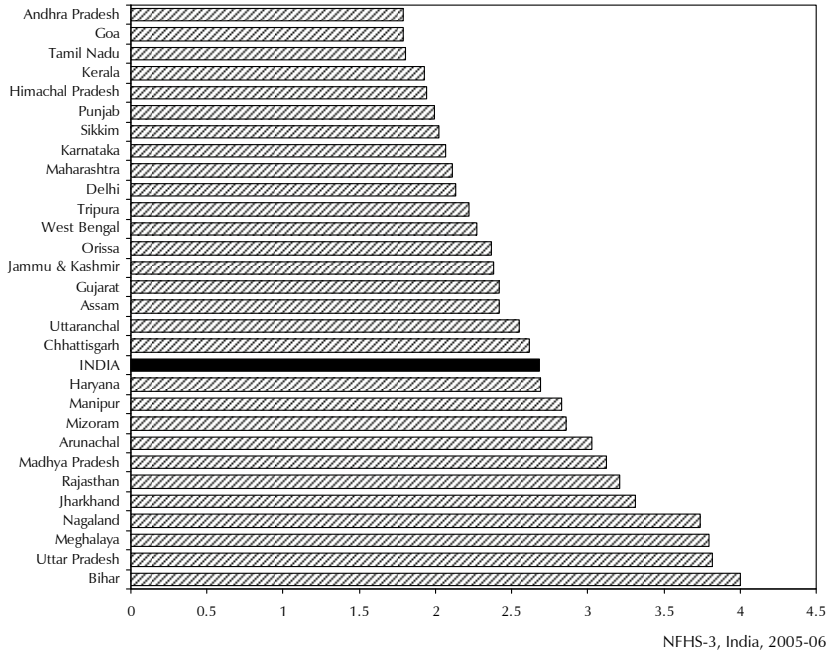
Table 4.3 Fertility by residence and state—*Continued*

State	NFHS-3 age-specific fertility rates							Total fertility rate 15-49			NFHS-3 crude birth rate
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	NFHS-3	NFHS-2	NFHS-1	
West											
Goa	0.025	0.086	0.128	0.087	0.027	0.005	0.000	1.79	1.77	1.90	16.7
Gujarat	0.070	0.217	0.133	0.048	0.014	0.002	0.000	2.42	2.72	2.99	21.7
Maharashtra	0.084	0.198	0.100	0.032	0.006	0.001	0.001	2.11	2.52	2.86	18.8
South											
Andhra Pradesh	0.098	0.168	0.058	0.021	0.009	0.003	0.000	1.79	2.25	2.59	17.1
Karnataka	0.086	0.175	0.101	0.040	0.010	0.002	0.000	2.07	2.13	2.85	19.6
Kerala	0.035	0.144	0.141	0.052	0.012	0.001	0.000	1.93	1.96	2.00	16.4
Tamil Nadu	0.056	0.151	0.109	0.034	0.008	0.001	0.000	1.80	2.19	2.48	16.4

Note: Age-specific fertility rates are expressed per woman.
( ) Based on 125-249 unweighted woman-years of exposure.
* Rate not shown; based on fewer than 125 unweighted woman-years of exposure.
na = Not applicable
nc = Not calculated because there are too few women

Table 4.3 also provides a comparison of fertility levels in rural and urban areas in each state. Overall, the urban areas of India have already reached the replacement level of fertility. Seventeen of the 29 states have replacement level fertility or lower in urban areas, including all states in the South and West Regions. TFRs are lower in urban than rural areas in all states. Urban TFRs vary from 1.3 in Sikkim to almost 3.0 in Uttar Pradesh. Urban TFRs are also relatively high in Bihar (2.9), Nagaland (2.7), and Madhya Pradesh (2.6). All states in the South and West Regions except Gujarat have replacement or near replacement level fertility in rural areas. Himachal Pradesh and Punjab have also attained replacement level fertility in rural areas.

Figure 4.3 **Total Fertility Rate by State**



NFHS-3, India, 2005-06

For India as a whole, the age-specific fertility rates are much higher in rural areas than in urban areas at all ages. The ratio of rural to urban fertility is lowest, but still substantial (1.2), at age 25-29. In both urban and rural areas, the peak age of childbearing is 20-24, with steadily declining fertility rates thereafter. In all states, the ASFRs are higher in rural areas than urban areas in almost all age groups. In urban areas, high fertility is still concentrated in the prime child bearing age 20-29 in most states. In rural areas also, nearly two-thirds of fertility is still concentrated in the prime childbearing age of 20-29 in most states. However, in rural areas, fertility is lower at age 25-29 than in teenage group 15-19 in Andhra Pradesh, Karnataka, Maharashtra, Tripura and West Bengal due to the early age at marriage and childbearing in these states. In the states with comparative fertility information in both NFHS-1 and NFHS-3, the TFR fell over time in all states except four small northeastern states. The TFR was about the same in NFHS-1 and NFHS-3 in Manipur and Meghalaya, but the TFR was estimated to be higher in NFHS-3 than in NFHS-1 in Mizoram and Nagaland.

Fertility trends based on estimates from NFHS-1, NFHS-2, and NFHS-3 for the three-year period preceding each survey have already been discussed above. Table 4.4 shows fertility trends for five-year time periods preceding NFHS-3, estimated solely from NFHS-3 birth histories. It is not possible to show TFRs because of progressively greater age truncation as one goes back in time. In NFHS-3, birth histories were collected only for women age 15-49. This means, for example, that for the period 5-9 years preceding the survey it is not possible to compute an ASFR for age 45-49. Similarly, for the period 10-14 years preceding the survey, it is not possible to compute ASFRs for the oldest two age groups, and for the period 15-19 years preceding the survey, it is not possible to compute ASFRs for the oldest three age groups. Thus Table 4.4 shows only the truncated trends in ASFRs. Results are shown separately for urban and rural areas as well as for the entire country. These results show very substantial fertility declines in every age group from 10-14 years preceding the survey to 0-4 years preceding the survey in both urban and rural areas. In many cases, age-specific fertility declined by 50 percent or more.

Table 4.4 Trends in age-specific fertility rates

Age-specific fertility rates for five-year periods preceding the survey by mother's age at the time of the birth, according to residence, India, 2005-06

Age	Number of years preceding the survey			
	0-4	5-9	10-14	15-19
	URBAN			
15-19	0.063	0.092	0.118	0.121
20-24	0.173	0.204	0.231	0.241
25-29	0.125	0.141	0.166	0.181
30-34	0.050	0.065	0.078	[0.113]
35-39	0.015	0.023	[0.042]	u
40-44	0.004	[0.008]	u	u
45-49	[0.001]	u	u	u
	RURAL			
15-19	0.113	0.160	0.183	0.175
20-24	0.235	0.268	0.282	0.276
25-29	0.152	0.184	0.213	0.213
30-34	0.074	0.104	0.133	[0.149]
35-39	0.033	0.056	[0.086]	u
40-44	0.010	[0.026]	u	u
45-49	[0.004]	u	u	u
	TOTAL			
15-19	0.097	0.138	0.162	0.157
20-24	0.214	0.247	0.264	0.264
25-29	0.143	0.170	0.197	0.202
30-34	0.066	0.091	0.114	[0.136]
35-39	0.027	0.045	[0.070]	u
40-44	0.008	[0.019]	u	u
45-49	[0.003]	u	u	u

Note: Age-specific fertility rates are expressed per woman. Estimates in brackets are truncated.
u = Not available

For the periods 0-4 years and 5-9 years before the survey, it is possible to calculate truncated TFRs (more appropriately called cumulative fertility rates, or CFRs) for the age range 15-39, based on the ASFRs shown in Table 4.4. This is done by summing ASFRs for the age groups 15-19 through 35-39 and multiplying the sum by five. For India as a whole, CFR (15-39)

declined from 3.5 to 2.7 over the five-year period. The decline was 0.5 for urban areas and 0.8 for rural areas, indicating that fertility fell more rapidly in rural areas than in urban areas during the 10 years before the survey. It should be noted that these estimated fertility declines may exaggerate to some degree the magnitude of the decline between these two five-year periods, because there is considerable age misreporting in India which could result in displacement of births from the first five-year period into the second five-year period before the survey.

4.3 CHILDREN EVER BORN AND LIVING

The number of children a woman has ever borne is a cohort measure of fertility. Because it reflects fertility in the past, it provides a somewhat different picture of fertility levels, trends, and differentials than do period measures of fertility such as the CBR and the TFR. Table 4.5 shows the percent distribution of all women and currently married women by the number of children ever born (CEB). The table shows these distributions by the age of the woman at the time of the survey and also shows the mean number of children ever born and living children.

Table 4.5 Children ever born and living

Percent distribution of all women and currently married women by number of children ever born (CEB), and mean number of children ever born and living, according to age, India, 2005-06

Age	Number of children ever born											Total	Number of women	Mean number of CEB	Mean number of living children
	0	1	2	3	4	5	6	7	8	9	10+				
ALL WOMEN															
15-19	87.9	9.2	2.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	24,811	0.15	0.14
20-24	39.0	25.1	22.9	9.4	2.7	0.8	0.1	0.0	0.0	0.0	0.0	100.0	22,779	1.15	1.06
25-29	12.5	15.4	30.5	21.6	11.9	5.4	2.1	0.6	0.1	0.0	0.0	100.0	20,417	2.34	2.14
30-34	5.5	8.6	26.9	23.9	14.9	10.2	5.4	2.9	1.2	0.4	0.2	100.0	17,656	3.12	2.80
35-39	4.0	6.2	23.1	23.3	16.2	10.9	6.8	4.6	2.6	1.3	0.9	100.0	15,866	3.57	3.14
40-44	3.4	5.4	19.1	21.7	18.1	12.0	8.0	4.8	3.5	2.1	1.8	100.0	13,049	3.90	3.35
45-49	3.3	5.0	15.8	20.6	18.5	12.7	9.2	6.0	4.0	2.5	2.5	100.0	9,807	4.14	3.48
Total	28.6	11.9	19.7	15.6	10.0	6.1	3.6	2.1	1.2	0.6	0.5	100.0	124,385	2.26	1.99
CURRENTLY MARRIED WOMEN															
15-19	56.1	33.4	9.1	1.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	100.0	6,726	0.56	0.51
20-24	18.6	33.2	30.6	12.6	3.6	1.1	0.2	0.0	0.0	0.0	0.0	100.0	16,782	1.53	1.41
25-29	6.6	15.8	32.7	23.2	12.8	5.8	2.3	0.7	0.1	0.0	0.0	100.0	18,540	2.51	2.30
30-34	3.2	8.3	27.3	24.6	15.4	10.6	5.7	3.0	1.2	0.5	0.2	100.0	16,459	3.23	2.90
35-39	2.4	5.5	23.4	23.6	16.6	11.3	7.1	4.9	2.8	1.4	1.0	100.0	14,492	3.68	3.24
40-44	2.0	4.8	19.2	21.8	18.5	12.4	8.3	5.0	3.8	2.3	1.9	100.0	11,605	4.01	3.45
45-49	2.0	4.4	15.9	20.8	18.9	13.1	9.2	6.2	4.2	2.6	2.6	100.0	8,484	4.24	3.58
Total	10.1	14.9	25.0	19.6	12.5	7.7	4.5	2.6	1.5	0.8	0.7	100.0	93,089	2.85	2.52

Among women age 15-49 in India, the mean number of children ever born is 2.26 for all women irrespective of marital status and 2.85 for currently married women. The mean number of children ever born increases steadily with age, reaching a high of 4.1 children for all women age 45-49 and 4.24 children for currently married women age 45-49. The table also shows that early childbearing is fairly common in India. Twelve percent of all women age 15-19 and 44 percent of currently married women age 15-19 have already had a child.

For women age 45-49, the number of children ever born is of particular interest because these women have virtually completed their childbearing. Among all women and currently married women in this age group, 21 percent have reached the end of childbearing with three children ever born and 19 percent have four children ever born. Almost one-fourth of women in this age group have had six or more live births. Only 2 percent of currently married women age 45-49 have never given birth. This suggests that primary infertility (which is the proportion of couples who are unable to have any children) is low in India.

Table 4.6 Birth order

Percent distribution of births during the three years preceding the survey by birth order, according to background characteristics, India, 2005-06, and percent distribution of births to ever-married women by birth order, NFHS-3, NFHS-2, and NFHS-1

Background characteristic	Birth order 1	2	3	4+	Total	Number of births
Mother's current age						
15-19	76.6	20.5	2.8	0.2	100.0	3,248
20-29	31.9	32.5	18.8	16.8	100.0	23,355
30-39	6.4	14.8	13.5	65.3	100.0	5,996
40-49	2.7	2.9	3.3	91.1	100.0	515
Residence						
Urban	37.4	32.3	14.1	16.3	100.0	8,357
Rural	29.1	26.1	16.7	28.1	100.0	24,757
Mother's education						
No education	20.1	21.2	18.0	40.7	100.0	15,989
<5 years complete	30.1	29.9	21.0	19.0	100.0	2,285
5-7 years complete	37.4	32.4	15.7	14.6	100.0	4,977
8-9 years complete	41.5	35.1	14.1	9.3	100.0	4,145
10-11 years complete	45.0	35.4	13.4	6.2	100.0	2,635
12 or more years complete	54.2	35.4	7.3	3.1	100.0	3,082
Religion						
Hindu	32.5	28.1	16.0	23.3	100.0	25,925
Muslim	24.1	24.2	16.6	35.1	100.0	5,616
Christian	34.4	32.0	15.5	18.2	100.0	663
Sikh	40.0	34.6	16.6	8.9	100.0	428
Buddhist/Neo-Buddhist	33.0	40.6	12.4	13.9	100.0	230
Jain	49.9	35.7	11.2	3.2	100.0	53
Other	23.0	16.6	10.9	49.5	100.0	167
Caste/tribe						
Scheduled caste	28.7	26.9	16.5	27.8	100.0	6,807
Scheduled tribe	26.3	22.2	16.4	35.1	100.0	3,161
Other backward class	31.4	26.9	16.5	25.2	100.0	13,366
Other	34.3	31.1	14.8	19.8	100.0	9,549
Don't know	39.0	27.9	15.1	18.1	100.0	122
Wealth index						
Lowest	20.7	21.0	16.4	41.9	100.0	8,331
Second	27.3	24.7	17.8	30.1	100.0	7,432
Middle	33.1	28.8	16.8	21.3	100.0	6,518
Fourth	36.8	32.7	16.0	14.6	100.0	6,032
Highest	45.9	36.2	11.5	6.4	100.0	4,802
Total	31.2	27.7	16.0	25.1	100.0	33,114
Births to ever-married women						
NFHS-3	31.2	27.7	16.0	25.1	100.0	33,104
NFHS-2	29.0	25.8	17.7	27.5	100.0	32,496
NFHS-1	27.6	23.9	17.6	30.9	100.0	37,916

Note: Total includes births with missing information on mother's education, religion and caste/tribe, who are not shown separately.

For all women age 15-49, the average number of dead children per woman is 0.27. For currently married women it is 0.33, implying that 12 percent of children ever born to currently married women have died. The proportion of children ever born who have died increases with women's age. For currently married women, the proportion of children ever born who have died increases from 8 percent at age 20-24 to 16 percent at age 45-49.

4.4 BIRTH ORDER

The distribution of births by birth order is yet another way to understand fertility. Table 4.6 shows the distribution of births during the three-year period before the survey by birth order for background characteristics. Overall, as expected, the proportion of births at each order is larger than the proportion at the next higher order. Thirty-one percent of all births are first-order births, 28 percent are second-order births, 16 percent are third-order births, and 25 percent are births of order four or higher.

Seventy-seven percent of births to mothers age 15-19 are of order one; by contrast, 65 percent of births to mothers age 30-39 are of order four or higher. The proportion of births that are of order four or higher is 16 percent in urban areas and 28 percent in rural areas. The proportion of births of order four or higher is particularly high for births to women with no education (41 percent), Muslim women (35 percent), and scheduled-tribe women (35 percent). The proportion of births of order four or higher is only 3 percent for women with 12 or more years of education. Forty-two percent of births to women in households in the lowest wealth quintile were of order four or higher, compared with just 6 percent of births to women in households in the highest wealth quintile. The decrease in fertility over time is evident from a comparison of the birth-order distribution in NFHS-1, NFHS-2, and NFHS-3 for ever-married women. The proportion of births of order four or higher decreased from 31 percent in NFHS-1 to 28 percent in NFHS-2 and 25 percent in NFHS-3.

4.5 BIRTH INTERVALS

A birth interval, defined as the length of time between two successive live births, indicates the pace of childbearing. Short birth intervals may adversely affect a mother's health and her children's chances of survival. Past research has shown that children born too close to a previous birth are at increased risk of dying. Recent research has shown that the optimal birth interval is 3-5 years for reducing neonatal and infant mortality (Rutstein, 2005) and achieving optimal nutrition outcomes. For child mortality, the longer the birth interval, the lower the risk, even for intervals of 48 months or more.

Table 4.7 shows the percent distribution of births during the five years preceding the survey by birth interval according to demographic and socioeconomic background characteristics. In India, 11 percent of births occur within 18 months of a previous birth and 28 percent occur within 24 months. More than 60 percent occur within three years of the previous birth. Only 28 percent have an optimal birth interval of 36-59 months.

The median closed birth interval in India is 31 months. The median closed birth interval for women age 15-19 is 25 months, which is substantially less than the median interval of 37 months for women age 30-39 and 40 months for women age 40-49. Very short birth interval for women age 15-19 at the time of the survey may result partly from a selection effect: Only women who have had two or more births are included in the table, and women age 15-19 with

more than one birth are likely to be more fecund than average. Given the finding that the median birth interval increases with mother's age, it is surprising that it does not also increase substantially with the order of the previous birth. Perhaps this is due to the absence of the selection effect just noted in the case of age. There may also be another type of selection effect operating: Mothers of higher-order births may be more fecund, on average, than mothers of lower-order births.

Table 4.7 Birth intervals

Percent distribution of births during the five years preceding the survey by interval since the preceding birth, and median number of months since the preceding birth, according to background characteristics, India, 2005-06

Background characteristic	Months since preceding birth						Total	Number of non-first order births	Median number of months since preceding birth
	7-17	18-23	24-35	36-47	48-59	60+			
Mother's current age									
15-19	22.5	23.0	41.6	10.6	2.2	0.1	100.0	788	24.9
20-29	12.9	18.4	36.4	18.9	7.6	5.8	100.0	25,449	29.0
30-39	8.0	11.9	27.7	20.4	12.5	19.5	100.0	11,742	36.8
40-49	6.0	10.2	25.0	19.2	13.1	26.6	100.0	1,237	40.0
Residence									
Urban	11.9	15.7	30.3	18.3	9.3	14.5	100.0	8,992	32.2
Rural	11.3	16.4	34.5	19.4	9.1	9.2	100.0	30,223	30.8
Mother's education									
No education	11.4	15.9	34.7	19.8	8.8	9.4	100.0	22,688	30.8
<5 years complete	9.7	16.4	34.9	19.3	9.9	9.9	100.0	2,888	31.3
5-7 years complete	12.6	17.1	33.3	18.4	8.7	9.9	100.0	5,172	30.4
8-9 years complete	12.5	17.9	32.6	18.1	8.4	10.5	100.0	3,877	30.3
10-11 years complete	11.4	17.1	31.1	17.0	9.8	13.6	100.0	2,350	31.7
12 or more years complete	9.4	13.8	25.7	18.3	13.4	19.3	100.0	2,240	36.5
Religion									
Hindu	11.2	16.5	33.7	19.2	9.3	10.1	100.0	30,181	31.1
Muslim	12.2	15.4	33.3	19.4	8.5	11.2	100.0	7,324	30.8
Christian	9.7	17.4	30.6	18.1	9.8	14.3	100.0	730	32.4
Sikh	19.5	16.8	26.8	15.6	8.6	12.6	100.0	429	29.6
Buddhist/Neo-Buddhist	13.4	12.7	42.4	16.1	6.7	8.7	100.0	240	30.2
Jain	3.5	9.9	22.8	22.7	16.8	24.4	100.0	41	41.6
Other	8.3	17.4	35.8	19.0	11.5	8.0	100.0	233	31.2
Caste/tribe									
Scheduled caste	12.0	16.1	35.0	18.8	9.0	9.0	100.0	8,403	30.4
Scheduled tribe	9.5	17.2	35.2	19.0	10.2	8.9	100.0	4,058	31.2
Other backward class	11.8	17.0	33.6	19.6	8.7	9.3	100.0	15,938	30.5
Other	11.1	15.0	31.8	18.8	9.5	13.7	100.0	10,548	32.5
Don't know	17.6	14.2	31.3	16.4	6.6	14.0	100.0	145	31.2
Wealth index									
Lowest	10.5	15.9	34.8	20.5	9.4	8.9	100.0	11,396	31.4
Second	11.4	16.1	35.2	20.0	8.9	8.3	100.0	9,398	30.7
Middle	12.0	18.0	34.8	17.7	8.1	9.4	100.0	7,644	29.8
Fourth	13.2	17.6	32.1	18.2	8.5	10.5	100.0	6,430	29.9
Highest	10.4	12.7	26.9	17.7	11.7	20.7	100.0	4,348	36.0
Birth order									
2-3	11.5	16.9	32.9	18.6	9.1	11.0	100.0	24,314	30.9
4-6	10.8	15.3	34.8	20.2	9.0	9.9	100.0	11,768	31.4
7+	13.1	15.5	33.8	19.4	10.0	8.3	100.0	3,133	31.0
Sex of preceding birth									
Male	10.8	16.3	33.6	19.3	9.4	10.5	100.0	18,973	31.3
Female	12.0	16.2	33.5	19.1	8.9	10.3	100.0	20,243	30.9
Survival of preceding birth									
Living	9.9	16.1	34.0	19.9	9.5	10.7	100.0	35,478	31.8
Dead	26.2	18.2	29.7	12.3	5.7	7.9	100.0	3,738	25.2
Total	11.4	16.3	33.6	19.2	9.1	10.4	100.0	39,215	31.1

Note: Total includes births with missing information on religion and caste/tribe, who are not shown separately. First-order births are excluded from the table. The interval for multiple births is the number of months since the preceding pregnancy that ended in a live birth.

The median birth interval is shorter if the previous child was a girl than if it was a boy, but the difference is only 0.4 months. This pattern is indicative of son preference. Birth intervals are much shorter if the previous child died (25 months) than if the previous child survived (32 months). In part, this reflects the shortening of postpartum amenorrhoea that occurs when the preceding child dies in infancy and breastfeeding stops prematurely. Women are also less likely to use temporary methods of contraception to postpone fertility if the previous child died and they want to replace the dead child. Since the use of temporary contraceptive methods is not common in India, the main effect is probably through prematurely terminated breastfeeding.

Table 4.8 Birth intervals by state

Percent distribution of births during the five years preceding the survey by interval since the preceding birth and median number of months since the preceding birth, according to state, India, 2005-06

State	Months since preceding birth						Total	Median number of months since preceding birth
	7-17	18-23	24-35	36-47	48-59	60+		
India	11.4	16.3	33.6	19.2	9.1	10.4	100.0	31.1
North								
Delhi	13.3	12.9	28.1	16.8	13.1	15.7	100.0	33.4
Haryana	14.3	15.4	33.7	18.8	8.6	9.2	100.0	30.4
Himachal Pradesh	16.2	16.2	32.7	15.8	8.6	10.6	100.0	29.9
Jammu & Kashmir	11.2	15.5	29.3	19.4	10.6	13.9	100.0	32.0
Punjab	17.8	17.1	29.9	16.0	7.3	11.9	100.0	29.7
Rajasthan	11.7	17.1	36.1	20.5	8.3	6.3	100.0	30.2
Uttaranchal	12.5	15.2	31.5	19.1	9.6	11.9	100.0	32.4
Central								
Chhattisgarh	8.9	14.4	34.3	18.2	12.6	11.7	100.0	33.0
Madhya Pradesh	12.2	18.4	36.6	18.6	7.5	6.8	100.0	29.2
Uttar Pradesh	13.0	17.2	34.2	18.3	8.6	8.7	100.0	29.8
East								
Bihar	11.6	16.9	34.5	20.5	8.4	8.0	100.0	29.9
Jharkhand	7.8	16.2	36.5	19.9	10.9	8.6	100.0	31.5
Orissa	8.5	14.2	33.3	21.8	11.3	10.9	100.0	33.8
West Bengal	9.0	12.6	30.0	19.0	11.7	17.6	100.0	35.2
Northeast								
Arunachal Pradesh	10.3	16.4	36.3	17.4	10.4	9.3	100.0	30.8
Assam	7.8	12.0	27.5	20.9	14.0	17.7	100.0	37.0
Manipur	6.5	13.4	31.7	18.8	15.5	14.0	100.0	35.4
Meghalaya	11.1	13.9	34.3	16.7	10.8	13.1	100.0	31.7
Mizoram	11.5	19.7	29.0	16.7	10.3	12.8	100.0	30.6
Nagaland	12.4	20.0	37.4	15.4	6.6	8.1	100.0	28.6
Sikkim	6.6	13.1	32.8	16.3	14.4	16.8	100.0	34.5
Tripura	7.2	13.4	24.7	18.9	13.7	22.2	100.0	39.0
West								
Goa	8.4	12.3	26.1	19.8	11.1	22.2	100.0	37.4
Gujarat	12.1	16.8	37.0	17.3	6.7	10.1	100.0	29.2
Maharashtra	10.1	15.0	33.8	19.9	8.7	12.5	100.0	31.9
South								
Andhra Pradesh	12.3	19.0	29.4	18.7	9.0	11.7	100.0	31.4
Karnataka	11.2	16.7	35.4	19.1	8.0	9.6	100.0	30.3
Kerala	5.9	12.9	20.6	21.3	12.7	26.5	100.0	41.2
Tamil Nadu	11.2	14.9	32.5	19.3	9.3	12.8	100.0	31.4

Note: First-order births are excluded from the table. The interval for multiple births is the number of months since the preceding pregnancy that ended in a live birth.

The median birth interval is slightly higher in urban areas (32 months) than in rural areas (31 months). Jain women have a much longer median birth interval than women of other religions. The median birth interval is also somewhat shorter for mothers from scheduled castes, scheduled tribes, and other backward classes than mothers of other castes. By education, the median birth interval varies only marginally (30-32 months) among mothers with no education and mothers with less than 12 years of education, but increases to 37 months for mothers with 12 or more years of education. The median birth interval by wealth index quintiles shows a weak J-shaped pattern. The median interval is much longer (36 months) for women in households in the highest wealth index quintile than for women in households in the first four wealth quintiles.

Table 4.8 shows how birth intervals vary among the states of India. The median interval since the preceding birth ranges from 29 months in Nagaland, Madhya Pradesh, and Gujarat to 41 months in Kerala. Other states with a median birth interval of 33 months or longer are Tripura, Goa, Assam, Manipur, West Bengal, Sikkim, Orissa, Delhi, and Chhattisgarh. In Kerala, 39 percent of births have an interval since the preceding birth of at least 48 months, compared with the national average of 20 percent of births.

4.6 AGE AT FIRST BIRTH

The age at which women start childbearing is an important demographic determinant of fertility. A higher median age at first birth is an indicator of lower fertility. Table 4.9 shows the percentage of women who gave birth by specified exact ages, the percentage of women who have never given birth, and the median age at first birth by age of women. The median age at first birth for any group of women is defined in this table as the age by which half of all women in the group have had a first birth, rather than the age by which half of all mothers in the group have had a first birth. If the median age at first birth calculated for an age group lies above the lower limit of that age group, it is not valid because some younger women in the age group who have not yet had a first birth will not have reached the median age by the time of the survey. In such cases, the estimate of the median is not shown.

Table 4.9 Age at first birth

Percentage of women who gave birth by specific exact age and who have never given birth and median age at first birth by current age, India, 2005-06

	Percentage who gave birth by exact age					Percentage who have never given birth	Number of women	Median age at first birth
Current age	15	18	20	22	25			
15-19	1.2	na	na	na	na	87.9	24,811	nc
20-24	3.4	21.7	41.6	na	na	39.0	22,779	nc
25-29	5.0	29.1	50.7	67.2	82.0	12.5	20,417	19.9
30-34	5.8	31.0	54.5	71.3	85.2	5.5	17,656	19.6
35-39	5.9	32.2	54.6	72.1	85.9	4.0	15,866	19.6
40-44	5.3	31.1	54.1	72.2	86.5	3.4	13,049	19.6
45-49	4.6	26.9	47.7	67.7	85.2	3.3	9,807	20.2
Age 20-49	4.9	28.3	50.1	na	na	13.8	99,574	20.0
Age 25-49	5.4	30.2	52.6	70.1	84.7	6.4	76,795	19.8

na = Not applicable
nc = Not calculated because less than 50 percent of women had a birth before reaching the beginning of the age group

Five percent of women age 25-49 have given birth by age 15. The percentage who gave birth by age 15 decreases steadily from 6 percent among women age 35-39 to 1 percent among women age 15-19. The same pattern of decreases at younger ages is evident for every exact age at birth. Thirty percent of women age 25-49 gave birth before age 18 and 53 percent gave birth by age 20. By age 25, 85 percent of women age 25-49 have given birth. The median age at first birth is 20 for women age 20-49 in the country as a whole. As shown in the last column of the table, the median age at first birth is almost constant in the five-year age groups. Although the median cannot be calculated for the 20-24 age group, it is clear that the median age at first birth for this group will be somewhat higher than the median for women age 25-29.

Table 4.10 Median age at first birth

Median age at first birth among women age 20-49 years by current age according to background characteristics, India, 2005-06, and by current age for NFHS-2 and NFHS-1

	Current age						Women age	Women age
Background characteristic	20-24	25-29	30-34	35-39	40-44	45-49	20-49	25-49
Residence								
Urban	nc	21.5	20.9	20.5	20.6	21.0	nc	20.9
Rural	nc	19.4	19.1	19.2	19.2	19.9	19.5	19.3
Education								
No education	18.9	18.4	18.5	18.6	18.8	19.6	18.7	18.7
<5 years complete	19.5	18.8	19.0	19.0	19.0	19.8	19.1	19.0
5-7 years complete	nc	19.6	19.3	19.8	19.7	20.1	19.7	19.6
8-9 years complete	nc	20.8	20.7	20.7	20.7	21.3	nc	20.8
10-11 years complete	nc	21.7	21.6	21.7	22.1	22.3	nc	21.8
12 or more years complete	nc	nc	24.9	24.6	24.6	24.5	nc	24.8
Religion								
Hindu	nc	20.0	19.6	19.6	19.6	20.2	20.0	19.8
Muslim	nc	19.3	19.0	18.9	19.1	19.3	19.4	19.1
Christian	nc	22.2	23.1	22.3	22.2	23.1	nc	22.6
Sikh	nc	22.1	21.3	21.6	21.8	22.3	nc	21.8
Buddhist/Neo-Buddhist	nc	20.3	19.0	18.9	19.1	20.7	19.9	19.6
Jain	nc	23.9	23.0	22.1	22.2	21.5	nc	22.7
Other	19.7	19.7	19.0	19.8	21.7	20.6	19.9	20.0
Caste/tribe								
Scheduled caste	nc	19.2	18.9	18.8	18.9	19.4	19.3	19.0
Scheduled tribe	19.9	19.1	18.9	19.1	19.1	19.7	19.3	19.1
Other backward class	nc	19.7	19.5	19.4	19.5	20.2	19.8	19.6
Other	nc	21.0	20.4	20.4	20.4	20.8	nc	20.6
Don't know	nc	19.4	20.0	18.8	19.3	20.7	19.9	19.6
Wealth index								
Lowest	19.0	18.3	18.5	18.8	18.8	19.5	18.7	18.6
Second	19.4	18.8	18.7	18.6	18.8	19.4	18.9	18.8
Middle	nc	19.4	19.1	19.2	19.2	19.9	19.6	19.3
Fourth	nc	20.4	20.0	19.7	19.5	20.3	nc	20.0
Highest	nc	23.0	22.1	21.7	21.3	21.3	nc	22.0
Total	nc	19.9	19.6	19.6	19.6	20.2	20.0	19.8
NFHS-2 (1998-99)[1]	nc	19.6	19.3	19.4	19.3	19.5	19.6	19.4
NFHS-1 (1992-93)[1]	nc	19.5	19.4	19.3	19.3	19.4	19.6	19.4

Note: Total includes women with missing information on education, religion and caste/tribe, who are not shown separately.
nc = Not calculated because less than 50 percent of women had their first birth before reaching the beginning of the age group
[1] Never married women were assumed to have no live births.

Table 4.10 shows the median age at first birth by the current age of women, according to background characteristics. Among all women age 25-49, the median age at first birth is 1.6 years higher in urban areas than in rural areas. The median decreases consistently from age 25-29 to age 35-39 in urban areas. The median age at first birth is six years higher for women who have completed 12 and more years of schooling than for women with no education. The median is about the same for Hindus, Muslims, and Buddhists/Neo-Buddhists, but it is considerably higher for Christians, Sikhs, and Jains. By caste/tribe, women from other backward classes have a median age at first birth that is about half a year higher than that of women from scheduled castes or scheduled tribes, and women belonging to none of these groups have the highest median (20.6 years). The median age at first birth increases steadily with wealth index quintiles. The median is more than three years higher for women in households in the highest wealth quintile than for women in households in the lowest wealth quintile.

4.7 TEENAGE PREGNANCY AND MOTHERHOOD

The marriage of girls at young ages in India leads to teenage pregnancy and motherhood. Young women who become pregnant and have births experience a number of health, social, economic, and emotional problems. In addition to the relatively high level of pregnancy complications among young mothers because of physiological immaturity, inexperience associated with child care practices also influences maternal and infant health. Moreover, an early start to childbearing greatly reduces the educational and employment opportunities of women and is associated with higher levels of fertility.

Table 4.11 shows the proportion of women age 15-19 who have had a live birth and women age 15-19 currently pregnant with their first child by background characteristics. The third column provides the percentage of women who have begun childbearing, which is the sum of the previous two percentages. Overall, 12 percent of women age 15-19 have become mothers and 4 percent of women age 15-19 are currently pregnant with their first child. This means that one in six women age 15-19 have begun childbearing. The percentage of women who have begun childbearing increases sharply with age, from 3 percent at age 15 to 36 percent at age 19.

Table 4.11 Teenage pregnancy and motherhood

Percentage of women age 15-19 who have had a live birth or who are pregnant with their first child, and percentage who have begun childbearing, by background characteristics, India, 2005-06

Background characteristic	Percentage who: Have had a live birth	Are pregnant with first child	Percentage who have begun childbearing	Number of women
Age				
15	1.3	1.2	2.5	4,814
16	4.1	2.3	6.4	5,237
17	8.6	3.8	12.5	4,801
18	17.9	6.1	24.0	5,606
19	29.7	6.1	35.7	4,353
Residence				
Urban	6.3	2.4	8.7	7,463
Rural	14.5	4.6	19.1	17,348
Education				
No education	25.9	6.6	32.6	5,375
<5 years complete	16.2	5.1	21.2	1,920
5-7 years complete	14.9	4.7	19.6	4,823
8-9 years complete	6.0	2.4	8.5	5,860
10-11 years complete	3.7	2.4	6.1	4,487
12 or more years complete	2.0	1.6	3.6	2,343
Marital status				
Never married	0.0	0.0	0.0	17,969
Currently married	43.9	14.4	58.2	6,726
Widowed/divorced/ separated/deserted	31.4	0.0	31.4	115
Religion				
Hindu	12.5	3.9	16.4	19,504
Muslim	11.6	4.4	16.0	3,996
Christian	5.7	2.9	8.6	526
Sikh	3.6	1.3	4.9	386
Buddhist/Neo-Buddhist	11.4	2.9	14.3	201
Jain	1.6	0.0	1.6	74
Other	15.5	5.0	20.4	111
Caste/tribe				
Scheduled caste	15.5	4.3	19.8	4,864
Scheduled tribe	16.0	5.1	21.1	2,117
Other backward class	12.0	4.0	16.0	10,020
Other	8.7	3.2	11.9	7,610
Don't know	12.8	4.7	17.6	98
Wealth index				
Lowest	19.2	6.0	25.3	4,432
Second	17.3	4.5	21.9	5,071
Middle	12.6	3.7	16.3	5,390
Fourth	8.2	3.5	11.7	5,181
Highest	3.3	1.8	5.1	4,738
Total	12.1	3.9	16.0	24,811

Note: Total includes women with missing information on education, religion and caste/tribe, who are not shown separately.

The proportion of women age 15-19 who have begun childbearing is more than twice as high in rural areas (19 percent) as in urban areas (9 percent). The level of teenage pregnancy and motherhood is 9 times higher among women with no education than among women with 12 or more years of education. More than one-quarter of women age 15-19 with no education have become mothers and almost one-third of them have begun childbearing.

Only a few never married women age 15-19 (less than 0.05 percent) reported a pregnancy or childbirth. However, 58 percent of married women age 15-19 have experienced motherhood or a current pregnancy. Almost one-third of women age 15-19 who are widowed, divorced, separated, or deserted have had a live birth. By religion, the level of teenage motherhood and pregnancy is higher for Hindu and Muslim women age 15-19 (16 percent) than for Buddhists/Neo-Buddhists (14 percent), Christians (9 percent), Sikhs (5 percent), and Jains (2 percent). The proportion of women age 15-19 who have begun childbearing is higher among women from scheduled castes (20 percent) and scheduled tribes (21 percent) than women from other backward classes (16 percent) and women who do not belong to any of these communities (12 percent). The level of teenage pregnancy and motherhood is five times as high for women in households with the lowest wealth index than for women in households with the highest wealth index.

Table 4.12 Teenage pregnancy and motherhood by state

Percentage of women age 15-19 who have had a live birth or who are pregnant with their first child and percentage who have begun childbearing, by state, India, 2005-06

State	Percentage who: Have had a live birth	Are pregnant with first child	Percentage who have begun childbearing
India	12.1	3.9	16.0
North			
Delhi	3.8	1.2	5.0
Haryana	7.5	4.6	12.1
Himachal Pradesh	2.1	0.9	3.1
Jammu & Kashmir	3.4	0.8	4.2
Punjab	3.6	1.9	5.5
Rajasthan	12.6	3.4	16.0
Uttaranchal	3.6	2.6	6.2
Central			
Chhattisgarh	11.2	3.4	14.6
Madhya Pradesh	10.6	3.0	13.6
Uttar Pradesh	11.2	3.1	14.3
East			
Bihar	19.3	5.7	25.0
Jharkhand	20.8	6.8	27.5
Orissa	10.4	4.1	14.4
West Bengal	19.3	6.0	25.3
Northeast			
Arunachal Pradesh	12.4	3.0	15.4
Assam	13.1	3.2	16.4
Manipur	5.2	2.1	7.3
Meghalaya	6.7	1.5	8.3
Mizoram	7.7	2.5	10.1
Nagaland	5.5	1.9	7.5
Sikkim	8.7	3.2	12.0
Tripura	14.0	4.5	18.5
West			
Goa	2.6	1.1	3.6
Gujarat	8.9	3.7	12.7
Maharashtra	11.0	2.9	13.8
South			
Andhra Pradesh	12.7	5.4	18.1
Karnataka	12.8	4.3	17.0
Kerala	2.9	2.9	5.8
Tamil Nadu	4.8	2.9	7.7

Table 4.12 shows the proportion of women age 15-19 who have had a live birth or who are currently pregnant with their first child by state. The proportion of women age 15-19 who have begun childbearing is highest in Jharkhand (28 percent), West Bengal (25 percent), and Bihar (25 percent), all in the East Region. The level of teenage childbearing is lowest (less than 5 percent) in Himachal Pradesh, Goa, and Jammu & Kashmir.

4.8 DESIRE FOR MORE CHILDREN

In order to obtain information on fertility preferences, NFHS-3 asked nonsterilized, currently married, nonpregnant women: 'Would you like to have (a/another) child or would you

prefer not to have any (more) children?' Pregnant women were asked, 'After the child you are expecting now, would you like to have another child or would you prefer not to have any more children?' Women who expressed a desire for additional children were asked how long they would like to wait before the birth of their next child. The survey also collected information on the ideal number of children by sex. In NFHS-3, all the above questions were also asked to men age 15-54.

Table 4.13 Fertility preferences by number of living children

Percent distribution of currently married women and currently married men age 15-49 by desire for children, according to number of living children, India, 2005-06

Desire for children	Number of living children[1]							Total
	0	1	2	3	4	5	6+	
				WOMEN				
Want another soon[2]	74.5	23.3	5.0	2.6	1.8	1.2	0.8	12.6
Want another later[3]	14.1	41.4	7.9	3.7	2.3	1.4	1.0	11.7
Want another, undecided when	2.4	2.9	0.9	0.5	0.3	0.5	0.2	1.2
Undecided	1.2	2.1	1.2	0.7	0.8	0.7	1.0	1.1
Want no more	2.1	21.8	36.7	31.1	37.4	46.1	61.4	32.1
Sterilized[4]	0.7	5.9	46.4	59.3	54.4	45.7	27.9	38.3
Declared infecund	4.8	2.5	1.7	2.0	3.0	4.4	7.5	2.8
Missing	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	7,797	15,920	26,318	20,153	11,710	5,825	5,366	93,089
				MEN				
Want another soon[2]	72.5	26.6	6.1	3.9	2.4	1.6	0.8	14.1
Want another later[3]	17.7	42.0	7.7	3.6	2.3	2.3	1.7	12.5
Want another, undecided when	3.1	1.7	0.5	0.3	0.3	0.0	0.2	0.8
Undecided	1.6	2.6	1.8	1.3	0.7	1.6	1.2	1.6
Want no more	2.5	23.2	58.2	59.6	67.7	71.0	82.1	50.5
Sterilized[5]	1.7	3.7	25.5	31.0	26.5	23.4	13.7	20.1
Declared infecund	0.8	0.1	0.1	0.2	0.0	0.0	0.2	0.2
Missing	0.2	0.1	0.2	0.1	0.0	0.0	0.0	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of men	3,838	7,662	12,846	9,156	5,164	2,546	2,291	43,501

[1] Includes current pregnancy of woman/wife.
[2] Wants next birth within 2 years.
[3] Wants to delay next birth for 2 or more years.
[4] Includes both female and male sterilization.
[5] Includes male sterilization and men who mention in response to the question about desire for children that their wife has been sterilized.

Table 4.13 shows future fertility preferences of currently married women and men age 15-49. The overall percentage who want no more children is similar for women and men. For currently married women, 32 percent say that they do not want any more children, an additional 38 percent cannot have another child because either the wife or the husband has been sterilized, and 3 percent say that they cannot get pregnant (that is, they are 'declared infecund'). Among men age 15-49, 51 percent do not want to have any more children and 20 percent reported that they or their wife/wives are sterilized or infecund. Twenty-six percent of women say they would like to have another child (13 percent within two years, 12 percent after waiting at least two years, and 1 percent undecided when). About the same proportion of men (27 percent) reported that they would like to have another child (14 percent within 2 years, 13 percent after waiting at least 2 years, and 1 percent undecided when).

The desire to stop childbearing increases rapidly with the number of living children. Only 3 percent of women with no living children say they do not want any children (the woman or her husband is sterilized or the woman says she wants no more children), compared with 83 percent

of women with two living children and 90 percent of women with three living children. Similar percentages for men are 4 percent with no living children, 84 percent with two living children, and 91 percent with three living children.

Table 4.14.1 Desire to limit childbearing: Women

Percentage of currently married women age 15-49 who want no more children by number of living children, according to background characteristics, India, 2005-06, and by number of living children, NFHS-2 and NFHS-1

Background characteristic	Number of living children[1]							Total
	0	1	2	3	4	5	6+	
Age								
15-24	0.5	11.2	64.4	76.2	82.5	90.8	88.6	31.5
25-34	2.0	36.2	86.5	89.2	90.2	91.5	92.2	77.5
35-49	18.1	73.5	93.1	95.0	93.7	92.0	88.4	89.8
Residence								
Urban	4.1	37.0	88.9	94.8	94.4	92.4	88.7	73.9
Rural	2.2	22.5	79.9	88.6	90.8	91.6	89.5	69.0
Education								
No education	3.8	21.2	73.3	87.1	90.5	91.0	89.0	72.6
<5 years complete	3.6	28.5	85.9	93.5	91.8	95.2	91.5	74.3
5-7 years complete	2.5	23.6	84.7	93.2	94.9	93.8	89.1	69.7
8-9 years complete	1.7	25.9	87.1	94.1	95.4	94.3	96.5	66.8
10-11 years complete	1.6	33.5	90.4	95.0	96.2	94.4	87.6	68.8
12 or more years complete	1.7	39.3	92.3	96.1	94.2	90.6	88.0	63.7
Religion								
Hindu	2.7	29.1	84.8	91.6	92.7	93.3	90.3	71.2
Muslim	2.9	14.3	66.2	81.1	86.8	86.6	87.2	64.3
Christian	1.2	30.6	86.7	88.7	89.2	82.8	83.4	70.1
Sikh	5.3	47.1	92.3	96.5	96.5	95.8	(96.1)	80.4
Buddhist/Neo-Buddhist	8.7	37.0	90.6	94.6	97.3	(89.9)	(98.9)	80.8
Jain	(3.9)	38.0	94.4	97.8	*	*	*	79.2
Other	0.4	6.3	71.2	69.5	79.7	73.3	89.6	56.6
Caste/tribe								
Scheduled caste	1.1	23.1	78.9	89.2	92.9	93.3	88.3	69.5
Scheduled tribe	3.5	18.2	74.3	86.9	90.1	90.8	89.7	65.9
Other backward class	2.6	22.3	82.3	90.2	91.2	90.9	91.4	69.9
Other	3.7	37.5	87.3	92.2	92.2	92.2	87.2	72.9
Don't know	(7.7)	37.1	93.5	94.3	(90.8)	*	*	76.8
Wealth index								
Lowest	3.0	16.2	65.1	82.0	88.5	89.6	88.8	65.0
Second	2.4	18.9	78.3	87.4	90.3	91.1	89.3	68.2
Middle	2.0	23.3	82.8	92.6	92.9	94.3	89.0	71.0
Fourth	2.8	28.1	86.8	93.6	94.0	92.3	92.1	72.8
Highest	3.7	42.2	91.6	95.4	95.1	94.5	86.7	74.7
Number of living sons[2]								
0	2.8	23.9	62.1	65.3	61.5	65.2	64.3	27.1
1	na	36.3	88.1	89.9	89.2	89.0	90.6	76.4
2	na	na	89.9	95.7	95.5	93.7	92.8	93.5
3	na	na	na	93.2	95.1	94.4	90.3	93.6
4+	na	na	na	na	93.0	94.1	88.6	90.7
Total	2.8	27.7	83.2	90.4	91.7	91.8	89.3	70.5
NFHS-2 (1998-99)	2.1	18.1	72.4	84.2	87.7	86.8	83.7	63.6
NFHS-1 (1992-93)	2.7	14.3	59.7	77.0	82.8	84.4	81.8	56.7

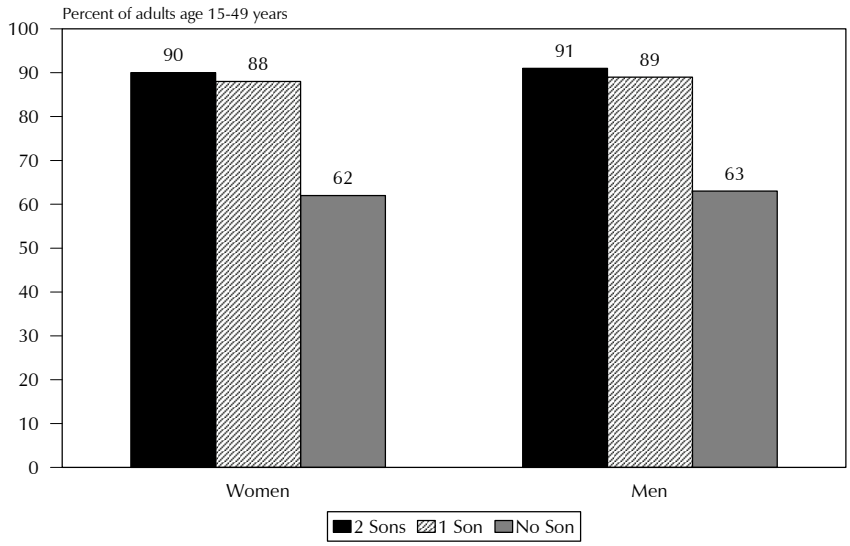
Note: Total includes women with missing information on education, religion and caste/tribe, who are not shown separately. Women who have been sterilized or whose husband has been sterilized are considered to want no more children.
( ) Based on 25-49 unweighted cases.
* Percentage not shown; based on fewer than 25 unweighted cases.
na = Not applicable
[1] Includes current pregnancy.
[2] Excludes pregnant women.

Table 4.14.1 provides information about differentials in women's desire to limit family size by background characteristics. Women who are sterilized (or whose husbands are sterilized) are included among those who say they want no more children. As expected, older women are

much more likely than younger women to want no more children. At age 15-24, only 32 percent of women want no more children. This percentage rises rapidly to 78 percent of women age 25-34 and 90 percent of women age 35-49. The proportion of women who want no more children is somewhat higher among urban women (74 percent) than among rural women (69 percent). The urban-rural differential is particularly large for women with one living child. There is no strong pattern by educational attainment overall, but the desire to stop childbearing increases steadily with the level of education for women with 1-3 children, with the exception of women with less than five years of education. The proportion of women with two living children who do not want to have any more children is much lower for Muslim women (66 percent) than for women in any other religious group. By caste/tribe, the percentage of women who do not want any more children is lower among women belonging to scheduled castes, scheduled tribes, and other backward classes than for women in other caste/tribe groups. The percentage of women with two living children who want to stop childbearing increases from 65 percent for women in households in the lowest wealth quintile to 92 percent for women in households in the highest wealth quintile.

A strong preference for sons is evident from the responses of women with different numbers of sons and daughters. For every number of children, the percentage of women who want to stop childbearing is lowest if the woman does not have any sons. For example, among women with two living children, 90 percent want to stop childbearing if both their living children are sons and 88 percent want to stop childbearing if they have one son and one daughter (Figure 4.4). The proportion who do not want any more children decreases to 62 percent for women with two daughters and no sons. Nevertheless, the proportion of women with two daughters and no sons who want no additional children increased rapidly from 37 percent in NFHS-1 to 47 percent in NFHS-2 and 62 percent in NFHS-3 (data not shown).

Figure 4.4 Currently Married Women and Men with Two Children Who Want No More Children by Number of Sons



NFHS-3, India, 2005-06

Rapid changes in fertility preferences in the 13 years preceding NFHS-3 are shown in the last three rows of Table 4.14.1. During that period (from NFHS-1 to NFHS-3), the percentage of women with one living child who say they want no more children doubled from 14 percent to 28 percent. The percentage with two living children who want no more increased from 60 percent to 83 percent, indicating increasing acceptance of a two-child family.

Table 4.14.2 Desire to limit childbearing: Men

Percentage of currently married men age 15-49 who want no more children by number of living children, according to background characteristics, India, 2005-06

Background characteristic	Number of living children[1]							Total
	0	1	2	3	4	5	6+	
Age								
15-24	1.1	7.7	56.2	70.5	(83.8)	*	*	16.8
25-34	2.8	20.1	75.6	82.1	88.8	87.1	91.5	57.7
35-49	14.5	58.0	93.1	95.6	96.3	96.2	96.4	89.6
Residence								
Urban	4.7	32.1	88.0	92.9	95.0	94.7	96.1	71.3
Rural	4.0	23.5	80.9	89.5	93.9	94.3	95.7	70.3
Education								
No education	6.9	22.8	74.8	87.6	91.5	93.4	95.1	73.6
<5 years complete	4.1	20.6	81.6	91.5	95.0	95.2	96.7	73.4
5-7 years complete	3.7	18.2	82.8	92.4	94.6	95.0	97.1	69.0
8-9 years complete	2.5	21.9	81.7	89.4	94.5	96.1	94.8	66.5
10-11 years complete	6.5	33.5	88.7	91.4	98.2	94.6	95.1	72.5
12 or more years complete	2.7	36.9	90.4	93.7	96.9	93.4	99.7	69.2
Religion								
Hindu	4.1	28.5	85.1	91.4	94.8	95.6	96.3	71.2
Muslim	5.4	11.9	67.2	83.2	91.1	91.1	94.9	66.2
Christian	1.6	25.6	86.9	87.0	83.7	89.7	90.1	67.7
Sikh	(4.3)	42.3	92.1	98.0	99.2	*	*	78.4
Buddhist/Neo-Buddhist	(11.3)	22.2	93.3	94.8	100.0	*	*	79.5
Jain	*	(25.8)	83.8	(99.5)	*	*	a	70.1
Other	(0.4)	20.9	59.5	83.8	93.5	(81.5)	(86.2)	59.6
Caste/tribe								
Scheduled caste	4.3	22.9	79.9	90.0	93.8	95.2	96.8	70.0
Scheduled tribe	3.2	16.5	74.8	86.0	90.8	92.8	92.5	65.2
Other backward class	3.8	23.9	83.8	90.8	94.4	94.9	96.6	71.4
Other	5.1	33.6	86.7	92.2	95.3	93.5	95.5	71.5
Don't know	*	*	93.1	(87.2)	*	*	*	81.0
Wealth index								
Lowest	3.4	15.6	68.2	84.1	92.4	94.2	94.6	68.0
Second	3.3	18.4	78.9	89.2	94.3	93.6	96.6	70.5
Middle	4.8	22.2	83.1	91.9	93.2	96.9	94.7	70.2
Fourth	3.6	28.9	87.0	92.4	96.3	92.3	98.0	71.9
Highest	5.8	38.5	91.1	95.2	96.2	95.8	98.1	72.1
Number of living sons[2]								
0	4.2	21.2	63.3	59.6	61.0	55.9	70.2	26.6
1	na	37.0	89.1	91.0	93.7	93.3	96.3	77.5
2	na	na	91.4	97.5	98.5	98.6	98.5	95.8
3	na	na	na	91.4	97.5	98.5	98.6	98.5
4+	na	na	na	na	96.0	97.0	97.9	97.4
Total age 15-49	4.2	26.9	83.6	90.6	94.2	94.4	95.8	70.6
Age 50-54	33.1	90.8	97.0	99.0	99.3	98.4	96.4	96.1
Total age 15-54	5.0	29.4	84.6	91.5	94.9	95.0	95.9	72.9

Note: Total includes men with missing information on education, religion and caste/tribe, who are not shown separately. Men who have been sterilized or who mention in response to the question about desire for children that their wife has been sterilized are considered to want no more children.
( ) Based on 25-49 unweighted cases.
* Percentage not shown; based on fewer than 25 unweighted cases.
a = No cases
na = Not applicable
[1] Includes wife's current pregnancy.
[2] Excludes men whose wife is pregnant.

Overall, the table shows that in every population group, more than 60 percent of women with two or more living children want no more children. The table also shows that within each group, the proportion of women who want no more children rises sharply with the number of living children.

Table 4.14.2 shows similar patterns for the percentage of currently married men age 15-49 who want to stop childbearing. The percentage of men who want to stop childbearing increases with age. The percentage of men who do not want to have any more children is typically highest for men with 10 or more years of education. By caste/tribe, the percentage of men who do not want any more children is lowest for scheduled tribes for every number of living children and generally highest for men who do not belong to scheduled castes, scheduled tribes, and other backward classes. The percentage of men with two living children who do not want to have any more children increases from 68 percent for men in households in the lowest wealth

Table 4.15.1 Desire to limit childbearing by state: Women

Percentage of currently married women age 15-49 who want no more children by number of living children, according to state, India, 2005-06

State	Number of living children[1]							Total
	0	1	2	3	4	5	6+	
India	2.8	27.7	83.2	90.4	91.7	91.8	89.3	70.5
North								
Delhi	3.5	35.7	91.6	94.7	95.3	96.6	99.2	77.0
Haryana	0.8	26.9	87.8	96.0	94.7	95.1	89.3	76.4
Himachal Pradesh	2.0	44.2	96.3	98.2	97.2	(97.9)	(97.7)	83.4
Jammu & Kashmir	2.8	15.6	77.6	90.5	95.6	94.6	94.1	73.7
Punjab	3.8	39.0	91.2	96.3	97.3	96.7	98.2	78.6
Rajasthan	1.3	14.6	72.8	86.2	93.2	92.9	95.1	67.2
Uttaranchal	5.2	23.1	86.3	93.4	92.2	95.4	91.1	75.2
Central								
Chhattisgarh	5.1	17.8	75.3	89.0	94.3	94.9	93.6	68.5
Madhya Pradesh	1.8	19.7	81.9	90.2	93.2	93.6	91.9	72.2
Uttar Pradesh	1.6	14.3	64.2	81.7	87.5	88.4	89.2	65.4
East								
Bihar	0.4	10.4	60.2	80.1	85.0	91.8	85.1	60.2
Jharkhand	1.2	15.3	64.3	82.4	87.9	88.2	84.3	59.5
Orissa	5.8	33.6	82.3	92.7	94.6	94.2	97.6	70.5
West Bengal	2.4	46.2	89.4	93.4	94.8	93.9	86.6	73.4
Northeast								
Arunachal Pradesh	3.4	20.6	72.2	81.2	86.7	82.5	86.9	63.8
Assam	3.6	32.4	82.9	90.5	91.2	91.3	92.5	69.0
Manipur	4.1	15.1	64.6	80.2	87.6	87.1	84.8	62.5
Meghalaya	0.0	7.1	36.0	50.3	58.5	58.9	64.2	40.3
Mizoram	(0.0)	7.9	43.0	77.9	84.4	92.0	86.3	57.6
Nagaland	6.8	20.5	57.8	71.0	83.6	81.5	85.7	63.7
Sikkim	1.4	58.4	95.8	98.0	95.4	100.0	99.2	81.3
Tripura	3.6	52.8	92.3	91.7	92.4	(82.3)	(76.9)	74.2
West								
Goa	1.5	31.3	82.5	89.8	96.0	90.6	*	61.3
Gujarat	3.2	27.6	85.7	92.6	91.4	91.3	92.8	72.4
Maharashtra	5.2	32.0	88.0	96.5	96.7	95.4	94.3	76.0
South								
Andhra Pradesh	2.9	25.7	91.5	94.3	95.0	92.4	77.9	72.9
Karnataka	3.0	37.3	88.4	93.9	94.2	96.6	87.8	74.3
Kerala	2.1	25.7	88.0	91.0	92.5	(91.7)	*	69.3
Tamil Nadu	7.4	37.7	94.6	98.6	99.6	94.8	(100.0)	78.0

Note: Women who have been sterilized or whose husband has been sterilized are considered to want no more children.
( ) Based on 25-49 unweighted cases.
* Percentage not shown; based on fewer than 25 unweighted cases.
[1] Includes current pregnancy.

quintile to 91 percent for men in households in the highest wealth quintile. A strong preference for sons is also found for men. For every number of children, the percentage of men who want to stop childbearing is lowest for men who do not have any sons.

Table 4.15.1 shows how fertility preferences among women vary by state. The proportion of women who want no more children, including those who are sterilized or whose husbands are sterilized, ranges from 40 percent in Meghalaya to 83 percent in Himachal Pradesh. More than 90 percent of women with two living children want to stop childbearing in Delhi, Himachal Pradesh, Punjab, Sikkim, Tripura, Andhra Pradesh, and Tamil Nadu. All of these states except

Table 4.15.2 Desire to limit childbearing by state: Men

Percentage of currently married men age 15-49 who want no more children by number of living children, according to state, India, 2005-06

State	Number of living children[1]							Total
	0	1	2	3	4	5	6+	
India	4.2	26.9	83.6	90.6	94.2	94.4	95.8	70.6
North								
Delhi	3.7	25.0	88.7	96.3	95.1	(100.0)	97.7	71.1
Haryana	(8.4)	33.8	88.0	96.3	96.6	(97.1)	100.0	78.1
Himachal Pradesh	(0.0)	38.0	93.3	91.9	(95.4)	*	86.9	80.4
Jammu & Kashmir	(5.3)	16.8	68.8	88.3	97.1	(100.0)	100.0	69.2
Punjab	(2.1)	30.2	90.5	97.2	100.0	*	95.8	76.1
Rajasthan	1.2	9.7	71.3	87.2	90.1	93.2	97.0	65.9
Uttaranchal	13.5	24.9	91.8	91.7	94.7	(90.0)	90.7	72.9
Central								
Chhattisgarh	3.8	12.1	78.3	89.6	92.6	100.0	94.4	68.3
Madhya Pradesh	3.0	20.3	77.9	85.3	94.8	93.7	92.6	70.4
Uttar Pradesh	4.1	14.8	68.9	86.3	92.8	94.7	96.4	69.4
East								
Bihar	8.9	20.5	63.5	84.4	94.3	95.1	97.6	69.0
Jharkhand	3.0	16.2	67.8	84.0	91.6	93.3	94.4	63.5
Orissa	2.5	33.1	84.8	93.0	94.8	(97.6)	86.1	68.9
West Bengal	2.9	41.5	88.6	95.0	94.7	(100.0)	92.7	71.8
Northeast								
Arunachal Pradesh	(3.3)	20.8	70.3	78.8	89.4	*	(83.6)	62.7
Assam	0.9	19.7	80.5	88.6	93.4	(92.4)	(100.0)	64.5
Manipur	4.8	12.6	60.9	79.6	88.9	89.0	93.9	60.4
Meghalaya	(12.6)	12.8	38.6	40.0	(48.7)	*	(74.2)	38.5
Mizoram	(0.0)	6.7	36.8	62.1	80.3	*	*	48.0
Nagaland	12.4	18.9	53.1	66.5	70.9	81.1	86.9	58.6
Sikkim	(2.9)	37.5	91.3	98.4	(100.0)	*	*	71.3
Tripura	(9.8)	44.9	93.5	97.1	(100.0)	*	*	72.9
West								
Goa	10.1	29.0	75.9	89.6	85.6	88.9	63.7	55.2
Gujarat	5.1	25.5	82.5	87.0	93.8	89.2	100.0	68.1
Maharashtra	4.6	31.5	88.2	94.4	96.7	91.7	93.0	73.5
South								
Andhra Pradesh	5.0	29.4	92.9	95.3	98.2	94.8	95.4	74.2
Karnataka	3.8	35.9	86.8	92.0	96.4	95.6	95.4	72.0
Kerala	(2.4)	16.8	88.3	89.6	*	*	*	65.3
Tamil Nadu	4.5	34.6	95.8	97.1	98.7	(100.0)	*	76.3

Note: Men who have been sterilized or who mention in response to the question about desire for children that their wife has been sterilized are considered to want no more children.
( ) Based on 25-49 unweighted cases.
* Percentage not shown; based on fewer than 25 unweighted cases.
[1] Includes wife's current pregnancy.

Tripura have replacement level fertility or less. In other low fertility states (such as Goa, Maharashtra, Karnataka, and Kerala) and also in Haryana, Uttaranchal, Madhya Pradesh, Orissa, West Bengal, Assam, and Gujarat, between 80 and 90 percent of women with two living children want to have no more children. The percentage of women with two living children who want to stop childbearing is lowest in Meghalaya (36 percent), Mizoram (43 percent), Nagaland (58 percent), and Bihar (60 percent).

Table 4.15.2 shows how the desire to stop childbearing among men varies by state. The proportion of men who want no more children ranges from 39 percent in Meghalaya to 80 percent in Himachal Pradesh. Overall, the pattern of variations across states in the desire to discontinue childbearing among men is similar to the pattern observed for women.

4.9 IDEAL NUMBER OF CHILDREN

To assess women's ideal number of children, NFHS-3 asked women age 15-49 and men age 15-54 the number of children they would like to have if they could start over again. Women and men with no children were asked, 'If you could choose exactly the number of children to have in your whole life, how many would that be?' Those who already had children were asked, 'If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be?' Some women and men had difficulties in understanding these hypothetical questions, and hence the question often had to be repeated to ensure that the meaning was understood.

Table 4.16 shows the distribution of the ideal number of children stated by women and men age 15-49 according to the number of living children. More than two-thirds (69 percent) of women age 15-49 consider two or less to be the ideal number of children, and another 19 percent consider three to be ideal. Among men age 15-49, 73 percent consider two or less to be the ideal number of children, and 17 percent consider three to be ideal. Only 9 percent of women and 8 percent of men have an ideal number that is more than three children. Three percent of women and 2 percent of men were unable to give a numeric response to the question. Over time, there has been a substantial decrease in the proportion of ever-married women who consider three or more children to be ideal, from 50 percent in NFHS-1 to 42 percent in NFHS-2 and 33 percent in NFHS-3. Among all women who gave a numeric response in NFHS-3, the average number of children considered ideal is 2.3. For both women and men age 15-49, the average number of children considered ideal ranges from 2.0 for those who have no children to 2.8 or more for those who have four or more children. For ever-married women, the average ideal number of children decreased from 2.9 in NHFS-1 to 2.6 in NFHS-2 and 2.4 in NFHS-3.

Asking a question on ideal family size is sometimes criticized on the grounds that women tend to adjust their ideal family size upward as the number of their living children increases, in a process of rationalizing previously unwanted children as wanted. It is argued that the question on ideal family size may prompt many women to state the actual number of children they already have as their ideal. It is evident from Table 4.16, however, that this is not the case for many women in India. Among women with four children, for example, 72 percent state that fewer than four children would be ideal. Similarly, among women with three living children, 57 percent

Table 4.16 Ideal number of children

Percent distribution of women and men age 15-49 by ideal number of children, and mean ideal number of children, by number of living children, India, 2005-06, and percent distribution of ever-married women age 15-49 by ideal number of children, NFHS-3, NFHS-2 and NFHS-1

Ideal number of children	Ever-married and never married respondents: Number of living children[1] 0	1	2	3	4	5	6+	Total	Ever-married respondents: NFHS-3 (2005-06)	NFHS-2 (1998-99)	NFHS-1 (1992-93)
WOMEN											
0	2.3	0.6	0.8	1.0	1.2	1.2	1.0	1.3	1.0	0.1	0.1
1	15.9	17.2	5.7	3.0	1.3	1.0	0.4	8.7	6.5	4.5	3.1
2	64.5	65.4	76.3	52.7	42.3	30.2	19.5	59.3	57.8	47.0	37.0
3	10.3	12.1	12.6	33.3	27.5	34.9	33.4	19.0	21.7	24.7	28.8
4	2.9	2.9	2.9	6.9	21.9	21.2	29.2	7.6	8.9	12.7	14.9
5	0.4	0.5	0.4	0.8	1.7	6.1	4.9	1.1	1.3	2.5	3.6
6+	0.1	0.1	0.2	0.3	0.6	1.9	6.0	0.6	0.7	1.6	2.4
Non-numeric responses	3.7	1.2	1.2	2.1	3.4	3.5	5.5	2.6	2.1	6.9	10.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	34,112	17,056	27,746	21,324	12,394	6,139	5,615	124,385	98,923	90,303	89,777
Mean ideal number of children for[2]:											
All women	2.0	2.0	2.1	2.5	2.8	3.0	3.4	2.3	na	na	na
Number	32,848	16,848	27,400	20,886	11,970	5,921	5,306	121,181	na	na	na
Ever-married women	2.1	2.0	2.1	2.5	2.8	3.0	3.4	2.4	2.4	2.6	2.9
Number	8,516	16,835	27,396	20,884	11,969	5,921	5,306	96,827	96,827	84,035	80,713
Currently married women	2.1	2.0	2.1	2.5	2.8	3.0	3.4	2.4	2.4	2.7	2.9
Number	7,689	15,744	26,010	19,751	11,318	5,624	5,071	91,207	91,207	79,143	76,417
MEN											
0	2.1	1.0	0.6	1.7	2.0	1.7	2.2	1.6	1.2	na	na
1	13.5	16.0	6.0	2.8	1.8	0.8	0.5	9.2	6.5	na	na
2	66.9	66.3	75.1	50.9	43.3	30.1	26.3	61.8	58.7	na	na
3	11.3	12.0	13.4	33.9	26.1	33.4	30.5	17.4	21.2	na	na
4	3.3	3.0	3.2	7.5	21.1	21.9	22.5	6.5	8.4	na	na
5	0.5	0.6	0.5	1.5	2.7	7.2	5.9	1.2	1.6	na	na
6+	0.2	0.2	0.3	0.4	0.9	2.2	6.0	0.6	0.8	na	na
Non-numeric responses	2.1	1.0	0.9	1.4	2.0	2.6	6.0	1.8	1.6	na	na
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	na	na
Number of men	29,428	7,853	13,044	9,286	5,238	2,592	2,310	69,751	44,443	na	na
Mean ideal number of children for[2]:											
All men	2.0	2.0	2.2	2.5	2.8	3.1	3.3	2.2	na	na	na
Number	28,819	7,776	12,921	9,158	5,135	2,524	2,170	68,505	na	na	na
Ever-married men	2.1	2.0	2.2	2.5	2.8	3.1	3.3	2.4	2.4	na	na
Number	4,071	7,772	12,920	9,157	5,135	2,524	2,170	43,750	43,750	na	na
Currently married men	2.1	2.0	2.2	2.5	2.8	3.1	3.3	2.4	2.4	na	na
Number	3,791	7,592	12,725	9,033	5,061	2,479	2,154	42,834	42,834	na	na

na = Not applicable
[1] Includes current pregnancy for women or wife's current pregnancy for men.
[2] Means are calculated excluding respondents who gave non-numeric responses.

state that their ideal family size is smaller than three children. It is evident that a large proportion of women already have more children than they now consider ideal. This proportion may be taken as another indicator of surplus or unwanted fertility.

4.10 Sex Preference for Children

A strong preference for sons has been found to be pervasive in Indian society, affecting both attitudes and behaviour with respect to children and the choice regarding number and sex composition of children (Das Gupta et al., 2003; Mishra et al., 2004; Bhat and Zavier, 2003; Arnold et al., 1998, 2002; Arokiasamy, 2002; Clark, 2000; Pande and Astone, 2007). In NFHS-3, women age 15-49 and men age 15-54 who gave a numerical response to the question on the ideal number of children were also asked how many of these children they would like to be boys, how

many they would like to be girls, and for how many the sex would not matter. Tables 4.17.1 and 4.17.2 show the mean ideal number of sons and daughters, the percentage who desire more sons than daughters, the percentage who desire more daughters than sons, the percentage who desire at least one son, and the percentage who desire at least one daughter, according to background characteristics. The tables show a consistent preference for sons over daughters among both women and men. Overall, the average ideal family size of 2.3 children reported by women age 15-49 consists of 1.1 sons, 0.8 daughters, and 0.4 children of either sex. According to this measure of ideal family size, son preference has declined steadily from NFHS-1 to NFHS-3.

Table 4.17.1 Indicators of sex preference: Women

Mean ideal number of sons, daughters, and children of either sex for women age 15-49, percentage who want more sons than daughters, percentage who want more daughters than sons, percentage who want at least one son, and percentage who want at least one daughter by background characteristics, India, 2005-06, and totals for ever-married women age 15-49, NFHS-3, NFHS-2 and NFHS-1

Background characteristic	Mean number of: Sons	Daughters	Either sex	Percentage who want more sons than daughters	Percentage who want more daughters than sons	Percentage who want at least one son	Percentage who want at least one daughter	Number of women
Age								
15-19	0.9	0.7	0.4	15.8	2.7	71.9	70.2	23,886
20-29	1.0	0.8	0.4	20.5	2.6	75.6	72.1	42,440
30-39	1.2	0.9	0.3	25.8	2.6	81.0	76.8	32,765
40-49	1.3	0.9	0.4	28.2	2.4	81.3	77.7	22,052
Residence								
Urban	0.8	0.7	0.5	14.0	3.3	68.5	66.4	39,959
Rural	1.2	0.9	0.3	26.6	2.2	81.7	77.7	81,184
Education								
No education	1.4	1.0	0.3	34.6	2.0	86.6	82.4	48,762
<5 years complete	1.1	0.9	0.3	23.1	2.4	81.6	77.0	9,644
5-7 years complete	1.0	0.8	0.4	18.6	2.3	79.2	75.8	18,390
8-9 years complete	0.9	0.7	0.4	13.7	2.8	73.6	70.3	17,030
10-11 years complete	0.7	0.7	0.5	9.8	3.2	66.1	64.2	12,615
12 or more years complete	0.6	0.6	0.6	7.5	4.2	55.7	54.5	14,693
Marital status								
Never married	0.7	0.7	0.5	10.7	3.5	63.9	63.3	24,346
Currently married	1.2	0.9	0.4	25.5	2.3	81.0	77.0	91,179
Widowed/divorced/separated/deserted	1.1	0.8	0.4	22.9	2.7	77.2	72.3	5,618
Religion								
Hindu	1.0	0.8	0.4	22.3	2.4	77.0	73.5	98,115
Muslim	1.3	1.0	0.4	26.5	2.8	81.0	78.7	16,019
Christian	1.0	0.9	0.5	12.5	6.9	71.6	70.7	2,932
Sikh	0.9	0.7	0.4	16.8	1.6	73.1	65.4	2,094
Buddhist/Neo-Buddhist	0.9	0.8	0.3	15.5	3.9	78.6	77.1	1,004
Jain	0.7	0.7	0.6	6.2	5.3	59.8	61.1	404
Other	1.4	1.2	0.3	29.0	3.8	87.0	84.1	457
Caste/tribe								
Scheduled caste	1.1	0.9	0.3	25.4	2.3	80.7	77.3	22,592
Scheduled tribe	1.3	1.0	0.3	28.9	3.4	84.9	80.5	9,785
Other backward class	1.1	0.8	0.4	24.0	2.4	78.3	75.3	47,767
Other	0.9	0.8	0.4	17.3	2.8	72.7	69.1	40,002
Don't know	0.8	0.7	0.5	12.6	3.4	67.3	64.5	620
Wealth index								
Lowest	1.4	1.0	0.3	35.3	2.2	87.4	83.4	21,013
Second	1.3	0.9	0.3	29.0	1.9	84.4	80.5	22,953
Middle	1.1	0.8	0.4	22.5	2.3	79.6	75.9	24,452
Fourth	1.0	0.8	0.4	17.3	2.8	74.7	71.7	25,456
Highest	0.7	0.7	0.5	11.7	3.5	64.1	61.7	27,268
Total	1.1	0.8	0.4	22.4	2.6	77.4	74.0	121,143
Ever-married women								
NFHS-3 (2005-06)	1.2	0.9	0.4	25.4	2.4	80.7	76.7	96,796
NFHS-2 (1998-99)	1.4	1.0	0.3	33.2	2.2	85.1	80.1	82,939
NFHS-1 (1992-93)	1.6	1.1	0.2	41.4	2.6	90.0	84.6	80,466

Note: Table excludes women who gave non-numeric responses to the questions on ideal number of children or ideal number of sons or daughters. Total includes women with missing information on education, religion and caste/tribe, who are not shown separately.

Table 4.17.2 Indicators of sex preference: Men

Mean ideal number of sons, daughters, and children of either sex for men age 15-49, percentage who want more sons than daughters, percentage who want more daughters than sons, percentage who want at least one son, and percentage who want at least one daughter by background characteristics, India, 2005-06.

Background characteristic	Mean number of: Sons	Daughters	Either sex	Percentage who want more sons than daughters	Percentage who want more daughters than sons	Percentage who want at least one son	Percentage who want at least one daughter	Number of men
Age								
15-19	0.9	0.7	0.6	16.2	1.7	67.1	62.5	12,721
20-29	0.8	0.7	0.6	16.1	1.9	65.3	61.3	22,508
30-39	1.0	0.8	0.5	22.6	2.1	72.8	68.0	18,797
40-49	1.1	0.8	0.5	26.1	2.1	75.6	70.0	14,464
Residence								
Urban	0.8	0.6	0.7	13.6	2.1	61.8	58.2	25,137
Rural	1.1	0.8	0.5	23.7	1.8	74.6	69.3	43,353
Education								
No education	1.3	0.9	0.5	32.0	1.8	81.4	75.7	12,212
<5 years complete	1.1	0.8	0.5	26.7	2.6	76.5	70.3	6,911
5-7 years complete	1.0	0.8	0.5	22.0	2.1	75.2	70.6	11,321
8-9 years complete	0.9	0.7	0.5	18.6	1.6	70.5	65.8	14,156
10-11 years complete	0.8	0.6	0.6	13.4	2.0	64.2	60.0	10,235
12 or more years complete	0.6	0.5	0.7	10.6	2.0	55.4	52.0	13,642
Marital status								
Never married	0.8	0.6	0.6	13.6	1.8	61.9	57.7	24,747
Currently married	1.1	0.8	0.5	23.5	2.1	74.4	69.5	42,828
Widowed/divorced/separated/deserted	1.1	0.8	0.5	27.0	2.0	75.4	67.8	916
Religion								
Hindu	0.9	0.7	0.5	19.6	1.8	69.9	65.1	56,301
Muslim	1.1	0.8	0.6	25.0	2.4	73.1	68.8	8,398
Christian	0.9	0.8	0.7	15.2	4.9	65.1	61.5	1,502
Sikh	0.7	0.5	0.7	14.8	1.3	56.1	48.3	1,250
Buddhist/Neo-Buddhist	0.8	0.7	0.5	12.9	2.7	67.9	63.9	593
Jain	0.6	0.6	0.7	5.3	2.3	56.6	55.8	212
Other	1.3	1.2	0.4	22.7	11.4	79.4	78.8	225
Caste/tribe								
Scheduled caste	1.0	0.8	0.5	22.6	1.9	72.8	67.8	12,991
Scheduled tribe	1.2	0.9	0.4	27.0	3.0	81.7	76.4	5,572
Other backward class	1.0	0.7	0.6	20.8	1.7	69.7	65.3	26,825
Other	0.8	0.7	0.6	15.9	2.0	65.6	60.9	22,714
Don't know	0.8	0.6	0.6	12.8	0.4	64.2	57.3	172
Wealth index								
Lowest	1.3	0.9	0.4	33.1	2.0	82.1	76.3	10,715
Second	1.1	0.8	0.5	26.5	1.9	77.8	72.2	12,404
Middle	1.0	0.7	0.5	19.6	1.7	72.0	67.2	14,076
Fourth	0.8	0.7	0.6	15.4	2.1	66.4	62.7	15,257
Highest	0.7	0.6	0.7	11.0	2.1	56.9	53.1	16,039
Total age 15-49	1.0	0.7	0.6	20.0	2.0	69.9	65.2	68,490
Age 50-54	1.2	0.8	0.5	27.0	2.0	74.5	69.0	4,461
Total age 15-54	1.0	0.7	0.6	20.4	2.0	70.2	65.4	72,951
Total for ever-married men age 15-49	1.1	0.8	0.5	23.6	2.1	74.4	69.4	43,743

Note: Table excludes men who gave non-numeric responses to the questions on ideal number of children or ideal number of sons or daughters. Total includes men with missing information on education, religion and caste/tribe, who are not shown separately.

Twenty-two percent of women want more sons than daughters, but only 3 percent want more daughters than sons. Twenty percent of men want more sons than daughters, but only 2 percent want more daughters than sons. Despite the strong expressed preference for sons among both men and women, it is noteworthy that approximately three-quarters of women and men do not express a preference for either sons or daughters according to this measure.

The indicator on the percentage who want at least one son and at least one daughter exhibits the weakest son preference. Seventy-seven percent of women want at least one son among their children and nearly as many (74 percent) want at least one daughter. Among men

age 15-49, 70 percent want at least one son and 65 percent want at least one daughter. One reason that a substantial proportion of women and men want to have at least one daughter despite having a preference for sons is to fulfil the Hindu religious obligation of *kanyadan* (giving a daughter away at the time of her marriage), which is one of the acts that enable the parents to acquire the highest level of merit (*punya*).

Son preference is relatively weak among younger women and men, those in urban areas, those with more education, and those in households in the highest wealth quintiles. Son preference is somewhat weaker among Jain women and men than among those of other religions. Son preference does not vary much by caste/tribe.

Table 4.18 Indicators of sex preference by state

Mean ideal number of sons, daughters, and children of either sex, percentage who want more sons than daughters, and percentage who want more daughters than sons for women and men age 15-49, by state, India, 2005-06

	Women					Men				
	Mean ideal number of:			Percentage who want more sons than daughters	Percentage who want more daughters than sons	Mean ideal number of:			Percentage who want more sons than daughters	Percentage who want more daughters than sons
State	Sons	Daughters	Either sex			Sons	Daughters	Either sex		
India	1.1	0.8	0.4	22.4	2.6	1.0	0.7	0.6	20.0	2.0
North										
Delhi	0.7	0.6	0.7	11.7	2.1	0.7	0.5	0.8	11.7	1.5
Haryana	1.1	0.8	0.3	22.0	1.2	0.9	0.7	0.4	18.4	2.2
Himachal Pradesh	0.8	0.7	0.4	11.8	2.0	0.7	0.6	0.5	9.2	1.1
Jammu & Kashmir	1.1	0.8	0.4	23.4	3.1	1.1	0.8	0.5	23.9	2.2
Punjab	0.9	0.7	0.4	17.7	1.6	0.6	0.5	0.8	13.4	1.5
Rajasthan	1.4	1.0	0.3	34.3	1.5	1.2	0.9	0.5	24.0	1.8
Uttaranchal	1.0	0.8	0.5	20.7	2.1	0.8	0.6	0.7	13.6	1.3
Central										
Chhattisgarh	1.3	1.0	0.3	32.8	3.6	1.2	0.9	0.4	24.8	2.4
Madhya Pradesh	1.3	1.0	0.2	30.8	1.8	1.1	0.8	0.5	27.9	1.0
Uttar Pradesh	1.3	0.9	0.3	33.5	1.7	1.1	0.8	0.6	27.8	1.2
East										
Bihar	1.4	1.0	0.3	39.2	1.2	1.3	0.8	0.5	38.5	1.7
Jharkhand	1.2	0.9	0.4	28.1	2.3	1.1	0.9	0.6	24.6	3.7
Orissa	1.1	0.9	0.3	24.2	2.4	0.9	0.6	0.6	20.3	1.6
West Bengal	0.9	0.8	0.4	16.5	3.5	0.9	0.7	0.5	16.6	2.1
Northeast										
Arunachal Pradesh	1.5	1.2	0.2	28.3	5.0	1.5	1.1	0.3	30.3	3.2
Assam	1.1	0.8	0.4	24.1	2.1	0.9	0.7	0.6	17.9	2.8
Manipur	1.5	1.3	0.1	28.5	4.2	1.5	1.1	0.2	34.7	3.3
Meghalaya	1.5	1.6	0.2	11.9	17.0	1.4	1.3	0.3	21.5	13.5
Mizoram	1.9	1.8	0.0	29.0	22.7	2.1	1.7	0.0	43.5	14.7
Nagaland	1.5	1.4	0.4	21.4	9.8	1.6	1.3	0.5	28.4	5.0
Sikkim	0.8	0.7	0.3	15.5	5.9	1.0	0.8	0.3	17.1	4.2
Tripura	0.9	0.7	0.4	17.7	3.4	0.8	0.6	0.6	15.2	2.2
West										
Goa	0.7	0.6	0.7	8.7	4.1	0.8	0.7	0.5	11.4	2.1
Gujarat	0.9	0.7	0.5	22.7	2.3	1.0	0.8	0.5	20.0	1.6
Maharashtra	0.9	0.8	0.3	14.1	2.9	0.8	0.7	0.5	14.3	2.2
South										
Andhra Pradesh	0.8	0.7	0.6	9.3	2.6	0.8	0.7	0.7	12.0	2.0
Karnataka	0.8	0.8	0.4	11.6	4.6	0.9	0.7	0.5	12.7	2.7
Kerala	0.8	0.8	0.7	11.0	5.7	0.7	0.6	0.8	11.8	3.8
Tamil Nadu	0.7	0.6	0.6	5.7	3.1	0.6	0.5	0.8	7.9	1.8

Note: Table excludes women and men who gave non-numeric responses to the questions on ideal number of children or ideal number of sons or daughters.

Table 4.18 shows son preference attitudes among women and men age 15-49 by state. The overall ideal family size As indicated earlier, the mean ideal number of children for women is 2.3. The total ideal family size is low to moderate in all states. Only three states (Mizoram, Nagaland, and Meghalaya) have an ideal family size of more than three children. The mean ideal family size is almost as high in Arunachal Pradesh and Manipur. The mean ideal number of children is around 2.3 or fewer in 18 of the 29 states.

According to the measures of sex preference in Table 4.18, son preference is evident among both women and men in every state. The only exception is a slight daughter preference expressed by women in Meghalaya, which a primarily a matriarchal and matrilineal state. Men in Meghalaya, however, express a weak preference for sons.

The strength of son preference varies substantially across the states. Son preference tends to be stronger among both women and men in the northern part of the country, especially in Bihar, Uttar Pradesh, and Rajasthan. Other states with a particularly high son preference include Arunachal Pradesh, Madhya Pradesh, Chhattisgarh, Manipur, Jharkhand, and Jammu and Kashmir. The weakest son preference is found in the South and West Regions and parts of the Northeast Region. States with particularly low, but still discernible, son preference include Tamil Nadu, Goa, Kerala, Karnataka, Himachal Pradesh, and Delhi. In every state except Meghalaya and Mizoram, no more than 5 percent of men want more daughters than sons. In most states, the proportion of women who want more daughters than sons is slightly higher than the corresponding proportion for men. The preference for more sons than daughters ranges from 6 percent of women in Tamil Nadu to 39 percent in Bihar. Among men, the proportion ranges from 8 percent in Tamil Nadu to 44 percent in Mizoram.

4.11 FERTILITY PLANNING

For each child born in the five years before the survey and for each current pregnancy, NFHS-3 asked women whether the pregnancy was wanted at that time (planned), wanted at a later time (mistimed), or not wanted at all. Because a woman may retrospectively describe an unplanned pregnancy as one that was wanted at that time, responses to these questions may lead to an underestimation of unplanned childbearing. Nevertheless, this information provides a potentially powerful indicator of the degree to which couples successfully control childbearing. It should be noted that the proportion unplanned is influenced not

Table 4.19 Fertility planning status

Percent distribution of births in the five years preceding the survey (including current pregnancies) by planning status of the birth, according to birth order and mother's age at birth, India, 2005-06

Birth order/ mother's age at birth	Planning status of birth				Total	Number of births
	Wanted then	Wanted later	Wanted no more	Missing		
Birth order						
1	90.1	8.1	1.4	0.4	100.0	19,262
2	81.5	14.5	3.7	0.3	100.0	17,116
3	77.5	10.4	11.8	0.2	100.0	10,147
4+	64.0	7.1	28.7	0.2	100.0	16,341
Mother's age at birth[1]						
<20	85.2	11.9	2.5	0.3	100.0	13,073
20-24	81.6	11.5	6.6	0.3	100.0	25,769
25-29	76.4	8.6	14.7	0.2	100.0	15,202
30-34	69.4	5.9	24.6	0.2	100.0	6,161
35-39	60.5	3.1	36.4	0.0	100.0	2,108
40-44	50.1	3.1	46.5	0.4	100.0	482
45-49	71.5	0.9	27.6	0.0	100.0	71
Total	79.0	10.0	10.8	0.3	100.0	62,866

[1] For current pregnancy, estimated maternal age at birth.

only by whether, and how effectively, couples use contraception, but also by the couple's ideal family size.

Table 4.19 shows the percent distribution of births during the five years preceding the survey and current pregnancies according to fertility planning status. Twenty-one percent of all pregnancies that resulted in live births in the five years preceding the survey (including current pregnancies) were unplanned (that is, unwanted at the time the woman became pregnant). Ten percent were wanted later and 11 percent were not wanted at all. The proportion of births that were not wanted at all increases sharply by birth order of children, from just 1 percent for first-order births to 29 percent for births of order four and above. The proportion of births that were unplanned (mistimed or unwanted) is highest for births to women age 40-44 (50 percent) and lowest for births to women below age 20 (14 percent). Within the unplanned category, the proportion of births that were mistimed goes down and the proportion that were not wanted at all goes up with the age of the mother.

The impact of unwanted fertility can be measured by comparing the total wanted fertility rate with the total fertility rate (TFR). The total wanted fertility rate represents the level of fertility that theoretically would result if all unwanted births were prevented. A comparison of the TFR with the total wanted fertility rate indicates the potential demographic impact of the elimination of all unwanted births. The total wanted fertility rates presented in Table 4.20 are calculated in the same way as the TFR except that unwanted births are excluded from the numerator. In this case, a birth is considered unwanted if the number of living children at the time of conception was greater than or equal to the ideal number of children reported by the respondent at the time of the survey. Women who did not give a numeric response to the question on ideal number of children are assumed to have wanted all the births they had. The TFR and the total wanted fertility rates are calculated for the three years preceding the survey.

Overall, the total wanted fertility rate of 1.9 is lower by 0.8 child (i.e., by 30 percent) than the total fertility rate of 2.7. This means that if unwanted births could be eliminated, the TFR would drop to below the replacement level of fertility (1.9 children per woman). Women living in urban areas, educated women, Sikh, Buddhist/Neo-Buddhist, and Jain women, women not belonging to scheduled castes, scheduled tribes, or other backward classes, and women in households in the highest wealth quintiles would have well under two children, on average, under

Table 4.20 Wanted fertility rates

Total wanted fertility rates and total fertility rates for the three years preceding the survey, by background characteristics, India, 2005-06

Background characteristic	Total wanted fertility rate	Total fertility rate
Residence		
Urban	1.6	2.1
Rural	2.1	3.0
Education		
No education	2.4	3.6
<5 years complete	1.8	2.5
5-7 years complete	1.9	2.5
8-9 years complete	1.7	2.2
10-11 years complete	1.7	2.1
12 or more years complete	1.6	1.8
Marital status		
Never married	0.0	0.0
Currently married	2.7	3.6
Widowed/divorced/ separated/deserted	1.1	1.4
Religion		
Hindu	1.9	2.6
Muslim	2.2	3.4
Christian	1.9	2.3
Sikh	1.5	1.9
Buddhist/Neo-Buddhist	1.7	2.2
Jain	(1.4)	(1.5)
Other	2.4	4.0
Caste/tribe		
Scheduled caste	2.0	2.9
Scheduled tribe	2.1	3.1
Other backward class	1.9	2.8
Other	1.7	2.3
Don't know	1.4	2.0
Wealth index		
Lowest	2.4	3.9
Second	2.1	3.2
Middle	1.8	2.6
Fourth	1.7	2.2
Highest	1.5	1.8
Total	1.9	2.7

Note: Total includes women with missing information on education, religion, and caste/tribe, who are not shown separately. The total fertility rates are the same as those presented in Table 4.2.
( ) Based on 125-249 woman-years of exposure

these circumstances. The difference between the total fertility rate and the total wanted fertility rate is larger for rural women (0.9 children) than for urban women (0.5 children). The difference is one child or larger for women with no education, Muslim women, women from scheduled tribes women, and women in households in the lowest two wealth quintiles. Because rural women and women with no education form a large proportion of the population, the TFR would drop substantially if their unwanted fertility could be eliminated.

Table 4.21 shows how the total wanted fertility rate vis-à-vis the total fertility rate varies by state. Total wanted fertility ranges from a very low level of 1.2 children per woman in Sikkim to 3.1 in Meghalaya. Among the major states, total wanted fertility is highest in Bihar (2.4 children per woman) and lowest in Tamil Nadu (1.4 children per woman). The difference between the total fertility rate and the total wanted fertility rate ranges from 0.1 children in Kerala to 1.6 children in Bihar. Aside from Bihar, the difference is one child or more in Uttar Pradesh (1.5), Jharkhand (1.2), and Rajasthan, Madhya Pradesh, and Nagaland (1.0 each).

Table 4.21 Wanted fertility rates by state

Total wanted fertility rates and total fertility rates for the three years preceding the survey, by state, India, 2005-06

State	Total wanted fertility rate	Total fertility rate
India	1.9	2.7
North		
Delhi	1.6	2.1
Haryana	2.1	2.7
Himachal Pradesh	1.5	1.9
Jammu & Kashmir	1.6	2.4
Punjab	1.5	2.0
Rajasthan	2.2	3.2
Uttaranchal	1.8	2.5
Central		
Chhattisgarh	2.1	2.6
Madhya Pradesh	2.1	3.1
Uttar Pradesh	2.3	3.8
East		
Bihar	2.4	4.0
Jharkhand	2.1	3.3
Orissa	1.8	2.4
West Bengal	1.7	2.3
Northeast		
Arunachal Pradesh	2.3	3.0
Assam	1.8	2.4
Manipur	2.3	2.8
Meghalaya	3.1	3.8
Mizoram	2.7	2.9
Nagaland	2.7	3.7
Sikkim	1.2	2.0
Tripura	1.6	2.2
West		
Goa	1.5	1.8
Gujarat	1.8	2.4
Maharashtra	1.7	2.1
South		
Andhra Pradesh	1.5	1.8
Karnataka	1.6	2.1
Kerala	1.8	1.9
Tamil Nadu	1.4	1.8

Note: The total fertility rates are the same as those presented in Table 4.3.

FAMILY PLANNING 5

India launched the National Family Welfare Programme in 1951 with the objective of reducing the birth rate to the extent necessary to stabilize the population, consistent with the requirements of the national economy. Since its inception, the programme has experienced significant growth in terms of financial investment, service delivery points, type of services, and the range of contraceptive methods offered. Since October 1997, the services and interventions under the Family Welfare Programme and the Child Survival and Safe Motherhood Programme have been integrated with the Reproductive and Child Health Programme.

In the National Population Policy, 2000, the Government of India set as its immediate objective the task of addressing unmet need for contraception to achieve the medium-range objective of bringing the total fertility rate down to replacement level by 2010. One of the socio-demographic goals identified for this purpose is to achieve universal access to information/counselling and services for fertility regulation and contraception with a wide range of choices (Ministry of Health and Family Welfare, 2000).

This chapter presents information on various aspects of family planning collected from women and men. In NFHS-3, all women were asked questions about their knowledge of various family planning methods. Information related to the use of family planning methods was collected from all ever-married women and sexually active never married women. Information on knowledge of contraceptive methods and ever use of male methods was collected from all men, irrespective of their marital status and sexual activity status. All the indicators required for assessing the fertility impact of contraception are estimated from women's interviews.

5.1 KNOWLEDGE OF CONTRACEPTIVE METHODS

The provision of contraceptive information is fundamental to the ability of women and men (including adolescents) to make informed choices about reproductive health decisions. In NFHS-3, women and men were asked about their knowledge of each of 10 methods of contraception. Information on knowledge of contraception was collected in two ways. First, respondents were asked to spontaneously mention all the methods of contraception that they had heard of. For methods not mentioned spontaneously, the interviewer described the method and probed for whether the respondent recognized it.

Information was collected on the knowledge of female and male sterilization, the pill, the IUD, injectables, male condoms, female condoms, emergency contraception, and two traditional methods (rhythm and withdrawal). In addition, a provision was made in the questionnaire to record any other methods named spontaneously by the respondents.

Table 5.1 Knowledge of contraceptive methods

Percentage of all women and men, currently married women and men, sexually active unmarried women and men, and never married women and men who know any contraceptive method by specific method and residence, India, 2005-06

Method	Women				Men			
	All women	Currently married women	Sexually active unmarried women[1]	Never married women	All men	Currently married men	Sexually active unmarried men[1]	Never married men
URBAN								
Any method	98.8	99.6	99.9	96.4	99.2	99.8	100.0	98.5
Any modern method	98.8	99.6	99.9	96.4	99.2	99.8	100.0	98.4
Female sterilization	97.5	99.1	99.8	92.9	95.7	98.7	95.4	91.6
Male sterilization	82.7	87.7	80.5	68.6	90.6	95.4	90.3	84.1
Pill	90.7	93.2	89.0	84.9	88.4	91.6	92.8	84.1
IUD	79.6	87.4	80.1	58.5	59.5	71.4	55.3	43.8
Injectables	55.0	60.1	41.5	42.1	50.6	56.4	52.0	43.0
Condom/Nirodh	84.9	87.6	81.5	79.5	97.6	98.1	99.3	96.9
Female condom	13.5	13.9	6.3	13.5	22.6	23.5	26.1	21.5
Emergency contraception	16.1	18.8	16.6	9.7	25.7	30.1	30.6	20.0
Other modern method	0.2	0.3	0.0	0.1	0.1	0.1	0.1	0.1
Pill, IUD, and condom[2]	73.5	81.0	71.7	53.7	58.4	70.0	54.8	43.1
Any traditional method	51.4	62.4	52.2	21.6	59.7	73.6	63.9	41.3
Rhythm	45.7	55.5	45.8	19.6	52.4	67.2	52.7	32.7
Withdrawal	31.3	40.3	31.8	7.0	41.1	50.8	44.2	28.3
Folk method	2.8	3.4	2.6	1.2	1.1	1.5	2.2	0.7
Mean number of methods known by respondents age15-49	6.0	6.5	5.8	4.8	6.3	6.8	6.4	5.5
Number of respondents age 15-49	40,817	28,604	184	10,327	25,504	14,434	747	10,833
Mean number of methods known by respondents age15-54	na	na	na	na	6.3	6.9	6.4	5.5
Number of respondents age 15-54	na	na	na	na	27,154	16,021	750	10,852
RURAL								
Any method	97.7	99.1	97.3	91.6	98.2	99.1	98.9	96.3
Any modern method	97.6	99.0	97.3	91.5	98.1	99.1	98.9	96.3
Female sterilization	96.2	98.1	95.4	88.0	94.2	97.2	93.6	88.3
Male sterilization	77.2	81.2	78.0	60.3	85.4	90.3	85.8	75.6
Pill	82.2	84.6	80.6	74.1	79.3	81.6	87.5	74.9
IUD	63.5	68.5	61.1	43.5	45.4	51.5	44.5	33.6
Injectables	45.9	49.3	46.4	33.3	41.0	43.7	47.5	35.9
Condom/Nirodh	68.4	70.9	68.5	60.6	90.3	90.1	97.1	91.2
Female condom	5.7	5.8	5.4	5.6	13.4	13.7	14.9	13.1
Emergency contraception	8.1	8.9	12.1	5.0	17.1	18.9	19.0	14.1
Other modern method	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0
Pill, IUD, and condom[2]	54.2	59.0	53.5	36.0	43.9	49.8	42.7	32.6
Any traditional method	47.5	55.5	45.6	14.7	53.7	63.2	56.5	34.6
Rhythm	38.3	44.9	35.7	11.7	45.4	56.0	42.6	24.2
Withdrawal	28.6	34.6	27.9	4.4	35.6	41.0	39.9	25.2
Folk method	5.6	6.3	5.9	2.5	1.9	2.4	2.7	0.8
Mean number of methods known by respondents age15-49	5.2	5.5	5.2	3.9	5.5	5.9	5.8	4.8
Number of respondents age 15-49	83,568	64,485	436	15,135	44,247	29,068	1,233	14,474
Mean number of methods known by respondents age 15-54	na	na	na	na	5.5	5.8	5.7	4.8
Number of respondents age 15-54	na	na	na	na	47,215	31,854	1,243	14,530

Continued…

Table 5.1 Knowledge of contraceptive methods—*Continued*

Method	Women				Men			
	All women	Currently married women	Sexually active unmarried women[1]	Never married women	All men	Currently married men	Sexually active unmarried men[1]	Never married men
	TOTAL							
Any method	98.0	99.3	98.1	93.6	98.6	99.4	99.3	97.2
Any modern method	98.0	99.2	98.1	93.5	98.5	99.3	99.3	97.2
Female sterilization	96.6	98.4	96.7	89.9	94.8	97.7	94.3	89.7
Male sterilization	79.0	83.2	78.8	63.6	87.3	92.0	87.5	79.2
Pill	85.0	87.2	83.1	78.5	82.6	84.9	89.5	78.8
IUD	68.8	74.3	66.7	49.6	50.5	58.1	48.6	37.9
Injectables	48.9	52.6	44.9	36.9	44.5	47.9	49.2	38.9
Condom/Nirodh	73.8	76.1	72.4	68.3	93.0	92.7	98.0	93.6
Female condom	8.3	8.3	5.7	8.8	16.8	17.0	19.1	16.7
Emergency contraception	10.8	11.9	13.4	6.9	20.3	22.6	23.4	16.6
Other modern method	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1
Pill, IUD, and condom[2]	60.5	65.8	58.9	43.2	49.2	56.5	47.2	37.1
Any traditional method	48.8	57.7	47.6	17.5	55.9	66.6	59.3	37.5
Rhythm	40.8	48.1	38.7	14.9	48.0	59.8	46.4	27.8
Withdrawal	29.5	36.3	29.1	5.4	37.6	44.2	41.5	26.5
Folk method	4.7	5.4	5.0	2.0	1.6	2.1	2.5	0.8
Mean number of methods known by respondents age 15-49	5.5	5.8	5.3	4.2	5.8	6.2	6.0	5.1
Number of respondents age 15-49	124,385	93,089	620	25,462	69,751	43,501	1,980	25,307
Mean number of methods known by respondents age 15-54	na	na	na	na	5.8	6.2	6.0	5.1
Number of respondents age 15-54	na	na	na	na	74,369	47,875	1,993	25,382

na = Not applicable
[1] Had sexual intercourse in the 12 months preceding the survey.
[2] All three methods.

Table 5.1 shows the knowledge of contraception among women and men by urban-rural residence, marital status, and sexual activity status. Knowledge of contraceptive methods is practically universal; at least 98 percent of women and men age 15-49 know one or more methods of contraception. Modern methods are more widely known than traditional methods. For example, 98 percent of women know a modern method, but only 49 percent know a traditional method. Female sterilization is the most widely known method among women (97 percent) and men (95 percent). Male sterilization is not as widely known. Seventy-nine percent of women and 87 percent of men report knowledge of male sterilization. Among the three spacing methods offered by the government family planning programme (pill, IUD, and condom), the pill is most widely known among women (85 percent) and the condom is most widely known among men (93 percent). To facilitate the informed choice of family planning methods, it is desirable that people are aware of a wide variety of contraceptive methods; however, a large proportion of women and men do not know about many of the methods. Sixty-one percent of women and 49 percent of men reported knowledge of all three modern spacing methods in the programme (IUD, pill, and condom). Knowledge of the IUD is quite low among men (51 percent). Recently marketed modern methods have much lower recognition than other modern methods. Injectables are known to 49 percent of women and 45 percent of men, female condoms are known to only 8 percent of women and 17 percent of men, and emergency contraception is known to only 11 percent of women and 20 percent of men. Among traditional methods, the rhythm method is better known than withdrawal. The mean number of methods

known is an indicator of the breadth of knowledge of family planning methods. In India, men know slightly more methods (5.8) than women (5.5), on average.

The pattern of method-specific knowledge among three subgroups of women and men (currently married, sexually active unmarried, and never married) is similar to that described above for all women and men. Never married women and men are least knowledgeable about almost every contraceptive method. Currently married women are more likely than sexually active unmarried women to know each contraceptive method, but sexually active unmarried men are more likely than currently married men to know some modern methods (especially the pill and female condoms). On average, currently married women know 1.6 more methods than never married women and currently married men know 1.1 more methods than never married men.

Although the knowledge of any method or any modern method is almost universal in both urban and rural areas, a higher proportion of urban women and men know each method than their rural counterparts, with the exception of folk methods, which are known by very few women overall. Awareness of spacing methods is much higher in urban areas than in rural areas. For example, 81 percent of currently married women in urban areas know all three spacing methods, compared with 59 percent in rural areas. The method-specific pattern of knowledge among urban and rural women and men is similar. On average, currently married women from urban areas know one more method than their rural counterparts. The urban-rural gap is somewhat smaller for men.

Table 5.2 shows the extent of knowledge of any method, any modern method, and any modern temporary method of contraception among adolescent women and men (age 15-24 years) by background characteristics. Ninety-six percent of adolescent women know any contraceptive method and any modern method. However, only 88 percent reported knowledge of any spacing method. Adolescent men are slightly more knowledgeable than adolescent women about contraceptive methods. Figure 5.1 shows the extent of knowledge of specific modern spacing methods for men and women age 15-19 and 20-24. Women are most likely to know about pills and least likely to know about IUDs. Men are also least likely to know about IUDs, but their knowledge of condoms is very high (more than 90 percent). Women are more likely than men to know about pills and IUDs, but less likely to know about condoms.

Because contraceptive knowledge is quite high among adolescents, the differentials by background characteristics are not large. Women and men age 20-24 are slightly more knowledgeable about contraceptive methods than those age 15-19. Adolescent women and men from urban areas and those who are currently married are more likely to know about contraceptive methods than other women and men. The proportion of adolescents knowing any method, any modern method, and any modern temporary method increases with education and the wealth index.

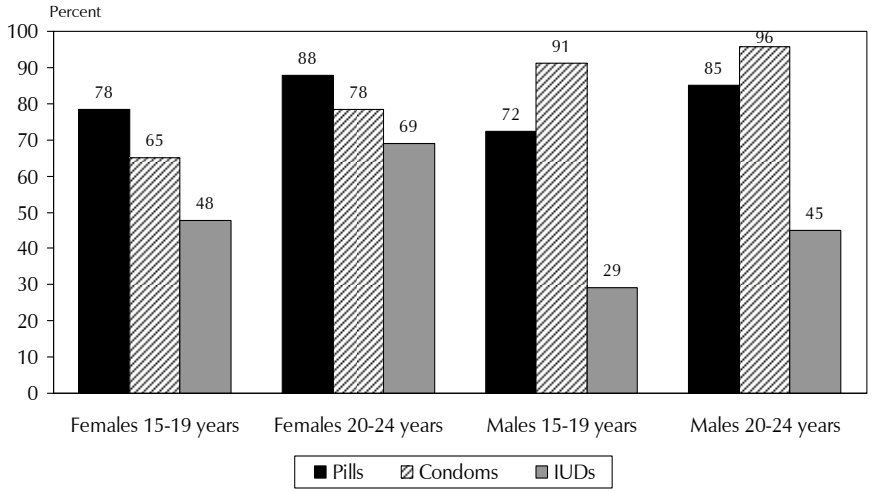
Table 5.2 Knowledge of contraceptive methods among adolescents

Percentage of women and men age 15-24 who know at least one contraceptive method and who know at least one modern method by background characteristics, India, 2005-06

Background characteristic	Women				Men			
	Know any method	Know any modern method[1]	Know any modern temporary method	Number of women	Know any method	Know any modern method[1]	Know any modern temporary method	Number of men
Age								
15-19	94.0	93.9	83.8	24,811	96.0	96.0	92.6	13,008
20-24	98.2	98.2	91.6	22,779	98.6	98.6	96.8	11,989
Residence								
Urban	97.3	97.3	91.7	14,931	98.4	98.3	97.1	9,435
Rural	95.4	95.3	85.7	32,660	96.6	96.6	93.1	15,561
Education								
No education	94.7	94.5	80.8	12,524	93.3	93.2	84.5	2,440
<5 years complete	94.0	93.9	81.7	3,422	94.5	94.5	89.6	1,896
5-7 years complete	95.1	94.9	85.9	8,412	95.7	95.7	91.5	4,422
8-9 years complete	96.6	96.5	90.2	9,597	97.6	97.5	95.5	6,778
10-11 years complete	97.2	97.1	92.1	6,912	99.0	99.0	98.5	4,828
12 or more years complete	98.8	98.8	96.9	6,721	99.7	99.7	99.7	4,624
Marital status								
Never married	93.5	93.4	84.0	23,588	96.9	96.9	94.2	20,721
Currently married	98.6	98.4	91.2	23,508	98.9	98.8	96.6	4,205
Widowed/divorced/ separated/deserted	96.5	96.5	83.9	495	98.2	98.2	91.4	71
Religion								
Hindu	96.5	96.5	87.9	37,705	97.6	97.6	94.9	20,239
Muslim	94.4	94.2	87.0	7,307	96.3	96.2	93.6	3,398
Christian	92.5	91.8	82.2	1,043	91.9	91.9	88.2	503
Sikh	93.4	93.3	90.2	789	96.4	96.4	95.9	494
Buddhist/Neo-Buddhist	98.1	98.1	89.2	380	99.2	99.2	99.2	217
Jain	97.3	97.3	92.3	133	100.0	100.0	100.0	64
Other	82.8	82.2	66.2	197	82.1	82.1	75.5	76
Caste/tribe								
Scheduled caste	96.1	96.0	87.6	9,171	97.6	97.5	94.9	4,903
Scheduled tribe	92.6	92.2	77.2	4,014	94.5	94.5	89.6	1,960
Other backward class	96.6	96.5	87.3	18,921	97.7	97.7	94.6	9,773
Other	96.4	96.3	90.8	15,116	97.3	97.2	95.9	8,221
Don't know	84.7	84.1	69.1	194	96.8	96.8	90.6	52
Wealth index								
Lowest	93.8	93.5	79.5	8,175	94.3	94.2	86.6	3,460
Second	95.4	95.3	83.9	9,284	96.7	96.6	93.4	4,577
Middle	95.7	95.6	86.0	10,131	97.3	97.2	94.8	5,407
Fourth	97.0	96.9	91.6	10,241	98.1	98.1	96.5	5,808
Highest	97.8	97.8	95.1	9,759	98.7	98.7	98.4	5,743
Total	96.0	95.9	87.6	47,590	97.3	97.2	94.6	24,997

Note: Total includes women and men with missing information on education, religion, and caste/tribe, who are not shown separately.
[1] Female sterilization, male sterilization, pill, IUD, injectables, male condom, female condom, emergency contraception, and other modern methods.

Figure 5.1 Knowledge of Pills, Condoms, and IUDs among Youth



NFHS-3, India, 2005-06

Trends in the knowledge of different contraceptive methods among currently married women age 15-49 are shown in Table 5.3.1. The table also shows the knowledge of different methods of contraception by state. Knowledge of every contraceptive method increased substantially between NFHS-1 and NFHS-2, with particularly rapid increases for the modern spacing methods and withdrawal. The rise in knowledge continued between NFHS-2 and NFHS-3 (for every method except male sterilization), but the pace of change was more gradual. Knowledge of any contraceptive method and female sterilization was almost universal in all three NFHS surveys. The proportion of currently married women who know about male sterilization decreased from 89 percent in NFHS-2 to 83 percent in NFHS-3, and the present level of awareness is slightly lower than in NFHS-1 (84 percent).

The knowledge of any modern contraceptive method among currently married women is almost universal (94 percent or more) in all states except Meghalaya (88 percent) and Nagaland (83 percent). Female sterilization is the most widely known method in 26 of the 29 states. At least 90 percent of women know female sterilization in every state except Arunachal Pradesh (88 percent), Meghalaya (78 percent), and Nagaland (69 percent). In most states, the pill is the second most widely known method. At least three-quarters of women are aware of the pill in every state except Nagaland (66 percent), Andhra Pradesh (63 percent), and Karnataka (69 percent). In Delhi, Uttar Pradesh, Bihar, Assam, Sikkim, and Tripura, the pill is known to almost all women (95 percent or more). Although women's knowledge of male sterilization decreased somewhat between NFHS-2 and NFHS-3, more than 9 in 10 women in Delhi, Chhattisgarh, Madhya Pradesh, Uttar Pradesh, and Bihar reported knowledge of male sterilization. The awareness of family planning methods, especially of spacing methods, varies widely across the states. In Delhi, Haryana, Punjab, Uttar Pradesh, Manipur, Sikkim, Gujarat, and Kerala, the level of awareness of each of the three spacing methods (pill, IUD and condom) exceeds 80 percent. On the other hand, less than two-thirds of women in Nagaland and Andhra Pradesh are aware of each of these three methods. Injectables are not included in the family planning programme of

Table 5.3.1 Knowledge of contraceptive methods by state: Women

Percentage of currently married women who know any contraceptive method by specific method, according to state, India, 2005-06, and NFHS-2 and NFHS-1

			Modern method										Traditional method		
State	Any method	Any modern method	Female sterili-zation	Male sterili-zation	Pill	IUD	Inject-ables	Condom/ Nirodh	Female condom	Emer-gency contra-ception	Other modern method	Any traditional method	Rhythm	With-drawal	Folk method
India	99.3	99.2	98.4	83.2	87.2	74.3	52.6	76.1	8.3	11.9	0.1	57.7	48.1	36.3	5.4
NFHS-2 (1998-99)	99.0	98.9	98.2	89.3	79.5	70.6	u	71.0	u	u	u	u	45.1	31.2	u
NFHS-1 (1992-93)	95.8	95.5	94.6	84.5	66.2	60.8	19.3	58.1	u	u	u	u	34.9	20.1	u
North															
Delhi	100.0	100.0	99.9	98.5	99.4	96.6	81.2	98.0	28.0	32.1	0.3	90.8	83.6	77.1	3.2
Haryana	99.0	98.9	96.2	82.4	90.2	84.5	46.1	85.4	4.9	12.8	0.2	55.4	44.7	32.2	0.4
Himachal Pradesh	98.9	98.9	96.6	84.4	83.7	70.0	35.2	82.8	14.5	12.4	0.0	26.1	20.6	13.2	0.5
Jammu & Kashmir	98.3	98.3	96.4	84.9	88.6	79.7	63.2	72.2	7.1	8.8	0.2	51.7	27.8	42.0	1.2
Punjab	98.9	98.8	96.3	81.3	92.0	88.5	43.1	89.7	12.8	13.6	0.1	57.6	46.0	38.1	0.8
Rajasthan	99.7	99.6	99.4	88.3	88.6	73.2	48.6	76.8	4.2	13.1	0.1	58.5	48.0	33.7	5.4
Uttaranchal	98.6	98.5	95.3	88.2	93.3	79.9	39.1	87.5	6.6	15.7	0.2	47.4	36.0	37.2	3.7
Central															
Chhattisgarh	99.9	99.8	99.7	93.2	88.0	59.0	34.2	77.7	8.0	9.4	0.0	59.7	40.6	27.7	26.8
Madhya Pradesh	99.8	99.8	99.7	97.0	92.7	71.3	54.4	83.6	5.5	21.0	0.0	71.3	60.9	46.6	14.8
Uttar Pradesh	99.5	99.5	98.9	91.2	95.1	88.0	80.7	93.5	3.2	9.2	0.4	73.2	69.0	42.4	1.5
East															
Bihar	100.0	100.0	99.9	92.3	95.7	79.1	66.1	81.9	4.9	4.7	0.2	75.3	50.8	51.4	17.8
Jharkhand	95.1	94.3	92.0	70.7	78.5	52.9	41.5	60.1	5.6	6.9	0.1	57.7	41.2	40.9	9.9
Orissa	99.6	99.5	99.4	82.4	89.2	56.2	45.7	61.7	5.2	9.0	0.0	52.6	32.3	38.7	10.4
West Bengal	99.7	99.3	98.2	78.6	94.8	67.9	61.2	79.8	16.1	15.7	0.5	83.8	68.6	66.4	1.5
Northeast															
Arunachal Pradesh	94.5	94.3	87.7	49.0	86.5	69.4	48.9	67.1	9.9	8.0	0.2	37.1	22.4	26.9	5.3
Assam	99.1	98.8	95.2	72.0	95.3	73.2	38.9	71.5	5.0	4.7	0.0	82.9	64.3	69.5	9.7
Manipur	99.2	98.9	92.2	87.0	93.3	92.5	44.8	95.2	9.1	22.5	0.2	88.7	72.4	82.9	4.3
Meghalaya	90.0	88.2	78.0	37.3	76.3	49.7	32.9	69.4	8.0	16.6	0.0	59.9	46.0	51.9	2.1
Mizoram	98.0	98.0	93.2	30.7	80.2	79.3	22.6	89.7	7.3	10.3	0.0	27.1	17.2	22.2	0.1
Nagaland	84.3	83.2	69.1	22.3	65.5	60.6	30.5	60.7	7.4	7.6	0.0	44.1	37.1	28.1	0.3
Sikkim	99.5	99.5	96.6	86.9	96.3	91.6	82.2	89.1	10.7	12.2	0.6	64.8	54.8	43.7	1.6
Tripura	99.3	99.3	97.6	81.3	98.0	77.4	67.0	83.9	13.9	42.5	0.1	87.3	74.6	75.1	5.2
West															
Goa	98.5	98.4	96.2	63.7	90.7	76.2	42.3	85.5	19.8	21.0	0.6	60.5	49.3	43.7	2.2
Gujarat	99.2	99.1	98.3	75.8	89.5	86.5	43.6	86.1	10.7	28.1	0.1	73.9	71.0	43.9	8.4
Maharashtra	99.6	99.6	99.4	81.5	85.7	75.7	32.6	68.9	7.6	9.0	0.1	33.7	31.9	8.8	0.5
South															
Andhra Pradesh	99.1	99.1	99.0	89.1	62.6	46.0	31.7	48.2	6.9	4.6	0.0	10.9	9.7	4.3	0.6
Karnataka	97.7	97.7	96.8	54.4	69.4	68.1	42.7	47.8	12.7	13.8	0.0	30.1	28.0	10.2	1.8
Kerala	99.0	98.9	96.8	74.4	89.2	87.9	51.7	88.1	30.9	23.9	0.1	77.2	63.5	66.0	0.2
Tamil Nadu	99.9	99.9	99.9	79.8	79.0	84.4	54.1	73.0	6.3	6.3	0.0	31.8	25.9	13.3	3.3

u = Not available

the Government of India. Still, in Delhi, Uttar Pradesh, and Sikkim, 80 percent of women or more are aware of injectables. In most states, awareness about the newly marketed methods (female condoms and emergency contraceptives) is quite scant, although emergency contraception is more likely to be known than female condoms in 21 states. About one in every five women or more are aware of female condoms only in Delhi (28 percent), Goa (20 percent), and Kerala (31 percent). At least one in every five women are aware of emergency contraception in Delhi (32 percent), Madhya Pradesh (21 percent), Manipur (23 percent), Tripura (43 percent), Goa (21 percent), Gujarat (28 percent), and Kerala (24 percent).

In most states, at least 90 percent of men are aware of any modern family planning method, female sterilization, male sterilization, and condoms (Table 5.3.2). However, awareness of these methods is not very widespread in a few states. Ninety percent of men or more know female sterilization in every state except Jharkhand (89 percent), Arunachal Pradesh (84 percent), Meghalaya (61 percent), and Nagaland (70 percent). In most states, about equal

proportions of men are aware of female and male sterilization. In Assam, Meghalaya, Mizoram, Nagaland, Tripura, Goa, and Karnataka, the awareness of male sterilization is lower than female sterilization by 10 or more percentage points. Knowledge of male sterilization is lowest in Nagaland (38 percent), Meghalaya (39 percent), and Mizoram (54 percent). As stated earlier, the condom is widely known among men. At least 90 percent of men know condoms in every state except Jharkhand, Orissa, Meghalaya, Nagaland, Andhra Pradesh, and Karnataka, where 80-90 percent of men know condoms. Knowledge of the pill varies from 95 percent and above in Delhi, Uttaranchal, West Bengal, and Tripura to 53 percent in Meghalaya and 56 percent in Nagaland. Among men, awareness of the IUD is not as widespread as the other two spacing methods. Awareness of the IUD ranges from more than 80 percent in Delhi, Manipur, and Kerala to below one-third in Meghalaya (24 percent) and Andhra Pradesh (32 percent).

Table 5.3.2 Knowledge of contraceptive methods by state: Men

Percentage of currently married men age 15-49 who know any contraceptive method by specific method, according to state, India, 2005-06

			Modern method										Traditional method		
State	Any method	Any modern method	Female sterilization	Male sterilization	Pill	IUD	Injectables	Condom/ Nirodh	Female condom	Emergency contraception	Other modern method	Any traditional method	Rhythm	Withdrawal	Folk method
India	99.4	99.3	97.7	92.0	84.9	58.1	47.9	92.7	17.0	22.6	0.1	66.6	59.8	44.2	2.1
North															
Delhi	99.8	99.8	99.0	98.7	98.3	83.4	68.7	99.4	35.7	34.7	0.2	82.9	77.2	71.0	0.7
Haryana	99.4	99.4	98.6	98.5	85.7	70.1	45.5	95.3	13.0	20.0	0.0	71.0	64.1	46.0	0.6
Himachal Pradesh	98.4	98.4	95.0	95.7	88.7	66.3	41.1	94.6	31.3	25.5	0.0	46.0	39.2	29.2	2.5
Jammu & Kashmir	98.5	98.3	93.8	90.9	83.5	60.3	51.0	90.3	6.2	9.3	0.2	64.8	53.0	48.0	0.4
Punjab	99.6	99.6	95.9	94.7	89.6	74.4	51.6	98.8	12.8	24.2	0.0	80.5	70.9	66.7	2.5
Rajasthan	100.0	100.0	99.6	95.3	82.8	57.0	33.6	91.5	12.0	23.4	0.0	75.3	70.0	41.3	4.7
Uttaranchal	99.8	99.8	98.9	98.4	94.7	75.6	48.8	97.5	28.5	27.6	0.0	70.2	62.8	53.4	1.2
Central															
Chhattisgarh	99.7	99.7	99.1	96.6	84.8	49.3	25.5	90.0	11.7	13.5	0.1	64.8	48.5	42.8	17.0
Madhya Pradesh	99.9	99.9	98.9	95.6	85.2	44.9	38.2	93.9	9.5	16.8	0.1	74.4	64.0	36.0	3.9
Uttar Pradesh	99.7	99.7	98.7	96.2	93.9	75.7	55.9	97.6	11.8	17.5	0.1	75.2	71.3	43.6	0.9
East															
Bihar	99.4	99.4	98.0	95.8	86.5	48.2	47.9	91.3	20.7	19.8	0.2	54.4	44.0	39.6	2.5
Jharkhand	94.9	94.6	89.3	83.7	76.6	43.2	44.7	81.1	18.3	12.6	0.0	39.7	35.9	19.1	2.2
Orissa	99.5	99.5	99.2	89.9	86.8	45.9	52.4	83.7	15.7	16.7	0.0	64.8	51.6	50.4	5.2
West Bengal	99.9	99.8	98.2	88.9	94.8	59.4	59.0	94.0	20.8	44.3	0.2	91.6	87.4	74.0	1.8
Northeast															
Arunachal Pradesh	95.5	95.5	83.5	76.0	82.6	55.1	33.9	90.5	15.9	8.8	0.0	34.5	28.2	23.7	1.0
Assam	98.9	98.0	93.0	69.0	92.2	39.4	50.1	91.4	20.0	17.9	0.0	90.5	72.8	81.1	2.2
Manipur	99.6	99.5	94.9	89.4	93.8	84.8	46.5	98.6	38.4	46.6	0.0	97.1	84.8	93.5	3.4
Meghalaya	90.4	89.3	61.2	39.4	53.0	23.9	17.7	85.1	12.1	10.0	0.0	48.4	39.4	31.7	1.8
Mizoram	99.2	99.2	95.8	54.2	84.5	69.1	30.7	96.4	26.7	27.7	0.0	80.2	63.2	72.5	0.3
Nagaland	92.6	90.9	69.7	37.6	55.5	39.0	25.9	86.1	18.0	16.1	0.1	61.9	53.6	40.5	0.4
Sikkim	99.1	99.1	95.6	93.2	89.2	68.0	62.7	96.3	24.2	36.2	0.0	76.3	59.8	59.3	1.5
Tripura	100.0	100.0	98.3	86.3	99.2	43.7	45.3	94.7	25.7	50.7	0.0	94.9	90.9	81.4	1.8
West															
Goa	98.7	98.2	89.5	76.8	83.6	49.3	43.5	94.4	19.9	23.4	0.0	69.0	49.1	57.5	2.0
Gujarat	99.5	99.5	97.7	89.3	86.3	69.4	42.1	96.0	17.1	30.5	0.0	80.5	72.0	65.7	0.9
Maharashtra	98.7	98.7	96.8	94.0	85.5	57.0	39.5	92.6	18.8	18.7	0.0	61.1	57.9	30.2	0.9
South															
Andhra Pradesh	99.8	99.8	99.5	95.6	63.2	31.7	42.5	87.5	17.1	10.6	0.1	27.9	22.2	20.9	0.2
Karnataka	98.9	98.9	97.9	78.1	73.6	54.3	54.6	86.2	17.4	27.2	0.0	55.6	50.7	29.4	1.5
Kerala	98.6	98.6	92.9	86.5	83.7	86.0	63.1	96.6	54.1	48.0	0.2	83.3	75.0	71.3	1.2
Tamil Nadu	99.9	99.9	99.4	96.5	79.3	67.0	55.7	96.9	13.3	24.2	0.1	48.2	41.2	28.8	0.9

5.2 EVER USE OF CONTRACEPTIVE METHODS

Ever use of contraception provides a measure of the cumulative experience of a population with family planning. In NFHS-3, all ever-married and never married women who ever had sex were asked whether they had ever used each method that they had heard about. Table 5.4 presents the percentage of these women who ever used any family planning method by method, age, and residence.

Table 5.4 Ever use of contraception

Among currently married women and unmarried women who ever had sex, percentage who ever used any contraceptive method by method, according to age and residence, India, 2005-06

			Modern method								Traditional method			
Age	Any method	Any modern method	Female sterili-zation	Male sterili-zation	Pill	IUD	Inject-ables	Condom/ Nirodh	Other modern method	Any tradi-tional method	Rhythm	With-drawal	Folk method	Number of women
CURRENTLY MARRIED WOMEN - URBAN														
15-19	26.3	20.0	1.5	0.0	6.5	1.0	0.0	13.0	0.3	10.7	7.2	5.1	0.0	1,080
20-24	53.0	45.1	12.1	0.0	13.6	6.5	0.6	23.0	0.4	16.4	11.4	8.0	0.1	4,498
25-29	74.8	67.7	30.2	0.2	18.7	11.6	0.7	28.4	0.8	20.0	14.5	9.5	0.2	5,852
30-34	83.6	76.9	43.4	0.7	17.4	16.0	0.8	28.0	0.8	22.1	16.3	10.6	0.7	5,357
35-39	84.7	78.0	51.4	1.4	13.8	14.0	0.4	22.4	0.7	21.5	16.6	9.1	0.5	4,993
40-44	81.7	73.6	52.4	2.2	10.3	12.8	0.3	16.1	0.2	21.0	16.3	8.7	0.8	3,956
45-49	78.8	72.0	53.5	4.3	7.2	10.6	0.3	13.0	0.5	18.1	14.1	8.3	0.3	2,869
Total	74.3	67.1	37.8	1.1	14.0	11.7	0.5	22.6	0.6	19.7	14.7	9.0	0.4	28,604
CURRENTLY MARRIED WOMEN - RURAL														
15-19	21.8	13.0	1.0	0.0	4.7	0.3	0.1	8.1	0.1	12.4	8.5	5.6	0.1	5,647
20-24	44.0	33.6	14.0	0.3	10.5	2.5	0.3	12.0	0.1	17.4	13.2	7.3	0.5	12,284
25-29	64.5	55.6	35.0	0.9	12.8	4.7	0.3	13.3	0.2	20.6	15.2	8.8	0.7	12,688
30-34	75.7	66.7	49.3	1.1	12.7	5.2	0.6	11.6	0.4	22.5	16.9	9.3	1.4	11,102
35-39	77.4	68.5	54.2	1.0	10.1	5.8	0.6	9.2	0.3	21.8	17.0	8.9	1.2	9,500
40-44	74.5	65.7	54.2	2.2	7.2	4.4	0.1	5.6	0.2	19.9	15.7	7.4	1.2	7,648
45-49	70.7	63.3	53.8	3.7	4.0	2.9	0.4	3.7	0.1	16.1	13.2	6.0	0.9	5,616
Total	62.4	53.3	37.2	1.2	9.8	4.0	0.4	10.0	0.2	19.3	14.7	7.9	0.9	64,485
CURRENTLY MARRIED WOMEN - TOTAL														
15-19	22.6	14.2	1.1	0.0	5.0	0.4	0.1	8.9	0.2	12.1	8.3	5.5	0.1	6,726
20-24	46.4	36.7	13.5	0.2	11.3	3.6	0.4	15.0	0.2	17.1	12.7	7.5	0.4	16,782
25-29	67.7	59.4	33.5	0.6	14.7	6.9	0.5	18.1	0.4	20.4	15.0	9.0	0.6	18,540
30-34	78.3	70.0	47.3	1.0	14.3	8.7	0.7	16.9	0.5	22.4	16.7	9.7	1.2	16,459
35-39	79.9	71.7	53.2	1.2	11.4	8.6	0.5	13.8	0.5	21.7	16.9	9.0	1.0	14,492
40-44	77.0	68.4	53.6	2.2	8.2	7.3	0.2	9.2	0.2	20.3	15.9	7.8	1.0	11,605
45-49	73.4	66.2	53.7	3.9	5.1	5.5	0.3	6.9	0.2	16.8	13.5	6.8	0.7	8,484
Total	66.0	57.6	37.4	1.2	11.1	6.3	0.4	13.9	0.3	19.4	14.7	8.2	0.7	93,089
UNMARRIED WOMEN WHO EVER HAD SEX - URBAN														
15-19	29.7	28.9	0.0	4.8	4.7	0.0	1.4	19.4	0.1	3.1	0.6	2.5	0.0	39
20-24	38.6	31.0	7.8	0.0	6.9	3.3	0.0	14.3	2.0	11.1	10.1	1.5	0.0	88
25-49	56.5	51.8	39.4	1.5	6.8	5.8	0.1	6.5	0.4	10.6	8.8	4.0	0.3	1,773
Total	55.1	50.3	37.1	1.5	6.8	5.6	0.1	7.2	0.5	10.5	8.7	3.8	0.3	1,900
UNMARRIED WOMEN WHO EVER HAD SEX - RURAL														
15-19	15.0	11.4	0.0	0.0	2.6	0.3	0.5	7.5	0.5	4.9	2.6	3.3	0.0	169
20-24	27.6	19.7	9.4	1.0	5.4	0.5	0.0	5.0	0.3	13.8	9.8	4.3	0.6	344
25-49	48.6	42.7	36.8	1.7	3.7	1.7	0.1	2.1	0.1	10.8	8.4	4.1	0.3	3,531
Total	45.4	39.4	32.9	1.5	3.8	1.6	0.1	2.6	0.1	10.8	8.3	4.1	0.3	4,045
UNMARRIED WOMEN WHO EVER HAD SEX - TOTAL														
15-19	17.8	14.7	0.0	0.9	3.0	0.2	0.6	9.8	0.4	4.6	2.2	3.1	0.0	209
20-24	29.8	22.0	9.1	0.8	5.7	1.1	0.0	6.9	0.6	13.2	9.8	3.7	0.5	433
25-49	51.2	45.7	37.7	1.6	4.8	3.1	0.1	3.6	0.2	10.8	8.5	4.0	0.3	5,304
Total	48.5	42.9	34.3	1.5	4.8	2.8	0.1	4.0	0.2	10.7	8.4	4.0	0.3	5,945

Almost two-thirds of currently married women have used a family planning method at some time in their lives. Women are much more likely to have used a modern method (58 percent) than a traditional method (19 percent). Female sterilization is by far the most commonly used modern method (37 percent) among currently married women. The three modern spacing methods (pill, IUD, and condom) have ever been used by 11, 6, and 14 percent of women, respectively. The rhythm method has been used by 15 percent of women, and 8 percent of women have ever used withdrawal. Since NFHS-2, there has been an increase of 11 percentage points in the ever use of any method among currently married women. There has been an especially sharp increase in the ever use of spacing methods. For example, ever use of condoms and the rhythm method has increased by 6 percentage points each.

Ever use of any method and any modern method increases with the woman's age up to age 35-39 and decreases subsequently. At age 35-39, 80 percent currently married women reported ever use of family planning and 72 percent reported ever use of a modern method. The pattern of ever use of any method by age is similar in urban and rural areas, although urban women are more likely to have used contraception than rural women at every age. The extent of ever use of female and male sterilization, the rhythm method, and withdrawal is quite similar for urban and rural women in all age groups. However, ever use of the pill, IUD, and condom by urban women exceeds that among rural women by 4, 8, and 13 percentage points, respectively.

Slightly less than half of the unmarried women who have ever had sex used any method of contraception at some time. Women below age 25 are more likely to have used modern and traditional spacing methods, whereas women age 25 and over are more likely to have undergone sterilization.

5.3 Current Use of Contraceptive Methods

The current level of contraceptive use, i.e., the contraceptive prevalence rate (CPR) defined as percentage of currently married women age 15-49 years who are currently using a contraceptive method or whose husbands are using a contraceptive method, is one of the principal determinants of fertility. It is also an indicator of the success of family planning programmes. This section focuses on the levels, differentials, and trends in current use of contraceptive methods in India.

Current use of different methods of family planning among currently married women and sexually active unmarried women is shown by age group and residence in Table 5.5. The contraceptive prevalence rate in India is 56 percent. As shown earlier, the extent of ever use of contraception is 66 percent, which implies that 85 percent of ever users are currently using a contraceptive method. Eighty-six percent of current users are using modern methods and the remaining 14 percent are using traditional methods. Female sterilization accounts for two-thirds of total contraceptive use and 77 percent of modern method use. Among the spacing methods, the most widely used methods are condoms and rhythm (used by 5 percent of currently married women each). The use of the family planning programme's three modern spacing methods together accounts for 18 percent of the CPR. Similar to the age pattern of ever use, current use also increases with age, peaks at 73 percent in the age group 35-39, and decreases thereafter. The highest use of modern spacing methods (14 percent) is by women age 25-29 years.

Table 5.5 Current use of contraception by age

Percent distribution of currently married women and sexually active unmarried women by contraceptive method currently used, according to residence and age, India, 2005-06

Age	Any method	Any modern method	Modern method: Female sterilization	Modern method: Male sterilization	Modern method: Pill	Modern method: IUD	Modern method: Injectables	Modern method: Condom/ Nirodh	Modern method: Other modern method	Any traditional method	Traditional method: Rhythm	Traditional method: Withdrawal	Traditional method: Folk method	Not currently using	Total	Number of women
CURRENTLY MARRIED WOMEN – URBAN																
15-19	16.0	10.7	1.5	0.0	2.5	0.9	0.0	5.8	0.0	5.4	3.4	2.0	0.0	84.0	100.0	1,080
20-24	39.5	32.6	12.1	0.0	5.8	3.9	0.2	10.4	0.1	6.9	4.2	2.7	0.0	60.5	100.0	4,498
25-29	62.9	54.3	30.1	0.1	6.0	4.4	0.1	13.4	0.1	8.7	5.4	3.1	0.1	37.1	100.0	5,852
30-34	75.3	65.9	43.3	0.6	4.3	4.4	0.1	13.2	0.1	9.4	5.3	3.8	0.3	24.7	100.0	5,357
35-39	77.3	68.2	51.3	1.3	2.9	3.0	0.1	9.4	0.1	9.2	5.7	3.1	0.3	22.7	100.0	4,993
40-44	72.8	63.6	52.3	2.0	1.4	1.9	0.1	5.8	0.0	9.2	5.9	2.9	0.4	27.2	100.0	3,956
45-49	65.7	61.3	53.5	4.2	0.6	0.6	0.0	2.5	0.0	4.4	2.9	1.4	0.1	34.3	100.0	2,869
Total	64.0	55.8	37.8	1.1	3.8	3.2	0.1	9.8	0.1	8.1	5.0	2.9	0.2	36.0	100.0	28,604
CURRENTLY MARRIED WOMEN – RURAL																
15-19	12.4	6.2	1.0	0.0	2.1	0.2	0.1	2.8	0.0	6.2	3.8	2.3	0.0	87.6	100.0	5,647
20-24	31.1	23.7	13.9	0.3	3.9	1.2	0.1	4.3	0.0	7.5	5.0	2.2	0.2	68.9	100.0	12,284
25-29	53.4	45.6	34.9	0.7	3.8	1.7	0.0	4.5	0.0	7.7	4.6	2.8	0.3	46.6	100.0	12,688
30-34	67.9	58.8	49.1	1.0	3.7	1.4	0.1	3.5	0.0	9.1	5.8	2.7	0.6	32.1	100.0	11,102
35-39	70.9	61.5	54.0	0.9	2.0	1.2	0.2	3.1	0.1	9.3	5.9	2.7	0.7	29.1	100.0	9,500
40-44	66.6	59.3	54.1	2.0	1.0	0.6	0.1	1.4	0.0	7.3	4.9	1.8	0.6	33.4	100.0	7,648
45-49	62.0	57.9	53.4	3.3	0.3	0.2	0.1	0.5	0.0	4.1	2.9	1.0	0.2	38.0	100.0	5,616
Total	53.0	45.3	37.1	1.0	2.8	1.1	0.1	3.2	0.0	7.6	4.9	2.3	0.4	47.0	100.0	64,485
CURRENTLY MARRIED WOMEN – TOTAL																
15-19	13.0	6.9	1.1	0.0	2.2	0.3	0.1	3.3	0.0	6.0	3.8	2.3	0.0	87.0	100.0	6,726
20-24	33.4	26.1	13.4	0.2	4.4	1.9	0.1	5.9	0.0	7.3	4.8	2.4	0.2	66.6	100.0	16,782
25-29	56.4	48.4	33.4	0.5	4.5	2.5	0.1	7.3	0.0	8.0	4.9	2.9	0.2	43.6	100.0	18,540
30-34	70.3	61.2	47.2	0.9	3.9	2.4	0.1	6.7	0.1	9.2	5.6	3.0	0.5	29.7	100.0	16,459
35-39	73.1	63.8	53.1	1.0	2.3	1.8	0.2	5.3	0.1	9.3	5.9	2.8	0.6	26.9	100.0	14,492
40-44	68.7	60.7	53.5	2.0	1.2	1.1	0.1	2.9	0.0	8.0	5.3	2.2	0.5	31.3	100.0	11,605
45-49	63.2	59.0	53.4	3.6	0.4	0.4	0.0	1.2	0.0	4.2	2.9	1.1	0.2	36.8	100.0	8,484
Total	56.3	48.5	37.3	1.0	3.1	1.7	0.1	5.2	0.0	7.8	4.9	2.5	0.3	43.7	100.0	93,089
SEXUALLY ACTIVE UNMARRIED WOMEN[1] – URBAN																
15-19	(14.7)	(12.0)	(0.0)	(0.0)	(0.0)	(0.0)	(2.0)	(10.1)	(0.0)	(2.7)	(0.0)	(2.7)	(0.0)	(85.3)	100.0	28
20-24	11.3	11.3	0.0	0.0	3.2	0.0	0.0	8.1	0.0	0.0	0.0	0.0	0.0	88.7	100.0	24
25-49	44.5	44.5	40.7	0.2	1.7	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	55.5	100.0	132
Total	35.7	35.3	29.3	0.1	1.6	1.4	0.3	2.6	0.0	0.4	0.0	0.4	0.0	64.3	100.0	184
SEXUALLY ACTIVE UNMARRIED WOMEN[1] – RURAL																
15-19	13.9	7.9	0.0	0.0	0.0	0.0	0.9	6.0	1.0	6.0	2.0	4.0	0.0	86.1	100.0	83
20-24	13.0	11.5	11.5	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.6	0.9	87.0	100.0	94
25-49	55.8	55.1	53.9	0.1	1.0	0.0	0.0	0.2	0.0	0.8	0.0	0.0	0.7	44.2	100.0	259
Total	38.6	36.7	34.5	0.0	0.6	0.0	0.2	1.2	0.2	1.9	0.4	0.9	0.6	61.4	100.0	436
SEXUALLY ACTIVE UNMARRIED WOMEN[1] – TOTAL																
15-19	14.1	9.0	0.0	0.0	0.0	0.0	1.2	7.0	0.7	5.1	1.5	3.7	0.0	85.9	100.0	111
20-24	12.7	11.5	9.2	0.0	0.6	0.0	0.0	1.6	0.0	1.2	0.0	0.5	0.7	87.3	100.0	117
25-49	52.0	51.5	49.4	0.1	1.2	0.6	0.0	0.1	0.0	0.5	0.0	0.0	0.5	48.0	100.0	391
Total	37.7	36.3	32.9	0.1	0.9	0.4	0.2	1.6	0.1	1.5	0.3	0.7	0.4	62.3	100.0	620

Note: If more than one method is used, only the most effective method is considered in this tabulation.
( ) Based on 25-49 unweighted women.
[1] Unmarried women who had sexual intercourse in the 12 months preceding the survey.

The contraceptive prevalence rate is 11 percentage points higher in urban areas than in rural areas. However, the prevalence of female sterilization, male sterilization, and traditional methods is almost the same among urban and rural women. The use of modern spacing methods (pill, IUD, and condom) is considerably higher in urban areas than in rural areas. Condom use is three times as high in urban areas as in rural areas.

Among sexually active unmarried women age 15-49, 36 percent reported use of any modern method. About one-third were sterilized, 2 percent were using condoms, and less than 1 percent were using any other method.

Table 5.6.1 Current use of contraception by background characteristics

Percent distribution of currently married women by contraceptive method currently used, according to background characteristics, India, 2005-06

Background characteristic	Any method	Any modern method	Modern method							Any traditional method	Traditional method			Not currently using	Total	Number of women
			Female sterilization	Male sterilization	Pill	IUD	Injectables	Condom/ Nirodh	Other modern method		Rhythm	Withdrawal	Folk method			
Education																
No education	52.1	45.7	39.7	1.2	1.8	0.6	0.1	2.2	0.0	6.4	4.5	1.4	0.5	47.9	100.0	43,931
<5 years complete	63.0	55.5	46.7	1.4	3.9	0.7	0.0	2.7	0.1	7.5	4.2	2.8	0.4	37.0	100.0	7,776
5-7 years complete	58.7	51.7	41.1	0.8	4.0	1.4	0.1	4.4	0.0	7.0	4.5	2.4	0.1	41.3	100.0	14,018
8-9 years complete	58.5	48.1	33.5	0.7	5.0	2.4	0.1	6.3	0.1	10.3	6.0	4.2	0.1	41.5	100.0	10,735
10-11 years complete	59.7	50.2	32.2	0.8	3.9	3.6	0.1	9.5	0.1	9.5	5.5	3.9	0.1	40.3	100.0	7,704
12 or more years complete	62.3	50.5	20.6	0.9	4.0	6.1	0.1	18.6	0.1	11.8	6.8	4.9	0.1	37.7	100.0	8,921
Employment (past 12 months)																
Not employed	53.8	44.9	31.2	0.8	3.9	2.1	0.1	6.7	0.1	8.9	5.5	3.1	0.3	46.2	100.0	53,238
Employed for cash	63.6	57.4	48.3	1.4	2.3	1.3	0.1	3.9	0.0	6.2	3.8	1.9	0.4	36.4	100.0	25,601
Employed not for cash	52.7	46.2	40.2	1.3	1.4	1.0	0.1	2.3	0.0	6.6	4.7	1.4	0.5	47.3	100.0	14,234
Religion																
Hindu	57.8	50.2	39.9	1.1	2.7	1.6	0.1	4.8	0.0	7.6	4.9	2.4	0.4	42.2	100.0	75,799
Muslim	45.7	36.4	21.3	0.6	5.7	1.8	0.3	6.8	0.0	9.3	5.6	3.4	0.3	54.3	100.0	12,288
Christian	57.6	48.9	40.7	0.7	1.4	2.4	0.1	3.6	0.0	8.8	5.4	3.4	0.1	42.4	100.0	2,041
Sikh	66.5	58.4	31.4	0.8	2.6	7.9	0.1	15.8	0.0	8.1	4.8	3.3	0.0	33.5	100.0	1,567
Buddhist/Neo-Buddhist	67.7	64.7	54.1	4.5	1.6	0.7	0.1	3.7	0.0	3.0	2.6	0.4	0.0	32.3	100.0	684
Jain	75.4	69.1	41.1	0.7	1.6	6.0	0.0	19.7	0.0	6.3	2.6	3.3	0.5	24.6	100.0	279
Other	25.3	21.1	14.2	0.4	4.0	0.6	0.1	1.8	0.0	4.1	1.5	1.8	0.8	74.7	100.0	333
Caste/tribe																
Scheduled caste	55.0	47.1	38.3	1.1	2.8	0.8	0.1	4.0	0.0	8.0	5.5	2.1	0.4	45.0	100.0	17,372
Scheduled tribe	47.9	42.7	35.3	2.5	2.2	0.8	0.1	1.7	0.0	5.2	2.8	1.5	0.9	52.1	100.0	7,632
Other backward class	54.2	48.0	39.7	0.7	1.8	1.5	0.1	4.2	0.0	6.2	4.2	1.6	0.3	45.8	100.0	37,198
Other	61.8	51.4	34.1	1.0	5.1	2.8	0.2	8.2	0.1	10.3	6.0	4.1	0.2	38.2	100.0	30,131
Don't know	65.8	58.6	53.9	0.3	1.6	1.7	0.0	1.2	0.0	7.2	4.1	3.1	0.0	34.2	100.0	462
Wealth index																
Lowest	42.2	34.6	29.3	1.3	2.3	0.4	0.2	1.2	0.0	7.6	5.2	1.5	0.8	57.8	100.0	17,425
Second	51.1	43.5	37.0	0.9	2.8	0.5	0.1	2.1	0.0	7.6	5.2	2.0	0.4	48.9	100.0	18,495
Middle	56.8	49.8	41.9	0.8	3.0	0.8	0.1	3.1	0.0	7.0	4.3	2.4	0.3	43.2	100.0	18,671
Fourth	62.5	55.2	42.9	0.8	3.5	1.9	0.1	6.0	0.0	7.2	4.2	2.9	0.1	37.5	100.0	18,985
Highest	67.5	58.0	34.9	1.3	3.7	4.7	0.1	13.2	0.1	9.5	5.7	3.7	0.1	32.5	100.0	19,513
Number of living children																
No children	7.4	3.6	0.2	0.3	0.5	0.0	0.0	2.5	0.0	3.8	2.2	1.5	0.0	92.6	100.0	10,131
1 child	34.1	22.8	5.4	0.7	5.0	3.0	0.1	8.5	0.1	11.3	7.0	4.2	0.1	65.9	100.0	15,458
1 son	37.1	25.4	6.7	0.8	5.6	3.3	0.1	8.9	0.0	11.6	7.6	4.0	0.1	62.9	100.0	8,378
No sons	30.7	19.7	4.0	0.5	4.3	2.7	0.1	8.0	0.1	10.9	6.3	4.5	0.1	69.3	100.0	7,080
2 children	69.7	61.8	46.8	1.2	3.8	2.7	0.1	7.1	0.1	8.0	4.8	3.0	0.2	30.3	100.0	25,464
2 sons	76.9	70.2	56.8	1.3	3.4	2.4	0.1	6.1	0.1	6.7	4.1	2.3	0.3	23.1	100.0	7,730
1 son	70.8	62.5	46.3	1.2	3.8	3.1	0.1	8.0	0.1	8.3	4.9	3.1	0.2	29.2	100.0	13,595
No sons	52.9	43.7	29.9	0.9	4.7	2.0	0.1	6.0	0.1	9.2	5.6	3.6	0.0	47.1	100.0	4,139
3 children	74.2	68.2	59.2	1.4	2.4	1.2	0.1	3.9	0.0	6.0	4.0	1.7	0.3	25.8	100.0	19,699
3 sons	78.0	72.6	66.1	0.8	2.0	0.7	0.2	2.7	0.0	5.4	3.7	1.2	0.5	22.0	100.0	2,560
2 sons	80.5	75.2	67.2	1.8	1.9	0.9	0.1	3.2	0.0	5.3	3.5	1.5	0.4	19.5	100.0	8,799
1 son	70.0	63.2	52.0	1.2	3.1	1.9	0.0	5.0	0.0	6.8	4.5	2.0	0.3	30.0	100.0	6,869
No sons	50.0	42.3	32.5	1.1	3.1	0.7	0.0	4.9	0.0	7.6	5.0	2.4	0.3	50.0	100.0	1,471
4+ children	62.8	54.2	46.0	1.1	2.6	1.0	0.2	3.3	0.0	8.6	5.8	2.0	0.8	37.2	100.0	22,336
2+ sons	63.9	55.2	47.5	1.0	2.4	1.0	0.2	3.2	0.0	8.6	5.8	1.9	0.9	36.1	100.0	16,969
1 son	62.7	54.2	44.4	1.2	3.4	1.2	0.1	3.9	0.0	8.5	5.6	2.4	0.5	37.3	100.0	4,562
No sons	41.6	33.1	24.6	2.1	2.6	0.6	0.0	3.2	0.0	8.5	6.4	1.7	0.4	58.4	100.0	805
Total	56.3	48.5	37.3	1.0	3.1	1.7	0.1	5.2	0.0	7.8	4.9	2.5	0.3	43.7	100.0	93,089

Note: If more than one method is used, only the most effective method is considered in this tabulation. Total includes women with missing information on education, employment (past 12 months), religion, and caste/tribe, who are not shown separately.

Differentials in contraceptive use among currently married women age 15-49 by their background characteristics are presented in Table 5.6.1. There are marked differences in the use of different contraceptive methods among currently married women by background character-

istics. Current use of IUDs, condoms, the rhythm method, and withdrawal generally increases and current use of female sterilization generally decreases with an increase in the educational level of women. For example, 1 percent and 2 percent of women with no education reported IUD and condom use, as against 6 and 19 percent of women with 12 or more years of education. The use of pills increases through 8-9 years of education, but is somewhat lower in the higher education groups. Female sterilization is highest (47 percent) for women with less than five years of education and decreases steadily for women with more education. Due to the contrasting patterns in the use of sterilization and spacing methods by education, there is no consistent relationship between women's education and the CPR or current use of modern methods for women who have received some education.

To study the relationship between the employment status of women and current contraceptive use, Table 5.6.1 shows contraceptive use for three categories of women—those who were not employed during the 12 months prior to the survey, those who were employed for cash, and those who were employed but were not earning cash. The contraceptive prevalence rate among women who were employed for cash (64 percent) is 10-11 percentage points higher than that among women who were not employed (54 percent) or those who were employed but did not earn cash (53 percent). The higher CPR among women employed for cash is basically due to the higher prevalence of female sterilization among these women. The extent of use of all spacing methods (modern as well as traditional) is highest among women who are not employed.

By religion, the highest contraceptive prevalence rate is among Jains (75 percent), followed by Buddhists/Neo-Buddhists (68 percent) and Sikhs (67 percent). The contraceptive prevalence rate is 58 percent (each) among Hindu and Christian women and 46 percent among Muslim women. The lowest prevalence is recorded for women from 'other religions'. Among the specific religious groups, the prevalence of female sterilization is highest among Buddhists/Neo-Buddhists (54 percent) and lowest among Muslims (21 percent). The use of pills, IUDs, and condoms is highest among Jains (27 percent), Sikhs (26 percent), and Muslims (14 percent). Use of traditional methods is highest among Muslim and Christian women (9 percent each).

By caste or tribe, contraceptive prevalence is highest among women who do not belong to scheduled castes, scheduled tribes, or other backward classes (62 percent), followed by women from scheduled castes (55 percent) and other backward classes (54 percent). Contraceptive use is lowest among women from scheduled tribes (48 percent). The prevalence of female sterilization is highest among women from other backward classes (40 percent), but use of modern and traditional spacing methods is highest among women from 'other' castes.

Wealth has a positive effect on women's contraceptive use, with use increasing from 42 percent among currently married women in households in the lowest wealth quintile to 68 percent among those in households in the highest wealth quintile. The use of any of the three modern spacing methods (pill, IUD, and condom) increases sharply from 4 percent among women in the lowest wealth quintile to 11 percent among women in the fourth wealth quintile and further to 22 percent among women in the highest wealth quintile.

The table also shows differences in current contraceptive use by the number and sex composition of living children. Contraceptive use increases with the number of living children, from 7 percent among women with no living children to 74 percent among women with three living children. The CPR decreases to 63 percent for women with four or more living children. Within each number of children, contraceptive use increases with the number of sons, due to the

strong preference for sons in India. Many women prefer not to use contraception and to continue childbearing until they have at least one son. For example, 53 percent of women with two daughters and no sons are using contraception, compared with 77 percent of women with two sons and no daughters.

Table 5.6.2 Contraceptive use by men with last partner

Percent distribution of currently married men and sexually active unmarried men age 15-49 by contraceptive used the last time they had sex, according to type of partner and background characteristics, India, 2005-06

Background characteristic	Any method	Any modern method	Modern method: Female sterilization	Male sterilization	Pill	IUD	Injectables	Condom/ Nirodh	Other modern method	Any traditional method	Traditional method: Rhythm	Withdrawal	Folk method	Not currently using	Total	Number of men
Type of sexual partner																
Currently married	50.3	43.6	30.4	1.0	3.6	1.4	0.0	7.2	0.1	6.7	4.6	1.8	0.3	49.7	100.0	43,501
Wife	50.9	44.1	30.6	0.9	3.7	1.4	0.0	7.3	0.1	6.8	4.7	1.9	0.3	49.1	100.0	42,157
Live-in partner/girlfriend	41.6	39.3	17.3	0.0	6.5	1.4	0.0	14.1	0.0	2.3	2.3	0.0	0.0	58.4	100.0	57
Other	31.6	28.8	24.0	2.3	1.6	0.2	0.0	0.7	0.0	2.8	1.7	0.3	0.7	68.4	100.0	1,288
Not currently married	45.2	40.7	1.5	0.1	2.8	0.0	0.0	36.1	0.3	4.5	2.8	1.4	0.3	54.8	100.0	1,980
Live-in partner	48.7	44.9	7.8	0.0	0.0	0.0	0.0	36.1	1.0	3.8	2.6	1.2	0.0	51.3	100.0	58
Girlfriend	49.8	44.1	0.2	0.0	3.2	0.0	0.0	40.6	0.2	5.6	3.9	1.8	0.0	50.2	100.0	903
Other	41.0	37.4	2.3	0.2	2.6	0.0	0.0	32.1	0.3	3.6	1.9	1.2	0.6	59.0	100.0	1,018
Residence																
Urban	55.3	48.9	28.2	0.8	3.8	2.2	0.0	13.6	0.2	6.4	4.1	2.2	0.1	44.7	100.0	15,181
Rural	47.5	40.8	29.6	1.0	3.5	0.9	0.0	5.8	0.1	6.7	4.7	1.6	0.3	52.5	100.0	30,300
Education																
No education	44.3	38.7	31.7	1.0	2.6	0.3	0.0	3.1	0.0	5.5	4.2	0.9	0.4	55.7	100.0	10,564
<5 years complete	50.0	44.0	35.9	1.2	3.1	0.5	0.0	3.4	0.0	6.0	3.4	2.0	0.6	50.0	100.0	5,484
5-7 years complete	49.1	43.1	31.9	0.8	3.7	0.9	0.0	5.8	0.0	6.0	4.0	1.7	0.3	50.9	100.0	7,841
8-9 years complete	49.7	42.0	26.1	0.6	3.7	1.5	0.0	10.0	0.0	7.7	5.6	2.0	0.1	50.3	100.0	8,053
10-11 years complete	53.8	48.0	28.9	0.9	4.0	1.8	0.0	12.2	0.3	5.7	4.1	1.5	0.1	46.2	100.0	5,439
12 or more years complete	56.7	48.2	21.7	1.1	4.8	3.0	0.1	17.2	0.3	8.4	5.2	3.1	0.1	43.3	100.0	8,091
Age																
15-19	29.4	25.3	0.4	0.0	2.4	0.1	0.0	22.1	0.3	4.1	3.1	1.0	0.0	70.6	100.0	1,020
20-24	25.5	18.4	2.6	0.0	3.1	0.5	0.0	12.1	0.1	7.1	5.0	1.8	0.2	74.5	100.0	4,584
25-29	35.1	29.0	13.3	0.4	4.4	1.2	0.0	9.7	0.1	6.1	4.5	1.5	0.1	64.9	100.0	7,846
30-34	51.0	43.9	26.2	0.7	4.7	2.0	0.1	10.1	0.1	7.1	4.8	2.1	0.2	49.0	100.0	8,872
35-39	60.7	53.5	38.5	1.0	4.3	1.5	0.0	8.0	0.1	7.2	4.4	2.2	0.5	39.3	100.0	8,919
40-44	61.0	54.5	43.3	1.4	2.5	1.3	0.0	5.8	0.1	6.5	4.4	1.6	0.4	39.0	100.0	7,769
45-49	60.0	54.1	45.7	2.0	2.0	0.9	0.0	3.4	0.0	5.9	4.1	1.6	0.1	40.0	100.0	6,471
Marital status																
Never married	47.0	42.4	0.7	0.0	2.7	0.0	0.0	38.7	0.3	4.6	2.7	1.5	0.3	53.0	100.0	1,819
Currently married	50.3	43.6	30.4	1.0	3.6	1.4	0.0	7.2	0.1	6.7	4.6	1.8	0.3	49.7	100.0	43,501
Widowed/divorced/ separated/deserted	25.2	21.4	9.8	1.1	3.5	0.0	0.0	7.0	0.0	3.8	3.4	0.4	0.0	74.8	100.0	161
Religion																
Hindu	50.5	44.2	31.0	1.0	3.2	1.2	0.0	7.7	0.1	6.3	4.4	1.7	0.3	49.5	100.0	37,470
Muslim	46.2	37.1	16.9	0.6	7.3	1.3	0.1	11.0	0.1	9.1	5.6	3.0	0.5	53.8	100.0	5,526
Christian	45.6	38.7	27.6	0.4	1.4	2.1	0.2	6.9	0.0	7.0	4.9	2.0	0.0	54.4	100.0	980
Sikh	60.6	53.4	24.0	0.2	1.2	4.3	0.2	23.6	0.0	7.2	5.3	1.9	0.0	39.4	100.0	834
Buddhist/Neo-Buddhist	64.5	64.2	46.5	2.1	3.6	0.3	0.1	11.6	0.0	0.3	0.2	0.0	0.0	35.5	100.0	363
Jain	66.9	62.1	30.1	4.1	1.1	4.6	0.0	22.0	0.2	4.8	2.6	2.2	0.0	33.1	100.0	134
Other	21.0	16.8	12.7	0.9	1.4	0.6	0.1	1.1	0.0	4.2	2.3	1.8	0.1	79.0	100.0	166
Caste/tribe																
Scheduled caste	49.4	42.2	29.7	0.8	3.9	0.6	0.1	7.3	0.1	7.1	5.3	1.7	0.2	50.6	100.0	8,828
Scheduled tribe	40.3	35.8	27.6	2.5	2.1	0.4	0.0	3.2	0.0	4.4	3.0	1.0	0.5	59.7	100.0	4,148
Other backward class	48.3	43.2	31.8	0.6	2.1	1.2	0.0	7.4	0.1	5.1	3.7	1.1	0.3	51.7	100.0	17,837
Other	55.6	46.8	25.8	0.9	5.7	2.2	0.0	12.0	0.1	8.8	5.5	3.0	0.2	44.4	100.0	14,405
Don't know	56.9	56.7	51.6	0.0	1.4	1.2	0.0	2.5	0.0	0.2	0.0	0.2	0.0	43.1	100.0	116
Wealth index																
Lowest	37.9	31.6	24.6	1.1	2.8	0.3	0.0	2.6	0.0	6.4	4.8	0.8	0.7	62.1	100.0	8,268
Second	46.5	39.7	30.4	0.9	3.6	0.3	0.0	4.3	0.0	6.8	5.1	1.5	0.2	53.5	100.0	8,841
Middle	49.2	42.7	32.0	0.7	3.4	0.5	0.0	6.0	0.1	6.5	4.0	2.2	0.3	50.8	100.0	9,342
Fourth	55.1	48.8	31.9	0.9	4.2	1.7	0.1	10.0	0.1	6.4	4.4	1.9	0.1	44.9	100.0	9,483
Highest	59.8	52.9	26.3	1.0	3.9	3.5	0.0	18.0	0.2	6.9	4.2	2.6	0.1	40.2	100.0	9,546
Total age 15-49	50.1	43.5	29.1	0.9	3.6	1.3	0.0	8.4	0.1	6.6	4.5	1.8	0.3	49.9	100.0	45,481
Age 50-54	56.2	51.7	43.6	3.9	1.3	0.5	0.0	2.3	0.0	4.5	3.4	0.9	0.2	43.8	100.0	4,386
Total age 15-54	50.6	44.2	30.4	1.2	3.4	1.2	0.0	7.9	0.1	6.4	4.4	1.7	0.3	49.4	100.0	49,867

Note: Total includes men with missing information on education, religion, and caste/tribe, who are not shown separately.

All men who reported ever having sex were asked whether they or their partner used any contraceptive method the last time they had sex. Table 5.6.2 shows the contraceptive use of men age 15-49 by type of partner and background characteristics. Contraceptive use in this table cannot be compared with current contraceptive use among currently married women in Table 5.6.1 because men were not asked about their current use of contraception. Fifty percent of men age 15-49 and 51 percent of men age 15-54 reported using any contraceptive method the last time they had sex. Eighty-seven percent of the users age 15-49 used a modern method and the remaining 13 percent used a traditional method. Female sterilization accounted for 58 percent of total contraceptive use and 67 percent of the use of modern methods. Among the spacing methods, the most widely used methods are condoms and rhythm (used by 8 and 5 percent of men).

Among currently married men, 97 percent reported last having sex with their wife and the remaining 3 percent reported having sex with a girlfriend, a live-in partner, or any other person. Among those who last had sex with their wife, 51 percent used a contraceptive method, 44 percent used a modern method, and 31 percent had a wife who was sterilized.

Forty-five percent of sexually active unmarried men reported using contraception the last time they had sex. More than three-quarters of those who used contraception used a condom, and 6 percent each used pills and the rhythm method. The pattern of contraceptive use among men by residence, education, age, religion, caste/tribe, and the wealth index is more or less the same as that among currently married women.

5.3.1 Trends in Contraceptive Use

The comparison of the use of different contraceptive methods in India from NFHS-1, NFHS-2, and NFHS-3 and state level differentials in contraceptive use are shown in Table 5.7. Over the past 13 years there has been a steady increase in the CPR from 41 percent in NFHS-1 (1992-93) to 48 percent in NFHS-2 (1998-99) and further to 56 percent in NFHS-3 (Figure 5.2). The use of contraception has increased steadily in both urban and rural areas, but the pace of change has been somewhat faster in rural areas. Since NFHS-1, the use of each modern and traditional method except male sterilization and the IUD has increased. The share of female sterilization in the CPR decreased slightly from 67 percent in NFHS-1 to 66 percent in NFHS-3. In the same period, the share of the three officially sponsored spacing methods increased from 14 percent to 18 percent. Between NFHS-1 and NFHS-3, the CPR increased more in rural areas (16 percentage points) than in urban areas (13 percentage points).

Table 5.7 Current use of contraception by state

Percent distribution of currently married women by contraceptive method currently used, according to residence and state, India, 2005-06, and by residence, NFHS-2 and NFHS-1

State	Any method	Any modern method	Modern method: Female sterilization	Male sterilization	Pill	IUD	Injectables	Condom/ Nirodh	Other modern method	Any traditional method	Traditional method: Rhythm	Withdrawal	Folk method	Not currently using	Total
URBAN															
India	64.0	55.8	37.8	1.1	3.8	3.2	0.1	9.8	0.1	8.1	5.0	2.9	0.2	36.0	100.0
NFHS-2 (1998-99)	58.2	51.2	36.0	1.8	2.7	3.5	u	7.2	u	u	3.9	2.8	u	41.8	100.0
NFHS-1 (1992-93)	51.1	45.3	30.4	3.2	1.9	3.9	0.0	5.8	u	u	3.5	2.1	u	48.9	100.0
North															
Delhi	67.1	56.5	22.0	0.8	4.4	5.0	0.1	23.9	0.2	10.6	6.3	4.1	0.2	32.9	100.0
Haryana	66.5	59.7	28.2	1.3	4.2	5.6	0.0	20.3	0.2	6.9	4.2	2.4	0.4	33.5	100.0
Himachal Pradesh	73.7	71.2	32.1	3.4	4.6	3.7	0.2	27.2	0.0	2.6	1.3	1.3	0.0	26.3	100.0
Jammu & Kashmir	68.3	55.8	32.8	4.0	3.7	2.8	0.4	11.8	0.1	12.4	3.3	9.0	0.1	31.7	100.0
Punjab	61.7	51.8	21.2	1.4	2.8	4.1	0.1	22.1	0.1	9.9	4.9	5.0	0.0	38.3	100.0
Rajasthan	65.7	62.0	39.6	1.7	4.9	2.4	0.2	13.0	0.1	3.8	1.8	1.4	0.5	34.3	100.0
Uttaranchal	65.3	59.2	20.4	2.7	4.7	2.7	0.0	28.3	0.3	6.1	2.9	3.2	0.0	34.7	100.0
Central															
Chhattisgarh	65.4	58.9	43.9	1.5	2.9	2.7	0.0	7.8	0.1	6.5	2.6	2.8	1.2	34.6	100.0
Madhya Pradesh	61.1	56.3	36.8	1.6	3.6	1.6	0.0	12.6	0.0	4.8	2.5	2.1	0.2	38.9	100.0
Uttar Pradesh	56.3	42.4	18.7	0.5	3.2	3.2	0.1	16.6	0.1	13.9	10.1	3.1	0.6	43.7	100.0
East															
Bihar	50.6	41.3	31.2	0.7	3.1	1.0	0.4	4.7	0.2	9.3	6.1	2.7	0.5	49.4	100.0
Jharkhand	60.0	49.9	35.0	0.5	4.9	1.4	0.0	7.9	0.2	10.1	4.1	5.7	0.2	40.0	100.0
Orissa	59.4	50.1	30.3	1.1	10.2	1.5	0.1	6.7	0.2	9.4	3.2	6.0	0.2	40.6	100.0
West Bengal	75.5	49.9	28.8	0.5	10.7	0.9	0.1	8.7	0.0	25.7	15.0	10.6	0.1	24.5	100.0
Northeast															
Arunachal Pradesh	47.3	39.4	19.4	0.0	8.7	6.5	0.3	4.5	0.0	7.9	2.5	4.8	0.6	52.7	100.0
Assam	66.0	37.2	14.1	0.2	15.6	1.0	0.0	6.4	0.0	28.8	15.9	12.5	0.4	34.0	100.0
Manipur	54.5	24.8	8.9	0.6	4.7	4.0	0.1	6.4	0.1	29.7	9.0	20.4	0.3	45.5	100.0
Meghalaya	43.7	36.7	18.9	0.2	8.8	3.1	0.7	5.1	0.0	7.0	4.6	2.2	0.2	56.3	100.0
Mizoram	64.3	64.0	46.0	0.0	9.6	6.4	0.0	2.0	0.0	0.4	0.0	0.4	0.0	35.7	100.0
Nagaland	41.9	31.8	14.8	0.2	6.5	4.6	0.2	5.6	0.0	10.1	7.6	2.4	0.1	58.1	100.0
Sikkim	63.1	51.7	25.0	1.7	11.7	2.3	2.7	8.3	0.0	11.5	8.1	3.1	0.2	36.9	100.0
Tripura	66.8	44.4	16.8	0.3	23.0	0.0	0.0	4.3	0.0	22.4	11.8	10.6	0.0	33.2	100.0
West															
Goa	51.3	38.6	24.5	0.1	1.9	2.6	0.2	9.3	0.0	12.6	7.7	4.9	0.0	48.7	100.0
Gujarat	67.6	57.7	37.5	0.6	4.1	6.7	0.1	8.6	0.2	9.8	8.1	1.7	0.1	32.4	100.0
Maharashtra	66.7	64.0	44.2	1.0	3.6	5.3	0.1	9.8	0.0	2.7	1.9	0.6	0.1	33.3	100.0
South															
Andhra Pradesh	67.7	67.2	61.5	3.0	0.6	0.9	0.1	1.1	0.0	0.5	0.3	0.2	0.0	32.3	100.0
Karnataka	60.8	59.2	49.9	0.3	1.2	4.3	0.0	3.5	0.0	1.6	1.2	0.4	0.0	39.2	100.0
Kerala	68.9	58.5	45.6	1.8	0.0	2.4	0.1	8.5	0.0	10.4	4.9	5.5	0.0	31.1	100.0
Tamil Nadu	60.8	59.2	51.9	0.6	0.3	3.0	0.0	3.4	0.0	1.6	1.2	0.4	0.0	39.2	100.0
RURAL															
India	53.0	45.3	37.1	1.0	2.8	1.1	0.1	3.2	0.0	7.6	4.9	2.3	0.4	47.0	100.0
NFHS-2 (1998-99)	44.7	39.9	33.5	1.9	1.9	1.0	u	1.6	u	u	2.7	1.7	u	55.3	100.0
NFHS-1 (1992-93)	37.1	33.3	26.4	3.5	0.9	1.2	0.0	1.2	u	u	2.3	1.2	u	62.9	100.0
North															
Delhi	64.4	55.9	33.9	1.1	5.6	4.5	0.0	10.7	0.0	8.5	5.6	2.8	0.0	35.6	100.0
Haryana	62.0	57.7	42.3	0.5	2.2	4.4	0.0	8.2	0.1	4.3	2.6	1.6	0.1	38.0	100.0
Himachal Pradesh	72.5	71.0	51.0	6.7	2.5	1.1	0.1	9.7	0.0	1.5	0.9	0.6	0.0	27.5	100.0
Jammu & Kashmir	46.2	40.4	23.7	2.0	5.1	2.7	0.5	6.5	0.0	5.8	0.7	5.1	0.1	53.8	100.0
Punjab	64.2	58.6	36.4	1.1	2.9	6.4	0.2	11.5	0.0	5.6	3.1	2.5	0.0	35.8	100.0
Rajasthan	40.5	38.0	32.2	0.5	1.0	1.3	0.0	3.1	0.0	2.5	0.9	1.0	0.5	59.5	100.0
Uttaranchal	57.2	54.2	36.3	1.4	4.0	1.0	0.1	11.2	0.1	3.0	1.8	1.1	0.1	42.8	100.0
Central															
Chhattisgarh	49.9	46.4	39.8	3.8	1.0	0.3	0.0	1.6	0.0	3.5	1.5	0.4	1.6	50.1	100.0
Madhya Pradesh	54.1	51.5	46.9	1.2	1.0	0.3	0.0	2.0	0.0	2.6	1.8	0.3	0.4	45.9	100.0
Uttar Pradesh	39.7	25.3	16.8	0.1	1.3	0.8	0.1	6.2	0.1	14.4	11.6	2.3	0.4	60.3	100.0
East															
Bihar	31.4	26.8	22.6	0.5	1.0	0.5	0.2	1.9	0.1	4.5	2.5	1.6	0.4	68.6	100.0
Jharkhand	28.2	25.2	19.8	0.3	3.4	0.4	0.1	1.1	0.0	2.9	1.4	0.9	0.7	71.8	100.0
Orissa	49.0	43.6	33.7	1.0	6.3	0.3	0.0	2.2	0.0	5.4	1.4	2.7	1.3	51.0	100.0
West Bengal	69.5	49.9	33.5	0.8	12.1	0.5	0.4	2.5	0.1	19.6	11.3	7.6	0.7	30.5	100.0

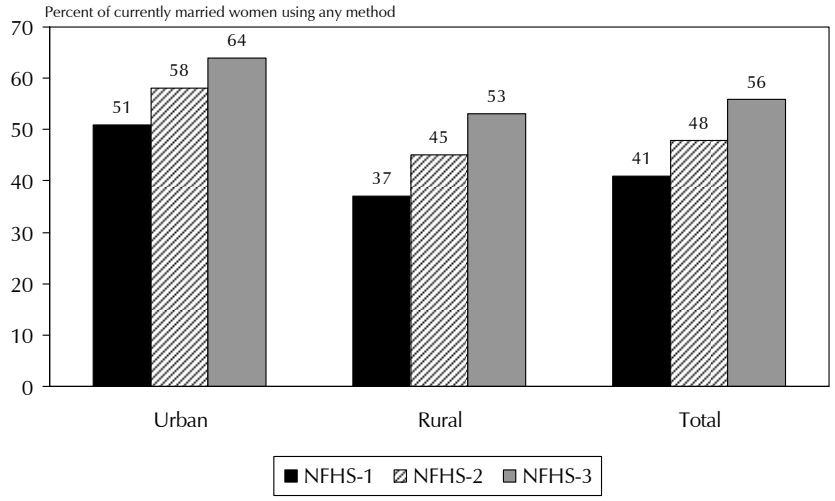
Continued…

Table 5.7 Current use of contraception by state—*Continued*

State	Any method	Any modern method	Modern method							Any traditional method	Traditional method			Not currently using	Total
			Female sterilization	Male sterilization	Pill	IUD	Injectables	Condom/ Nirodh	Other modern method		Rhythm	Withdrawal	Folk method		
Northeast															
Arunachal Pradesh	41.6	36.4	23.7	0.1	7.9	2.2	0.4	2.1	0.0	5.2	2.3	2.6	0.3	58.4	100.0
Assam	54.5	24.8	12.7	0.2	9.1	1.3	0.0	1.5	0.0	29.6	17.5	11.5	0.6	45.5	100.0
Manipur	46.0	23.0	7.9	0.4	5.6	5.9	0.1	3.1	0.0	23.0	7.7	14.9	0.4	54.0	100.0
Meghalaya	18.4	13.0	6.6	0.0	3.8	1.0	0.1	1.5	0.0	5.3	1.7	3.5	0.1	81.6	100.0
Mizoram	54.8	54.6	39.4	0.0	11.7	2.7	0.0	0.8	0.0	0.2	0.0	0.2	0.0	45.2	100.0
Nagaland	24.8	18.8	8.0	0.0	3.9	5.5	0.0	1.5	0.0	6.0	4.2	1.8	0.0	75.2	100.0
Sikkim	56.4	48.0	20.3	5.1	13.1	3.2	2.9	3.2	0.2	8.4	5.3	3.2	0.0	43.6	100.0
Tripura	65.5	45.0	17.8	0.5	21.6	1.1	1.1	3.0	0.0	20.5	14.5	5.9	0.1	34.5	100.0
West															
Goa	44.1	35.2	27.4	0.0	1.0	1.8	0.1	5.0	0.0	8.8	5.3	3.5	0.0	55.9	100.0
Gujarat	65.9	55.5	47.0	0.6	1.5	2.7	0.0	3.7	0.0	10.4	8.5	1.7	0.2	34.1	100.0
Maharashtra	67.1	65.8	57.5	3.2	1.3	0.8	0.0	2.9	0.0	1.3	1.0	0.2	0.1	32.9	100.0
South															
Andhra Pradesh	67.6	67.0	63.6	2.8	0.1	0.2	0.0	0.1	0.0	0.6	0.3	0.1	0.1	32.4	100.0
Karnataka	65.4	64.7	62.1	0.1	0.5	1.3	0.0	0.7	0.0	0.7	0.3	0.4	0.0	34.6	100.0
Kerala	68.5	57.6	50.3	0.6	0.6	2.2	0.0	4.0	0.0	10.8	4.3	6.5	0.0	31.5	100.0
Tamil Nadu	62.0	60.7	57.7	0.3	0.2	1.2	0.0	1.3	0.0	1.3	0.6	0.7	0.0	38.0	100.0
TOTAL															
India	56.3	48.5	37.3	1.0	3.1	1.7	0.1	5.2	0.0	7.8	4.9	2.5	0.3	43.7	100.0
NFHS-2 (1998-99)	48.2	42.8	34.2	1.9	2.1	1.6	u	3.1	u	u	3.0	2.0	u	51.8	100.0
NFHS-1 (1992-93)	40.7	36.5	27.4	3.5	1.2	1.9	0.0	2.4	u	u	2.7	1.5	u	59.3	100.0
North															
Delhi	66.9	56.5	23.0	0.8	4.5	5.0	0.1	22.9	0.2	10.4	6.3	4.0	0.2	33.1	100.0
Haryana	63.4	58.3	38.2	0.7	2.8	4.7	0.0	11.8	0.1	5.1	3.1	1.9	0.2	36.6	100.0
Himachal Pradesh	72.6	71.0	49.0	6.3	2.7	1.4	0.1	11.5	0.0	1.6	1.0	0.6	0.0	27.4	100.0
Jammu & Kashmir	52.6	44.9	26.3	2.6	4.7	2.7	0.5	8.0	0.0	7.7	1.4	6.2	0.1	47.4	100.0
Punjab	63.3	56.1	30.8	1.2	2.9	5.5	0.2	15.5	0.0	7.2	3.8	3.4	0.0	36.7	100.0
Rajasthan	47.2	44.4	34.2	0.8	2.0	1.6	0.1	5.7	0.0	2.8	1.2	1.1	0.5	52.8	100.0
Uttaranchal	59.3	55.5	32.1	1.8	4.2	1.5	0.1	15.7	0.1	3.8	2.1	1.7	0.0	40.7	100.0
Central															
Chhattisgarh	53.2	49.1	40.7	3.3	1.4	0.8	0.0	2.9	0.0	4.1	1.7	0.9	1.5	46.8	100.0
Madhya Pradesh	55.9	52.8	44.3	1.3	1.7	0.7	0.0	4.8	0.0	3.2	2.0	0.8	0.4	44.1	100.0
Uttar Pradesh	43.6	29.3	17.3	0.2	1.7	1.4	0.1	8.6	0.1	14.3	11.3	2.5	0.5	56.4	100.0
East															
Bihar	34.1	28.9	23.8	0.6	1.3	0.6	0.2	2.3	0.1	5.2	3.0	1.8	0.4	65.9	100.0
Jharkhand	35.7	31.1	23.4	0.4	3.8	0.6	0.1	2.7	0.1	4.7	2.1	2.0	0.6	64.3	100.0
Orissa	50.7	44.7	33.1	1.0	7.0	0.5	0.1	3.0	0.0	6.1	1.7	3.3	1.1	49.3	100.0
West Bengal	71.2	49.9	32.2	0.7	11.7	0.6	0.3	4.3	0.1	21.3	12.3	8.4	0.5	28.8	100.0
Northeast															
Arunachal Pradesh	43.2	37.3	22.5	0.1	8.1	3.4	0.4	2.8	0.0	5.9	2.4	3.2	0.3	56.8	100.0
Assam	56.5	27.0	13.0	0.2	10.3	1.3	0.0	2.3	0.0	29.5	17.2	11.7	0.6	43.5	100.0
Manipur	48.7	23.6	8.2	0.5	5.3	5.3	0.1	4.1	0.0	25.1	8.1	16.6	0.4	51.3	100.0
Meghalaya	24.3	18.5	9.5	0.1	4.9	1.5	0.3	2.4	0.0	5.7	2.4	3.2	0.2	75.7	100.0
Mizoram	59.9	59.6	42.9	0.0	10.6	4.7	0.0	1.4	0.0	0.3	0.0	0.3	0.0	40.1	100.0
Nagaland	29.7	22.5	9.9	0.0	4.7	5.2	0.0	2.6	0.0	7.2	5.2	2.0	0.0	70.3	100.0
Sikkim	57.6	48.7	21.2	4.5	12.8	3.0	2.9	4.1	0.2	9.0	5.8	3.1	0.0	42.4	100.0
Tripura	65.7	44.9	17.6	0.5	21.8	0.9	0.9	3.2	0.0	20.8	14.0	6.7	0.1	34.3	100.0
West															
Goa	48.2	37.2	25.8	0.1	1.5	2.2	0.1	7.5	0.0	11.0	6.7	4.4	0.0	51.8	100.0
Gujarat	66.6	56.5	42.9	0.6	2.6	4.4	0.0	5.8	0.1	10.1	8.3	1.7	0.1	33.4	100.0
Maharashtra	66.9	64.9	51.1	2.1	2.4	3.0	0.1	6.2	0.0	1.9	1.4	0.4	0.1	33.1	100.0
South															
Andhra Pradesh	67.6	67.0	62.9	2.9	0.3	0.5	0.1	0.5	0.0	0.6	0.3	0.1	0.1	32.4	100.0
Karnataka	63.6	62.5	57.4	0.2	0.8	2.5	0.0	1.7	0.0	1.1	0.6	0.4	0.0	36.4	100.0
Kerala	68.6	57.9	48.7	1.0	0.4	2.3	0.0	5.5	0.0	10.7	4.5	6.2	0.0	31.4	100.0
Tamil Nadu	61.4	60.0	55.0	0.4	0.2	2.1	0.0	2.3	0.0	1.4	0.9	0.6	0.0	38.6	100.0

u = Not available

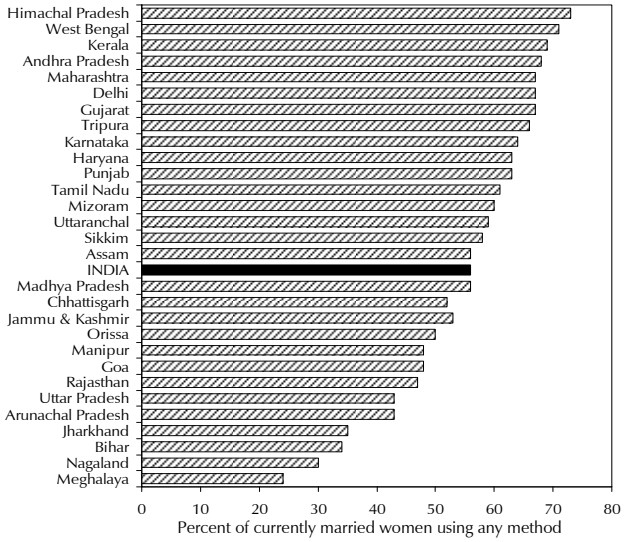
Figure 5.2 Trends in Current Contraceptive Use by Residence



5.3.2 Interstate Variation in Contraceptive Use

The fertility chapter has already shown a wide variation in total fertility rates across the states. The contraceptive prevalence rate, one of the important proximate determinants of fertility, also varies substantially across the states, from a low of 24 percent in Meghalaya to a high of 73 percent in Himachal Pradesh (see Table 5.7 and Figure 5.3). Other states in which at least two-thirds of women use contraception are West Bengal (71 percent), Kerala (69 percent), Andhra Pradesh (68 percent), and Delhi, Maharashtra, and Gujarat (67 percent each). However, more than two-thirds of women use modern methods only in Himachal Pradesh (71 percent) and Andhra Pradesh (67 percent).

Figure 5.3 Contraceptive Prevalence Rate by State



NFHS-3, India, 2005-06

In Delhi, condoms and female sterilization are equally popular. In all the remaining states except Assam, Manipur, and Tripura, female sterilization is by far the dominant contraceptive method. The prevalence of female sterilization ranges from a high of 63 percent in Andhra Pradesh to a low of 8 percent in Manipur. Besides Andhra Pradesh, the prevalence of sterilization is also quite high in the three remaining southern states of Karnataka (57 percent), Tamil Nadu (55 percent), and Kerala (49 percent), as well as Maharashtra (51 percent), Himachal Pradesh (49 percent), Madhya Pradesh (44 percent), Gujarat and Mizoram (43 percent each), and Chhattisgarh (41 percent). In three southern states (Andhra Pradesh, Karnataka, and Tamil Nadu), 90 percent or more of contraceptive users have adopted female sterilization. The prevalence of male sterilization is quite low—less than 5 percent in every state except Himachal Pradesh (6 percent).

Pill use is highest in several states in the East and Northeast Regions. At least 1 in every 10 women use the pill in Tripura (22 percent), Sikkim (13 percent), West Bengal (12 percent), Mizoram (11 percent), and Assam (10 percent). In all states in the East and Northeast Regions except Bihar, pill use accounts for 10 percent or more of total contraceptive use.

Among the three officially sponsored spacing methods, the IUD is the least widely used method and the condom is the most widely used method. In Delhi, Haryana, Punjab, Manipur, Mizoram, and Nagaland, around 5 percent of women use an IUD. In all the states in the North Region, condom use is higher than the national average. Condom use is highest in Delhi (23 percent), followed by Punjab and Uttaranchal (16 percent each). In Uttar Pradesh, Goa, Maharashtra, Gujarat, and Kerala, condom use is also higher than 5 percent. The use of injectables is extremely low in every state. Sikkim is the only state in which the use of injectables is higher than 1 percent.

In Assam, Manipur, West Bengal, and Tripura, the use of traditional methods (rhythm, withdrawal, or folk methods) is quite high (21-30 percent). In Uttar Pradesh, Goa, Kerala, Delhi, and Gujarat, 10-15 percent of women reported use of traditional methods. The high use of traditional methods was already evident in most of these states in NFHS-1 and NFHS-2. More than half of the CPR is due to traditional methods in Assam and Manipur. A majority of the users of traditional methods practice the rhythm method. However, in Jammu and Kashmir, Manipur, and Kerala, a substantially higher proportion of women use withdrawal than the rhythm method.

5.3.3 Number of Children at First Use of Contraception

The fertility impact of contraception depends not only on its prevalence but also on the stage of family building when it is used. Initiation of contraceptive use when a woman has a small number of children can result in a greater fertility reduction. In order to examine the timing of initial family planning use, a question on the number of living children at the time of first use was included in the Women's Questionnaire in NFHS-3. Table 5.8 gives the percent distribution of ever-married women by the number of living children at the time of the first use of contraception, according to age and residence. Six percent of ever-married women (9 percent of ever users) began using contraception when they did not have any children, and 16 percent (24 percent of ever users) began when they had one living child. About four-fifths of ever users used

Table 5.8 Number of living children at first use of contraception

Percent distribution of ever-married women by number of living children at time of first use of contraception, according to residence and age, India, 2005-06

Current age	Never used	Number of living children					Total	Number of women
		0	1	2	3	4+		
URBAN								
15-19	73.8	13.5	10.2	2.3	0.2	0.0	100.0	1,101
20-24	47.4	11.3	25.5	11.3	3.6	0.8	100.0	4,576
25-29	26.5	9.3	27.4	21.9	10.4	4.4	100.0	6,066
30-34	17.7	7.0	25.1	24.0	16.0	10.1	100.0	5,624
35-39	17.3	5.2	20.1	23.4	18.5	15.4	100.0	5,387
40-44	20.9	4.8	17.1	19.6	17.4	20.1	100.0	4,389
45-49	23.4	4.0	14.3	17.7	18.2	22.3	100.0	3,347
Total	27.0	7.4	21.9	19.5	13.3	10.9	100.0	30,491
RURAL								
15-19	78.5	13.2	6.5	1.6	0.3	0.0	100.0	5,741
20-24	56.5	8.4	17.2	12.2	4.7	1.1	100.0	12,585
25-29	36.8	5.5	16.3	20.1	13.5	7.8	100.0	13,155
30-34	25.6	3.9	13.9	19.6	19.0	18.0	100.0	11,704
35-39	24.8	3.5	10.9	17.3	19.4	24.0	100.0	10,299
40-44	27.6	3.0	9.1	14.4	18.7	27.1	100.0	8,551
45-49	32.0	2.9	7.3	11.2	18.1	28.5	100.0	6,399
Total	38.6	5.5	12.7	15.0	13.7	14.4	100.0	68,432
TOTAL								
15-19	77.7	13.2	7.1	1.7	0.3	0.0	100.0	6,842
20-24	54.1	9.1	19.4	11.9	4.4	1.1	100.0	17,161
25-29	33.6	6.7	19.8	20.6	12.5	6.7	100.0	19,222
30-34	23.0	4.9	17.6	21.0	18.0	15.4	100.0	17,327
35-39	22.2	4.1	14.1	19.4	19.1	21.0	100.0	15,685
40-44	25.3	3.6	11.8	16.2	18.3	24.7	100.0	12,940
45-49	29.0	3.2	9.7	13.5	18.1	26.4	100.0	9,746
Total	35.0	6.1	15.5	16.4	13.6	13.4	100.0	98,923

contraception for the first time when they had three or fewer children. This percentage decreases from 90 percent or more for women age 15-29 to 63 percent for women age 45-49. The same age pattern is observed in urban and rural areas. However, at each age urban women are more likely to begin contraceptive use when they have fewer children.

Couples using family planning to limit family size adopt contraception when they have already had the number of children they want. When contraception is used to space births, couples may start using family planning earlier, with the intention of delaying a possible pregnancy. This may be done before a couple has had their desired number of children or even if they have no living child. As seen earlier, a majority of ever users of family planning have been sterilized. Popularizing the concept of spacing births for the welfare of children and women and promoting spacing methods can lead to contraceptive use among women at lower parities and a consequent fertility reduction.

5.4 USE OF SOCIAL MARKETING BRANDS

The National Family Welfare Programme provides condoms and pills through free distribution and social marketing schemes. Condoms with the brand name Nirodh and pills with the brand name Mala N are distributed free of cost. Since 1968, Deluxe and Super Deluxe varieties of condoms have been sold under the social marketing scheme. A social marketing scheme for pills was launched in 1987. Through this scheme, the Government of India procures Mala D and supplies these pills to marketing companies. Information on the use of different brands of contraceptives is useful in monitoring the success of social marketing and free distribution programmes. Current users of pills and condoms were asked for the brand name of the pills and condoms they are currently using.

Table 5.9.1 Women's use of pills and condoms by brand type

Percent distribution of women who are pill users and condom users by the type of brand being used, according to background characteristics, India, 2005-06

Background characteristic	Pill users						Condom users					
	Using a free brand	Using a socially marketed brand	Using a fully priced brand	Using an unknown brand	Total	Number of pill users	Using a free brand	Using a socially marketed brand	Using a fully priced brand	Using an unknown brand	Total	Number of condom users
Age												
15-19	13.9	41.9	7.6	36.6	100.0	145	13.7	25.4	8.1	52.8	100.0	230
20-24	13.2	39.0	11.3	36.5	100.0	745	15.7	25.2	14.3	44.8	100.0	996
25-29	12.5	43.0	14.8	29.6	100.0	832	12.9	26.3	19.3	41.5	100.0	1,355
30-34	12.1	44.2	12.2	31.4	100.0	645	10.8	21.7	20.2	47.2	100.0	1,100
35-39	16.0	44.0	11.4	28.5	100.0	339	12.5	23.3	15.9	48.2	100.0	767
40-44	12.1	36.8	21.4	29.7	100.0	134	15.5	16.5	15.0	53.0	100.0	339
45-49	(10.9)	(43.5)	(13.5)	(32.1)	100.0	33	11.3	16.9	19.4	52.4	100.0	102
Residence												
Urban	9.4	50.2	18.2	22.3	100.0	1,090	8.7	22.8	24.3	44.3	100.0	2,799
Rural	15.3	37.1	9.5	38.1	100.0	1,782	19.1	24.8	7.6	48.5	100.0	2,090
Education												
No education	15.7	42.3	6.4	35.7	100.0	812	15.8	19.9	2.5	61.8	100.0	986
<5 years complete	13.5	37.8	6.6	42.1	100.0	301	22.6	19.9	2.0	55.6	100.0	208
5-7 years complete	14.2	44.5	7.4	33.9	100.0	563	15.8	27.4	7.8	48.9	100.0	621
8-9 years complete	9.8	43.5	18.3	28.5	100.0	541	16.8	26.8	9.8	46.7	100.0	677
10-11 years complete	11.8	46.8	16.0	25.5	100.0	298	14.2	26.2	16.3	43.3	100.0	731
12 or more years complete	11.0	35.0	30.6	23.4	100.0	357	7.4	22.6	34.6	35.5	100.0	1,666
Religion												
Hindu	13.6	43.6	13.5	29.3	100.0	2,068	13.6	23.4	17.7	45.4	100.0	3,639
Muslim	10.4	35.7	10.8	43.0	100.0	702	12.4	24.9	12.4	50.4	100.0	836
Christian	31.2	50.3	9.1	9.4	100.0	28	10.9	11.6	36.7	40.8	100.0	73
Sikh	19.6	60.5	13.6	6.3	100.0	41	10.0	28.2	12.6	49.2	100.0	247
Buddhist/Neo-Buddhist	7.8	56.7	6.1	29.4	100.0	11	30.5	23.7	23.4	22.4	100.0	25
Jain	*	*	*	*	100.0	4	5.6	15.7	45.2	33.4	100.0	55
Other	12.2	77.1	0.0	10.7	100.0	13	*	*	*	*	100.0	6
Caste/tribe												
Scheduled caste	16.8	44.6	9.9	28.7	100.0	487	15.3	25.1	9.5	50.1	100.0	697
Scheduled tribe	22.5	49.4	4.2	23.9	100.0	170	24.8	28.9	10.8	35.5	100.0	130
Other backward class	12.7	51.0	12.7	23.6	100.0	660	13.8	26.2	13.4	46.6	100.0	1,568
Other	10.9	36.5	14.9	37.6	100.0	1,533	11.5	21.4	22.0	45.1	100.0	2,472
Wealth index												
Lowest	20.8	28.3	3.2	47.7	100.0	398	25.9	9.9	0.0	64.2	100.0	208
Second	14.3	41.6	4.2	40.0	100.0	520	17.2	23.6	1.9	57.3	100.0	395
Middle	12.1	45.9	7.6	34.4	100.0	568	21.7	25.9	3.3	49.1	100.0	574
Fourth	11.8	47.9	13.9	26.4	100.0	664	15.8	27.5	8.8	48.0	100.0	1,139
Highest	9.8	41.5	27.6	21.1	100.0	722	8.4	22.6	27.6	41.4	100.0	2,573
Total	13.1	42.0	12.8	32.1	100.0	2,873	13.1	23.7	17.1	46.1	100.0	4,889

Note: All information in this table is based on women's reports. Total includes women with missing information on education, religion, and caste/tribe and women who don't know their caste/tribe, who are not shown separately.
( ) Based on 25-49 unweighted cases.
* Percentage not shown; based on fewer than 25 unweighted cases.

The percent distribution of women using pills and condoms by the type of brand they are using is shown in Table 5.9.1, and the percent distribution of men by the type of brand of condoms they are using is shown in Table 5.9.2. Among the 2,873 pill users, slightly less than one-third did not know the brand name of the pills, 13 percent each reported use of a free brand and a fully priced brand, and the remaining 42 percent reported the use of a socially marketed brand. Women in urban areas are more likely to know the brand name and also more likely to use a fully priced brand or a socially marketed brand, and rural women are more likely to use a free brand. With higher education and a higher wealth index, women are more likely to use fully priced brands. Christian women are more likely than women from other religions to use a free brand. Among the caste/tribe groups, scheduled tribe and scheduled caste women are least likely to use a fully priced brand.

Table 5.9.2 Men's use of condoms by brand type

Percent distribution of men who used a condom the last time they had sex by the type of condom brand used, according to background characteristics, India, 2005-06

Background characteristic	Using a free brand	Using a socially marketed brand	Using a fully priced brand	Using an unknown brand	Total	Number who used a condom at last sex
Age						
15-19	9.6	33.5	21.6	35.3	100.0	231
20-24	15.3	34.3	23.4	27.0	100.0	576
25-29	13.0	38.9	25.5	22.6	100.0	818
30-34	14.1	38.1	27.9	19.9	100.0	953
35-39	15.8	35.1	26.5	22.7	100.0	772
40-44	13.7	34.7	34.0	17.6	100.0	488
45-49	13.5	36.9	27.5	22.1	100.0	244
Residence						
Urban	8.9	33.2	38.9	19.0	100.0	2,190
Rural	19.9	40.1	13.0	27.0	100.0	1,892
Education						
No education	9.2	33.1	7.6	50.1	100.0	352
<5 years complete	21.3	39.7	8.5	30.5	100.0	208
5-7 years complete	18.9	38.5	16.1	26.5	100.0	498
8-9 years complete	13.5	42.9	19.1	24.6	100.0	849
10-11 years complete	14.4	35.6	27.8	22.2	100.0	713
12 or more years complete	12.5	32.6	41.9	12.9	100.0	1,462
Religion						
Hindu	14.9	36.9	26.6	21.6	100.0	3,083
Muslim	10.3	36.6	21.4	31.8	100.0	647
Christian	13.8	21.0	50.9	14.3	100.0	70
Sikh	16.2	40.5	29.5	13.8	100.0	200
Buddhist/Neo-Buddhist	6.0	18.8	44.6	30.6	100.0	50
Jain	(0.8)	(19.1)	(70.3)	(9.9)	100.0	29
Other	(4.9)	(4.9)	(37.3)	(52.8)	100.0	2
Caste/tribe						
Scheduled caste	18.4	35.9	20.1	25.6	100.0	689
Scheduled tribe	26.5	33.3	13.0	27.2	100.0	149
Other backward class	12.3	40.9	22.9	24.0	100.0	1,407
Other	12.6	33.5	33.7	20.2	100.0	1,823
Wealth index						
Lowest	17.9	38.9	2.5	40.7	100.0	242
Second	17.9	41.1	5.8	35.3	100.0	404
Middle	21.2	42.9	10.0	25.9	100.0	619
Fourth	13.6	40.9	19.8	25.7	100.0	1,032
Highest	10.4	30.1	44.9	14.6	100.0	1,785
Total age 15-49	14.0	36.4	26.9	22.7	100.0	4,082
Age 50-54	13.4	33.9	18.7	34.1	100.0	110
Total age 15-54	14.0	36.3	26.7	23.0	100.0	4,192

Note: Total includes men with missing information on education, religion, and caste/tribe and men who don't know their caste/tribe, who are not shown separately.
( ) Based on 25-49 unweighted cases.

Among women who reported that their husbands were using condoms, 46 percent could not report the brand of the condom. Twenty-four percent use a socially marketed brand, 17 percent use a fully priced brand, and 13 percent use a free brand. The pattern of use of different types of condom brands by the characteristics of women is similar to that of the pill, except that rural women are slightly more likely than urban women to use a social marketing brand and Buddhist/Neo-Buddhist women are most likely to use a free brand.

Among men who reported condom use the last time they had sex, 23 percent could not recall the brand name of the condom. More than one-third (36 percent) used a socially marketed brand, 27 percent used a fully priced brand, and 14 percent used a free brand. Urban men are more likely to use a fully priced brand and rural men are more likely to use a free or socially marketed brand. The use of fully priced condoms increases with an increase in educational attainment and the wealth index.

The use of social marketing brand pills and condoms is presented by state in Table 5.10. According to women's reports, at the national level, 62 percent of pill users and 44 percent of condom users who knew the brand name were using social marketing brands. Almost half (47 percent) of men who used a condom the last time they had sex used a social marketing brand. The use of social marketing pills exceeds 80 percent of all pill users in Manipur, Assam, Nagaland, and Bihar. The states with the lowest use of socially marketed brands among pill users are Chhattisgarh (40 percent), Himachal Pradesh (47 percent) and Madhya Pradesh (49 percent). Less than 50 percent of condom users use social marketing brands in every state except Uttar Pradesh (67 percent), Orissa (62 percent), and five states where slightly more than half of users use social marketing brands (Madhya Pradesh, Bihar, Uttaranchal, Punjab, and Jharkhand).

Table 5.10 Use of social marketing brand pills and condoms by state

Percentage of pill and condom users age 15-49 for whom the brand being used is known who are using a social marketing brand, by state, India, 2005-06

State	Women		Men
	Percentage of pill users using a social marketing brand	Percentage of condom users using a social marketing brand	Percentage of condom users using a social marketing brand
India	61.9	43.9	47.1
North			
Delhi	71.1	37.2	39.0
Haryana	63.1	44.7	39.5
Himachal Pradesh	46.6	29.8	18.9
Jammu & Kashmir	65.7	(25.2)	(31.0)
Punjab	65.5	50.8	44.0
Rajasthan	55.2	46.7	39.5
Uttaranchal	56.9	51.1	43.7
Central			
Chhattisgarh	(39.5)	38.8	(36.1)
Madhya Pradesh	48.8	53.1	45.8
Uttar Pradesh	62.4	67.3	72.5
East			
Bihar	(82.0)	(51.6)	(68.8)
Jharkhand	75.3	50.8	(74.6)
Orissa	*	62.3	63.1
West Bengal	(51.0)	21.3	26.9
Northeast			
Arunachal Pradesh	79.6	*	*
Assam	86.4	(37.8)	*
Manipur	93.4	28.2	33.9
Meghalaya	73.8	*	*
Mizoram	*	*	*
Nagaland	85.8	(22.1)	10.3
Sikkim	67.0	(17.4)	(10.8)
Tripura	68.3	(40.3)	*
West			
Goa	*	(9.5)	(13.9)
Gujarat	58.8	23.8	22.4
Maharashtra	69.8	35.2	44.3
South			
Andhra Pradesh	49.7	11.0	15.0
Karnataka	*	(10.1)	(18.7)
Kerala	*	16.8	(8.8)
Tamil Nadu	*	(5.3)	6.9

Note: Table excludes pill and condom users who don't know the brand name.
( ) Based on 25-49 unweighted cases.
* Percentage not shown; based on fewer than 25 unweighted cases.

5.5 STERILIZATION

5.5.1 Timing of Sterilization

The time trend in the age at which women or their husbands go for sterilization as reported in the women's interviews is shown in Table 5.11.1. The percent distribution of age at sterilization as reported by men is presented in Table 5.11.2. In NFHS-3, 36,761 women reported that they had undergone sterilization. Fifty-five percent of these sterilizations took place less than 10 years before the survey, and the remaining 45 percent took place 10 or more years before the survey. Among sterilized women, 8 percent underwent sterilization when they were less than 20 years old, 38 percent when they were age 20-24, and 35 percent when they were age 25-29. In other words, 81 percent of sterilized women got sterilized before age 30. The median age at sterilization is 25.5. Over the past 10 years, the distribution of sterilized women by age at sterilization and the median age at sterilization have remained practically constant.

Table 5.11.1 Timing of sterilization: Women

Percent distribution of sterilized women and wives of sterilized men by her age at the time of sterilization (for NFHS-3), and median age at the time of sterilization (for NFHS-3, NFHS-2, and NFHS-1), according to the number of years since the sterilization, India

Years since sterilization	Woman's age at the time of sterilization							Total	Number of women	Median age[1]		
	<20	20-24	25-29	30-34	35-39	40-44	45-49			NFHS-3 (2005-06)	NFHS-2 (1998-99)	NFHS-1 (1992-93)
STERILIZED WOMEN												
<2	4.1	37.8	35.4	16.5	5.2	0.9	0.1	100.0	4,019	25.8	25.7	26.3
2-3	7.2	35.3	34.9	15.7	5.8	0.9	0.1	100.0	4,253	25.9	25.7	26.2
4-5	7.7	34.8	32.7	18.4	5.0	1.4	0.0	100.0	3,790	25.8	25.6	26.4
6-7	7.0	36.4	32.2	17.7	5.2	1.5	u	100.0	4,332	25.8	25.7	26.9
8-9	7.7	33.4	34.5	17.3	6.5	0.6	u	100.0	3,716	26.0	26.0	27.2
10+	9.2	40.0	36.3	12.5	2.0	u	u	100.0	16,650	nc	nc	nc
Total	7.9	37.6	35.0	15.0	3.9	0.6	0.0	100.0	36,761	25.5	25.7	26.6
WIVES OF STERILIZED MEN												
<10	2.8	26.9	33.1	19.3	12.1	4.8	u	100.0	359	27.1	27.8	27.2
10+	12.2	43.5	31.6	10.6	2.1	u	u	100.0	622	nc	nc	nc
Total	8.8	37.5	32.1	13.8	5.7	1.8	0.3	100.0	980	25.3	25.8	26.7

nc = Not calculated due to censoring
u = Not available
[1] To avoid censoring, median age is calculated only for sterilizations that took place when the respondent was less than 40 years old.

Among the 980 women who reported that their husbands had undergone vasectomy, 63 percent reported that the sterilization occurred 10 or more years before the survey. Seventy-eight percent of the women were below age 30 when their husbands underwent sterilization. The age of women at the time of their husband's sterilization is higher for sterilizations that occurred in the last 10 years than for sterilizations 10 or more years before the survey.

The last three columns of Table 5.11.1 show time trends in the median age at sterilization. The median age at sterilization for women declined from 26.6 in NFHS-1 to 25.7 in NFHS-2 and further to 25.5 in NFHS-3. A similar decline is evident in the median age of women at the time of their husband's sterilization.

Among the 545 men who reported undergoing sterilization, 11 percent were below age 25 at the time of sterilization and 31 percent were age 25-29 (Table 5.11.2). The median age at the time of vasectomy is 30.6 years. A small number of vasectomies (3 percent) took place when the man was 45-54 years.

Table 5.11.2 Timing of sterilization: Men

Percent distribution of sterilized men by age at the time of sterilization, and median age at the time of sterilization, according to the number of years since the sterilization, India, 2005-06

Years since sterilization	Age at the time of sterilization								Total	Number of men	Median age[1]
	<20	20-24	25-29	30-34	35-39	40-44	45-49	50-54			
<10	0.0	8.1	22.2	29.6	17.7	14.9	6.4	u	100.0	241	31.4
10+	1.3	11.1	37.8	33.7	14.6	1.4	u	u	100.0	304	nc
Total	0.7	9.8	30.9	31.9	16.0	7.4	2.8	0.5	100.0	545	30.6

nc = Not calculated due to censoring
u = Not available
[1] To avoid censoring, median age is calculated only for sterilizations that took place when the respondent was less than 45 years old.

5.5.2 Interstate Variation in the Timing of Sterilization

Table 5.12 shows the level and time trend in the median age of sterilization for women by state. The median age at sterilization for sterilizations that took place in the 10 years preceding the survey varies from a low of 23.3 years in Andhra Pradesh to a high of 29.9 years in Manipur. The median age of female sterilization is also lower than 25 years in Karnataka (23.9), West Bengal (24.6), and Tamil Nadu (24.9). In most states, the median age ranges in a narrow interval of 26 to 29 years and the median age by number of years since sterilization fluctuates.

Table 5.12 Timing of sterilization by state

Median age of sterilized women at the time of sterilization by number of years since the sterilization, according to state, India, 2005-06

State	Years since sterilization					Total
	<2	2-3	4-5	6-7	8-9	
India	25.8	25.9	25.8	25.8	26.0	25.5
North						
Delhi	28.9	27.7	28.1	29.0	27.7	27.3
Haryana	26.0	26.4	26.1	25.9	25.3	26.0
Himachal Pradesh	27.2	26.5	26.8	26.0	25.5	25.8
Jammu & Kashmir	30.2	30.1	29.8	29.7	27.1	28.2
Punjab	28.0	27.4	27.2	27.4	27.2	26.9
Rajasthan	27.0	26.0	27.0	27.1	27.0	26.8
Uttaranchal	27.6	28.2	27.0	27.9	27.8	27.2
Central						
Chhattisgarh	26.5	27.1	27.1	26.5	27.7	26.4
Madhya Pradesh	26.2	26.5	26.4	27.6	27.3	26.3
Uttar Pradesh	27.8	29.1	28.8	29.2	29.3	28.4
East						
Bihar	26.9	27.3	27.8	27.8	28.4	27.4
Jharkhand	25.6	27.0	28.2	29.2	27.8	26.9
Orissa	26.5	27.0	26.1	26.3	26.7	26.1
West Bengal	24.6	24.5	25.0	25.3	25.1	24.6
Northeast						
Arunachal Pradesh	27.9	28.3	27.6	28.8	27.5	27.6
Assam	28.5	27.2	26.8	28.2	29.8	27.2
Manipur	33.3	31.4	30.8	33.5	31.1	29.9
Meghalaya	27.8	31.0	31.0	29.5	29.6	29.4
Mizoram	30.7	28.9	28.9	28.5	28.2	28.4
Nagaland	28.8	30.8	28.1	28.3	28.1	28.7
Sikkim	28.8	29.4	26.5	28.4	26.1	27.0
Tripura	26.8	29.7	27.4	29.3	26.5	27.4

Continued…

Table 5.12 Timing of sterilization by state—*Continued*

State	Years since sterilization					Total
	<2	2-3	4-5	6-7	8-9	
West						
Goa	29.3	28.4	29.1	28.4	28.5	28.0
Gujarat	26.6	26.5	27.0	26.8	27.0	26.4
Maharashtra	24.9	25.4	25.3	24.8	25.3	24.9
South						
Andhra Pradesh	23.5	22.8	22.6	23.1	23.8	23.3
Karnataka	24.9	23.9	23.8	24.2	23.3	23.9
Kerala	28.7	27.3	28.3	27.7	27.0	26.5
Tamil Nadu	25.7	26.4	25.6	25.8	25.4	24.9

Note: Medians are not shown for women sterilized 10 or more years before the survey, and median ages are calculated only for women sterilized at less than age 40 to avoid problems of censoring.

5.5.3 Methods Used before Sterilization

NFHS-3 included information on contraceptive methods women used before sterilization. Table 5.13 shows the percentage of sterilized women who used a family planning method before their sterilization by state. Seventy-seven percent of sterilized women did not use any method before their sterilization. In NFHS-2, 80 percent of sterilized women did not use any method before their sterilization, indicating that there has been a small increase over time in the tendency to use spacing methods before sterilization. In NFHS-3, 7 percent of women used condoms before sterilization, 6 percent used the pill, and 5 percent used an IUD. Nine percent used the rhythm method and 4 percent used withdrawal. A small proportion of women used more than one method prior to sterilization. In all states except Tripura, Manipur, Assam, and West Bengal, the majority of sterilized women did not use any method before sterilization. In addition to these states, more than one-third of sterilized women used a spacing method before sterilization in Gujarat, Kerala, Uttar Pradesh, Delhi, and Arunachal Pradesh. It has already been shown that among all the states, prevalence of sterilization is highest and ever use of any spacing method is lowest in Andhra Pradesh. In that state, 95 percent of sterilized women did not use any method before sterilization. In addition to Andhra Pradesh, at least 85 percent of sterilized women went for sterilization without using any other method first in Meghalaya, Karnataka, Himachal Pradesh, and Tamil Nadu. Among the methods used before sterilization, the rhythm method was most commonly used in Tripura (41 percent), West Bengal and Gujarat (33 percent each), Manipur (30 percent), Assam (29 percent), and Uttar Pradesh (23 percent). Pill use before sterilization was highest in Tripura (30 percent), Sikkim (22 percent), and Arunachal Pradesh (19 percent). Condom use before sterilization was highest in Delhi, Kerala, and Manipur (18 percent each).

Table 5.13 Methods used before sterilization by state

Percentage of sterilized women who used specific contraceptive methods before their sterilization by state, India, 2005-06

State	Method used before sterilization							
	None	Pill	IUD	Inject-ables	Condom/ Nirodh	Female condom	Rhythm	With-drawal
India	77.2	6.4	5.4	0.3	6.6	0.0	9.4	4.2
North								
Delhi	65.2	9.6	12.8	0.3	17.9	0.0	4.4	3.6
Haryana	82.0	4.0	5.0	0.7	4.6	0.0	6.1	1.9
Himachal Pradesh	87.1	4.1	4.0	0.2	7.5	0.0	1.3	0.6
Jammu & Kashmir	77.6	9.7	9.9	0.7	7.7	0.0	1.5	2.9
Punjab	71.1	7.2	8.5	0.7	12.8	0.0	8.5	5.6
Rajasthan	77.5	6.6	4.4	0.3	12.8	0.0	5.5	2.1
Uttaranchal	74.9	10.2	5.8	1.0	11.5	0.0	6.1	3.4
Central								
Chhattisgarh	82.7	6.6	3.5	0.1	4.7	0.0	6.2	2.0
Madhya Pradesh	82.6	4.3	2.1	0.1	6.6	0.1	7.1	3.0
Uttar Pradesh	61.0	10.0	6.9	0.2	13.2	0.1	23.1	2.8
East								
Bihar	80.1	8.3	2.4	0.2	5.2	0.0	7.4	2.1
Jharkhand	81.7	9.4	2.2	0.1	5.8	0.0	5.6	2.7
Orissa	84.2	7.8	4.0	0.2	3.5	0.0	2.8	3.2
West Bengal	46.3	17.1	3.2	0.1	7.2	0.0	33.4	18.4
Northeast								
Arunachal Pradesh	66.3	19.1	11.2	0.0	6.5	0.4	5.7	4.2
Assam	45.5	17.7	5.7	0.0	5.4	0.0	29.0	19.6
Manipur	41.5	16.5	21.6	0.5	17.6	0.0	29.8	33.8
Meghalaya	94.9	2.6	0.5	0.0	0.5	0.0	1.0	0.5
Mizoram	69.8	17.4	14.6	0.6	5.6	0.0	0.4	0.8
Nagaland	80.0	5.4	4.6	1.2	6.0	0.0	6.6	1.4
Sikkim	66.8	22.1	10.3	2.5	4.5	0.0	4.5	2.5
Tripura	31.4	29.8	6.0	0.9	9.7	0.0	40.7	28.6
West								
Goa	83.1	4.0	6.6	0.2	4.2	0.0	4.1	3.5
Gujarat	51.6	8.4	11.4	0.2	10.2	0.0	32.5	10.8
Maharashtra	84.1	5.7	7.0	0.3	5.3	0.0	2.0	0.3
South								
Andhra Pradesh	95.1	1.6	1.4	0.1	1.9	0.0	0.3	0.1
Karnataka	89.5	2.5	5.6	0.3	2.5	0.2	2.2	0.5
Kerala	53.7	5.4	12.4	0.5	17.6	0.2	17.7	21.7
Tamil Nadu	86.6	3.0	8.2	0.3	4.3	0.1	0.8	0.7

5.6 SOURCE OF FAMILY PLANNING METHODS

Family planning services and supplies in India are provided primarily through a network of government hospitals and urban family welfare centres in urban areas and Primary Health Centres (PHC) and sub-centres in rural areas. Family planning services are also provided by private hospitals and clinics and nongovernmental organizations (NGO). From time to time, sterilization camps are organized to provide sterilization services. Pills and condoms are also available in pharmacies, and condoms are also available in shops. Information on sources of modern contraceptives can help family planning managers evaluate their programmes. Women currently using a modern method of contraception were asked where they obtained the method most recently. If a respondent reported that the method was obtained in a hospital, health centre, or clinic, but did not know whether the facility was in the public or private sector, the interviewer recorded the name of the facility on the questionnaire. The supervisor or field editor was subsequently expected to determine whether the facility was public or private.

The source of the current contraceptive method is shown by residence in Table 5.14. The public medical sector is the source of modern methods for 71 percent of current users. Almost one-quarter of users obtained their method through private medical sources, and 6 percent received their method through other sources. Less than 1 percent of users obtained their method through an NGO or trust hospital/clinic. The public sector is by far the most commonly used source for both female and male sterilizations (84-85 percent). Fifty-one percent of female sterilizations and 46 percent of male sterilizations were done in government/municipal hospitals. Eighteen percent of female sterilizations were done in community health centres, rural hospitals, or Primary Health Centres, and 12 percent were done in camps. The private medical sector is the most common source for all spacing methods. The majority of IUD users (51 percent) and users of injectables (69 percent) obtained their method from a private hospital or a private doctor/clinic. Fifty-one percent of pill users and 39 percent of condom users obtained their contraception from a pharmacy. In general, the primary source of contraceptive methods is the same in urban and rural areas, but a higher proportion of users in rural areas than in urban areas have availed of public sector sources for each of the contraceptive methods.

Table 5.14 Source of modern contraceptive methods

Percent distribution of current users of modern contraceptive methods by most recent source of the method, according to residence, India, 2005-06

Most recent source of method	Female sterilization	Male sterilization	Pill	IUD	Injectables	Condom/ Nirodh	All modern methods
			URBAN				
Public Medical Sector	74.2	77.4	10.4	36.2	6.8	8.4	56.8
Government/municipal hospital	59.2	66.0	4.5	27.9	5.0	4.4	44.6
Government dispensary	1.0	1.6	0.9	1.3	1.6	1.2	1.0
UHC/UHP/UFWC	0.8	1.0	0.2	1.2	0.0	0.1	0.6
CHC/rural hospital/PHC	6.6	4.0	0.5	4.3	0.0	1.2	5.1
Sub-centre/ANM	0.1	0.0	2.1	0.8	0.0	0.5	0.3
Government mobile clinic	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Camp	5.6	4.3	0.1	0.2	0.2	0.1	4.0
Anganwadi/ICDS Centre	0.0	0.0	1.7	0.1	0.0	0.5	0.2
Other community-based worker	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Other public medical sector	1.0	0.5	0.4	0.4	0.0	0.4	0.8
NGO or trust hospital/clinic	1.4	0.9	0.1	1.6	0.0	0.3	1.1
Private medical sector	24.3	17.1	72.9	61.0	93.2	52.1	34.2
Private hospital	22.7	15.2	2.4	47.9	49.8	1.4	19.1
Private doctor/clinic	1.6	1.9	6.4	12.6	30.2	2.7	2.7
Private mobile clinic	0.0	0.0	0.1	0.0	0.0	0.2	0.0
Vaidya/*hakim*/homeopath	0.0	0.0	1.8	0.0	0.0	0.0	0.1
Traditional healer	0.0	0.0	0.1	0.0	0.0	0.1	0.0
Pharmacy/drugstore	0.0	0.0	60.4	0.4	5.3	45.3	11.6
Dai (TBA)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other private medical	0.0	0.0	1.8	0.1	8.0	2.4	0.6
Other source	0.1	0.0	15.9	0.2	0.0	39.0	7.6
Shop	0.0	0.0	2.4	0.2	0.0	2.7	0.6
Spouse	0.0	0.0	13.1	0.0	0.0	35.6	6.8
Friend/relative	0.0	0.0	0.3	0.0	0.0	0.4	0.1
Other	0.1	0.0	0.1	0.1	0.0	0.4	0.1
Don't know	0.0	4.1	0.0	0.0	0.0	0.0	0.1
Missing	0.1	0.5	0.7	0.9	0.0	0.2	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of users	11,512	310	1,090	933	28	2,799	16,685

Continued…

Table 5.14 Source of modern contraceptive methods—*Continued*

Most recent source of method	Female sterilization	Male sterilization	Pill	IUD	Injectables	Condom/ Nirodh	All modern methods
			RURAL				
Public medical sector	87.7	89.0	18.2	58.4	13.1	20.0	78.2
Government/municipal hospital	46.6	37.1	2.0	24.7	7.3	4.2	40.3
Government dispensary	1.4	2.0	1.1	2.7	0.7	1.5	1.5
UHC/UHP/UFWC	0.5	1.9	0.0	0.2	0.0	0.0	0.4
CHC/rural hospital/PHC	23.3	33.2	4.3	21.1	4.3	5.4	21.1
Sub-centre/ANM	0.4	0.0	7.4	8.5	0.4	5.5	1.3
Government mobile clinic	0.1	0.5	0.0	0.0	0.4	0.0	0.1
Camp	15.2	13.7	0.0	0.8	0.0	0.0	12.9
Anganwadi/ICDS Centre	0.0	0.0	3.3	0.1	0.0	2.7	0.4
Other community-based worker	0.0	0.0	0.0	0.0	0.0	0.3	0.0
Other public medical sector	0.3	0.6	0.1	0.4	0.0	0.4	0.3
NGO or trust hospital/clinic	0.7	0.0	0.0	0.4	0.0	0.0	0.6
Private medical sector	11.4	6.8	58.0	39.2	78.4	37.5	16.6
Private hospital	9.8	4.2	1.1	24.3	19.0	1.1	8.9
Private doctor/clinic	1.5	2.5	4.6	14.7	45.0	2.6	2.1
Private mobile clinic	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Vaidya/*hakim*/homeopath	0.0	0.0	1.1	0.0	3.4	0.0	0.1
Traditional healer	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pharmacy/ drugstore	0.0	0.0	44.9	0.3	2.2	31.5	4.8
Dai (TBA)	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Other private medical	0.2	0.0	6.1	0.0	8.7	2.2	0.7
Other source	0.1	0.0	22.8	0.1	6.6	42.3	4.3
Shop	0.0	0.0	3.4	0.0	0.0	5.3	0.6
Spouse	0.0	0.0	18.0	0.1	0.3	35.7	3.5
Friend/relative	0.0	0.0	1.1	0.0	5.1	0.5	0.1
Other	0.1	0.0	0.2	0.1	1.2	0.8	0.1
Don't know	0.0	3.9	0.0	0.0	0.0	0.0	0.1
Missing	0.1	0.4	0.9	1.8	1.9	0.2	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of users	25,249	671	1,782	689	67	2,090	30,556
			TOTAL				
Public medical sector	83.5	85.3	15.3	45.6	11.2	13.3	70.6
Government/municipal hospital	50.5	46.2	2.9	26.5	6.6	4.3	41.8
Government dispensary	1.3	1.9	1.0	1.9	0.9	1.3	1.3
UHC/UHP/UFWC	0.6	1.6	0.1	0.8	0.0	0.1	0.5
CHC/rural hospital/PHC	18.1	24.0	2.9	11.4	3.1	3.0	15.4
Sub-centre/ANM	0.3	0.0	5.4	4.1	0.3	2.6	1.0
Government mobile clinic	0.1	0.3	0.0	0.0	0.3	0.0	0.1
Camp	12.2	10.7	0.0	0.5	0.0	0.0	9.7
Anganwadi/ICDS Centre	0.0	0.0	2.7	0.1	0.0	1.5	0.3
Other community-based worker	0.0	0.0	0.0	0.0	0.0	0.2	0.0
Other public medical sector	0.5	0.6	0.2	0.4	0.0	0.4	0.5
NGO or trust hospital/clinic	0.9	0.3	0.0	1.1	0.0	0.2	0.8
Private medical sector	15.5	10.0	63.7	51.8	82.7	45.8	22.8
Private hospital	13.8	7.7	1.6	37.9	28.0	1.3	12.5
Private doctor/clinic	1.5	2.3	5.3	13.5	40.7	2.7	2.4
Private mobile clinic	0.0	0.0	0.1	0.0	0.0	0.1	0.0
Vaidya/*hakim*/homeopath	0.0	0.0	1.4	0.0	2.4	0.0	0.1
Traditional healer	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pharmacy/ drugstore	0.0	0.0	50.8	0.3	3.1	39.4	7.2
Dai (TBA)	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Other private medical	0.1	0.0	4.4	0.1	8.5	2.3	0.6
Other source	0.1	0.0	20.2	0.2	4.7	40.4	5.5
Shop	0.0	0.0	3.0	0.1	0.0	3.8	0.6
Spouse	0.0	0.0	16.2	0.0	0.2	35.6	4.7
Friend/relative	0.0	0.0	0.8	0.0	3.6	0.4	0.1
Other	0.1	0.0	0.1	0.1	0.9	0.6	0.1

Continued…

Table 5.14 Source of modern contraceptive methods—*Continued*

Most recent source of method	Female sterilization	Male sterilization	Pill	IUD	Injectables	Condom/ Nirodh	All modern methods
Don't know	0.0	3.9	0.0	0.0	0.0	0.0	0.1
Missing	0.1	0.4	0.8	1.3	1.4	0.2	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of users	36,760	980	2,873	1,623	95	4,889	47,241

Note: All information in this table is based on women's reports. Table includes all users of modern contraceptive methods regardless of their marital status.
UHC = Urban health centre; UHP = Urban health post; UFWC = Urban family welfare centre; CHC = Community health centre; PHC = Primary health centre; ; ANM = Auxiliary nurse midwife; NGO = Nongovernmental organization; TBA = Traditional birth attendant; ICDS = Integrated Child Development Services

5.6.1 Interstate Variation in the Role of the Public Sector

Table 5.15 shows state level variations in utilization of the public sector for family planning. With the exception of Meghalaya, Delhi, Assam, and Nagaland, most current users of modern methods in all states obtained their family planning method from the public sector. The public sector was used for family planning most often in Chhattisgarh, Madhya Pradesh, Himachal Pradesh, and Mizoram. More than 95 percent of female sterilizations are done through the public sector in Himachal Pradesh, Orissa, Madhya Pradesh, and Tripura. Among the spacing methods, public sector sources are used more for IUDs than for pills and condoms. In every state, the public sector is used more by rural users of contraception than by urban users.

Table 5.15 Public sector as source of modern contraceptives by state

Percentage of current users of modern contraceptive methods for whom the most recent source of contraceptives was the public sector, by specific method and residence, according to state, India, 2005-06

State	Female sterilization	Male sterilization	Pill	IUD	Condom/ Nirodh	All modern methods		
						Urban	Rural	Total
India	83.5	85.3	15.3	45.6	13.4	56.8	78.2	70.6
North								
Delhi	79.7	*	16.0	45.2	12.9	43.0	66.0	44.8
Haryana	90.1	*	22.4	49.4	15.6	52.9	76.2	69.2
Himachal Pradesh	98.9	98.0	36.8	(75.5)	28.5	62.4	87.6	85.0
Jammu & Kashmir	80.1	83.8	16.5	53.0	5.5	52.8	61.7	58.5
Punjab	92.0	(84.4)	22.3	46.4	12.6	44.5	71.5	62.4
Rajasthan	93.8	(96.7)	27.0	77.0	23.2	62.8	91.9	81.1
Uttaranchal	93.6	(95.0)	24.1	(45.6)	17.4	42.2	75.0	65.9
Central								
Chhattisgarh	93.1	97.5	(42.7)	(47.0)	19.9	69.0	93.4	87.2
Madhya Pradesh	95.9	96.8	25.5	43.9	19.2	66.1	94.2	86.3
Uttar Pradesh	90.7	*	12.3	43.1	6.1	41.1	68.4	59.1
East								
Bihar	62.1	*	0.0	*	6.3	40.6	57.3	53.9
Jharkhand	72.7	*	9.6	*	7.8	47.7	64.7	58.3
Orissa	96.5	(94.9)	14.4	*	19.3	60.9	82.9	78.8
West Bengal	89.6	(92.3)	13.4	(73.1)	12.1	53.1	70.3	65.4
Northeast								
Arunachal Pradesh	86.4	*	15.5	(68.1)	(13.0)	50.0	69.5	63.5
Assam	77.6	*	5.0	(85.8)	10.6	29.1	51.1	45.8
Manipur	88.8	*	5.3	69.9	10.4	44.6	56.0	52.2
Meghalaya	64.6	*	7.2	*	(10.8)	41.4	44.2	42.9
Mizoram	93.1	*	59.7	(69.0)	*	81.3	89.1	84.6
Nagaland	78.5	*	2.4	49.5	5.3	41.4	51.8	47.6
Sikkim	91.4	100.0	28.6	(66.8)	32.7	52.9	70.0	66.5
Tripura	95.6	*	21.3	*	(29.3)	37.6	58.2	54.7

Continued…

Table 5.15 Public sector as source of modern contraceptives by state—*Continued*

State	Female sterilization	Male sterilization	Pill	IUD	Condom/ Nirodh	All modern methods: Urban	All modern methods: Rural	All modern methods: Total
West								
Goa	76.5	*	(21.2)	(35.6)	15.3	53.5	70.3	60.3
Gujarat	81.7	*	24.6	45.5	28.2	54.0	83.8	70.9
Maharashtra	79.3	90.5	15.3	31.8	12.5	53.2	83.5	69.1
South								
Andhra Pradesh	78.3	76.1	1.6	14.7	16.2	68.1	81.4	77.1
Karnataka	87.0	*	(30.6)	45.5	15.9	70.6	90.1	82.9
Kerala	66.9	(89.9)	*	51.8	17.3	58.8	63.7	62.0
Tamil Nadu	77.1	*	*	32.7	12.0	67.0	78.3	73.1

Note: All information in this table is based on women's reports. Table includes all users of contraception regardless of their marital status. Total includes users of injectables and other modern methods, who are not shown separately.
( ) Based on 25-49 cases.
* Percentage not shown; based on fewer than 25 unweighted cases.

5.6.2 Cost of Contraception

Women who reported current use of a modern method were asked about the cost they incurred the last time they obtained the method, including the cost for services, supplies, and the consultation. In the Men's Questionnaire, the same question was asked about the cost of male sterilization and the cost of condoms for those who used a condom the last time they had sex in the last 12 months. Table 5.16 shows the percentage of women and men who got the

Table 5.16 Cost of modern contraceptive methods

Percentage of current users of contraception age 15-49 who did not pay for the method and who do not know the cost of the method and the median cost of the method by current method, according to source of current method, India, 2005-06

Source of method	Women's reports: Female sterilization	Pill	IUD	Injectables	Condom/ Nirodh	Men's reports: Male sterilization	Condom/ Nirodh
Public medical sector							
Percentage free	89.5	76.1	67.9	(24.2)	70.2	83.9	87.7
Percentage who do not know cost	3.1	6.3	4.2	(10.5)	19.5	0.9	0.3
Median cost	499.5	4.2	99.1	(199.4)	1.5	499.5	0.7
Number of women	30,687	439	741	11	653	365	472
Private medical sector/NGO							
Percentage free	8.4	1.4	3.7	0.1	2.8	(31.4)	2.1
Percentage who do not know cost	17.3	11.2	8.5	9.0	61.8	(3.4)	1.3
Median cost	2,994.7	4.7	399.1	199.4	2.6	(899.7)	1.8
Number of women	6,021	1,831	858	78	2,250	36	2,547
Other source							
Percentage free	*	2.3	*	*	6.0	*	7.4
Percentage who do not know cost	*	29.8	*	*	69.8	*	1.4
Median cost	*	4.7	*	*	1.7	*	0.9
Number of women	26	579	3	4	1,976	0	805
Total							
Percentage free	76.1	13.1	33.4	3.4	13.1	75.5	13.7
Percentage who do not know cost	5.4	14.4	6.6	12.2	59.4	6.1	1.2
Median cost	1,996.0	4.7	299.9	199.5	2.3	599.1	1.6
Number of women	36,761	2,873	1,623	95	4,889	428	3,826

Note: Costs are based on the last time current users obtained method. Costs include consultation costs, if any. For condom, costs are per package; for pills, per cycle. For sterilization, data are based on women and men who received the operation in the 5 years before the survey.
NGO = Nongovernmental organization
( ) Based on 25-49 unweighted cases.
* Numbers not shown; based on fewer than 25 unweighted cases.
[1] Median cost is based only on those women who reported a cost.

contraception free of charge, the percentage who do not know the cost, and the median cost by method and the source of the method.

Slightly more than three-quarters of sterilized women got their sterilization free of cost, and 5 percent said they did not know the cost. For the remaining women who reported the cost, the median cost was Rs. 1,996. Only 1 in 10 sterilized women who used the public medical sector for their sterilization had to pay for the operation, and even if they did pay, the median cost was only Rs. 500. Ninety-two percent of women who used a private medical sector source (including an NGO or trust hospital/clinic) had to pay for the sterilization, and the median cost was Rs. 2,995. The median cost for pills was 5 rupees (almost the same regardless of the source) and for condoms (reported by women or men) was 2 rupees. The median cost of an IUD insertion was Rs. 99 in the public medical sector and Rs 399 in the private medical sector. The median cost of injectables was Rs. 200. Men reported a median cost of Rs. 599 for their own sterilization (Rs. 499 in the public sector and Rs. 900 in the private medical sector), although only 18 percent of men said that they paid for their sterilization and were able to give a cost estimate.

5.7 INFORMED CHOICE

Women who know of a range of method options and who are well informed about the side effects and problems associated with various methods are in a better position to make an informed choice about contraception. Current users who adopted selected modern female methods in the five years before the survey were asked if they had been informed at the time of adoption of their current method about the possible side effects or problems they might have with the method, whether they were informed what to do if they experienced side effects, and whether they were told about other methods they could use. Table 5.17 shows these indicators of informed consent by the type of method used, the initial source of the method, and residence.

About one-third of users were informed about the side effects or problems of their method at the time of adoption of the method, and one-quarter were informed about what to do if they experienced side effects. Twenty-eight percent were ever informed by a health or family planning worker about other methods they could use. Among users of the four female methods shown in the table, IUD users were most likely to be provided with each of the three types of information and users of female sterilization were least likely to be provided with this information. Users who obtained their method from private medical sources are somewhat more likely to have received each of the three types of information than users of public sources. The provision of information on informed choice is consistently higher in urban areas than in rural areas, regardless of the method used or the source of the method.

Table 5.17 Informed choice

Among women who are current users of selected modern contraceptive methods who started the last episode of use within the five years preceding the survey, the percentage who were informed about possible side effects or problems of that method, the percentage who were informed about what to do if they experienced side effects, and the percentage who were informed about other methods they could use, by method and initial source of method, according to residence, India, 2005-06

Method/source	Percentage who were informed about side effects or problems of method used	Percentage who were informed about what to do if experienced side effects	Percentage who were informed by a health or family planning worker about other methods that could be used	Number of women
URBAN				
Method				
Female sterilization[1]	34.5	29.2	29.7	2,853
Pill	37.7	30.2	40.3	748
IUD	57.2	51.5	49.6	724
Injectables	57.1	35.4	43.2	22
Initial source of method[2]				
Public sector medical	37.1	31.4	31.2	2,255
Nongovernmental organization	53.0	47.1	33.3	41
Private medical sector	40.6	34.6	38.6	2,014
Other	44.1	44.3	59.5	36
Total	38.9	33.1	34.9	4,347
RURAL				
Method				
Female sterilization[1]	26.5	20.5	21.2	7,236
Pill	34.8	25.0	36.3	1,213
IUD	48.5	44.6	41.4	554
Injectables	36.2	17.9	29.9	46
Initial source of method[2]				
Public sector medical	28.5	22.3	22.9	6,670
Nongovernmental organization	(41.1)	(40.4)	(25.0)	51
Private medical sector	29.6	22.3	28.6	2,232
Other	38.3	30.4	42.3	96
Total	29.0	22.5	24.5	9,048
TOTAL				
Method				
Female sterilization[1]	28.7	22.9	23.6	10,089
Pill	35.9	27.0	37.8	1,960
IUD	53.4	48.5	46.0	1,278
Injectables	42.9	23.5	34.1	68
Initial source of method[2]				
Public sector medical	30.7	24.6	25.0	8,925
Nongovernmental organization	46.4	43.4	28.7	92
Private medical sector	34.8	28.2	33.4	4,246
Other	39.9	34.2	47.0	132
Total	32.2	26.0	27.9	13,395

Note: Table includes only the contraceptive methods separately shown in the table and excludes users who obtained their method from friends/relatives.
( ) Based on 25-49 unweighted cases.
[1] Among women who were sterilized in the five years preceding the survey.
[2] Source at start of current episode of use.

5.7.1 State Level Variations in Informed Choice

State-level variations in informed choice are shown in Table 5.18. The proportion of women who were informed about possible side effects or problems with their method ranged from a low of 11 percent in Bihar to a high of 63 percent in Tamil Nadu and Delhi. Information on what to do if they experienced side effects with the method was given to smaller proportions

Table 5.18 Informed choice by state

Among women who are current users of modern contraceptive methods who started the last episode of use within the five years preceding the survey, the percentage who were informed about possible side effects or problems of that method, the percentage who were informed about what to do if they experienced side effects, and the percentage who were informed about other methods that they could use, by state, India, 2005-06

State	Percentage who were informed about side effects or problems of method used	Percentage who were informed about what to do if experienced side effects	Percentage who were informed by a health or family planning worker about other methods that could be used
India	32.2	26.0	27.9
North			
Delhi	62.8	52.6	53.7
Haryana	40.7	28.9	43.2
Himachal Pradesh	49.1	37.8	50.8
Jammu & Kashmir	20.7	12.5	14.6
Punjab	36.5	29.4	31.2
Rajasthan	29.9	23.3	24.0
Uttaranchal	37.5	29.1	25.4
Central			
Chhattisgarh	27.9	20.4	30.1
Madhya Pradesh	44.7	34.6	41.1
Uttar Pradesh	28.7	21.5	19.5
East			
Bihar	10.8	8.5	27.0
Jharkhand	20.9	15.3	19.7
Orissa	21.6	15.7	14.4
West Bengal	29.3	21.9	29.6
Northeast			
Arunachal Pradesh	45.1	36.6	39.8
Assam	42.3	35.8	37.1
Manipur	45.2	38.6	38.2
Meghalaya	42.7	42.1	34.5
Mizoram	30.9	27.6	29.8
Nagaland	20.2	16.0	16.8
Sikkim	52.6	47.6	57.2
Tripura	33.4	24.5	30.9
West			
Goa	33.2	27.9	36.4
Gujarat	37.0	34.1	34.5
Maharashtra	30.6	25.8	20.9
South			
Andhra Pradesh	21.1	15.8	14.2
Karnataka	28.3	23.3	26.0
Kerala	44.4	33.9	33.6
Tamil Nadu	62.9	58.0	50.2

Note: Table includes only users of female sterilization, pill, IUD, and injectables and excludes users who obtained their method from friends/relatives.

of women in every state. Tamil Nadu and Delhi are the only states in which more than half of women were informed about what to do if they experienced side effects with their method, and Sikkim, Delhi, Himachal Pradesh, and Tamil Nadu are the only states in which a majority of users were informed by a health or family planning worker about other methods that could be used.

5.8 CONTRACEPTIVE DISCONTINUATION

A major concern for family planning programme managers is the discontinuation of contraceptive methods, either voluntarily or due to method failure. In NFHS-3, contraceptive discontinuation and failure rates can be calculated from information collected in the calendar. All segments of contraceptive use between January 2000 (January 2001 for the second phase states) and the date of the interview were recorded, along with the reasons for any discontinuation.

One-year contraceptive discontinuation rates by method and reason for discontinuation are presented in Table 5.19. All episodes of contraceptive use that began 3-59 months prior to the survey were used in this calculation. The one-year discontinuation rate of any method of family planning estimated from these contraceptive use episodes is 27 percent. In other words, out of 100 contraceptive users, more than one in four discontinues use of that method within 12 months of adoption. Six percent of those who started an episode of contraceptive use stopped using that method, but switched to another contraceptive method. The most frequently mentioned reason for discontinuing a method is to become pregnant, followed by concerns about side effects or health concerns. A smaller number of women said they stopped using because of infrequent sex, because their husband was away, or because the method failed. Discontinuation rates for any spacing method (39 percent) and any modern spacing method (42 percent) are quite high.

Table 5.19 First-year contraceptive discontinuation rates

Percentage of contraceptive users who discontinued use of a method within 12 months after beginning its use, by reason for discontinuation and percentage who switched to another method by type of method, India, 2005-06

Method	Method failure	Desire to become pregnant	Side effects/ health concerns	Costs too much	Infrequent sex/ husband away	Marital dissolution/ separation	Other reason	Total	Switched to another method[1]
Female sterilization	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
Male sterilization	0.0	0.0	0.0	0.0	0.0	2.4	1.1	3.5	0.0
Pill	2.6	8.5	20.1	0.3	7.3	0.1	10.3	49.2	12.0
IUD	1.0	2.7	11.2	0.1	0.2	0.0	4.6	19.8	5.3
Injectables	5.1	10.9	16.1	4.1	0.8	0.0	16.5	53.4	23.2
Male condom	3.4	14.9	2.7	0.8	4.9	0.1	17.9	44.8	9.4
Rhythm	7.7	14.3	0.3	0.0	2.3	0.0	7.5	32.2	4.9
Withdrawal	6.9	11.3	0.5	0.0	5.1	0.1	11.3	35.3	8.5
Folk method	3.6	2.1	1.8	0.7	1.9	0.0	17.6	27.8	1.6
All modern spacing methods	2.7	10.4	10.6	0.5	5.0	0.1	12.8	42.3	9.8
All spacing methods	4.5	11.4	6.6	0.3	4.3	0.1	11.4	38.7	8.3
All methods	3.2	8.0	4.7	0.2	3.0	0.1	8.0	27.2	5.8

Note: Table is based on episodes of contraceptive use that began 3-59 months prior to the survey.
[1] Used a different method in the month following discontinuation or said they wanted a more effective method and started another method within two months of discontinuation.

Among the spacing methods, discontinuation rates are highest for injectables (53 percent), followed by pills (49 percent) and male condoms (45 percent). The one-year discontinuation rates for two traditional methods, rhythm (32 percent) and withdrawal (35 percent), are somewhat lower, but still substantial. Among all the spacing methods, discontinuation of IUDs is lowest (20 percent). For pills, IUDs, and injectables, the most common reason for discontinuation is concerns about side effects or health problems, whereas for condoms and traditional methods the desire to become pregnant is most frequently cited. Failure rates are highest for the rhythm method (8 percent), withdrawal (7 percent), and injectables (5 percent).

Condoms and pills have lower failure rates (3 percent each), and IUDs have the lowest failure rate among spacing methods. The survey finds very low discontinuation rates for female and male sterilization. The 0.2 percent discontinuation rate for female sterilization is solely due to method failure, whereas the discontinuation rate for male sterilization (3.5) is primarily due to marital dissolution.

5.8.1 State Level Variation in Discontinuation Rates

One-year contraceptive discontinuation rates for any reason by method and state are presented in Table 5.20. Discontinuation rates for any family planning method range from a low of 7 percent in Andhra Pradesh to 47 percent in Tripura. The level of discontinuation depends partly on the method mix. The lowest discontinuation rates are found in Andhra Pradesh, Karnataka, Meghalaya, Haryana, Himachal Pradesh, Goa, Maharashtra, and Tamil Nadu. In all of these states except Meghalaya, sterilization accounts for a very high share of contraceptive use. The one-year discontinuation rates for all spacing methods are highest in Jharkhand, Kerala, Tripura, and Madhya Pradesh (49-52 percent), and lowest in Meghalaya, Haryana, Delhi, and Goa (15-20 percent).

Table 5.20 First-year contraceptive discontinuation rates by state

Percentage of contraceptive users who discontinued use of a method within 12 months after beginning its use, by specific method and state, India, 2005-06

State	Female sterili-zation	Modern methods			Traditional methods		All methods	Any modern method	Any spacing methods
		Pill	IUD	Male condom	Rhythm	Withdrawal			
India	0.2	49.2	19.8	44.8	32.2	35.3	27.2	25.1	38.7
North									
Delhi	0.0	29.6	6.7	22.8	*	*	17.5	18.0	20.1
Haryana	0.0	*	*	22.2	*	*	12.1	12.0	18.3
Himachal Pradesh	0.0	*	*	25.1	*	*	13.1	13.4	20.6
Jammu & Kashmir	0.0	37.5	*	33.1	*	13.3	21.6	23.6	27.7
Punjab	0.0	*	15.2	25.5	*	*	19.5	18.7	24.5
Rajasthan	0.0	53.7	*	51.9	*	*	28.1	26.7	44.9
Uttaranchal	0.0	44.8	*	33.6	*	*	28.1	26.8	36.5
Central									
Chhattisgarh	2.3	69.1	*	48.8	*	*	24.5	23.0	45.4
Madhya Pradesh	0.0	48.8	*	49.3	51.5	*	26.2	20.5	48.7
Uttar Pradesh	0.6	69.9	27.0	45.2	34.1	34.3	36.1	37.8	42.3
East									
Bihar	0.0	68.0	*	53.7	23.9	*	29.2	29.6	44.1
Jharkhand	0.0	56.3	*	60.4	*	*	39.5	37.1	52.2
Orissa	0.8	42.4	*	50.1	*	*	30.2	31.2	39.3
West Bengal	0.7	36.4	*	49.8	28.4	35.8	30.2	29.8	35.0
Northeast									
Arunachal Pradesh	*	39.7	*	*	*	*	30.2	29.5	36.9
Assam	*	37.9	*	57.8	22.7	24.9	28.4	34.7	30.4
Manipur	*	54.0	28.4	57.6	35.6	41.0	42.1	45.6	43.2
Meghalaya	*	*	*	*	*	*	12.0	13.1	15.0
Mizoram	0.0	31.8	*	*	*	*	24.0	22.7	36.1
Nagaland	*	43.0	*	54.9	24.2	*	31.9	33.5	36.5
Sikkim	*	25.5	*	*	*	*	20.6	20.9	23.9
Tripura	*	44.4	*	70.8	42.8	61.4	46.9	44.7	48.8
West									
Goa	0.0	*	*	24.2	*	*	14.6	14.1	20.3
Gujarat	0.0	57.5	15.8	50.5	39.6	*	33.2	28.9	43.2
Maharashtra	0.0	41.8	15.0	34.1	*	*	15.7	15.9	29.0
South									
Andhra Pradesh	0.0	*	*	*	*	*	6.7	6.4	39.8
Karnataka	0.1	*	16.9	*	*	*	10.4	9.9	29.6
Kerala	0.0	*	*	61.0	43.7	40.1	35.8	33.2	49.4
Tamil Nadu	0.2	*	22.4	47.0	*	*	15.8	14.1	41.5

* Percentage not shown; based on fewer than 25 unweighted cases.

5.9 FUTURE USE OF CONTRACEPTION

The intention to use a method of contraception in the future is an important indicator of the potential demand for family planning services. Non-pregnant, currently married women who were not using contraception at the time of the survey were asked about their intention to use a family planning method in the next 12 months. Women who do not intend to use contraception in the next 12 months and women who were pregnant at the time of the survey were further asked whether they intend to use contraception at any time in the future. Women who reported an intention to use contraception were further asked about the method they would prefer to use. Table 5.21 shows intentions to use contraception in the future by the number and sex of living children for women who were not pregnant at the time of the survey. Twenty-two percent reported that they intend to use contraception within the next 12 months, 35 percent said they would use later, 6 percent were not sure, and 36 percent reported that they do not intend to use contraception at any time in the future.

Table 5.21 Future use of contraception

Percent distribution of non-pregnant currently married women who are not using a contraceptive method by intention to use in the future, according to number and sex of living children, India, 2005-06

Number and sex of living children	Intention to use in the future					Total	Number
	Intends to use in the next 12 months	Intends to use later	Unsure	Does not intend to use	Missing		
No children	7.0	57.6	11.2	23.9	0.2	100.0	7,049
1 child	21.2	46.3	5.9	26.3	0.4	100.0	8,307
1 son	21.9	44.2	5.5	28.0	0.4	100.0	4,334
No sons	20.5	48.5	6.3	24.4	0.3	100.0	3,973
2 children	28.9	30.7	5.3	34.6	0.5	100.0	6,690
2 sons	30.6	27.3	4.1	37.4	0.6	100.0	1,579
1 son	31.0	27.7	5.4	35.5	0.4	100.0	3,486
No sons	22.6	40.4	6.5	29.9	0.6	100.0	1,624
3 children	28.8	24.1	4.3	42.4	0.3	100.0	4,509
3 sons	31.8	17.9	4.0	46.2	0.2	100.0	521
2 sons	32.5	15.8	4.2	47.3	0.3	100.0	1,580
1 son	27.8	25.3	4.5	41.9	0.4	100.0	1,810
No sons	19.6	47.6	4.5	27.8	0.5	100.0	598
4+ children	24.7	14.2	4.5	56.4	0.3	100.0	7,679
2+ sons	25.1	10.3	4.8	59.5	0.3	100.0	5,750
1 son	24.3	21.5	3.3	50.9	0.1	100.0	1,541
No sons	20.5	42.2	4.9	32.3	0.0	100.0	388
Total	21.6	35.4	6.3	36.3	0.3	100.0	34,233

Non-pregnant women with more children are less likely to say they intend to use contraception in the future. For example, 68 percent of women with one child reported that they intend to use family planning in the future, compared with 39 percent of women with four or more children. Women with no sons are less likely to state an intention to use contraception in the next 12 months, but more likely to state an intention to use contraception later. Women with no sons may be waiting to have a son before they plan to use contraception.

Table 5.22 shows the percentage of non-users (including pregnant women) who intend to use contraception at any time in the future for each state. The proportion of non-users who intend to use contraception in the future ranges from 18 percent in Meghalaya, which is also the state with the lowest contraceptive prevalence rate in India, to 76 percent in Madhya Pradesh. In every state except Arunachal Pradesh non-users with four or more children are least likely to say they intend to use family planning in the future.

Table 5.22 Future use of contraception by state

Percentage of currently married women who are not using a contraceptive method and intend to use a method in the future, according to number of living children by state, India, 2005-06

State	Number of living children[1]					Total
	0	1	2	3	4+	
India	64.6	71.1	66.2	59.6	45.2	61.7
North						
Delhi	54.3	57.2	46.4	49.2	32.4	48.5
Haryana	70.2	74.6	65.4	53.7	44.7	63.3
Himachal Pradesh	74.5	77.8	75.2	56.6	55.8	71.6
Jammu & Kashmir	69.6	71.3	64.8	52.8	40.6	58.3
Punjab	58.6	59.4	46.7	33.0	30.9	47.7
Rajasthan	80.9	86.3	74.7	63.3	42.3	67.9
Uttaranchal	65.3	77.4	68.1	63.9	45.7	64.3
Central						
Chhattisgarh	68.5	78.3	79.4	71.0	53.5	71.3
Madhya Pradesh	82.7	88.8	82.5	76.8	52.4	75.9
Uttar Pradesh	66.4	74.9	69.2	60.6	45.5	60.1
East						
Bihar	71.6	79.1	68.8	67.6	51.9	65.9
Jharkhand	69.7	74.6	71.7	63.5	56.6	66.7
Orissa	67.6	68.5	68.0	51.4	46.6	62.4
West Bengal	61.0	67.4	70.1	61.0	40.0	61.3
Northeast						
Arunachal Pradesh	39.5	58.6	51.7	50.8	43.7	49.2
Assam	49.5	66.0	60.3	53.1	37.5	53.8
Manipur	40.2	60.1	51.8	47.8	27.4	44.4
Meghalaya	17.0	21.7	19.7	22.4	13.8	17.9
Mizoram	(47.0)	54.9	66.1	62.0	36.7	53.6
Nagaland	29.9	47.9	39.7	40.4	28.6	36.1
Sikkim	52.2	74.9	69.5	55.8	41.6	61.7
Tripura	54.4	64.6	49.3	39.9	30.0	49.2
West						
Goa	29.1	38.9	31.5	23.2	14.1	31.8
Gujarat	57.3	75.1	66.8	57.5	46.5	62.9
Maharashtra	65.4	75.7	73.6	62.2	49.8	69.4
South						
Andhra Pradesh	40.9	47.8	49.2	37.4	14.3	43.4
Karnataka	55.7	62.1	59.4	55.9	31.3	56.7
Kerala	50.0	58.6	54.0	43.8	20.4	51.8
Tamil Nadu	74.2	72.9	48.2	40.7	16.4	59.5

( ) Based on 25-49 unweighted cases.
[1] Includes current pregnancy.

5.10 REASONS FOR NOT INTENDING TO USE A CONTRACEPTIVE METHOD IN THE FUTURE

Women who reported that they did not intend to use contraception any time in future (or that they were unsure) were asked about the main reason for their intentions. This information is crucial for understanding obstacles to contraceptive use so that suitable information programmes can be designed. Table 5.23 shows that almost two-thirds of women who do not intend to use contraception in the future cited fertility-related reasons. In particular, 26 percent said that they did not intend to use contraception because they are subfecund or infecund, and 16 percent cited menopause or a hysterectomy as the reason for not intending to use contraception. Only 7 percent said they did not intend to use because they wanted as many children as possible (down from 17 percent in NFHS-2). Fifteen percent of women reported opposition to use, either from family members or their religion, and another 10 percent reported concerns about health or the fear of side effects. Very few women mentioned a lack of knowledge of contraceptive methods or a source for methods as a reason for not intending to use contraception in the future.

Table 5.23 Reason for not intending to use contraception in the future

Percent distribution of currently married women age 15-49 who are not using contraception and who do not intend to use in the future by main reason for not intending to use, India, 2005-06

Reason	Percentage
Fertility-related reasons	
Not having sex/infrequent sex	11.1
Menopausal/had hysterectomy	15.5
Subfecund/infecund	26.2
Fatalistic	5.9
Wants as many children as possible	6.9
Opposition to use	
Respondent opposed	5.5
Husband opposed	4.4
Others opposed	0.3
Religious prohibition	5.0
Lack of knowledge	
Knows no method	1.4
Knows no source	0.4
Method-related reasons	
Health concerns	5.0
Fear of side effects	4.3
Lack of access/too far	0.2
Costs too much	0.6
Inconvenient to use	0.4
Interferes with body's normal processes	1.0
Other	3.9
Don't know	1.8
Missing	0.2
Total	100.0
Number of women	12,919

5.11 PREFERRED METHOD OF CONTRACEPTION FOR FUTURE USE

The potential demand for specific methods can be assessed by asking non-users which methods they intend to use in the future. Table 5.24 presents information on method preference among currently married women who are not using a contraceptive method but say they intend to use in the future. Nearly two-thirds (64 percent) of prospective users say they would prefer female sterilization, while a sizable proportion (14 percent) cited the pill as their preferred method. In NFHS-2, the corresponding figures for female sterilization and the pill were almost the same (65 percent and 16 percent). The data indicate a strong continuing preference for female sterilization in spite of the government's efforts to popularize spacing methods. The pill is preferred more in rural areas than in urban areas, and IUDs and condoms are more preferred in urban areas.

Table 5.24 Preferred method of contraception for future use

Percent distribution of currently married women who are not using a contraceptive method but who intend to use in the future by preferred method, according to residence, India, 2005-06

Preferred method	Residence		Total
	Urban	Rural	
Female Sterilization	64.3	63.8	63.9
Male Sterilization	0.4	0.5	0.5
Pill	10.9	14.9	13.9
IUD	4.3	2.1	2.6
Injectables	1.6	2.1	2.0
Implants	0.0	0.0	0.0
Condom/Nirodh	7.6	3.7	4.7
Female condom	0.1	0.0	0.0
Rhythm	2.3	2.6	2.5
Withdrawal	0.9	0.6	0.7
Folk method	0.4	1.4	1.2
Unsure of method	7.2	8.3	8.0
Total	100.0	100.0	100.0
Number of women	6,061	19,038	25,099

5.12 EXPOSURE TO FAMILY PLANNING MESSAGES

The communications media have played an important role in promoting the family welfare programme in India. In 1968-69, the Mass Education Media (MEM) division was created in the Department of Family Welfare. Channels of communication such as the Television, Radio, Song and Drama Division, Directorate of Field Publicity, and the print media promote reproductive health and population issues. Exposure to family planning messages is seen as widening the horizon of understanding on issues related to contraceptive use and helping to achieve desired family size. Measuring the extent of exposure to such information helps programme managers and planners to effectively target population subgroups for information, education, and communication (IEC) activities.

Table 5.25.1 Exposure to family planning messages: Women

Percentage of women who heard or saw a family planning message on radio, television, in a newspaper or magazine, or on a wall painting or hoarding in the past few months, according to background characteristics, India, 2005-06

Background characteristic	Radio	Tele-vision	News-paper or magazine	Wall painting or hoarding	None of these four media sources	Number of women
Age						
15-19	34.2	50.7	24.7	28.6	36.3	24,811
20-24	35.2	53.2	25.3	29.7	34.6	22,779
25-29	33.3	51.1	23.6	28.1	37.2	20,417
30-34	32.5	48.1	21.3	25.7	40.2	17,656
35-39	30.6	47.5	19.6	24.6	40.9	15,866
40-44	30.0	45.3	18.3	23.0	43.7	13,049
45-49	29.8	45.3	17.5	21.8	43.9	9,807
Residence						
Urban	35.7	74.3	40.0	41.5	20.0	40,817
Rural	31.3	37.3	13.6	19.4	47.8	83,568
Education						
No education	21.5	25.1	1.0	6.4	62.1	50,487
<5 years complete	30.6	43.1	7.2	18.8	42.8	9,918
5-7 years complete	34.0	55.8	18.0	27.4	31.6	18,820
8-9 years complete	42.2	65.8	34.5	40.7	21.1	17,383
10-11 years complete	43.9	75.5	49.5	48.8	14.3	12,887
12 or more years complete	50.3	86.6	71.8	64.1	6.8	14,882
Religion						
Hindu	33.7	50.2	22.5	27.3	38.0	100,151
Muslim	29.1	41.0	15.6	19.0	46.1	16,936
Christian	33.9	54.1	34.4	38.1	30.8	3,053
Sikh	19.4	69.0	34.8	32.3	26.8	2,222
Buddhist/Neo-Buddhist	35.1	61.8	29.8	35.9	32.1	1,010
Jain	35.7	87.7	71.6	63.2	7.9	406
Other	17.7	18.2	8.1	16.3	68.1	484
Caste/tribe						
Scheduled caste	31.1	45.6	15.5	22.1	41.7	23,125
Scheduled tribe	21.3	25.4	9.2	14.9	61.0	10,119
Other backward class	33.8	48.0	20.0	26.6	39.5	48,880
Other	35.5	59.6	32.1	32.4	30.2	41,207
Don't know	28.1	38.2	14.3	26.1	50.2	649
Wealth index						
Lowest	21.8	14.3	2.3	8.1	69.2	21,718
Second	29.2	27.6	5.8	12.8	54.9	23,616
Middle	32.5	44.9	12.8	22.0	41.0	25,088
Fourth	37.1	66.2	27.0	33.2	25.1	26,106
Highest	40.6	83.9	55.7	51.1	11.6	27,856
Total	32.8	49.5	22.2	26.7	38.7	124,385

Note: Total includes women with missing information on education, religion, and caste/tribe, who are not shown separately.

In NFHS-3, both women and men were asked if they had heard or seen any message about family planning on the radio or television, in a newspaper or magazine, or on a wall painting or hoarding in the few months prior to the survey. Table 5.25.1 provides information on women's exposure to family planning messages. Slightly more than three in five women reported that they heard or saw a family planning message in the past few months. Nearly half of women saw a family planning message on television; one-third heard a family planning message on the radio; about one-quarter saw a family planning message on a wall painting or hoarding; and 22 percent saw a family planning message in a newspaper or magazine. There are substantial gender

Table 5.25.2 Exposure to family planning messages: Men

Percentage of men who heard or saw a family planning message on radio, television, in a newspaper or magazine, or on a wall painting or hoarding in the past few months, according to background characteristics, India, 2005-06

Background characteristic	Radio	Tele-vision	News-paper or magazine	Wall painting or hoarding	None of these four media sources	Number of men
Age						
15-19	52.7	66.0	49.7	54.4	5.7	13,008
20-24	56.1	69.8	54.6	60.1	5.0	11,989
25-29	54.5	67.1	53.8	60.1	6.8	10,854
30-34	52.7	63.4	51.5	56.9	9.0	9,744
35-39	51.6	61.1	47.6	54.5	9.7	9,302
40-44	49.8	57.6	45.8	51.6	12.6	8,105
45-49	51.3	58.2	44.0	50.3	11.4	6,750
Residence						
Urban	53.4	81.4	65.2	68.1	1.9	25,504
Rural	52.7	54.1	41.4	48.9	11.7	44,247
Education						
No education	37.2	32.6	3.3	15.9	24.5	12,571
<5 years complete	46.7	48.6	19.5	34.5	12.3	7,109
5-7 years complete	50.4	60.8	42.6	52.5	7.3	11,523
8-9 years complete	57.0	69.5	60.6	64.5	3.6	14,398
10-11 years complete	59.0	79.0	73.7	73.8	2.2	10,380
12 or more years complete	63.8	86.7	86.3	84.0	0.7	13,754
Religion						
Hindu	53.5	64.5	51.2	56.8	8.0	57,112
Muslim	51.4	58.2	41.0	47.6	9.9	8,747
Christian	46.0	61.7	52.1	57.6	8.3	1,567
Sikh	45.1	86.5	55.4	66.1	2.2	1,270
Buddhist/Neo-Buddhist	60.7	75.8	61.9	61.3	3.9	596
Jain	59.8	94.6	89.6	87.8	0.0	213
Other	34.7	24.7	18.9	41.4	22.5	232
Caste/tribe						
Scheduled caste	52.9	60.5	43.1	50.7	8.6	13,188
Scheduled tribe	43.9	41.7	28.5	38.8	21.1	5,725
Other backward class	54.6	64.0	51.3	57.8	7.4	27,219
Other	53.4	71.9	58.4	61.2	5.3	23,214
Don't know	45.2	58.6	33.1	36.8	9.1	177
Wealth index						
Lowest	44.5	29.8	17.8	28.8	24.2	11,031
Second	52.2	46.9	31.3	41.1	12.7	12,666
Middle	53.4	62.6	46.4	53.3	6.4	14,301
Fourth	55.1	77.6	61.7	66.3	2.4	15,493
Highest	56.8	89.1	78.9	78.4	0.6	16,260
Total age 15-49	52.9	64.1	50.1	55.9	8.1	69,751
Age 50-54	47.4	56.9	46.1	50.8	11.5	4,618
Total age 15-54	52.6	63.6	49.9	55.6	8.3	74,369

Note: Total includes men with missing information on education, religion, and caste/tribe, who are not shown separately.

differences in the exposure to family planning messages. Men are much more likely than women to be exposed to media messages on family planning. Overall, 92 percent of men have been exposed to family planning messages in the past few months (Table 5.25.2), compared with 61 percent of women. A higher proportion of men than women reported exposure to family planning messages through each channel of communication.

Significant variation is also observed in exposure to family planning messages by background characteristics. Younger women are somewhat more likely to be exposed to family planning messages than older women. Women in urban areas are twice as likely as their rural counterparts to have seen family planning messages on television, and there are also wide urban-rural differentials for exposure to newspapers, magazines, wall paintings, and hoardings. There is a marked difference in exposure to family planning messages by level of education. Thirty-eight percent of women with no education heard or saw a family planning message as against 93 percent with 12 or more years of education. Exposure to family planning messages increases

Table 5.26 Exposure to family planning messages by state

Percentage of women and men who heard or saw a family planning message on radio, television, in a newspaper or magazine, or on a wall painting or hoarding in the past few months, by state, India, 2005-06

	Women					Men				
State	Radio	Tele-vision	News-paper or magazine	Wall painting or hoarding	None of these four media sources	Radio	Tele-vision	News-paper or magazine	Wall painting or hoarding	None of these four media sources
India	32.8	49.5	22.2	26.7	38.7	52.9	64.1	50.1	55.9	8.1
North										
Delhi	68.4	94.0	64.0	62.8	4.0	78.4	91.2	69.2	85.3	0.2
Haryana	22.5	57.1	25.3	24.9	37.1	45.4	66.5	48.5	54.5	7.8
Himachal Pradesh	30.4	59.7	29.2	33.7	32.6	47.8	75.2	62.4	75.4	3.9
Jammu & Kashmir	34.0	39.3	15.6	17.8	50.2	60.1	54.9	36.5	40.3	10.6
Punjab	16.0	66.9	31.7	28.3	29.1	44.3	86.1	55.3	64.7	2.3
Rajasthan	15.3	38.4	18.6	17.6	55.4	38.2	52.0	50.9	58.5	17.7
Uttaranchal	28.0	66.1	30.1	34.9	27.3	49.8	83.4	68.7	76.4	3.9
Central										
Chhattisgarh	25.8	48.7	13.0	20.3	42.0	37.8	59.6	35.0	47.5	11.9
Madhya Pradesh	31.5	45.4	20.7	29.7	40.0	50.0	54.1	44.9	53.6	13.6
Uttar Pradesh	40.7	45.9	17.3	19.7	40.2	72.4	63.0	53.2	58.9	5.7
East										
Bihar	42.1	25.5	11.7	14.6	48.9	57.1	37.4	38.3	45.5	13.2
Jharkhand	14.4	32.0	13.4	21.8	56.8	29.5	34.6	29.5	44.2	25.1
Orissa	19.9	45.5	11.1	13.8	45.1	49.0	67.1	39.3	45.9	12.4
West Bengal	38.6	45.9	18.6	25.2	39.8	49.6	56.0	33.9	36.6	8.7
Northeast										
Arunachal Pradesh	31.4	49.4	15.4	28.1	39.9	61.2	64.7	27.8	65.8	5.6
Assam	39.6	41.5	19.8	26.3	40.9	49.7	52.9	36.7	48.7	10.8
Manipur	75.0	51.7	32.0	51.9	13.2	84.6	61.5	61.3	77.0	0.7
Meghalaya	23.9	42.8	30.6	22.1	44.5	39.3	55.5	39.3	31.6	16.6
Mizoram	24.6	39.2	39.0	39.0	34.8	40.3	55.1	52.5	53.3	10.3
Nagaland	14.0	24.7	18.2	13.4	63.2	29.6	36.2	32.6	38.0	22.3
Sikkim	14.1	42.3	18.5	22.5	47.0	32.0	54.5	33.4	56.1	12.8
Tripura	27.3	55.3	16.6	39.0	31.0	39.1	58.7	34.5	52.7	6.7
West										
Goa	39.3	76.1	47.3	58.0	16.5	43.8	74.8	66.7	70.1	2.8
Gujarat	27.5	57.0	28.3	34.8	35.4	48.6	72.1	55.5	53.6	4.6
Maharashtra	26.6	59.6	29.6	28.9	34.9	58.2	79.6	65.6	64.3	4.5
South										
Andhra Pradesh	19.5	51.8	17.2	18.6	40.2	27.7	70.7	52.2	57.2	7.4
Karnataka	39.3	53.3	30.3	38.0	38.8	57.7	72.7	53.4	58.8	6.3
Kerala	35.6	44.6	38.5	36.8	30.5	46.4	57.5	62.1	67.6	2.2
Tamil Nadu	52.9	75.8	33.1	55.3	12.0	65.8	76.7	60.1	70.6	0.8

sharply by the household's wealth quintile. Women from scheduled tribes and Muslim women have much lower exposure to family planning messages than other women. The pattern of variation in the exposure to family planning messages among men is similar to that among women, except that differentials by religion are not as pronounced for men.

Interstate variations in the exposure to family planning messages are shown in Table 5.26. The highest exposure to family planning messages is in Delhi, where 96 percent of women and almost 100 percent of men are exposed to such messages. Exposure to family planning messages is also very high in Tamil Nadu (88 percent of women and 99 percent of men), Manipur (87 percent of women and 99 percent of men), and Goa (84 percent of women and 97 percent of men). On the other hand, the majority of women and a substantial proportion of men have not recently been exposed to family planning messages in Nagaland, Jharkhand, Rajasthan, and Jammu and Kashmir. In every state, a smaller proportion of women than men have been exposed to family planning messages. Television was the most cited source of family planning messages for men and women in most states. However, radio was cited by the largest proportion of women and men in Bihar and Manipur. In addition, a higher proportion of men reported radio than television as a source of family planning messages in Jammu and Kashmir and in Uttar Pradesh.

5.13 KNOWLEDGE AND INFORMATION AMONG NON-USERS ABOUT FAMILY PLANNING

Health workers are supposed to inform and counsel all women and men in the reproductive ages about family planning. In NFHS-3, information was collected from women and men on their knowledge of a source of contraceptive methods and from women on whether they have ever been told by a health or family planning worker about any family planning methods. Two-thirds of currently married women and more than four-fifths of currently married men who are not currently using contraception know a place where a method of contraception can be obtained (Table 5.27). However, less than one-fifth of women said they were ever informed by a health or family planning worker about any method of family planning. Knowledge of a source of contraception is relatively low for women and men in rural areas, those with little or no education, scheduled tribes, Muslims and Christians, those in households in the lower wealth quintiles, and young women (age 15-19). The percentage of currently married, non-users of contraception who were ever told about a method of family planning by a health or family planning worker is particularly low for young women, women with no living children, women with no education, and women in households in the lowest wealth quintile.

Table 5.27 Knowledge and information among non-users of family planning

Among currently married women and men who are not currently using a contraceptive method, percentage who know of a place where a method of contraception can be obtained and percentage of currently married women who are not currently using a contraceptive method who were ever told by a health or family planning worker about any method of family planning that can be used to avoid pregnancy, by background characteristics, India, 2005-06

Background characteristic	Percentage who know of a place where a method of contraception can be obtained	Percentage who were ever told by a health or family planning worker about any method of family planning	Number of women	Percentage who know of a place where a method of contraception can be obtained	Number of men
Age					
15-19	59.7	9.2	5,853	78.2	315
20-24	68.4	16.0	11,181	82.3	3,017
25-29	70.4	21.2	8,086	85.0	4,937
30-34	67.9	23.2	4,883	83.9	4,289
35-39	67.4	23.2	3,898	81.8	3,478
40-44	66.7	20.9	3,630	76.5	3,008
45-49	66.0	20.7	3,120	79.4	2,569
Number of living children					
0	63.2	8.0	9,383	83.8	4,493
1-2	69.8	20.6	17,889	84.4	9,780
3 or more	66.1	22.8	13,379	77.6	7,341
Residence					
Urban	73.0	22.3	10,312	89.3	6,471
Rural	65.0	17.1	30,339	78.8	15,143
Education					
No education	60.9	14.7	21,064	67.2	5,729
<5 years complete	65.2	19.8	2,879	75.4	2,642
5-7 years complete	70.0	19.7	5,783	84.0	3,746
8-9 years complete	74.5	23.4	4,460	89.1	3,765
10-11 years complete	75.9	23.8	3,104	91.8	2,366
12 or more years complete	84.2	26.5	3,359	95.0	3,361
Religion					
Hindu	68.3	18.5	32,011	83.2	17,652
Muslim	63.8	17.2	6,668	76.0	2,865
Christian	56.9	23.0	864	77.5	509
Sikh	60.4	18.3	525	86.6	295
Buddhist/Neo-Buddhist	72.5	22.0	221	87.7	118
Jain	84.6	25.1	69	100.0	39
Other	37.4	21.8	249	33.3	130
Caste/tribe					
Scheduled caste	65.8	18.3	7,812	80.2	4,189
Scheduled tribe	54.5	17.4	3,975	72.5	2,336
Other backward class	68.6	17.6	17,046	84.1	8,823
Other	70.3	20.2	11,523	83.8	6,152
Don't know	46.0	20.5	158	57.8	46
Wealth index					
Lowest	59.1	14.7	10,072	67.4	4,906
Second	65.3	17.5	9,046	79.3	4,500
Middle	66.4	18.1	8,071	85.2	4,493
Fourth	71.3	19.6	7,127	88.4	4,029
Highest	78.2	24.6	6,335	93.6	3,686
Total age 15-49	67.0	18.4	40,651	81.9	21,613
Age 50-54	na	na	na	79.3	1,912
Total age 15-54	na	na	na	81.7	23,525

Note: Totals include women and men with missing information on education, religion, and caste/tribe, who are not shown separately.
na = Not applicable

5.14 HUSBAND'S KNOWLEDGE OF WIFE'S USE OF CONTRACEPTION

A wife's concealment from her husband of her use of contraception is an indication of absence of communication, lack of confidence, or disagreement on the use of family planning between spouses. To shed light on the extent of communication on the use of contraception, currently married women who were using a female method of contraception at the time of the survey were asked whether their husband knew of their use. Almost all users (98 percent) reported that their husbands know about their use of contraception (Table 5.28). Husbands' knowledge of wives' family planning use was nearly universal regardless of the contraceptive method used.

Table 5.28 Husband's knowledge of women's use of contraception

Among currently married women who are using a modern female method of contraception, percent distribution of whether their husbands know about their use of contraception by method currently used, India, 2005-06

Current contraceptive method	Husband knows	Husband does not know	Unsure whether husband knows	Total	Number of women
Female sterilization	98.3	1.1	0.5	100.0	34,728
Pill	97.7	1.1	1.3	100.0	2,867
IUD	96.6	1.5	1.8	100.0	1,615
Other modern female method	92.6	4.3	3.0	100.0	132
Total	98.2	1.1	0.7	100.0	39,342

5.15 MEN'S ATTITUDES ABOUT CONTRACEPTION

Men's attitudes about contraception may influence their partner's attitudes and eventual adoption of a contraceptive method. In NFHS-3, all men were asked if they agreed or disagreed with three general statements about contraceptive use. Additionally, they were asked one question to judge their perceptions about the effectiveness of condom use.

As shown in Table 5.29, 22 percent of men think that contraception is women's business and that a man should not have to worry about it. Sixteen percent of men believe that women who use contraception may become promiscuous. Almost half of men believe that a woman who is breastfeeding cannot become pregnant. Differentials in the responses by background characteristics are fairly small, although younger men are least likely to have misconceptions about the efficacy of breastfeeding.

Almost two-thirds of men know that if a male condom is used correctly it protects against pregnancy most of the time; 15 percent said it protects against pregnancy only sometimes; and 2 percent said that it provides no protection at all. One-sixth did not know the answer or were unsure. Men from urban areas, men with more education, Jains, and men in households in the upper wealth quintiles were more likely to report that a condom protects against pregnancy most of the time.

Table 5.29 Men's contraception-related perceptions and knowledge

Percentage of men age 15-49 who agree with two specific statements about women and contraception and say that a woman who is breastfeeding cannot become pregnant, and percent distribution of men according to their belief about the efficacy of condoms in preventing pregnancy, by background characteristics, India, 2005-06

Background characteristic	Percentage of men who agree			Percentage of men who say that if a male condom is used correctly, it protects against pregnancy:					Number of men
	Contraception is women's business and a man should not have to worry about it	Women who use contra-ception may become promiscuous	A woman who is breast-feeding can-not become pregnant	Most of the time	Some-times	Not at all	Don't know/ unsure[1]	Total	
Age									
15-19	18.5	14.6	29.4	56.8	14.6	2.3	26.3	100.0	13,008
20-24	21.2	16.3	43.0	68.8	15.4	2.8	13.0	100.0	11,989
25-29	21.1	16.2	51.2	70.8	15.7	2.4	11.1	100.0	10,854
30-34	21.4	17.1	57.2	71.7	14.7	2.0	11.5	100.0	9,744
35-39	24.4	16.7	57.6	67.4	15.2	2.5	14.9	100.0	9,302
40-44	23.4	16.3	57.8	64.1	15.2	2.1	18.5	100.0	8,105
45-49	23.7	15.9	58.1	61.8	16.2	2.3	19.7	100.0	6,750
Residence									
Urban	18.6	12.3	48.4	72.4	15.0	2.2	10.3	100.0	25,504
Rural	23.3	18.3	49.1	62.1	15.3	2.5	20.1	100.0	44,247
Education									
No education	25.0	19.6	46.5	47.0	16.4	2.5	34.1	100.0	12,571
<5 years complete	25.5	19.0	47.3	55.1	17.3	3.1	24.6	100.0	7,109
5-7 years complete	23.0	18.0	47.0	62.7	16.8	2.5	18.0	100.0	11,523
8-9 years complete	21.3	15.9	46.5	68.3	15.1	2.5	14.0	100.0	14,398
10-11 years complete	19.4	13.3	48.9	75.1	13.8	2.6	8.6	100.0	10,380
12 or more years complete	17.4	12.2	55.8	81.8	13.0	1.5	3.6	100.0	13,754
Religion									
Hindu	21.9	15.8	48.9	66.6	14.6	2.3	16.5	100.0	57,112
Muslim	21.5	18.9	48.6	62.8	18.7	2.3	16.2	100.0	8,747
Christian	16.9	16.6	46.7	60.5	15.4	2.5	21.6	100.0	1,567
Sikh	15.7	10.7	51.3	61.7	22.3	4.9	11.2	100.0	1,270
Buddhist/Neo-Buddhist	27.6	8.3	47.2	68.7	14.4	4.4	12.4	100.0	596
Jain	12.6	12.1	49.8	80.2	12.7	0.9	6.3	100.0	213
Other	24.0	28.2	41.4	46.7	8.7	2.4	42.1	100.0	232
Caste/tribe									
Scheduled caste	21.9	17.1	47.8	63.2	15.6	3.0	18.2	100.0	13,188
Scheduled tribe	25.6	19.7	45.6	52.2	16.0	2.9	28.9	100.0	5,725
Other backward class	22.5	15.3	49.5	68.2	13.6	1.9	16.4	100.0	27,219
Other	19.6	15.7	49.6	68.2	16.9	2.5	12.4	100.0	23,214
Don't know	14.6	11.7	37.0	52.5	9.6	4.1	33.9	100.0	177
Wealth index									
Lowest	25.7	20.7	46.1	49.7	15.8	2.5	32.0	100.0	11,031
Second	24.5	19.3	48.3	59.5	16.1	2.3	22.0	100.0	12,666
Middle	23.5	16.8	48.5	64.4	15.6	2.9	17.1	100.0	14,301
Fourth	20.0	14.5	49.8	72.0	14.8	2.3	10.9	100.0	15,493
Highest	16.5	11.4	50.6	77.2	14.2	2.0	6.6	100.0	16,260
Total age 15-49	21.6	16.1	48.8	65.9	15.2	2.4	16.5	100.0	69,751
Age 50-54	24.9	17.8	58.2	58.7	15.6	2.1	23.6	100.0	4,618
Total age 15-54	21.8	16.2	49.4	65.4	15.3	2.4	17.0	100.0	74,369

Note: Total includes men with missing information on education, religion, and caste/tribe, who are not shown separately.
[1] Includes missing values and those who had never heard of condoms.

In every state, the majority of men disagree that contraception is women's business (Table 5.30). In Assam, Orissa, Delhi, and Uttaranchal, less than 10 percent of men think that contraception is women's business and that men should not have to worry about it. However, in Bihar, Himachal Pradesh, Madhya Pradesh, Arunachal Pradesh, and Jammu and Kashmir, 30-50 percent of men think so. Sikkim is the only state in which more than half of men say that women who use contraception may become promiscuous. In addition to Sikkim, more than 30 percent of men in Manipur, Jammu and Kashmir, Rajasthan, and Bihar believe that women who use contraception may become promiscuous. A majority of men in Mizoram, Sikkim, Rajasthan, Manipur, West Bengal, Bihar, Uttar Pradesh, Jammu and Kashmir, Orissa, and Uttaranchal think that a woman who is breastfeeding cannot become pregnant. A majority of men in every state

except Meghalaya, Sikkim, Goa, Assam, and West Bengal believe that if a male condom is used correctly it protects against pregnancy most of the time. The perception about the effectiveness of correct condom use is quite high (more than 75 percent) in Manipur, Mizoram, Gujarat, Uttar Pradesh, Uttaranchal, and Himachal Pradesh.

Table 5.30 Men's contraception-related perceptions and knowledge by state

Percentage of men age 15-49 who agree with two specific statements about women and contraception and say that a woman who is breastfeeding cannot become pregnant, and percent distribution of men according to their belief about the efficacy of condoms in preventing pregnancy, by state, India, 2005-06

State	Percentage of men who agree			
	Contraception is women's business and a man should not have to worry about it	Women who use contra-ception may become promiscuous	A woman who is breast-feeding cannot become pregnant	Percentage of men who say that if a male condom is used correctly, it protects against pregnancy most of the time
India	21.6	16.1	48.8	65.9
North				
Delhi	7.0	5.5	44.1	74.6
Haryana	14.0	6.3	41.6	74.8
Himachal Pradesh	38.9	17.0	49.2	77.1
Jammu & Kashmir	30.3	36.7	52.3	63.5
Punjab	15.7	12.2	48.4	56.9
Rajasthan	24.8	31.9	57.7	67.7
Uttaranchal	7.2	6.9	50.4	77.8
Central				
Chhattisgarh	26.5	10.5	48.2	66.4
Madhya Pradesh	37.2	25.3	47.4	61.5
Uttar Pradesh	13.2	11.4	52.8	78.8
East				
Bihar	48.1	31.7	54.4	60.8
Jharkhand	10.8	15.9	44.0	67.1
Orissa	3.4	8.1	52.0	71.7
West Bengal	24.7	24.9	56.0	49.8
Northeast				
Arunachal Pradesh	35.4	11.1	30.9	67.2
Assam	3.2	15.8	44.1	49.3
Manipur	24.8	44.3	57.6	83.2
Meghalaya	16.4	25.6	19.2	38.3
Mizoram	15.5	28.5	83.6	80.6
Nagaland	16.3	17.9	45.5	64.6
Sikkim	19.1	50.8	66.1	40.5
Tripura	10.5	17.3	45.3	55.2
West				
Goa	12.3	17.5	34.0	40.6
Gujarat	19.9	15.1	42.0	79.9
Maharashtra	22.3	8.2	48.5	68.8
South				
Andhra Pradesh	25.9	16.7	49.6	56.1
Karnataka	17.1	9.6	31.9	61.7
Kerala	16.6	8.5	45.1	62.1
Tamil Nadu	26.3	10.3	47.9	66.3

5.16 NEED FOR FAMILY PLANNING

Unmet need for family planning is an important indicator for assessing the potential demand for family planning services. Currently married women who are not using any method of contraception but who do not want any more children are defined as having an unmet need for

Table 5.31 Need for family planning among currently married women

Percentage of currently married women age 15-49 with unmet need for family planning, percentage with met need for family planning, and total demand for family planning, by background characteristics, India, 2005-06

Background characteristic	Unmet need for family planning[1]			Met need for family planning (currently using)[2]			Total demand for family planning[3]			Percentage of demand satisfied	Number of women
	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total		
Age											
15-19	25.1	2.0	27.1	10.1	2.9	13.0	35.1	4.9	40.0	32.4	6,726
20-24	14.9	6.2	21.1	11.8	21.6	33.4	26.7	27.8	54.5	61.2	16,782
25-29	6.0	9.9	16.0	6.7	49.7	56.4	12.7	59.6	72.4	77.9	18,540
30-34	2.1	9.0	11.0	2.7	67.7	70.3	4.7	76.7	81.4	86.4	16,459
35-39	0.5	6.9	7.4	0.8	72.3	73.1	1.2	79.3	80.5	90.8	14,492
40-44	0.1	4.2	4.3	0.2	68.5	68.7	0.4	72.7	73.1	94.1	11,605
45-49	0.1	1.8	1.9	0.0	63.2	63.2	0.1	65.0	65.1	97.1	8,484
Residence											
Urban	4.5	5.2	9.7	6.4	57.5	64.0	10.9	62.8	73.6	86.9	28,604
Rural	6.9	7.2	14.1	4.1	48.9	53.0	11.0	56.1	67.1	78.9	64,485
Education											
No education	5.5	8.1	13.6	2.2	49.8	52.1	7.7	58.0	65.7	79.2	43,931
<5 years complete	5.2	5.2	10.4	3.8	59.2	63.0	9.0	64.4	73.4	85.8	7,776
5-7 years complete	7.3	5.2	12.5	5.0	53.8	58.7	12.2	59.0	71.2	82.5	14,018
8-9 years complete	7.7	5.7	13.5	7.8	50.6	58.5	15.5	56.4	71.9	81.3	10,735
10-11 years complete	7.0	5.2	12.1	6.6	53.1	59.7	13.5	58.3	71.9	83.1	7,704
12 or more years complete	6.0	4.7	10.7	13.0	49.4	62.3	18.9	54.1	73.0	85.3	8,921
Religion											
Hindu	5.8	6.1	11.9	4.5	53.3	57.8	10.3	59.4	69.7	82.9	75,799
Muslim	8.6	10.2	18.8	6.8	38.9	45.7	15.4	49.2	64.6	70.9	12,288
Christian	6.4	6.1	12.5	5.3	52.4	57.6	11.7	58.4	70.1	82.2	2,041
Sikh	2.3	4.1	6.4	4.7	61.8	66.5	7.0	65.9	72.9	91.2	1,567
Buddhist/Neo-Buddhist	5.6	3.8	9.5	1.3	66.4	67.7	6.9	70.2	77.2	87.7	684
Jain	3.0	4.2	7.3	7.9	67.5	75.4	10.9	71.7	82.7	91.2	279
Other	10.3	14.6	24.9	2.1	23.2	25.3	12.4	37.8	50.1	50.4	333
Caste/tribe											
Scheduled caste	6.3	7.1	13.4	4.7	50.3	55.0	11.0	57.4	68.4	80.4	17,372
Scheduled tribe	6.8	7.1	13.9	3.0	44.9	47.9	9.8	52.1	61.8	77.5	7,632
Other backward class	6.7	6.7	13.4	3.8	50.4	54.2	10.5	57.1	67.6	80.1	37,198
Other	5.2	6.1	11.3	6.6	55.2	61.8	11.8	61.3	73.0	84.5	30,131
Don't know	6.6	6.6	13.2	3.2	62.6	65.8	9.8	69.2	79.0	83.3	462
Wealth index											
Lowest	7.7	10.5	18.2	3.0	39.2	42.2	10.6	49.7	60.4	69.9	17,425
Second	7.3	7.5	14.8	3.6	47.5	51.1	10.8	55.0	65.9	77.6	18,495
Middle	6.5	6.3	12.8	4.0	52.7	56.8	10.5	59.1	69.6	81.6	18,671
Fourth	5.7	5.0	10.6	5.4	57.1	62.5	11.0	62.1	73.1	85.4	18,985
Highest	3.9	4.1	8.1	7.8	59.7	67.5	11.7	63.8	75.6	89.3	19,513
Total	6.2	6.6	12.8	4.8	51.5	56.3	11.0	58.1	69.1	81.5	93,089

Note: Total includes women with missing information on education, religion, and caste/tribe, who are not shown separately.

[1] Unmet need for spacing includes pregnant women whose pregnancy was mistimed; amenorrhoeic women who are not using family planning and whose last birth was mistimed, or whose last births was unwanted but now say they want more children; and fecund women who are neither pregnant nor amenorrhoeic, who are not using any method of family planning, and say they want to wait 2 or more years for their next birth. Also included in unmet need for spacing are fecund women who are not using any method of family planning and say they are unsure whether they want another child or who want another child but are unsure when to have the birth.

Unmet need for limiting refers to pregnant women whose pregnancy was unwanted; amenorrhoeic women who are not using family planning, whose last child was unwanted and who do not want any more children; and fecund women who are neither pregnant nor amenorrhoeic, who are not using any method of family planning, and who want no more children. Excluded from the unmet need category are pregnant and amenorrhoeic women who became pregnant while using a method (these women are in need of a better method of contraception).

[2] Using for spacing is defined as women who are using some method of family planning and say they want to have another child or are undecided whether to have another. Using for limiting is defined as women who are using and who want no more children. Note that the specific methods used are not taken into account here.

[3] Nonusers who are pregnant or amenorrhoeic whose pregnancy was the result of a contraceptive failure are not included in the category of unmet need, but are included in total demand for contraception (since they would have been using had their method not failed).

limiting and those who are not using contraception but want to wait two or more years before having another child are defined as having an unmet need for spacing. The sum of the unmet need for limiting and the unmet need for spacing is the unmet need for family planning. Current contraceptive users are said to have a met need for contraception. The total demand for family planning is the sum of unmet need and met need. Table 5.31 shows the unmet need, met need,

Table 5.32 Need for family planning among currently married women by state and over time

Percentage of currently married women age 15-49 with unmet need for family planning, percentage with met need for family planning, and total demand for family planning, by state, India, 2005-06, and NFHS-2

State	Unmet need for family planning[1]			Met need for family planning (currently using)[2]			Total demand for family planning[3]			Percentage of demand satisfied
	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total	
India	6.2	6.6	12.8	4.8	51.5	56.3	11.0	58.1	69.1	81.5
NFHS-2 (1998-99)	8.3	7.5	15.8	3.5	44.7	48.2	11.8	52.2	64.0	75.3
North										
Delhi	3.3	4.5	7.8	7.8	59.1	66.9	11.1	63.6	74.7	89.5
Haryana	3.1	5.2	8.3	4.1	59.2	63.4	7.3	64.4	71.7	88.4
Himachal Pradesh	2.4	4.9	7.2	3.5	69.1	72.6	5.9	73.9	79.8	90.9
Jammu & Kashmir	5.8	8.7	14.5	5.2	47.5	52.6	11.0	56.1	67.1	78.4
Punjab	2.6	4.7	7.3	4.7	58.5	63.3	7.3	63.2	70.6	89.6
Rajasthan	7.3	7.3	14.6	3.5	43.8	47.2	10.8	51.1	61.8	76.4
Uttaranchal	4.4	6.5	10.8	5.6	53.7	59.3	10.0	60.1	70.1	84.6
Central										
Chhattisgarh	5.3	4.8	10.1	2.9	50.3	53.2	8.2	55.1	63.3	84.0
Madhya Pradesh	5.4	5.9	11.3	2.9	53.0	55.9	8.3	58.9	67.2	83.2
Uttar Pradesh	9.1	12.1	21.2	5.7	37.9	43.6	14.8	50.0	64.8	67.3
East										
Bihar	10.7	12.1	22.8	2.2	31.9	34.1	12.9	44.0	56.9	59.9
Jharkhand	11.3	11.9	23.1	3.2	32.5	35.7	14.5	44.4	58.8	60.7
Orissa	6.8	8.1	14.9	3.4	47.4	50.7	10.2	55.5	65.6	77.3
West Bengal	4.0	4.0	8.0	11.8	59.4	71.2	15.8	63.4	79.2	89.9
Northeast										
Arunachal Pradesh	8.3	10.6	18.8	7.3	35.9	43.2	15.5	46.5	62.0	69.7
Assam	3.5	7.1	10.5	10.3	46.2	56.5	13.7	53.3	67.1	84.3
Manipur	5.0	7.4	12.4	13.0	35.7	48.7	17.9	43.1	61.1	79.7
Meghalaya	23.2	11.8	35.0	6.7	17.5	24.3	29.9	29.3	59.3	40.9
Mizoram	12.3	5.0	17.3	12.5	47.4	59.9	24.8	52.5	77.2	77.5
Nagaland	10.0	16.1	26.1	3.5	26.2	29.7	13.5	42.3	55.8	53.2
Sikkim	5.6	11.2	16.9	5.5	52.2	57.6	11.1	63.4	74.5	77.4
Tripura	3.8	6.5	10.3	10.3	55.5	65.7	14.0	62.0	76.0	86.5
West										
Goa	7.4	5.7	13.1	8.3	39.9	48.2	15.7	45.6	61.3	78.7
Gujarat	4.3	3.7	8.0	7.5	59.1	66.6	11.8	62.8	74.6	89.2
Maharashtra	5.4	3.9	9.4	4.4	62.5	66.9	9.8	66.4	76.2	87.7
South										
Andhra Pradesh	3.0	1.7	4.7	0.9	66.7	67.6	3.9	68.4	72.3	93.5
Karnataka	6.0	3.6	9.6	1.8	61.8	63.6	7.8	65.4	73.2	86.9
Kerala	6.0	2.9	8.9	8.9	59.7	68.6	14.9	62.6	77.5	88.6
Tamil Nadu	4.0	4.5	8.5	2.1	59.3	61.4	6.1	63.9	70.0	87.8

[1]Unmet need for spacing includes pregnant women whose pregnancy was mistimed; amenorrhoeic women who are not using family planning and whose last birth was mistimed, or whose last births was unwanted but now say they want more children; and fecund women who are neither pregnant nor amenorrhoeic, who are not using any method of family planning, and say they want to wait 2 or more years for their next birth. Also included in unmet need for spacing are fecund women who are not using any method of family planning and say they are unsure whether they want another child or who want another child but who are unsure when to have the birth.
Unmet need for limiting refers to pregnant women whose pregnancy was unwanted; amenorrhoeic women who are not using family planning, whose last child was unwanted and who do not want any more children; and fecund women who are neither pregnant nor amenorrhoeic, who are not using any method of family planning, and who want no more children. Excluded from the unmet need category are pregnant and amenorrhoeic women who became pregnant while using a method (these women are in need of a better method of contraception).
[2]Using for spacing is defined as women who are using some method of family planning and say they want to have another child or are undecided whether to have another. Using for limiting is defined as women who are using and who want no more children. Note that the specific methods used are not taken into account here.
[3]Nonusers who are pregnant or amenorrhoeic whose pregnancy was the result of a contraceptive failure are not included in the category of unmet need, but are included in total demand for contraception (since they would have been using had their method not failed).

and total demand for family planning, according to whether the need is for spacing or limiting births, by background characteristics. The footnotes in the table provide detailed definitions of these concepts.

According to these definitions, 13 percent of currently married women in India have an unmet need for family planning. The unmet need for limiting (7 percent) is slightly higher than

the unmet need for spacing (6 percent). More than half of women (56 percent) have a met need for family planning. Including unmet and met need, 69 percent of currently married women in India have a demand for family planning, of which 82 percent is satisfied. Unmet need decreases with age, from 27 percent for women age 15-19 to 2 percent for women age 45-49. Younger women (age 15-24) have a greater unmet need for spacing than for limiting. For older women, the reverse pattern is evident. The unmet need for spacing decreases very sharply from age 15-19 to age 35-39, beyond which it is negligible. The unmet need for limiting increases through age 25-29 and then decreases continuously. Rural women have a higher unmet need than urban women for spacing as well as limiting. The unmet need for spacing increases with increasing education through 8-9 years of completed education, but the unmet need for limiting is highest for women with no education. As a result, total unmet need is practically the same for women with different levels of completed education. Unmet need for family planning is particularly high for Muslim women and particularly low for Sikh and Jain women. Unmet need for both spacing and limiting decreases with an increase in wealth quintiles.

The unmet need for family planning by state is presented in Table 5.32. For India as a whole, there has been a decrease in the unmet need for family planning from 16 percent in NFHS-2 to 13 percent in NFHS-3. The decrease in the unmet need for spacing during the inter-survey period is higher than the decrease in the unmet need for limiting. Unmet need in NFHS-3 varies from 5 percent in Andhra Pradesh to 35 percent in Meghalaya. Besides Meghalaya, more than 20 percent of women have an unmet need in Nagaland, Jharkhand, Bihar, and Uttar Pradesh. Unmet need for spacing ranges from 3 percent or less in Himachal Pradesh, Punjab, and Andhra Pradesh to 10 percent or more in Meghalaya, Mizoram, Jharkhand, Bihar, and Nagaland. Unmet need for limiting ranges from 2 percent in Andhra Pradesh to 16 percent in Nagaland. Similar to the national pattern, in most states the unmet need for limiting is higher than that for spacing.

OTHER PROXIMATE DETERMINANTS OF FERTILITY 6

6.1 INTRODUCTION

Fertility levels in most populations can be explained by five key proximate determinants that define the risk of becoming pregnant: marriage, sexual intercourse, postpartum amenorrhea and postpartum abstinence from sexual relations, onset of menopause, and contraceptive use. This chapter addresses the major factors other than contraception that influence fertility. Marriage is a principal indicator of women's exposure to the risk of pregnancy. Early age at marriage in a population is usually associated with a longer period of exposure to the risk of pregnancy and higher fertility levels. The durations of postpartum amenorrhea and postpartum abstinence affect the length of time a woman is insusceptible to pregnancy and the interval between births. The onset of menopause marks the end of a woman's reproductive life cycle. Taken together, these factors determine the length and pace of reproduction; hence, they are important in understanding fertility levels and differences.

6.2 CURRENT MARITAL STATUS

Current marital status refers to marital status at the time of the survey. Respondents who are married but for whom *gauna* has not been performed are referred as 'married but *gauna* not performed'. *Gauna* is a tradition practiced primarily in the northern states of India in which a young bride lives with her parents until another ceremony is performed, after which time the bride goes to live with her husband. Respondents who are widowed, divorced, separated, or deserted are referred to as 'formerly married'. The term 'ever married' includes respondents who are currently married or formerly married.

Table 6.1 shows the percent distribution of women and men by current marital status, according to age and residence. One-fifth of Indian women age 15-49 have never been married. Seventy-five percent are currently married, less than 1 percent are married but *gauna* has not been performed, 3 percent are widowed, and 1 percent are divorced, separated, or deserted. Compared with women, the proportion of men age 15-49 who have never been married is considerably higher (36 percent). Sixty-two percent of men are married, less than 1 percent are married but *gauna* not performed, and 1 percent are divorced, separated, widowed, or deserted.

The proportion never married is higher among urban women and men than it is among their rural counterparts, especially for men. One-quarter of urban women age 15-49 have never been married, compared with 17 percent of rural women. Forty-two percent of urban men age 15-49 have never been married, compared with 32 percent of rural men.

The proportion of women and men who marry young has important policy and programme implications. At the national level, 27 percent of 15-19 year old women are currently married (15 percent of urban women and 33 percent of rural women). Very few men in this age group are currently married (only 1 percent of urban men and 4 percent of rural men). One percent of women and men age 45-49 have never been married, indicating that marriage is still nearly universal in India.

Table 6.1 Current marital status

Percent distribution of women age 15-49 and men age 15-54 by current marital status, according to age and residence, India, 2005-06

Age	Marital status							Total	Number of respondents
	Never married	Currently Married	Married, *gauna* not performed	Widowed	Divorced	Separated	Deserted		
URBAN WOMEN									
15-19	84.6	14.5	0.7	0.1	0.1	0.1	0.1	100.0	7,463
20-24	38.5	60.2	0.2	0.3	0.2	0.4	0.1	100.0	7,468
25-29	10.5	86.2	0.1	1.3	0.4	1.1	0.4	100.0	6,787
30-34	2.9	92.5	0.0	2.7	0.2	1.2	0.5	100.0	5,793
35-39	1.8	91.0	0.0	4.8	0.5	1.4	0.5	100.0	5,486
40-44	1.0	89.2	0.0	7.2	0.5	1.6	0.5	100.0	4,437
45-49	1.1	84.8	0.0	11.6	0.5	1.3	0.7	100.0	3,383
Total	25.1	70.1	0.2	3.1	0.3	0.9	0.3	100.0	40,817
URBAN MEN									
15-19	98.9	0.7	0.4	0.0	0.0	0.0	0.0	100.0	4,725
20-24	80.0	18.9	0.8	0.1	0.1	0.1	0.0	100.0	4,711
25-29	41.9	57.3	0.1	0.3	0.2	0.1	0.1	100.0	3,931
30-34	12.6	86.2	0.1	0.3	0.4	0.3	0.1	100.0	3,513
35-39	4.0	94.9	0.0	0.7	0.1	0.2	0.1	100.0	3,350
40-44	2.5	95.6	0.0	1.0	0.2	0.7	0.1	100.0	2,864
45-49	1.3	96.1	0.0	1.6	0.2	0.7	0.2	100.0	2,411
50-54	1.1	96.2	0.0	2.0	0.2	0.4	0.1	100.0	1,650
Total age 15-49	42.2	56.6	0.3	0.4	0.1	0.2	0.1	100.0	25,504
Total age 15-54	39.7	59.0	0.2	0.5	0.2	0.3	0.1	100.0	27,154
RURAL WOMEN									
15-19	63.1	32.5	3.8	0.1	0.1	0.2	0.1	100.0	17,348
20-24	17.3	80.2	0.5	0.6	0.3	0.7	0.3	100.0	15,311
25-29	3.5	93.1	0.0	1.7	0.4	1.0	0.3	100.0	13,630
30-34	1.3	93.6	0.0	3.3	0.3	0.9	0.5	100.0	11,863
35-39	0.8	91.5	0.0	5.9	0.3	1.0	0.5	100.0	10,380
40-44	0.7	88.8	0.0	8.6	0.2	1.3	0.4	100.0	8,612
45-49	0.4	87.4	0.0	10.7	0.2	0.9	0.4	100.0	6,424
Total	17.2	77.2	0.9	3.3	0.3	0.8	0.3	100.0	83,568
RURAL MEN									
15-19	93.4	4.1	2.5	0.0	0.0	0.0	0.0	100.0	8,283
20-24	57.0	40.5	1.7	0.3	0.0	0.3	0.1	100.0	7,278
25-29	22.3	75.9	0.4	0.4	0.3	0.4	0.2	100.0	6,922
30-34	6.5	91.6	0.0	1.1	0.2	0.3	0.2	100.0	6,231
35-39	2.4	95.5	0.0	1.3	0.1	0.5	0.2	100.0	5,951
40-44	1.6	95.5	0.0	1.9	0.1	0.4	0.5	100.0	5,241
45-49	1.1	95.2	0.0	2.7	0.1	0.5	0.3	100.0	4,340
50-54	1.9	93.9	0.0	3.3	0.2	0.3	0.5	100.0	2,968
Total age 15-49	31.9	65.7	0.8	0.9	0.1	0.3	0.2	100.0	44,247
Total age 15-54	30.0	67.5	0.8	1.1	0.1	0.3	0.2	100.0	47,215
TOTAL WOMEN									
15-19	69.6	27.1	2.9	0.1	0.1	0.2	0.1	100.0	24,811
20-24	24.3	73.7	0.4	0.5	0.3	0.6	0.3	100.0	22,779
25-29	5.8	90.8	0.1	1.6	0.4	1.0	0.3	100.0	20,417
30-34	1.8	93.2	0.0	3.1	0.3	1.0	0.5	100.0	17,656
35-39	1.1	91.3	0.0	5.5	0.4	1.1	0.5	100.0	15,866
40-44	0.8	88.9	0.0	8.1	0.3	1.4	0.4	100.0	13,049
45-49	0.6	86.5	0.0	11.0	0.3	1.0	0.5	100.0	9,807
Total	19.8	74.8	0.7	3.2	0.3	0.8	0.3	100.0	124,385
TOTAL MEN									
15-19	95.4	2.8	1.8	0.0	0.0	0.0	0.0	100.0	13,008
20-24	66.1	32.0	1.4	0.2	0.0	0.2	0.1	100.0	11,989
25-29	29.4	69.2	0.3	0.4	0.3	0.3	0.1	100.0	10,854
30-34	8.7	89.7	0.1	0.8	0.3	0.3	0.2	100.0	9,744
35-39	3.0	95.3	0.0	1.1	0.1	0.4	0.2	100.0	9,302
40-44	1.9	95.5	0.0	1.6	0.1	0.5	0.3	100.0	8,105
45-49	1.1	95.5	0.0	2.3	0.1	0.6	0.3	100.0	6,750
50-54	1.6	94.7	0.0	2.8	0.2	0.3	0.4	100.0	4,618
Total age 15-49	35.7	62.4	0.6	0.8	0.1	0.3	0.2	100.0	69,751
Total age 15-54	33.5	64.4	0.6	0.9	0.1	0.3	0.2	100.0	74,369

6.3 AGE AT FIRST MARRIAGE

Marriage in India marks the point in a woman's life when childbearing becomes socially acceptable. Age at first marriage has a profound impact on childbearing because women who marry early have on average a longer period of exposure to pregnancy and a greater number of lifetime births. Information on age at first marriage was obtained by asking respondents the month and year, or age, at which they started living with their first partner.

Table 6.2 shows the percentage of women age 15-49 and men age 15-54 who have married by specific exact ages, the percentage who have never married, and the median age at first marriage and first cohabitation with spouse, according to current age. The median age at first marriage and at first cohabitation with one's spouse for a cohort of respondents is the age by which 50 percent of the cohort marries or cohabits. Marriage occurs relatively early in India. More than one-quarter (27 percent) of Indian women age 20-49 married before age 15; over half (58 percent) married before the legal minimum marriage age of 18, and three-quarters (74 percent) married before reaching age 20. There has been a steady rise in age at first marriage, which is reflected in the gradual decline in the proportion of women married by ages 15, 18, and 20 years from the oldest to the youngest age groups. A particularly notable decline is seen in the proportions married by age 15 in the three youngest age groups, from 25 percent of women age 25-29 to 12 percent of women age 15-19.

Table 6.2 Age at first marriage

Percentage of women age 15-49 and men age 15-54 who were first married by specific exact ages, percentage never married, and median age at first marriage and first cohabitation with spouse, according to current age, India, 2005-06

Current age	Percentage first married by exact age: 15	18	20	21	25	Percentage never married	Number of respondents	Median age at first marriage	Median age at first cohabitation
				WOMEN					
15-19	11.9	na	na	na	na	69.6	24,811	a	a
20-24	18.2	47.4	64.4	na	na	24.3	22,779	18.3	18.5
25-29	25.4	55.4	72.4	78.6	91.3	5.8	20,417	17.4	17.8
30-34	28.5	61.2	76.5	82.0	93.2	1.8	17,656	16.8	17.4
35-39	31.0	63.4	79.1	84.3	93.8	1.1	15,866	16.6	17.2
40-44	32.4	64.6	79.8	85.5	94.6	0.8	13,049	16.5	17.1
45-49	32.9	64.2	79.1	85.1	94.5	0.6	9,807	16.5	17.3
20-49	26.9	57.9	74.0	na	na	7.4	99,574	17.2	17.7
25-49	29.4	61.1	76.8	82.5	93.2	2.4	76,795	16.8	17.4
				MEN					
15-19	1.3	na	na	na	na	95.4	13,008	a	a
20-24	2.8	9.5	18.8	na	na	66.1	11,989	a	a
25-29	4.1	13.3	25.6	32.3	58.5	29.4	10,854	23.7	24.0
30-34	6.3	18.1	31.0	38.8	63.6	8.7	9,744	22.7	23.1
35-39	6.2	18.5	31.9	41.0	66.3	3.0	9,302	22.3	22.7
40-44	8.0	19.9	34.7	43.6	68.2	1.9	8,105	22.0	22.5
45-49	6.6	18.5	31.9	41.3	67.1	1.1	6,750	22.4	22.9
50-54	7.1	17.9	31.7	39.9	65.3	1.6	4,618	22.5	23.0
20-49	5.4	15.7	28.2	na	na	22.0	56,742	23.4	23.8
25-49	6.1	17.4	30.7	38.9	64.3	10.2	44,754	22.7	23.0

na = Not applicable due to censoring
a = Omitted because less than 50 percent of the women or men were married or began living with their spouse for the first time before reaching the beginning of the age group

However, increases in the median age at first marriage are proceeding at a very slow pace, and a considerable proportion of women still marry below the legal minimum age at marriage. The median age at first marriage among women age 20-49 is 17.2 and the median age at the first cohabitation is 17.7. The difference of half a year between the median age at first marriage and first cohabitation is a consequence of the tradition of the *gauna* system or similar cultural practices that result in a lag time between marriage and cohabitation. The *gauna* system prevails primarily in communities where age at marriage is very young. In these cases, women either do not start living with their husbands immediately after marriage, or return to their parental home after only a couple days of living with the husband (actual cohabitation with their husband starts after a gap of a few months or even one or more years). Over time, however, there has been a considerable increase in the median age at first marriage. The median age at first marriage in India is almost two years higher for women age 20-24 than for women age 45-49. The increase in the median age at first cohabitation is just over one year. The difference between the median age at first marriage and the median age at first cohabitation is no more than one year among women in any age group.

Table 6.3.1 Median age at first marriage: Women

Median age at first marriage among women age 20-49, by current age, according to background characteristics, India, 2005-06

Background characteristic	Age						Women age 20-49	Women age 25-49
	20-24	25-29	30-34	35-39	40-44	45-49		
Residence								
Urban	a	19.2	18.6	18.1	18.1	18.1	18.8	18.5
Rural	17.4	16.6	16.1	16.0	15.8	15.8	16.4	16.1
Education								
No education	15.8	15.5	15.4	15.3	15.3	15.5	15.5	15.4
<5 years complete	16.9	16.4	16.4	16.6	16.4	16.5	16.5	16.5
5-7 years complete	17.6	17.1	17.0	17.3	17.2	16.9	17.3	17.1
8-9 years complete	19.0	18.5	18.4	18.5	18.3	19.0	18.7	18.5
10-11 years complete	19.9	19.6	19.5	19.7	19.9	19.8	19.7	19.7
12 or more years complete	a	23.1	22.8	22.6	22.5	22.5	a	22.8
Religion								
Hindu	18.1	17.3	16.7	16.5	16.3	16.3	17.0	16.7
Muslim	18.2	17.3	16.8	16.3	16.5	16.3	17.0	16.7
Christian	a	20.3	20.9	20.6	20.2	21.3	a	20.6
Sikh	a	20.4	19.7	19.6	19.8	19.7	a	19.9
Buddhist/Neo-Buddhist	19.1	18.3	16.6	16.2	16.2	17.1	17.4	16.9
Jain	a	22.5	20.8	20.0	19.9	19.7	a	20.8
Other	17.8	17.6	17.2	17.8	18.4	19.0	17.8	17.7
Caste/tribe								
Scheduled caste	17.5	16.5	16.0	15.8	15.6	15.5	16.3	15.9
Scheduled tribe	17.3	16.7	16.1	16.4	16.1	16.1	16.5	16.3
Other backward class	17.8	16.8	16.5	16.0	16.1	16.0	16.7	16.3
Other	19.7	18.7	18.1	17.9	17.7	17.5	18.4	18.1
Don't know	19.0	16.3	17.7	16.8	16.5	17.9	17.2	16.9
Wealth index								
Lowest	15.9	15.4	15.5	15.4	15.2	15.1	15.5	15.4
Second	16.6	16.0	15.7	15.6	15.4	15.2	15.8	15.6
Middle	17.8	16.8	16.4	16.1	15.9	16.0	16.7	16.3
Fourth	19.2	18.2	17.7	17.1	16.9	16.8	17.9	17.5
Highest	a	20.9	20.1	19.4	18.9	18.5	a	19.7
Total	18.3	17.4	16.8	16.6	16.5	16.5	17.2	16.8

Note: Total includes women with missing information on education, religion, and caste/tribe, who are not shown separately.
a = Omitted because less than 50 percent of the women or men were married for the first time before reaching the beginning of the age group

Men in India tend to marry at much older ages than women. Among men age 20-49, only 16 percent were married by age 18, 28 percent by age 20, and 58 percent by age 25. More than one-third of men in India marry before attaining the minimum age at marriage for men (age 21 years) set by the Child Marriage Registration Act of 1978. The proportion of men married by age 20 has decreased steadily in recent years, from 35 percent among men age 40-44 to 19 percent among men age 20-24. The median age at marriage for men age 20-49 is 23.4 years, over six years older than the median for women in the same age group. The median age at first cohabitation is about half a year older than the median age at marriage for men in all age groups.

Table 6.3.1 shows the median age at first marriage for women age 20-49 by current age and background characteristics. The median age at marriage has been increasing in both urban and rural areas, but urban women marry more than two years later than rural women, on average. The rural-urban difference in the median age at first marriage exists among women in all age groups.

There is a steady increase in age at marriage with increasing education, resulting in a seven year difference in the median age at marriage between women age 25-49 with no education and women with at least 12 years of education. Differentials in the median age at marriage by religion show the highest median age at marriage among Jain women (20.8 years), followed by Christian women (20.6 years) and Sikh women (19.9 years). Hindu and Muslim women have the lowest median age at first marriage of 16.7 years. Women not belonging to a scheduled caste, scheduled tribe, or other backward class have a median age at first marriage that is about two years higher than women from scheduled castes, scheduled tribes, or other backward classes. The median age at marriage has shown an increase among women in all caste/tribe groups.

Wealth has a positive association with the median age at first marriage. Women age 25-49 in the highest wealth quintile marry over four years later than women in the lowest wealth quintile. The gap in the median age at marriage across wealth quintiles has widened over time. Among women age 45-49 years, the median age at first marriage for those in the highest wealth quintile (18.5 years) is almost three and half years higher than for those in the lowest wealth quintile (15.1 years). Among women age 25-29, the median age at first marriage is five and half years higher for those in the highest wealth quintile than those in the lowest wealth quintile.

Table 6.3.2 presents the median age at first marriage among men by current age and background characteristics. The median age at first marriage among men age 25-49 is 23 years, nearly six years higher than the median age at first marriage among women. As observed in the case of women, there is a slow but steady rise in the median age at first marriage of men from age 40-44 to age 25-29. The patterns and strong associations in age at marriage by urban-rural residence, educational attainment, and wealth quintiles are similar to those observed for women. Variations in the median age at first marriage for men by religion and caste/tribe reveal more or less a similar pattern as observed for women.

Table 6.3.2 Median age at first marriage: Men

Median age at first marriage among men age 25-54, by current age, according to background characteristics, India, 2005-06

Background characteristic	Age						Men age
	25-29	30-34	35-39	40-44	45-49	50-54	25-49
Residence							
Urban	a	25.1	24.6	24.3	24.5	24.5	25.0
Rural	22.3	21.4	21.2	20.9	21.2	21.3	21.5
Education							
No education	20.4	19.8	20.2	20.2	20.7	20.5	20.3
<5 years complete	21.3	21.1	21.2	21.3	21.4	22.2	21.4
5-7 years complete	22.5	21.5	21.7	21.0	21.8	22.0	21.8
8-9 years complete	23.9	22.6	22.8	22.4	22.7	22.5	22.9
10-11 years complete	a	24.6	24.4	24.0	24.7	23.9	24.5
12 or more years complete	a	26.8	26.3	26.5	26.0	26.4	a
Religion							
Hindu	23.7	22.6	22.3	21.8	22.2	22.2	22.5
Muslim	23.5	22.6	21.7	22.1	22.4	23.5	22.5
Christian	a	25.6	26.2	26.5	25.5	26.4	a
Sikh	24.8	23.3	22.7	23.2	25.0	24.9	23.8
Buddhist/Neo-Buddhist	a	25.7	23.8	21.0	22.5	22.8	23.9
Jain	a	(24.9)	(28.0)	(24.6)	(26.9)	(23.4)	a
Other	21.0	22.0	20.8	23.3	25.7	25.6	22.6
Caste/tribe							
Scheduled caste	22.5	21.4	21.2	20.7	21.2	21.1	21.5
Scheduled tribe	21.5	20.8	20.7	19.8	20.9	20.5	20.7
Other backward class	23.2	22.1	21.9	21.4	21.9	21.9	22.1
Other	a	24.5	23.8	23.8	23.8	24.0	24.3
Don't know	(24.7)	*	(25.2)	(25.4)	*	*	a
Wealth index							
Lowest	20.2	19.6	20.1	20.1	20.4	20.4	20.1
Second	21.5	20.4	20.7	20.6	21.2	20.8	20.9
Middle	22.8	22.0	21.7	21.0	21.4	21.6	21.9
Fourth	a	24.3	23.3	22.7	22.7	23.2	23.7
Highest	a	26.6	25.9	25.7	25.3	24.9	a
Total	23.7	22.7	22.3	22.0	22.4	22.5	22.6

Note: Total includes men with missing information on education, religion, and caste/tribe, who are not shown separately.
( ) Based on 25-49 unweighted cases.
* Percentage not shown; based on fewer than 25 unweighted cases.
a = Omitted because less than 50 percent of the men were married for the first time before reaching the beginning of the age group

Table 6.4 presents the percentage of women age 18-29 who married before reaching age 18 and the percentage of men age 21-29 who married before reaching age 21, by place of residence and state. Nearly half of women age 18-29 (46 percent) and more than one-quarter of men age 21-29 (27 percent) marry before reaching the legal minimum age at marriage. There are considerable differences across states in the proportion of women and men who marry before reaching the legal minimum age at marriage.

More than half of women marry before reaching the legal minimum age at marriage age in Bihar (64 percent), Jharkhand (60 percent), Rajasthan (58 percent), Andhra Pradesh (56 percent), West Bengal (53 percent), Madhya Pradesh (53 percent), Uttar Pradesh (52 percent), and Chhattisgarh (51 percent). The proportion of women who marry before reaching the legal minimum age of 18 is lowest in Goa (11 percent), Himachal Pradesh (14 percent), Manipur (14 percent), Jammu and Kashmir (16 percent), Kerala (17 percent), and Mizoram (19 percent). Nearly half of men marry before the minimum legal age of 21 in Rajasthan (49 percent). Men who marry before the minimum legal age are in the minority in all other states, although in many states they still constitute a substantial percentage. In addition to Rajasthan, more than one-third

Table 6.4 Age at first marriage by state

Percentage of women age 18-29 who were first married by exact age 18 and percentage of men age 21-29 who were first married by exact age 21, by residence and state, India, 2005-06

State	Women			Men		
	Urban	Rural	Total	Urban	Rural	Total
India	29.7	53.4	45.6	14.6	33.9	26.6
North						
Delhi	22.6	34.7	23.4	14.0	33.3	15.3
Haryana	32.9	45.2	41.4	20.8	31.9	27.7
Himachal Pradesh	13.7	14.4	14.4	6.5	10.6	10.1
Jammu & Kashmir	9.2	18.6	16.1	9.8	16.3	14.4
Punjab	19.4	22.9	21.6	26.7	24.0	25.3
Rajasthan	36.3	67.4	58.4	27.8	59.4	49.2
Uttaranchal	16.7	29.5	26.0	7.2	26.0	18.8
Central						
Chhattisgarh	26.4	57.6	50.5	15.2	46.9	39.9
Madhya Pradesh	33.7	60.4	52.6	18.8	50.8	40.7
Uttar Pradesh	31.8	59.4	52.2	22.2	49.4	40.5
East						
Bihar	37.8	68.6	63.7	18.7	42.3	36.9
Jharkhand	32.7	70.1	60.2	19.5	50.0	40.7
Orissa	27.8	39.5	37.5	9.5	19.7	17.7
West Bengal	31.3	62.3	53.3	11.9	30.8	24.7
Northeast						
Arunachal Pradesh	38.7	43.0	41.7	33.3	23.3	26.7
Assam	25.7	40.9	38.2	9.2	14.5	13.2
Manipur	10.9	15.5	14.0	7.8	13.9	11.7
Meghalaya	13.3	28.2	24.1	7.5	26.1	21.5
Mizoram	15.6	24.4	19.4	20.8	26.0	23.2
Nagaland	19.4	23.7	22.4	10.0	18.6	15.8
Sikkim	17.1	31.9	28.7	12.0	26.4	23.0
Tripura	37.0	42.1	41.2	7.9	12.7	12.1
West						
Goa	14.7	7.3	11.4	5.8	4.4	5.2
Gujarat	28.2	40.9	35.4	17.5	33.5	26.8
Maharashtra	29.2	51.8	40.2	9.6	16.7	12.8
South						
Andhra Pradesh	43.4	62.9	56.2	16.5	36.2	28.9
Karnataka	29.7	48.8	41.0	7.3	15.9	12.1
Kerala	12.1	20.1	17.2	1.1	2.4	2.0
Tamil Nadu	20.7	29.5	25.2	5.8	10.2	7.8

of men marry before the minimum legal age in Jharkhand, Madhya Pradesh, and Uttar Pradesh (41 percent each), Chhattisgarh (40 percent), and Bihar (37 percent). The proportion marrying before age 21 is at a minimum in Kerala (2 percent), Goa (5 percent), and Tamil Nadu (8 percent).

The proportions of women and men who marry before the legal minimum age at marriage are considerably lower among urban residents than among rural residents in all states, with the exception of Goa for women and Arunachal Pradesh, Goa, and Punjab for men. Rural-urban differences in the proportion of women marrying before age 18 are largest in Jharkhand, Rajasthan, Chhattisgarh, Bihar, West Bengal, Uttar Pradesh, and Madhya Pradesh. Rural-urban differences among men in the proportion marrying before reaching age 21 are largest in the same states (with the exception of West Bengal).

6.4 AGE AT FIRST SEXUAL INTERCOURSE

Age at first marriage is often used as a proxy for first exposure to intercourse and the risk of pregnancy. The two events may not occur at the same time, however, because some women

and men may engage in sexual activity before marriage. In NFHS-3, all women and men were asked how old they were when they first had sexual intercourse.

Table 6.5 shows the percentage of women age 15-49 and men age 15-54 who first had sexual intercourse by specific exact ages, the percentage who never had sexual intercourse, and the median age at first sexual intercourse by current age. Among women age 25-49, 20 percent had sexual intercourse before they were 15 years old, 55 percent before age 18, and 72 percent before age 20. By age 25, nine-tenths of Indian women have had sexual intercourse. However, the age at first sex is substantially lower among men. Only 3 percent of men age 25-49 had sex by age 15, 14 percent by age 18, 29 percent by age 20, and 66 percent by age 25. Much of the difference between the observed pattern in age at first sexual intercourse among women and men can be attributed to the median age at marriage, which is almost six years higher among men age 25-49 than it is among women.

Table 6.5 Age at first sexual intercourse

Percentage of women age 15-49 and men age 15-54 who had first sexual intercourse by specific exact ages, percentage who never had intercourse, and median age at first intercourse, according to current age, India, 2005-06

Current age	Percentage who had first sexual intercourse by exact age: 15	18	20	21	22	25	Percentage who never had sexual intercourse	Number of respondents	Median age at first sexual intercourse
WOMEN									
15-19	8.0	na	na	na	na	na	72.2	24,811	a
20-24	12.5	43.0	62.0	na	na	na	24.4	22,779	18.7
25-29	17.8	49.7	68.3	74.8	79.4	88.2	5.9	20,417	18.0
30-34	20.1	54.9	72.1	77.9	82.0	90.0	1.9	17,656	17.5
35-39	21.3	56.9	74.5	80.1	83.9	90.1	1.2	15,866	17.4
40-44	22.0	57.6	75.3	81.1	84.7	91.2	0.9	13,049	17.3
45-49	20.5	55.9	74.6	80.8	85.0	91.3	0.7	9,807	17.4
20-49	18.4	51.9	70.0	na	na	na	7.5	99,574	17.8
25-49	20.1	54.5	72.4	78.4	82.5	89.9	2.5	76,795	17.6
MEN									
15-19	2.7	na	na	na	na	na	88.8	13,008	a
20-24	1.8	11.2	24.4	na	na	na	56.0	11,989	a
25-29	2.6	12.9	26.9	35.1	42.4	63.5	23.9	10,854	23.1
30-34	2.7	14.3	29.5	38.3	45.0	65.0	6.8	9,744	22.7
35-39	2.7	14.6	30.0	39.6	47.3	67.6	2.3	9,302	22.3
40-44	2.8	14.2	30.4	39.8	47.5	67.8	1.6	8,105	22.3
45-49	2.7	13.4	28.4	38.3	45.5	67.1	0.8	6,750	22.6
50-54	2.1	11.9	27.8	36.1	44.1	65.6	1.2	4,618	22.7
20-49	2.5	13.3	28.0	na	na	na	18.3	56,742	a
25-49	2.7	13.9	29.0	38.1	45.4	66.0	8.2	44,754	22.6

na = Not applicable due to censoring
a = Omitted because less than 50 percent of the women or men had intercourse before reaching the beginning of the age group

Far more women than men have begun sexual relations by their early twenties. Almost 80 percent of women age 25-29 have had sex by age 22, whereas more than half of men the same age have not had sex. The median age at first sexual intercourse for women age 25-49 years is 17.6 years, which is almost identical to the median age at cohabitation. This clearly reveals that Indian women generally begin sexual intercourse at the time of their first marriage. The median age at first sexual intercourse among women has increased over the past two decades, from 17.4 among women age 45-49 to 18.7 years among women age 20-24. The median age at first intercourse among men age 25-49 is 22.6 years, five years higher than the median for women. There has not been any significant change in the median age at first sexual intercourse among

men over the past 20 years. The median age at first sex for men is lower than the median age at first cohabitation, but the difference is very small.

Table 6.6.1 presents median ages at first sexual intercourse among women age 20-49 by current age and background characteristics. The median age at first sexual intercourse among women age 20-49 follows a similar pattern as observed for the median age at marriage. Urban women have their first sexual intercourse about two years later than rural women, and the urban-rural differences in the median age at first intercourse are similar for women in all age groups. Women with at least 10 years of education have their first intercourse three and a half years later than women with no education. The median age at first intercourse increases with the educational attainment of women and the differentials by education are similar in all age groups. Religion, caste/tribe, and wealth quintiles reveal a similar pattern of variation in the median age at first intercourse as observed for the median age at first marriage.

Table 6.6.1 Median age at first intercourse: Women

Median age at first sexual intercourse among women age 20-49, by current age, according to background characteristics, India, 2005-06

Background characteristic	Current age						Women age 20-49	Women age 25-49
	20-24	25-29	30-34	35-39	40-44	45-49		
Residence								
Urban	a	19.6	19.0	18.5	18.5	18.6	19.2	18.9
Rural	17.9	17.3	16.9	16.8	16.7	16.9	17.2	17.0
Education								
No education	16.6	16.4	16.3	16.3	16.3	16.7	16.4	16.4
<5 years complete	17.3	16.9	16.8	17.1	17.0	17.3	17.1	17.0
5-7 years complete	17.9	17.6	17.4	17.7	17.6	17.4	17.7	17.6
8-9 years complete	19.2	18.8	18.8	18.7	18.6	19.2	18.9	18.8
10-11 years complete	20.0	19.9	19.8	20.0	20.1	19.9	19.9	19.9
12 or more years complete	a	23.2	22.9	22.8	22.6	22.5	a	22.9
Religion								
Hindu	18.6	18.0	17.5	17.3	17.1	17.3	17.7	17.5
Muslim	18.5	17.8	17.2	16.8	17.1	17.0	17.6	17.2
Christian	a	20.4	21.1	21.1	20.5	21.9	a	21.0
Sikh	a	20.6	20.1	20.0	20.1	20.1	a	20.2
Buddhist/Neo-Buddhist	19.2	19.1	17.6	16.7	16.4	17.5	17.8	17.4
Jain	a	22.5	20.9	20.2	20.0	20.0	a	20.9
Other	18.1	18.2	17.5	18.7	19.0	20.1	18.3	18.3
Caste/tribe								
Scheduled caste	17.9	17.2	16.8	16.7	16.5	16.7	17.1	16.8
Scheduled tribe	17.7	17.2	16.8	17.0	16.8	17.1	17.2	17.0
Other backward class	18.3	17.7	17.3	17.1	17.0	17.3	17.5	17.3
Other	19.9	19.1	18.5	18.3	18.2	18.2	18.8	18.5
Don't know	19.1	16.6	18.3	17.4	17.2	18.5	17.9	17.5
Wealth index								
Lowest	16.6	16.3	16.3	16.4	16.3	16.5	16.4	16.4
Second	17.1	16.8	16.5	16.4	16.3	16.6	16.7	16.5
Middle	18.1	17.5	16.9	16.9	16.8	16.9	17.3	17.0
Fourth	19.5	18.6	18.2	17.7	17.5	17.6	18.4	18.0
Highest	a	21.1	20.4	19.7	19.3	19.0	a	20.0
Total	18.7	18.0	17.5	17.4	17.3	17.4	17.8	17.6

Note: Total includes women with missing information on education, religion, and caste/tribe, who are not shown separately.
a = Omitted because less than 50 percent of the women had intercourse before reaching the beginning of the age group

Table 6.6.2 presents median ages at first sexual intercourse among men age 25-54 by current age and background characteristics. Urban men have their first sexual intercourse three years later than rural men. Men with at least 10 years of education have their first intercourse three and a half years later than men with no education. The educational differentials in median age at first intercourse among men age 25-54 are similar in all age groups. As is the case for

women age 20-49, the variation in the median age at first intercourse among men age 25-54 by religion, caste/tribe, and wealth quintiles follows a similar pattern as observed for the median age at first marriage.

Table 6.6.2 Median age at first intercourse: Men

Median age at first sexual intercourse among men age 25-54, by current age, according to background characteristics, India, 2005-06

Background characteristic	Age						Men age
	25-29	30-34	35-39	40-44	45-49	50-54	25-49
Residence							
Urban	a	24.8	24.3	24.2	24.4	24.4	24.6
Rural	22.0	21.6	21.4	21.5	21.7	21.8	21.6
Education							
No education	20.4	20.1	20.5	20.7	21.2	21.1	20.6
<5 years complete	21.1	21.4	21.4	21.6	21.6	22.2	21.5
5-7 years complete	22.1	21.3	21.5	21.4	22.0	22.5	21.8
8-9 years complete	23.1	22.6	22.6	22.6	22.6	22.4	22.7
10-11 years complete	24.0	24.3	24.4	24.1	24.6	24.1	24.2
12 or more years complete	a	26.3	26.1	26.4	26.0	26.2	a
Religion							
Hindu	23.1	22.6	22.4	22.2	22.4	22.5	22.5
Muslim	22.8	22.4	21.7	22.3	22.5	23.1	22.4
Christian	24.4	24.8	25.4	26.2	24.7	26.1	a
Sikh	23.1	22.8	22.6	23.3	23.8	23.8	23.2
Buddhist/Neo-Buddhist	23.8	25.5	23.1	21.8	22.9	22.5	23.3
Jain	a	(24.9)	(27.9)	(25.2)	(26.1)	(24.5)	a
Other	20.9	21.8	20.9	23.1	26.6	25.6	22.4
Caste/tribe							
Scheduled caste	21.9	21.5	21.5	21.2	21.5	21.9	21.6
Scheduled tribe	20.9	20.9	20.7	20.3	20.9	20.6	20.7
Other backward class	22.9	22.2	22.1	22.2	22.3	22.3	22.3
Other	24.5	24.3	23.6	23.6	23.7	24.0	24.0
Don't know	(24.6)	*	(25.2)	(25.7)	(23.6)	*	24.4
Wealth index							
Lowest	20.4	20.2	20.5	20.8	21.0	21.2	20.6
Second	21.1	20.7	20.8	21.0	21.5	21.3	21.0
Middle	22.5	21.9	22.0	21.6	21.7	22.0	22.0
Fourth	24.2	24.0	23.0	22.7	22.7	23.2	23.4
Highest	a	26.2	25.7	25.6	25.2	24.8	a
Total	23.1	22.7	22.3	22.3	22.6	22.7	22.6

Note: Total includes men with missing information on education, religion, and caste/tribe, who are not shown separately.
( ) Based on 25-49 unweighted cases.
* Percentage not shown; based on fewer than 25 unweighted cases.
a = Omitted because less than 50 percent of the men had intercourse before reaching the beginning of the age group

6.5 RECENT SEXUAL ACTIVITY

In the absence of contraception, the probability of pregnancy is related to the frequency of intercourse. Therefore, information on sexual activity can be used to refine measures of exposure to pregnancy. Women and men were asked how long ago their last sexual activity occurred.

Tables 6.7.1 and 6.7.2 show the percent distribution of women and men by recent sexual activity. The question on most recent sexual intercourse was only asked to those women and men who reported ever having had sexual intercourse. Twenty percent of women age 15-49 have never had sexual intercourse. More than half of all women age 15-49 had sexual intercourse within the four weeks prior to the survey. One-third of women age 15-49 were sexually activity in the week prior to the survey and an additional one-fifth (22 percent) were sexually active in

the four weeks prior to the survey (not including those sexually active in the week prior to the survey). Seventeen percent were sexually active in the year prior to the survey (but not in the four weeks prior to the survey), and 7 percent had not been sexually active for one or more years.

Table 6.7.1 Most recent sexual activity: Women

Percent distribution of women age 15-49 by timing of last sexual intercourse, according to background characteristics, India, 2005-06

Background characteristic	Timing of last sexual intercourse					Never had sexual intercourse	Total	Median number of days since last sexual intercourse[3]	Number of women
	Within the last week	Within the last four weeks[1]	Within one year[2]	One or more years	Missing				
Age									
15-19	14.6	5.2	6.8	0.7	0.6	72.2	100.0	5.9	24,811
20-24	37.6	17.5	16.7	2.3	1.5	24.4	100.0	7.0	22,779
25-29	47.2	24.3	16.8	4.1	1.8	5.9	100.0	6.9	20,417
30-34	44.5	30.4	15.9	6.1	1.2	1.9	100.0	7.3	17,656
35-39	37.6	32.4	17.9	10.1	0.8	1.2	100.0	7.9	15,866
40-44	24.9	31.7	25.1	16.5	0.8	0.9	100.0	15.0	13,049
45-49	17.8	27.8	27.8	25.1	0.8	0.7	100.0	30.3	9,807
Marital status									
Never married	0.1	0.1	0.3	0.3	0.0	99.2	100.0	a	25,462
Currently married	43.6	29.6	21.5	4.1	1.1	0.0	100.0	7.5	93,089
Widowed/divorced/ separated/deserted	0.7	0.4	7.7	83.9	5.9	1.5	100.0	a	5,834
Marital duration[4]									
Married only once									
0-4 years	52.0	21.3	23.4	1.2	1.9	0.2	100.0	6.0	16,842
5-9 years	51.5	26.1	18.8	1.7	1.9	0.0	100.0	6.3	18,046
10-14 years	50.9	30.1	16.0	1.8	1.1	0.0	100.0	6.7	15,863
15-19 years	44.5	34.5	17.3	3.0	0.6	0.0	100.0	7.4	14,605
20-24 years	34.2	36.0	23.4	6.0	0.4	0.0	100.0	8.4	12,161
25+ years	21.8	33.1	31.8	13.0	0.3	0.0	100.0	15.7	13,741
Married more than once	42.4	29.0	21.9	5.4	1.3	0.1	100.0	7.7	1,831
Residence									
Urban	31.0	22.2	13.8	6.8	0.8	25.3	100.0	7.6	40,817
Rural	33.5	22.2	17.9	7.2	1.2	18.0	100.0	7.9	83,568
Education									
No education	35.5	25.9	21.2	9.7	1.4	6.4	100.0	8.6	50,487
<5 years complete	34.1	23.6	16.2	10.1	1.2	14.8	100.0	7.9	9,918
5-7 years complete	33.9	22.2	15.1	6.6	1.2	21.0	100.0	7.6	18,820
8-9 years complete	28.3	18.3	12.8	4.3	0.9	35.4	100.0	7.5	17,383
10-11 years complete	28.2	17.1	12.0	3.9	0.6	38.1	100.0	7.3	12,887
12 or more years complete	29.5	17.6	11.0	2.8	0.8	38.3	100.0	7.1	14,882
Religion									
Hindu	33.0	22.3	16.8	7.2	1.1	19.6	100.0	7.8	100,151
Muslim	31.1	22.1	15.8	6.6	1.2	23.2	100.0	7.8	16,936
Christian	30.0	20.2	13.3	8.6	0.9	27.0	100.0	7.5	3,053
Sikh	36.1	21.2	11.2	5.3	0.7	25.5	100.0	7.1	2,222
Buddhist/Neo-Buddhist	21.5	23.2	20.4	8.9	1.6	24.5	100.0	14.6	1,010
Jain	39.0	19.4	8.2	3.5	0.5	29.3	100.0	5.9	406
Other	27.9	15.0	21.4	11.0	3.3	21.5	100.0	14.6	484
Caste/tribe									
Scheduled caste	33.8	21.2	17.0	7.8	1.2	19.0	100.0	7.8	23,125
Scheduled tribe	34.9	21.3	15.9	7.8	1.5	18.6	100.0	7.7	10,119
Other backward class	31.3	22.6	18.3	7.2	1.1	19.6	100.0	8.0	48,880
Other	33.2	22.4	14.4	6.3	0.9	22.7	100.0	7.6	41,207
Don't know	26.8	23.5	16.4	13.4	1.8	18.0	100.0	8.9	649
Wealth index									
Lowest	34.3	21.9	20.3	8.3	1.5	13.6	100.0	8.5	21,718
Second	33.3	22.9	18.4	7.8	1.3	16.2	100.0	8.0	23,616
Middle	31.7	22.6	16.5	7.7	1.3	20.2	100.0	7.9	25,088
Fourth	32.4	22.2	14.9	6.6	0.9	23.0	100.0	7.6	26,106
Highest	32.0	21.4	13.4	5.5	0.6	27.0	100.0	7.4	27,856
Total	32.7	22.2	16.5	7.1	1.1	20.4	100.0	7.8	124,385

Note: Total includes women with missing information on education, religion, and caste/tribe, who are not shown separately.
[1] Excludes women who had sexual intercourse within the last 1 week.
[2] Excludes women who had sexual intercourse within the last 1 and 4 weeks.
[3] Among those who have ever had sexual intercourse.
[4] Excludes women who are not currently married.
a = Omitted because less than 50 percent of the women had intercourse before reaching the beginning of the age group.

The proportion of women who were sexually active in the week before the survey increases with age among those below 30 years as the proportion who never had sexual intercourse decreases with age, and then decreases with increasing age thereafter. The proportion increases from 15 percent among women age 15-19 to 47 percent among women age 25-29, and decreases 18 percent among women age 45-49. Only 1 percent of never married women reported ever having had sexual intercourse. Three-quarters of currently married women reported being sexually active in the four weeks preceding the survey. Only 1 percent of formerly married women reported being sexually active in the four weeks preceding the survey, and less than 10 percent were sexually active within one year prior to the survey.

One in every two women who have been married for less than 15 years was sexually active in the week prior to the survey. Women with longer marital durations (15 years or more) were less likely to have had sexual intercourse in the previous week. Only 22 percent of women who have been married for 25 years or more had sexual intercourse in the week before the survey.

The proportion of women who had sex in the month before the survey generally decreases with increasing education, but this is primarily due to the steadily increasing proportions who have never had sexual intercourse. Over one-third of women with eight or more years of schooling have never had sex. The proportion of women who have never had sex also increases with increasing wealth quintiles. A somewhat larger proportion of Jain women (29 percent) and Christian (27 percent) women have never had sex than Hindu and Muslim women.

As was true for women, half of men age 15-49 had sexual intercourse in the four weeks prior to the survey. One-third of men age 15-49 (32 percent) were sexually active in the week prior to the survey, an additional 19 percent had sexual intercourse in the four weeks prior to the survey (not including those sexually active in the week prior to the survey), 13 percent had sexual intercourse within one year of the survey (but not in the month prior to the survey), and 5 percent had not been sexually active for one year or more. Thirty-one percent of men age 15-49 said they have never had sexual intercourse.

The proportion of men having sex in the week prior to the survey increases with age into the early thirties (peaking at 52 percent), and declines thereafter with age (to 21 percent among men age 50-54). Fourteen percent of never married men age 15-49 reported ever having sexual intercourse, but only 2 percent reported having had sex in the four weeks prior to the survey. Eighty percent of currently married men had sex within the four weeks prior to the survey. Three percent of formerly married men had sexual intercourse in the four weeks prior to the survey.

Lower proportions of men report having been sexually active in the four weeks prior to the survey as marital durations increase beyond 10-14 years. As is true for women, the proportion of men who had sex in the month prior to the survey decreases with increasing education but this can be accounted for by the rising proportion of men who have never had sexual intercourse. The proportion of men who have never had sexual intercourse increases steadily from 13 percent among those with no education to 45 percent among those with 10-11 years of schooling. The proportion of men who have never had sex also steadily increases with increasing wealth quintiles, from one-fifth of men in the lowest wealth quintile to 39 percent of men in the highest wealth quintile.

Table 6.7.2 Most recent sexual activity: Men

Percent distribution of men age 15-49 by timing of last sexual intercourse, according to background characteristics, India, 2005-06

Background characteristic	Timing of last sexual intercourse					Never had sexual intercourse	Total	Median number of days since last sexual intercourse[3]	Number of men
	Within the last week	Within the last four weeks[1]	Within one year[2]	One or more years	Missing				
Age									
15-19	2.2	1.6	4.0	3.4	0.0	88.8	100.0	a	13,008
20-24	19.5	7.4	10.7	6.2	0.2	56.0	100.0	7.8	11,989
25-29	40.5	16.4	14.4	4.6	0.2	23.9	100.0	5.7	10,854
30-34	51.6	24.3	13.9	3.2	0.2	6.8	100.0	5.4	9,744
35-39	49.6	30.6	14.1	3.2	0.3	2.3	100.0	6.6	9,302
40-44	40.7	34.1	17.0	6.2	0.3	1.6	100.0	7.6	8,105
45-49	32.1	34.9	22.1	9.8	0.3	0.8	100.0	10.1	6,750
Marital status									
Never married	0.7	1.4	5.0	6.3	0.0	86.5	100.0	a	25,307
Currently married	50.4	29.5	17.2	2.5	0.3	0.0	100.0	6.8	43,501
Widowed/divorced/ separated/deserted	1.6	1.6	13.9	81.0	0.4	1.6	100.0	a	942
Marital duration[4]									
Married only once									
0-4 years	57.1	21.0	20.3	1.2	0.3	0.1	100.0	4.9	8,719
5-9 years	57.1	26.3	14.8	1.3	0.5	0.0	100.0	5.1	8,600
10-14 years	55.0	30.0	13.4	1.5	0.2	0.0	100.0	5.5	7,976
15-19 years	47.2	34.6	15.2	2.9	0.1	0.0	100.0	7.2	7,161
20-24 years	38.5	37.3	19.3	4.5	0.4	0.0	100.0	7.8	5,508
25+ years	30.0	35.5	26.4	7.8	0.4	0.0	100.0	14.1	3,258
Married more than once	52.2	29.0	16.2	2.5	0.1	0.0	100.0	6.0	2,280
Residence									
Urban	27.9	18.0	12.4	4.2	0.1	37.4	100.0	7.4	25,504
Rural	33.9	19.5	13.0	5.4	0.2	28.0	100.0	7.2	44,247
Education									
No education	39.3	24.9	16.4	6.5	0.3	12.5	100.0	7.4	12,571
<5 years complete	37.4	23.8	13.1	6.1	0.4	19.2	100.0	7.3	7,109
5-7 years complete	33.5	19.4	13.5	5.1	0.1	28.5	100.0	7.3	11,523
8-9 years complete	27.1	15.3	12.2	4.9	0.1	40.4	100.0	7.4	14,398
10-11 years complete	25.3	15.6	10.5	3.9	0.2	44.5	100.0	7.3	10,380
12 or more years complete	30.1	16.9	10.9	3.6	0.2	38.3	100.0	7.1	13,754
Religion									
Hindu	31.8	19.0	12.9	5.2	0.2	30.9	100.0	7.3	57,112
Muslim	31.5	18.8	11.7	3.7	0.2	34.2	100.0	7.2	8,747
Christian	31.2	18.0	11.7	5.3	0.2	33.7	100.0	7.2	1,567
Sikh	31.5	20.6	13.0	4.3	0.1	30.4	100.0	7.3	1,270
Buddhist/Neo-Buddhist	26.6	19.4	13.4	7.0	0.0	33.5	100.0	7.6	596
Jain	40.2	18.8	3.9	1.6	0.0	35.5	100.0	4.1	213
Other	29.4	21.5	18.0	4.7	0.2	26.2	100.0	7.6	232
Caste/tribe									
Scheduled caste	32.3	18.8	13.8	6.1	0.2	28.8	100.0	7.4	13,188
Scheduled tribe	36.8	20.0	13.6	6.6	0.1	23.0	100.0	7.2	5,725
Other backward class	31.7	19.1	12.7	4.9	0.2	31.4	100.0	7.3	27,219
Other	30.2	18.6	12.0	4.0	0.2	35.0	100.0	7.3	23,214
Don't know	28.6	22.3	12.4	3.1	0.4	33.2	100.0	7.5	177
Wealth index									
Lowest	35.9	21.2	15.1	6.5	0.2	21.1	100.0	7.4	11,031
Second	34.0	20.3	13.3	5.9	0.2	26.3	100.0	7.3	12,666
Middle	31.4	18.7	13.5	4.9	0.1	31.3	100.0	7.4	14,301
Fourth	29.6	17.4	12.6	4.8	0.3	35.3	100.0	7.3	15,493
Highest	29.5	18.1	10.1	3.4	0.2	38.8	100.0	7.1	16,260
Total age 15-49	31.7	18.9	12.8	5.0	0.2	31.4	100.0	7.3	69,751
Age 50-54	21.1	32.0	29.3	16.0	0.4	1.2	100.0	20.1	4,618
Total age 15-54	31.1	19.8	13.8	5.6	0.2	29.5	100.0	7.5	74,369

Note: Total includes men with missing information on education, religion, and caste/tribe, who are not shown separately.
[1] Excludes men who had sexual intercourse within the last 1 week.
[2] Excludes men who had sexual intercourse within the last 1 and 4 weeks.
[3] Among those who have ever had sexual intercourse.
[4] Excludes men who are not currently married.
a = Omitted because less than 50 percent of the men had intercourse before reaching the beginning of the age group.

Forty percent of Jains report having had sex in the week prior to the survey, higher than the 27 percent of Buddhist/Neo-Buddhist men and the 31-32 percent of men in other religious groups. Differences across castes/tribes are not large.

The median duration since last sexual intercourse reported by men age 15-49 is slightly shorter (7.3 days) than the median among women age 15-49 (7.8 days). Men age 30-34 report the shortest duration of time since their most recent sex, with a median duration of 5.4 days. The median duration since last sexual intercourse has a strong positive association with marital duration.

6.6 POSTPARTUM AMENORRHOEA, ABSTINENCE, AND INSUSCEPTIBILITY

Postpartum amenorrhoea is the interval between the birth of a child and the resumption of menstruation. It is the period following childbirth during which a woman becomes temporarily and involuntarily infecund. Postpartum protection from conception can be prolonged by the intensity and length of breastfeeding. Postpartum abstinence refers to the period of sexual inactivity after childbirth. A woman is considered insusceptible if she is not exposed to the risk of pregnancy, either because she is amenorrhoeic or because she is abstaining from sexual intercourse following a birth. In NFHS-3, information was obtained about the duration of amenorrhoea and the duration of sexual abstinence following childbirth for births in the five years preceding the survey.

Table 6.8 shows the percentage of births in the three years preceding the survey for which mothers are still postpartum amenorrhoeic, abstaining, and insusceptible at the time of the survey, by number of months since birth. Because these percentages are based on cross-sectional data (women are categorized according to the time that has elapsed since their last birth), they do not represent the experience of any one cohort of births over time. Median and mean durations of amenorrhoea, abstinence, and insusceptibility are presented in the last two rows of the table. Overall, 96 percent of women in India are amenorrhoeic within the first month after a birth, and over three-quarters (77 percent) are still amenorrhoeic two months after a birth. As expected, the proportion amenorrhoeic gradually decreases with the increasing number of months since birth. About half of

Table 6.8 Postpartum amenorrhoea, abstinence, and insusceptibility

Percentage of births in the three years preceding the survey for which mothers are postpartum amenorrhoeic, abstaining, and insusceptible, by number of months since birth, and median and mean durations, India, 2005-06

Months since birth	Percentage of births for which the mother is:			Number of births
	Amenorrhoeic	Abstaining	Insusceptible	
0	96.2	93.5	99.5	426
1	91.8	77.4	95.3	902
2	76.8	52.6	86.0	955
3	68.4	35.0	76.4	971
4	66.6	25.4	72.4	1,030
5	55.2	24.5	63.3	1,044
6	53.8	14.7	58.9	967
7	50.2	13.0	54.3	1,008
8	46.5	11.3	52.8	1,059
9	40.0	9.6	44.6	937
10	34.8	7.0	38.1	810
11	30.2	9.3	34.3	721
12	23.8	6.4	27.5	826
13	18.3	5.7	22.4	880
14	16.0	4.5	19.5	952
15	16.9	2.5	18.9	929
16	12.3	1.7	13.1	935
17	11.8	3.8	14.3	966
18	8.1	4.1	10.9	1,105
19	7.4	4.2	10.5	976
20	6.4	4.1	9.2	937
21	4.1	2.0	5.6	855
22	7.3	2.6	8.9	842
23	4.6	1.9	6.3	736
24	3.8	2.9	6.4	821
25	3.0	2.4	5.4	946
26	2.0	1.0	3.0	989
27	1.3	1.0	2.1	1,036
28	1.5	1.3	2.4	980
29	1.2	1.3	2.2	932
30	1.0	1.9	2.5	980
31	1.1	1.4	2.4	973
32	1.1	2.0	3.0	912
33	0.9	2.8	3.5	890
34	1.1	1.0	2.2	841
35	1.2	1.4	2.4	790
Median[1]	7.0	2.3	8.1	na
Mean	9.2	4.9	10.3	na

Note: Estimates are based on status at the time of the survey.
na = Not applicable
[1] Based on a three-month moving average of two month intervals since birth.

mothers (54 percent) are still amenorrhoeic six months after a birth; the proportion declines rapidly thereafter, down to 8 percent 18 months after a birth. The proportion of mothers abstaining from sexual intercourse in the first month after a birth is nearly the same as the proportion amenorrhoeic (94 percent and 96 percent, respectively), but the proportion abstaining falls far more quickly with the passage of time since birth than does the proportion who are amenorrhoeic. Only one-quarter of mothers are still abstaining from sexual intercourse four months after a birth, and by six months, 85 percent of women have resumed sexual relations.

When amenorrhoea and abstinence are considered together, nearly six-tenths of mothers are still insusceptible to pregnancy six months after a birth and 28 percent are insusceptible 12 months after a birth. The median duration of postpartum amenorrhoea (seven months) is three times as high as the median duration of abstinence (just over two months). The duration of amenorrhoea and abstinence together shows that women in India on average remain insusceptible to conception for about eight months after a birth, primarily due to the effect of postpartum amenorrhoea.

Table 6.9 Median duration of amenorrhea, postpartum abstinence, and postpartum insusceptibility

Median number of months of postpartum amenorrhoea, postpartum abstinence, and postpartum insusceptibility following births in the three years preceding the survey, by background characteristics, India, 2005-06

Background characteristic	Postpartum amenorrhoea	Postpartum abstinence	Postpartum insusceptibility	Number of births
Mother's age				
15-29	6.6	2.3	7.8	26,416
30-49	8.7	2.1	9.9	6,443
Residence				
Urban	5.0	2.4	6.0	8,291
Rural	8.0	2.3	8.9	24,568
Mother's education				
No education	9.2	2.1	9.9	15,864
<5 years complete	8.4	2.1	8.9	2,270
5-7 years complete	5.9	2.4	7.7	4,949
8-9 years complete	6.0	2.4	6.8	4,121
10-11 years complete	4.5	2.9	6.1	2,612
12 or more years complete	4.3	2.9	5.6	3,041
Religion				
Hindu	7.0	2.4	8.2	25,719
Muslim	7.1	2.1	7.8	5,579
Christian	7.7	2.6	8.4	659
Sikh	2.8	1.6	3.6	423
Buddhist/Neo-Buddhist	10.7	4.4	10.8	230
Jain	2.6	6.1	8.1	53
Other	12.1	4.4	12.3	165
Caste/tribe				
Scheduled caste	7.8	2.2	8.5	6,761
Scheduled tribe	10.0	3.0	10.5	3,136
Other backward class	7.0	2.3	8.3	13,256
Other	5.3	2.3	6.4	9,473
Don't know	5.5	6.1	8.5	122
Wealth index				
Lowest	10.0	2.3	10.6	8,270
Second	8.6	2.2	9.3	7,371
Middle	6.9	2.3	8.0	6,474
Fourth	5.5	2.4	6.6	5,986
Highest	3.7	2.4	5.0	4,759
Total	7.0	2.3	8.1	32,859

Note: Total includes births with missing information on mother's education, religion, and caste/tribe, who are not shown separately. Medians are based on current status.

Table 6.9 shows the median durations of postpartum amenorrhoea, abstinence, and insusceptibility by background characteristics. On average, women abstain for about two months following a birth across most background characteristics shown in the table. Exceptions are seen by education, where the length of abstinence increases slightly with increasing education, and among Jain women and women who do not know their caste, each with median durations of abstinence of six months. The median duration is more than four months for Buddhists/Neo-Buddhists and women belonging to 'other' religions. The median duration of amenorrhoea shows more variation across background characteristics than does the duration of abstinence. The duration of amenorrhoea is much shorter among urban women (five months) than among rural women (eight months), and is shorter among women age 15-29, women with 10 or more years of education, Sikh and Jain women, and women who do not belong to schedule castes, scheduled tribes, or other backward classes. Median durations of postpartum amenorrhea decline steadily with increasing wealth

quintiles. Variation in the median duration of postpartum insusceptibility by background characteristics by and large reflects a similar pattern to that observed for median durations of amenorrhoea.

A comparison with data from NFHS-2 indicates that there has been a decline in the median duration of postpartum amenorrhoea from 9 months to 7 months and a decline in the median duration of abstinence from 3 months to 2 months, resulting in a three-month decline in the median duration of postpartum insusceptibility (data not shown).

6.7 MENOPAUSE

The risk of childbearing in a population declines with increasing age. Menopause is the culmination of a gradual decline in fecundity with increasing age. After attaining age 30, women's susceptibility to pregnancy declines with age as an increasing proportion of women become infecund. The term infecundity denotes a process rather than a well-defined event. Although the onset of infecundity is difficult to determine for an individual woman, there are ways of estimating it for a group of women. In NFHS-3, menopause is defined as the absence of menstruation for six or more months preceding the survey. Women who report that they are menopausal or that they have had a hysterectomy are also included in this category. Women who are pregnant or postpartum amenorrhoeic are assumed not to be menopausal.

Table 6.10 Menopause

Percentage of women age 30-49 who are menopausal, by age, India, 2005-06

Age	Percentage menopausal[1]	Number of women
30-34	3.3	17,656
35-39	8.2	15,866
40-41	19.6	6,344
42-43	25.0	4,743
44-45	39.5	4,979
46-47	50.3	3,702
48-49	65.1	3,088
Total	18.0	56,378

[1] Percentage of all women who are not pregnant and not postpartum amenorrhoeic whose last menstrual period occurred six or more months preceding the survey.

Table 6.10 presents the percentage of women age 30-49 who are menopausal. In India, less than 10 percent of women in their thirties are menopausal. One-fifth of women age 40-41 have reached menopause, and the prevalence of menopause increases rapidly thereafter to 65 percent at age 48-49.

6.8 NON-LIVE BIRTHS

In addition to information on live births, NFHS-3 collected information on pregnancies that did not result in a live birth. Retrospective information on pregnancies is more difficult to collect than information on live births, especially pregnancies that terminate in a non-live birth. NFHS-3 included a set of questions on non-live births within the reproduction section of the interview. All women age 15-49 were asked: 'Have you ever had a pregnancy that miscarried, was aborted, or ended in a stillbirth?' If the answer was 'yes', the respondent was further asked: 'When did the last such pregnancy end?' and 'How many months pregnant were you when the last such pregnancy ended?'

Table 6.11 shows the percentage of women age 15-49 who have ever had a non-live birth, the percentage who had a non-live birth in the five years preceding the survey, and the percentage of pregnancies that occurred in the five years preceding the survey that ended in a non-live birth by the current age of the woman. Fourteen percent of women age 15-49 have experienced a stillbirth, miscarriage, or abortion in their lifetime and 6 percent have had a non-

Table 6.11 Non-live births

Percentage of women age 15-49 who have ever had a non-live birth and have had a non-live birth in the five years preceding the survey and percentage of pregnancies (not including current pregnancies) that ended in a non-live birth in the five years preceding the survey by current age of mother, India, 2005-06

	Women age 15-49			Pregnancies in the past 5 years	
Mother's current age	Percentage who have ever had a non-live birth	Percentage who have had a non-live birth in the past five years	Number of women	Percentage that ended in a non-live birth	Number of pregnancies
15-19	2.5	2.5	24,811	11.2	5,697
20-24	11.4	9.5	22,779	9.4	24,678
25-29	18.0	10.3	20,417	9.6	21,994
30-34	21.3	8.2	17,656	12.4	10,654
35-39	20.3	5.0	15,866	14.1	4,240
40-44	17.5	2.9	13,049	15.1	1,215
45-49	17.4	2.2	9,807	9.4	272
Total	14.4	6.2	124,385	10.4	68,750
Age 20-49	17.3	7.1	99,574	10.4	63,053
Age 25-49	19.1	6.4	76,795	11.0	38,375

Note: Non-live births include stillbirths, abortions, and miscarriages.

live birth in the five years preceding the survey. The percentage of women who ever had a non-live birth increases with age until age 30-34 (peaking at 21 percent) and then declines with age to 17 percent among women age 45-49 years. The distribution of those experiencing a non-live birth in the five years before the survey also shows and inverted U-shaped pattern, increasing with age until age 25-29 (peaking at 10 percent), and then declining with increasing age to 2 percent among women age 45-49. Overall, 10 percent of pregnancies to women age 15-49 in the five years preceding the survey resulted in a non-live birth.

Table 6.12 presents state differentials in non-live births. The states with the highest proportion of pregnancies that did not result in a live birth are Bihar (21 percent), Assam and Uttar Pradesh (20 percent each), Tripura (19 percent), and Manipur (18 percent). States with the lowest percentages experiencing pregnancy loss are Meghalaya (2 percent), Sikkim (5 percent), Himachal Pradesh (6 percent), and Nagaland (7 percent). The states with the highest proportion of pregnancies in the past five years that resulted in stillbirths, miscarriages, or abortions are Assam and Manipur, where 17 percent of recent pregnancies resulted in non-live births.

Table 6.12 Non-live births by state

Percentage of women age 15-49 who have ever had a non-live birth and have had a non-live birth in the five years preceding the survey and percentage of pregnancies (not including current pregnancies) that ended in a non-live birth in the five years preceding the survey by state, India, 2005-06

State	Women age 15-49		Percentage of pregnancies in the past 5 years that ended in a non-live birth
	Percentage who have ever had a non-live birth	Percentage who have had a non-live birth in the past five years	
India	14.4	6.2	10.4
North			
Delhi	12.4	5.9	11.0
Haryana	11.0	4.7	8.8
Himachal Pradesh	5.9	2.5	6.4
Jammu & Kashmir	11.4	4.5	10.1
Punjab	10.6	4.1	9.3
Rajasthan	13.8	5.8	9.9
Uttaranchal	13.4	4.8	9.9
Central			
Chhattisgarh	12.2	4.6	8.9
Madhya Pradesh	11.4	4.2	7.3
Uttar Pradesh	19.9	9.3	11.8
East			
Bihar	20.8	7.5	9.8
Jharkhand	16.7	7.6	10.3
Orissa	16.9	7.9	13.4
West Bengal	13.7	5.2	10.3
Northeast			
Arunachal Pradesh	9.2	4.4	6.7
Assam	20.3	10.2	17.0
Manipur	17.9	9.5	17.4
Meghalaya	2.4	0.9	1.6
Mizoram	8.4	3.5	5.5
Nagaland	7.4	3.5	5.8
Sikkim	5.0	1.4	3.3
Tripura	18.9	7.0	15.3
West			
Goa	11.8	5.8	11.7
Gujarat	15.6	6.6	12.2
Maharashtra	9.6	4.8	8.1
South			
Andhra Pradesh	9.3	3.7	8.2
Karnataka	7.9	3.8	7.0
Kerala	15.0	7.0	10.9
Tamil Nadu	16.6	6.7	16.5

Note: Non-live births include stillbirths, abortions, and miscarriages.

INFANT AND CHILD MORTALITY 7

This chapter provides information on levels, trends, and differentials in neonatal, postneonatal, infant, child, and under-five mortality, as well as levels and differentials in perinatal mortality. These mortality rates are relevant to a demographic assessment of the population and are an important measure of a country's level of socioeconomic development and quality of life. They can also be used for monitoring and evaluating population and health programmes.

7.1 INFANT AND CHILD MORTALITY

NFHS-3 asked all women age 15-49 to provide a complete history of their births including for each live birth, the sex, month and year of birth, survival status, and age at the time of the survey or age at death. Age at death was recorded in days for children dying in the first month of life, in months for other children dying before their second birthday, and in years for children dying at later ages. This information was used to calculate the following direct estimates of infant and child mortality:

Neonatal mortality:	The probability of dying in the first month of life
Postneonatal mortality:	The probability of dying after the first month of life but before the first birthday
Infant mortality ($_1q_0$):	The probability of dying before the first birthday
Child mortality ($_4q_1$):	The probability of dying between the first and fifth birthdays
Under-five mortality ($_5q_0$):	The probability of dying before the fifth birthday

7.2 LEVELS AND TRENDS

Table 7.1 and Figure 7.1 present various measures of infant and child mortality by residence for the three five-year periods preceding the survey. According to these estimates, infant mortality in India has declined from 77 deaths per 1,000 live births in 1991-95 (10-14 years before the survey) to 57 deaths per 1,000 live births in 2001-05 (0-4 years before the survey), thus implying an average rate of decline of 2 infant deaths per 1,000 live births per year. All other measures of infant and child mortality presented in Table 7.1 also show declining trends during the years before the survey. By comparing the estimates for the period 10-14 years before the survey with the estimates for the period 0-4 years before the survey, it is seen that the neonatal mortality rate has decreased by 12 deaths per 1,000 live births (from 51 to 39), the postneonatal mortality rate has decreased by 7 deaths per 1,000 live births (from 25 to 18), and the child mortality rate (at age 1-4 years) has decreased by 14 deaths per 1,000 children age 1 (from 32 to 18). In spite of these impressive declines, one out of every 14 children born during the five years before NFHS-3 will die before reaching age five.

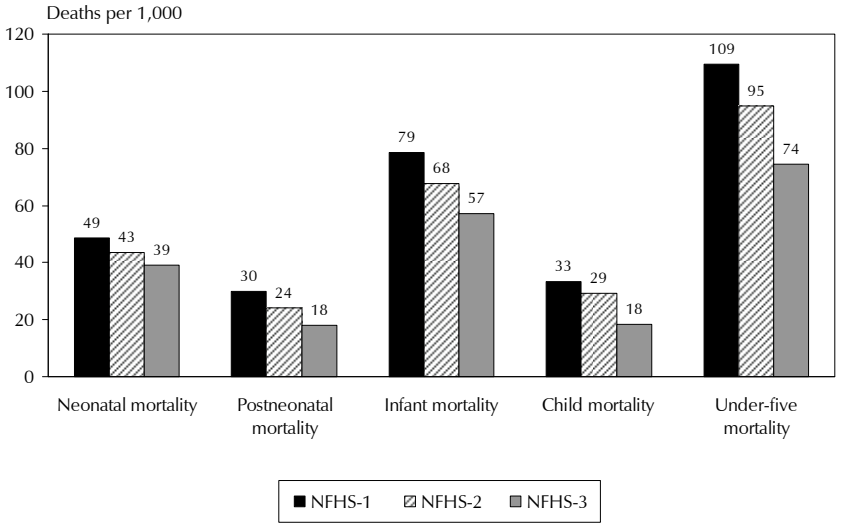
Table 7.1 Early childhood mortality rates

Neonatal, postneonatal, infant, child, and under-five mortality rates for five-year periods preceding the survey by residence, India, 2005-06

Years preceding the survey	Neonatal mortality (NN)	Postneonatal mortality[1] (PNN)	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
URBAN					
0-4	28.5	13.0	41.5	10.6	51.7
5-9	35.9	18.8	54.7	14.8	68.7
10-14	34.6	18.1	52.7	17.7	69.5
RURAL					
0-4	42.5	19.7	62.2	21.0	82.0
5-9	53.9	24.2	78.1	28.7	104.5
10-14	57.5	28.1	85.5	38.4	120.6
TOTAL					
0-4	39.0	18.0	57.0	18.4	74.3
5-9	49.3	22.8	72.2	25.0	95.4
10-14	51.3	25.3	76.6	32.3	106.5

[1] Computed as the difference between the infant and neonatal mortality rates.

Figure 7.1 **Early Childhood Mortality Rates for the Five-Year Period preceding the Survey, NFHS-1, NFHS-2, and NFHS-3**



Infant and child mortality rates are considerably higher in rural areas than in urban areas. In 2001-05, the infant mortality rate was 50 percent higher in rural areas (62) than in urban areas (42). The rural-urban difference in mortality is especially large for children in the age interval 1-4 years, for whom the rate in rural areas is twice as high as the rate in urban areas. In both the neonatal and postneonatal periods, mortality in rural areas is about 50 percent higher than mortality in urban areas.

Infant and child mortality rates have declined slightly faster in rural areas than in urban areas. Between 1991-95 and 2001-05, infant mortality declined by 27 percent in rural areas, compared with 21 percent in urban areas. During the same period, the child mortality rate

declined by 45 percent in rural areas, compared with 40 percent in urban areas. Even in the neonatal period, the decline in mortality was slightly faster in rural areas (26 percent) than in urban areas (18 percent).

Rather than relying only on NFHS-3 data for the trend analysis, one can also use the estimates from NFHS-1 and NFHS-2 to discern the trends in infant and child mortality. For the period 0-4 years before the survey, NFHS-1 and NFHS-2 recorded infant mortality rates of 79 and 68, respectively (see Table 7.2). Comparison of these estimates with the NFHS-3 estimate of 57 indicates that the infant mortality rate declined by 22 deaths per 1,000 live births in approximately 13 years (with similar declines in the two periods). This implies an average reduction of 1.7 infant deaths per year, which is slightly slower than the reduction of 2 infant deaths per annum implied by the birth history data from NFHS-3. It should also be noted that the estimated infant mortality rate of 57 for 2001-05 from NFHS-3 is very close to the average Sample Registration System (SRS) estimate of 60 for the period 2002-05.

Table 7.2 Early childhood mortality rates by background characteristics

Neonatal, postneonatal, infant, child, and under-five mortality rates for the five-year period preceding the survey, by background characteristics and residence, India, 2005-06, and for NFHS-2 and NFHS-1

Background characteristic	Neonatal mortality (NN)	Postneonatal mortality[1] (PNN)	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
		URBAN			
Education					
No education	38.2	23.1	61.3	21.4	81.4
<5 years complete	39.9	13.4	53.3	6.5	59.4
5-7 years complete	31.4	16.7	48.1	7.5	55.2
8-9 years complete	25.8	5.4	31.2	4.7	35.7
10-11 years complete	16.2	8.3	24.5	4.3	28.7
12 or more years complete	19.4	4.2	23.6	4.7	28.2
Religion					
Hindu	30.9	13.3	44.3	10.9	54.7
Muslim	21.6	13.9	35.5	9.6	44.8
Christian	11.3	5.0	16.3	9.4	25.5
Sikh	*	*	*	*	*
Buddhist/Neo-Buddhist	*	*	*	*	*
Other	*	*	*	*	*
Caste/tribe					
Scheduled caste	35.0	15.7	50.7	15.5	65.4
Scheduled tribe	29.0	14.8	43.8	10.4	53.8
Other backward class	26.4	15.8	42.2	12.9	54.5
Other	27.5	8.6	36.1	6.2	42.1
Wealth index					
Lowest	39.4	25.4	64.8	29.2	92.1
Second	40.8	21.6	62.4	21.5	82.5
Middle	32.0	17.8	49.8	16.4	65.3
Fourth	31.3	14.9	46.2	8.0	53.9
Highest	21.1	6.3	27.4	5.6	32.8
Total	28.5	13.0	41.5	10.6	51.7
NFHS-2	31.7	15.4	47.0	16.9	63.1
NFHS-1	34.1	22.0	56.1	19.6	74.6
		RURAL			
Education					
No education	47.0	24.1	71.1	27.8	97.0
<5 years complete	50.5	18.6	69.2	15.8	83.8
5-7 years complete	35.8	14.4	50.1	13.3	62.8
8-9 years complete	35.1	11.6	46.7	6.1	52.5
10-11 years complete	35.0	10.5	45.5	3.0	48.3
12 or more years complete	20.0	9.6	29.6	2.3	31.8

Continued…

Table 7.2 Early childhood mortality rates by background characteristics—*Continued*

Background characteristic	Neonatal mortality (NN)	Postneonatal mortality[1] (PNN)	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
Religion					
Hindu	43.3	19.7	63.0	20.9	82.5
Muslim	40.1	20.3	60.4	23.1	82.2
Christian	42.0	12.8	54.8	12.9	67.0
Sikh	34.3	11.7	46.0	8.7	54.3
Buddhist/Neo-Buddhist	(36.7)	(10.0)	(46.6)	(17.3)	(63.2)
Other	44.7	42.0	86.7	49.2	131.7
Caste/tribe					
Scheduled caste	49.6	21.4	71.0	25.6	94.7
Scheduled tribe	40.9	23.0	63.9	38.3	99.8
Other backward class	42.1	19.1	61.1	18.7	78.7
Other	38.1	17.5	55.7	13.3	68.2
Wealth index					
Lowest	48.8	21.9	70.7	32.5	100.9
Second	44.9	24.2	69.2	22.8	90.4
Middle	41.2	19.4	60.6	13.8	73.6
Fourth	32.4	9.9	42.3	7.1	49.1
Highest	24.3	9.2	33.6	2.7	36.2
Total	42.5	19.7	62.2	21.0	82.0
NFHS-2	46.7	26.6	73.3	32.8	103.7
NFHS-1	52.9	32.2	85.0	37.6	119.4
		TOTAL			
Education					
No education	45.7	24.0	69.7	26.9	94.7
<5 years complete	48.4	17.6	66.0	13.8	78.8
5-7 years complete	34.5	15.1	49.5	11.5	60.5
8-9 years complete	32.0	9.5	41.5	5.6	46.9
10-11 years complete	26.9	9.6	36.5	3.6	40.0
12 or more years complete	19.6	6.3	25.9	3.9	29.7
Religion					
Hindu	40.3	18.2	58.5	18.5	76.0
Muslim	34.1	18.2	52.4	18.6	70.0
Christian	31.5	10.1	41.7	11.6	52.8
Sikh	35.9	9.7	45.6	6.8	52.1
Buddhist/Neo-Buddhist	43.0	9.8	52.8	17.1	69.0
Other	43.3	41.4	84.6	50.4	130.7
Caste/tribe					
Scheduled caste	46.3	20.1	66.4	23.2	88.1
Scheduled tribe	39.9	22.3	62.1	35.8	95.7
Other backward class	38.3	18.3	56.6	17.3	72.8
Other	34.5	14.5	48.9	10.8	59.2
Wealth index					
Lowest	48.4	22.0	70.4	32.3	100.5
Second	44.6	24.0	68.5	22.6	89.6
Middle	39.3	19.1	58.3	14.4	71.9
Fourth	31.9	12.1	44.0	7.5	51.2
Highest	22.0	7.2	29.2	4.8	33.8
Total	39.0	18.0	57.0	18.4	74.3
NFHS-2	43.4	24.2	67.6	29.3	94.9
NFHS-1	48.6	29.9	78.5	33.4	109.3

Note: All estimates are for the five years preceding the survey (approximately 1988-1992 for NFHS-1, 1994-1998 for NFHS-2, and 2001-2005 for NFHS-3). Totals include Jains, cases with missing information on education, religion, and caste/tribe, and cases in which the respondent does not know the caste/tribe, which are not shown separately.
( ) Based on 250-499 unweighted children surviving to the beginning of the age interval.
* Rate not shown; based on fewer than 250 unweighted children surviving to the beginning of the age interval.
[1] Computed as the difference between the infant and neonatal mortality rates.

7.3 SOCIOECONOMIC DIFFERENTIALS

Table 7.2 presents data on differentials in infant and child mortality rates for the five-year period preceding the survey by selected background characteristics, separately for rural, urban, and total areas of India. Examining the data for all India first, it is seen that infant and child mortality rates decrease steadily with an increase in mother's schooling. The infant mortality rate is 70 for children whose mothers have no schooling, compared with 50 for children whose mothers have 5-7 years of schooling and 26 for children whose mothers have 12 or more years of schooling. Mother's schooling has a greater effect on the mortality of older children. During the neonatal period, children of mothers with 12 or more years of school have a mortality rate that is 43 percent as high as the rate for children of mothers with no education. That percentage decreases to 26 percent during the postneonatal period and 15 percent during the age interval 1-4 years.

Among the largest religious groups, Hindus have the highest rate of infant mortality (59), followed by Buddhists/Neo-Buddhists (53), Muslims (52), Sikhs (46), and Christians (42). Christians and Sikhs have relatively low mortality rates at all ages under five years. Although scheduled tribes have a lower infant mortality rate (62) than scheduled castes (66), the under-five mortality rate is higher among scheduled tribes (96) than among scheduled castes (88). Other Backward Classes (OBCs) have lower mortality than scheduled castes or scheduled tribes, but have higher mortality than other castes at all childhood ages. Overall, the under-five mortality rate is 23 percent higher among OBCs than among the population in the general category.

The infant mortality rate is 70 among children in households in the lowest wealth quintile, 58 in middle wealth quintile households, and only 29 in the highest wealth quintile households. Households in the highest wealth quintile experience only one-third the under-five mortality rate of households in the lowest quintile. The ratio between the highest and lowest quintiles in child mortality is lowest in the neonatal phase (1:2) and highest in the age interval 1-4 years (1:7).

More or less similar socioeconomic differentials in infant and child mortality are seen in rural and urban areas. One exception is the mortality difference between Hindus and Muslims. In urban areas, the under-five mortality rate is higher among Hindus (55) than Muslims (45). But in rural areas, both have the same level of under-five mortality (82-83).

7.4 DEMOGRAPHIC DIFFERENTIALS

Table 7.3 and Figure 7.2 show differentials in infant and child mortality rates for the five-year period preceding the survey by demographic characteristics, separately for rural, urban, and total areas of India. Considering first the data for India as a whole, it is seen that the infant mortality rate is marginally higher for females (58) than males (56). However, in the neonatal period, like elsewhere, mortality in India is lower for females (37) than for males (41). As children get older, females are exposed to higher mortality than males. Females have 36 percent higher mortality than males in the postneonatal period, but a 61 percent higher mortality than males at age 1-4 years.

Table 7.3 Early childhood mortality rates by demographic characteristics

Neonatal, postneonatal, infant, child, and under-five mortality rates for the five-year period preceding the survey, by demographic characteristics and residence, India, 2005-06

Demographic characteristic	Neonatal mortality (NN)	Postneonatal mortality[1] (PNN)	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
		URBAN			
Child's sex					
Male	33.0	10.7	43.7	9.0	52.3
Female	23.4	15.7	39.1	12.4	51.0
Mother's age at birth					
<20	30.5	13.8	44.3	9.7	53.6
20-29	28.4	12.6	41.0	10.4	51.0
30-39	27.4	14.2	41.6	12.2	53.4
40-49	*	*	*	*	*
Birth order					
1	29.7	9.8	39.5	5.9	45.2
2-3	23.9	11.6	35.5	10.1	45.2
4-6	38.5	20.1	58.6	18.9	76.4
7 or more	36.5	38.4	74.9	28.1	100.9
Previous birth interval[2]					
<2 years	43.5	22.2	65.7	20.9	85.2
2 years	25.8	14.7	40.5	14.1	54.1
3 years	14.1	7.5	21.6	9.6	31.0
4 years or more	22.2	12.0	34.3	4.2	38.3
Birth size					
Very small	84.8	29.6	114.4	22.0	133.8
Small	28.9	10.6	39.6	13.5	52.5
Average or larger	22.6	11.9	34.4	9.0	43.1
Total	28.5	13.0	41.5	10.6	51.7
		RURAL			
Child's sex					
Male	43.7	17.0	60.7	16.0	75.8
Female	41.3	22.6	63.9	26.5	88.7
Mother's age at birth					
<20	60.2	24.5	84.6	23.0	105.7
20-29	36.3	17.7	54.0	17.9	71.0
30-39	41.2	19.8	61.0	29.9	89.1
40-49	(50.6)	(31.3)	(81.9)	(39.7)	(118.3)
Birth order					
1	55.9	19.3	75.2	14.0	88.2
2-3	32.7	17.9	50.5	18.9	68.5
4-6	42.2	20.5	62.7	26.6	87.6
7 or more	50.5	30.0	80.6	40.8	118.1
Previous birth interval[2]					
<2 years	62.2	29.4	91.6	35.9	124.3
2 years	32.2	19.6	51.8	21.7	72.4
3 years	20.6	11.5	32.1	16.7	48.3
4 years or more	25.0	13.1	38.1	10.3	48.0
Birth size					
Very small	93.4	39.5	133.0	46.4	173.2
Small	45.9	22.4	68.4	14.6	82.0
Average or larger	35.8	17.8	53.6	21.3	73.7
Total	42.5	19.7	62.2	21.0	82.0

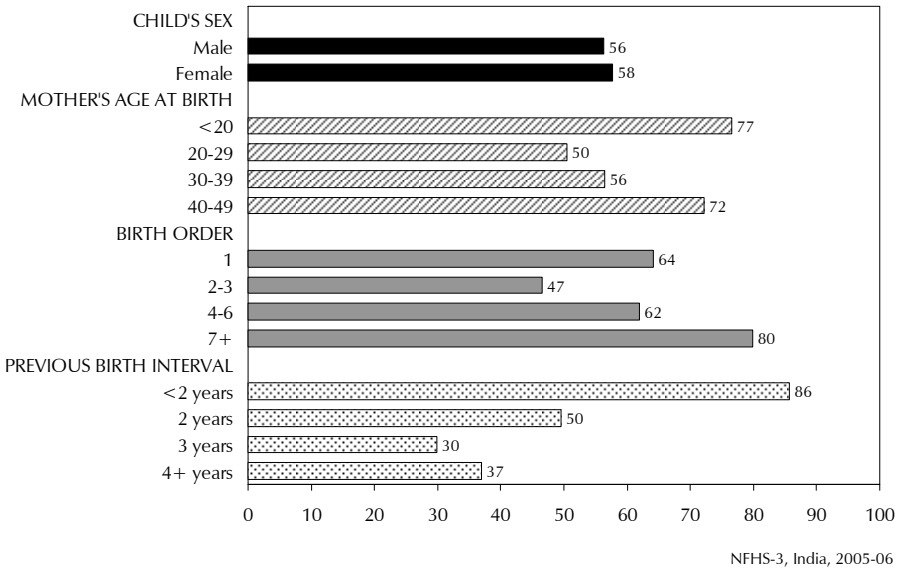
Continued…

Table 7.3 Early childhood mortality rates by demographic characteristics—*Continued*

Demographic characteristic	Neonatal mortality (NN)	Postneonatal mortality[1] (PNN)	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
		TOTAL			
Child's sex					
Male	40.9	15.4	56.3	14.2	69.7
Female	36.8	20.9	57.7	22.9	79.2
Mother's age at birth					
<20	54.2	22.3	76.5	20.1	95.0
20-29	34.2	16.3	50.4	15.9	65.5
30-39	37.9	18.5	56.4	25.7	80.6
40-49	42.9	29.2	72.1	(37.3)	106.7
Birth order					
1	47.8	16.4	64.1	11.4	74.8
2-3	30.3	16.2	46.5	16.5	62.3
4-6	41.5	20.4	61.9	25.2	85.6
7 or more	48.6	31.2	79.8	39.0	115.7
Previous birth interval[2]					
<2 years	57.9	27.8	85.7	32.5	115.5
2 years	30.9	18.6	49.5	20.1	68.6
3 years	19.2	10.6	29.8	15.1	44.4
4 years or more	24.2	12.8	37.0	8.6	45.3
Birth size					
Very small	91.4	37.2	128.6	40.2	163.6
Small	42.1	19.8	61.9	14.3	75.3
Average or larger	32.3	16.2	48.6	18.0	65.7
Total	39.0	18.0	57.0	18.4	74.3

( ) Based on 250-499 unweighted children surviving to the beginning of the age interval.
* Rate not shown; based on fewer than 250 unweighted children surviving to the beginning of the age interval.
[1] Computed as the difference between the infant and neonatal mortality rates.
[2] Excludes first-order births.

Figure 7.2 Infant Mortality Rates by Demographic Characteristics



NFHS-3, India, 2005-06

The maternal age at birth shows a U-shaped relationship with infant and child mortality rates. The infant mortality rate is lowest for mothers age 20-29 years (50) and is substantially higher for mothers age less than 20 years (77) and 40-49 years (72). Similar age differentials are seen in neonatal mortality, postneonatal mortality, and child mortality (at age 1-4 years). The birth order also shows a similar effect. The infant mortality rate is lowest for births of order 2 or 3 (47), and higher for first order births (64) and for births of later orders (62 or higher). Similar differentials by birth order are observed at age less than one month, but child mortality increases steadily with birth order.

The interval between the previous birth and the current birth shows a strong negative effect on infant and child mortality rates. When a birth occurs less than two years after an earlier birth, the infant mortality rate is 86. If the interval is 24-35 months, the infant mortality rate is 50, and if the interval is 36-47 months, it is only 30. But when the interval is four years or more, the infant mortality rate is somewhat higher (37). This pattern is observed for both neonatal and postneonatal mortality rates. Child mortality, however, is negatively related to the previous birth interval throughout, with mortality being lowest for intervals of four years or more.

In India, the weight of babies is not measured at birth in most cases. Taking the reported size of the baby at birth as a proxy for birth weight, one finds that birth weight has a substantial effect on infant and child mortality rates. The infant mortality rate is 49 for an average or large size baby, but it is 62 for a smaller than average baby and 129 for a very small baby. The risk of mortality is particularly high for small babies during the neonatal period. When compared with an average size baby, the neonatal mortality rate is 30 percent higher for a smaller than average baby and 183 percent higher for a very small baby.

Similar demographic differentials are observed in infant and child mortality in rural and urban areas, with the exception of sex differentials. Infant and under-five mortality rates are higher for females in rural areas and are higher for males in urban areas. But even in urban areas, mortality is higher among females than males in the postneonatal period and at 1-4 years of age.

7.5 STATE DIFFERENTIALS

Table 7.4 presents estimates of infant and child mortality rates for the five-year period preceding the survey for all 29 states of India. According to these estimates, infant mortality is highest in Uttar Pradesh (73) and lowest in Kerala and Goa (15). With respect to under-five mortality, Uttar Pradesh also has the highest rate (96) and Kerala has the lowest rate (16). Aside from Uttar Pradesh, high levels of infant and child mortality are found in Chhattisgarh and Madhya Pradesh in the central region, Assam and Arunachal Pradesh in the northeastern region, Jharkhand, Orissa, and Bihar in the eastern region, and Rajasthan in the northern region. In contrast, all states in the southern and western regions have lower levels of infant and child mortality. Three states in the northeastern region that have lower than average reported levels of neonatal mortality have higher than average rates of postneonatal and child mortality (Arunachal Pradesh, Meghalaya, and Nagaland).

Table 7.4 Early childhood mortality rates by state

Neonatal, postneonatal, infant, child, and under-five mortality rates for the five-year period preceding the survey, by state, India, 2005-06

State	Neonatal mortality (NN)	Postneonatal mortality[1] (PNN)	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
India	39.0	18.0	57.0	18.4	74.3
North					
Delhi	29.3	10.5	39.8	7.3	46.7
Haryana	23.6	18.1	41.7	11.1	52.3
Himachal Pradesh	27.3	8.9	36.1	5.6	41.5
Jammu & Kashmir	29.8	14.9	44.7	6.8	51.2
Punjab	28.0	13.7	41.7	10.8	52.0
Rajasthan	43.9	21.4	65.3	21.5	85.4
Uttaranchal	27.6	14.3	41.9	15.5	56.8
Central					
Chhattisgarh	51.1	19.7	70.8	21.0	90.3
Madhya Pradesh	44.9	24.7	69.5	26.5	94.2
Uttar Pradesh	47.6	25.0	72.7	25.6	96.4
East					
Bihar	39.8	21.9	61.7	24.7	84.8
Jharkhand	48.6	20.2	68.7	26.1	93.0
Orissa	45.4	19.3	64.7	27.6	90.6
West Bengal	37.6	10.4	48.0	12.2	59.6
Northeast					
Arunachal Pradesh	34.0	26.7	60.7	28.8	87.7
Assam	45.5	20.6	66.1	20.2	85.0
Manipur	18.7	11.1	29.7	12.6	41.9
Meghalaya	23.6	21.0	44.6	27.1	70.5
Mizoram	16.3	17.7	34.1	19.5	52.9
Nagaland	19.8	18.5	38.3	27.5	64.7
Sikkim	19.4	14.3	33.7	6.7	40.1
Tripura	33.1	18.3	51.5	8.2	59.2
West					
Goa	8.8	6.5	15.3	5.0	20.3
Gujarat	33.5	16.2	49.7	11.9	60.9
Maharashtra	31.8	5.7	37.5	9.5	46.7
South					
Andhra Pradesh	40.3	13.2	53.5	10.2	63.2
Karnataka	28.9	14.3	43.2	12.1	54.7
Kerala	11.5	3.8	15.3	1.0	16.3
Tamil Nadu	19.1	11.2	30.4	5.3	35.5

[1] Computed as the difference between the infant and neonatal mortality rates.

7.6 PERINATAL MORTALITY

Although perinatal mortality is an extremely sensitive indicator of health status of the population, high quality data on perinatal mortality are difficult to obtain because of underreporting of stillbirths and infant deaths at age 0-6 days. Table 7.5 presents the survey estimates of the perinatal mortality rate for the five-year period preceding the survey by selected demographic and socioeconomic characteristics. For India, perinatal mortality is estimated to be 49 deaths per 1,000 pregnancies lasting seven or more months (including live births and stillbirths) during the period 2001-05. As per the Sample Registration System, the perinatal mortality rate was 35 during 2002-05. Thus, NFHS-3 has captured more stillbirths and early neonatal deaths than the SRS.

Table 7.5 Perinatal mortality

Number of stillbirths and early neonatal deaths, and perinatal mortality rates for the five-year period preceding the survey, by background characteristics, India, 2005-06

Background characteristic	Number of stillbirths[1]	Number of early neonatal deaths[2]	Perinatal mortality rate[3]	Number of pregnancies of 7 or more months' duration
Mother's age at birth				
<20	307	507	66.8	12,189
20-29	654	962	43.4	37,260
30-39	134	201	44.2	7,585
40-49	10	16	51.1	509
Previous pregnancy interval in months				
First pregnancy	465	605	66.1	16,182
<15	87	233	71.3	4,481
15-26	264	451	49.6	14,409
27-38	130	206	30.3	11,073
39 or more	159	192	30.8	11,398
Residence				
Urban	201	325	36.3	14,504
Rural	904	1,361	52.6	43,039
Education				
No education	602	978	54.8	28,840
<5 years complete	77	152	54.9	4,178
5-7 years complete	186	214	47.7	8,375
8-9 years complete	122	170	42.8	6,845
10-11 years complete	60	85	33.4	4,342
12 or more years complete	57	86	28.9	4,962
Religion				
Hindu	838	1,384	49.4	44,990
Muslim	231	233	47.0	9,872
Christian	21	24	40.1	1,130
Sikh	3	19	31.1	720
Buddhist/Neo-Buddhist	7	14	54.8	384
Jain	0	0	0.0	87
Other	2	11	42.8	308
Caste/tribe				
Scheduled caste	247	409	55.0	11,940
Scheduled tribe	70	153	40.6	5,512
Other backward class	467	676	49.3	23,183
Other	309	438	45.3	16,485
Don't know	3	3	30.8	223
Wealth index				
Lowest	321	532	58.0	14,697
Second	298	415	55.0	12,952
Middle	235	321	48.7	11,416
Fourth	162	266	41.4	10,316
Highest	90	152	29.6	8,162
Total	1,105	1,686	48.5	57,543

Note: Total includes cases with missing information on education, religion, and caste/tribe, which are not shown separately.
[1] Stillbirths are foetal deaths in pregnancies lasting seven or more months.
[2] Early neonatal deaths are deaths at age 0-6 days among live-born children.
[3] The sum of the number of stillbirths and early neonatal deaths divided by the number of pregnancies of seven or more months' duration.

Perinatal mortality is lowest (43-44) when the mother's age at birth is 20-39 years. It is substantially higher for mothers giving birth at age less than 20 years (67) and at ages 40-49 years (51). The interval between the previous pregnancy and the current pregnancy has a strong negative effect on perinatal mortality. The perinatal mortality rate is 71 when the interval is less than 15 months, but only 30-31 when the interval is 27 months or more. The perinatal mortality rate is also high for first pregnancies (66).

Perinatal mortality is about two-thirds as high in urban areas as in rural areas. Perinatal mortality is only half as high when the mother has completed 12 or more years of schooling as when she has no education. Perinatal mortality is also half as high for households in the highest wealth quintile as households in the lowest wealth quintile. Among the four largest religious communities, Hindus have the highest levels of perinatal mortality (49), followed by Muslims (47), Christians (40), and Sikhs (31). Interestingly, scheduled tribes reported lower levels of perinatal mortality (41) than scheduled castes (55), other backward classes (49), or others (45).

Table 7.6 shows state-level differentials in perinatal mortality. Chhattisgarh has the highest level of perinatal mortality (64) and Kerala has the lowest level (11). Assam, Uttar Pradesh, Bihar, Jharkhand, Orissa, and Rajasthan also have high levels of perinatal mortality. In addition to Kerala, Goa and Sikkim have very low levels of perinatal mortality. Compared to their ranking in the levels of infant mortality, Madhya Pradesh, Meghalaya, and Arunachal Pradesh show relatively low levels of perinatal mortality.

Table 7.6 Perinatal mortality by state

Perinatal mortality rates for the five-year period preceding the survey, by state, India, 2005-06

State	Perinatal mortality rate	State	Perinatal mortality rate
India	48.5		
North		**Northeast**	
Delhi	35.0	Arunachal Pradesh	40.2
Haryana	36.7	Assam	63.3
Himachal Pradesh	30.2	Manipur	26.3
Jammu & Kashmir	37.6	Meghalaya	23.4
Punjab	33.2	Mizoram	26.6
Rajasthan	49.4	Nagaland	22.5
Uttaranchal	38.1	Sikkim	16.0
		Tripura	42.0
Central			
Chhattisgarh	63.5	**West**	
Madhya Pradesh	46.1	Goa	12.4
Uttar Pradesh	59.5	Gujarat	40.2
		Maharashtra	35.8
East			
Bihar	58.7	**South**	
Jharkhand	57.6	Andhra Pradesh	47.3
Orissa	55.6	Karnataka	35.3
West Bengal	46.8	Kerala	10.8
		Tamil Nadu	33.0

Note: The perinatal mortality rate is the sum of the number of stillbirths and early neonatal deaths divided by the number of pregnancies of seven or more months' duration.

7.7 HIGH-RISK FERTILITY BEHAVIOUR

As discussed above, mother's age at birth, birth order, and the interval between births have a strong influence on infant and child mortality. In theory, parents can increase the chances of their children's survival by controlling these proximate determinants. For the purpose of the present analysis, a birth is classified as high risk if it has one or more of the following characteristics: (i) mother's age is less than 18 years, (ii) mother's age is more than 34 years, (iii) previous birth interval in less than two years, and (iv) birth order is more than three. Table 7.7 shows the percentage of births and the percentage of currently married women that fall into different child survival risk categories. It also shows the relative magnitude of each risk and different combinations of risks.

As per the employed definition of risk, 70 percent of births in India are in the high-risk category. Nearly half (48 percent) of currently married women would have a high-risk birth if they were to conceive a child at the time of the survey. However, 24 percent of births in the five years before the survey fall into the unavoidable risk category as they are first-order births for mothers aged 18-34 years at birth. These births have a 52 percent elevated mortality risk compared with low-risk births (that is, births to women who are not in any high-risk category). However, only 8 percent of currently married women were in this category at the time of the survey.

Table 7.7 High-risk fertility behaviour

Percent distribution of children born in the five years preceding the survey by category of elevated risk of mortality and the risk ratio, and percent distribution of currently married women by category of risk if they were to conceive a child at the time of the survey, India, 2005-06

Risk category	Births in the 5 years preceding the survey: Percentage of births	Births in the 5 years preceding the survey: Risk ratio	Percentage of currently married women[1]
Not in any high-risk category	29.9	1.00	52.3[a]
Unavoidable risk category			
First order births between ages 18 and 34 years	24.1	1.52	8.1
Single high-risk category			
Mothers age <18	6.8	2.33	1.2
Mothers age >34	0.6	1.11	6.1
Birth interval <24 months	11.3	1.85	7.6
Birth order >3	16.3	1.40	7.9
Subtotal	35.0	1.72	22.8
Multiple high-risk category			
Age <18 and birth interval <24 months[2]	0.9	4.22	0.3
Age >34 and birth interval <24 months	0.0	0.10	0.1
Age >34 and birth order >3	3.0	1.70	11.6
Age >34 and birth interval <24 months and birth order >3	0.6	3.11	0.7
Birth interval <24 months and birth order >3	6.4	3.13	4.0
Subtotal	11.0	2.82	16.7
In any avoidable high-risk category	46.0	1.98	39.6
Total	100.0	na	100.0
Number of births	56,438	na	93,089

Note: Risk ratio is the ratio of the proportion dead among births in a specific high-risk category to the proportion dead among births not in any high-risk category.
na = Not applicable
[1] Women are assigned to risk categories according to the status they would have at the birth of a child if they were to conceive at the time of the survey: current age less than 17 years and 3 months or greater than 34 years and 2 months, latest birth less than 15 months ago, or latest birth of order 3 or higher.
[2] Includes the category age <18 and birth order >3.
[a] Includes sterilized women.

A total of 46 percent of births in the last five years are in an avoidable risk category. These births have nearly twice the risk of dying as births that are not in any high-risk category. Forty percent of currently married women fall in an avoidable risk category. The avoidable risk category is further subdivided into two groups that are associated with either single or multiple high-risk behaviours. Thirty-five percent of the births and 23 percent of currently married women are in a single high-risk category that has an elevated risk of 72 percent. Eleven percent of the births and 17 percent of currently married women are in a multiple high-risk category, which has an elevated risk of 182 percent. Thus, infant and child mortality can be reduced substantially in India by postponing marriage and using contraception to space and limit births.

MATERNAL HEALTH 8

Maternal and child health has remained an integral part of the Family Welfare Programme of India since the time of the First and Second Five-Year Plans (1951-56 and 1956-61) when the Government of India took steps to strengthen maternal and child health services. As part of the Minimum Needs Programme initiated during the Fifth Five-Year Plan (1974-79), maternal health, child health, and nutrition services were integrated with family planning services. In 1992-93, the Child Survival and Safe Motherhood Programme continued the process of integration by bringing together several key child survival interventions with safe motherhood and family planning activities (Ministry of Health and Family Welfare, 1992). In 1996, safe motherhood and child health services were incorporated into the Reproductive and Child Health Programme (RCH). The National Population Policy adopted by the Government of India in 2000 reiterates the government's commitment to safe motherhood programmes within the wider context of reproductive health (Ministry of Health and Family Welfare, 2000). Several of the national sociodemographic goals for 2010 specified by the policy pertain to safe motherhood. For 2010, the goals are that 80 percent of all deliveries should take place in institutions, 100 percent of deliveries should be attended by trained personnel, and the maternal mortality ratio should be reduced to a level below 100 per 100,000 live births.

To improve the availability of and access to quality health care, especially for those residing in rural areas, the poor, women, and children, the government recently launched the National Rural Health Mission for the 2005-2012 period. One of the important goals of the National Rural Health Mission is to provide access to improved health care at the household level through female Accredited Social Health Activists (ASHA), who act as an interface between the community and the public health system. The ASHA acts as a bridge between the ANM and the village, and she is accountable to the Panchayat. She helps promote referrals for universal immunization, escort services for RCH, construction of household toilets, and other health care delivery programmes (Ministry of Health and Family Welfare, 2006).

An important objective of NFHS-3, like NFHS-1 and NFHS-2, is to provide information on the use of safe motherhood services provided by the public and private sectors. A wide variety of relevant questions on safe motherhood were included in the Women's Questionnaire. A few questions were also asked in the Men's Questionnaire to find out about men's involvement in maternal care. The topics covered include pregnancy complications, antenatal and postnatal care, place of and assistance during delivery, delivery characteristics, and postpartum complications. Unlike NFHS-2 where information on the utilization of maternal services was collected for the last two live births of ever-married women during the three years preceding the survey, NFHS-3 was expanded to include information on all births to women in the last five years. However, in NFHS-3 most of the detailed information on antenatal, delivery, and postnatal care was obtained for only the woman's most recent birth during the five years preceding the survey.

8.1 ANTENATAL CARE

Antenatal care (ANC) refers to pregnancy-related health care, which is usually provided by a doctor, an ANM, or another health professional. Ideally, antenatal care should monitor a pregnancy for signs of complications, detect and treat pre-existing and concurrent problems of pregnancy, and provide advice and counselling on preventive care, diet during pregnancy, delivery care, postnatal care, and related issues. In India, the Reproductive and Child Health Programme aims at providing at least three antenatal check-ups which should include a weight and blood pressure check, abdominal examination, immunization against tetanus, iron and folic acid prophylaxis, as well as anaemia management (Ministry of Health and Family Welfare, 2005).

NFHS-3 collected information from women on specific problems they may have had during their pregnancies and whether they saw anyone for antenatal care for their pregnancy. Women who received antenatal care were asked about the care provider, the timing of the first antenatal care visit, the total number of visits, the procedures conducted as part of their antenatal care, and the advice given to them. In addition, the survey asked women whether they received tetanus toxoid injections and iron and folic acid tablets or syrup during the pregnancy. Results from each of these questions are discussed in this chapter. The fathers of children for whom the mother did not receive antenatal care were asked why the mother did not receive antenatal care.

8.1.1 Health Problems during Pregnancy

For the most recent birth in the five years preceding the survey, the mother was asked if at any time during the pregnancy she experienced any of the following pregnancy-related problems: difficulty with vision during daylight, night blindness, convulsions (not from fever), swelling of the legs, body or face, excessive fatigue, or vaginal bleeding. Night blindness, or difficulty in seeing at dusk, is the result of chronic vitamin A deficiency and is often seen in pregnant women in areas where vitamin A deficiency is endemic. Convulsions accompanied by signs of hypertension can be symptomatic of eclampsia, a potentially fatal condition. The potential health risk posed by vaginal bleeding during pregnancy varies by when in the pregnancy the bleeding takes place. Although documenting the prevalence of the symptoms of pregnancy complications is vital for planning services to reduce maternal morbidity and mortality, the information presented here is based on women's self reports and should be interpreted with care.

Table 8.1 Health problems during pregnancy

Among women who had a live birth in the five years preceding the survey, percentage who experienced specific health problems during pregnancy for the most recent live birth, by residence, India, 2005-06

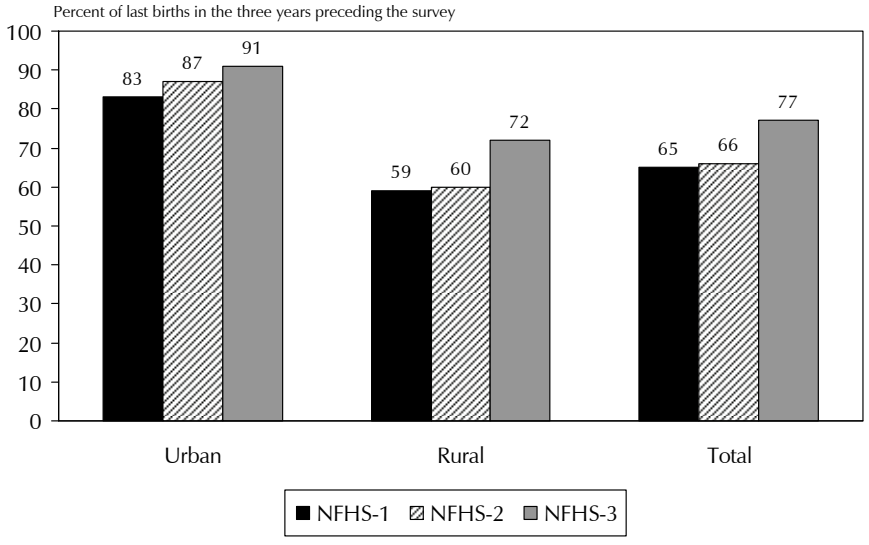
Problem during pregnancy	Urban	Rural	Total
Difficulty with vision during daylight	3.8	7.2	6.3
Night blindness	3.7	10.8	8.9
Convulsions not from fever	7.4	11.3	10.3
Swelling of the legs, body, or face	28.0	24.1	25.1
Excessive fatigue	45.2	48.7	47.8
Vaginal bleeding	5.2	4.1	4.4
Number of women	10,626	29,051	39,677

As shown in Table 8.1, the pregnancy-related health problems most commonly reported are excessive fatigue (48 percent) and swelling of the legs, body, or face (25 percent). Ten percent of mothers had convulsions that were not from fever and 9 percent reported night blindness. Only 4 percent had any vaginal bleeding. The reported prevalence of both kinds of vision problems, convulsions that were not from fever, and excessive fatigue is higher in rural than in urban areas. In contrast, swelling of the legs, body, or face is more prevalent in urban areas.

8.1.2 Antenatal Care Provider

NFHS-3 asked women who had a birth during the five years preceding the survey whether they saw anyone for antenatal care for their most recent birth. Those who received antenatal care were asked whom they saw and where they received antenatal care. Table 8.2 shows the source of antenatal care according to background characteristics. If a woman received care from more than one type of health provider, only the provider with the highest qualification is considered. More than three-quarters of women in India received antenatal care for their most recent birth during the five years preceding the survey. Utilization of antenatal care services for the most recent birth among ever-married women increased substantially over time, from 66 percent in NFHS-2 to 77 percent in NFHS-3 (see Figure 8.1). The rate of increase was higher in rural areas than in urban areas. There was almost no change in antenatal care coverage in either urban or rural areas between NFHS-1 and NFHS-2.

Figure 8.1 **Trends in Any Antenatal Care by Residence**



In NFHS-3, half of women received antenatal care from doctors and 23 percent received antenatal care from ANMs, nurses, midwives, or LHVs. Older women (age 35-49) are much less likely than younger women to have received antenatal care for their most recent birth, and the likelihood of receiving antenatal care declines sharply with birth order. Eighty-eight percent of mothers of first-order births received antenatal care, compared with only 48 percent of mothers of births of order six or higher. Ninety-eight percent of women with 12 or more years of education received antenatal care, compared with 62 percent of women with no education. The

percentage of mothers who received antenatal care from a doctor increases sharply with education, from 29 percent for women with no education to 88 percent for women who have completed 12 years of education or more. As expected, antenatal care overall and antenatal care from doctors is much more common in urban areas than in rural areas, whereas antenatal care from other types of health personnel is more common in rural areas.

Table 8.2 Antenatal care

Percent distribution of women who had a live birth in the five years preceding the survey by antenatal care (ANC) provider during pregnancy for the most recent live birth, according to background characteristics, India, 2005-06

Background characteristic	Doctor	ANM/nurse/ midwife/ LHV	Other health personnel	*Dai*/TBA	*Anganwadi*/ ICDS worker	Other	No one	Missing	Total	Number of women
Age at birth										
<20	51.4	25.1	1.0	1.1	1.7	0.1	19.5	0.1	100.0	6,881
20-34	51.5	22.5	1.0	1.1	1.6	0.1	22.0	0.0	100.0	30,716
35-49	27.4	22.7	1.3	1.8	1.5	0.2	45.1	0.2	100.0	2,080
Birth order										
1	66.5	19.0	0.7	0.8	1.3	0.1	11.6	0.1	100.0	10,457
2-3	55.7	22.6	1.1	1.2	1.6	0.1	17.6	0.0	100.0	18,207
4-5	31.2	27.5	1.4	1.3	2.5	0.2	35.8	0.1	100.0	6,955
6+	16.5	27.1	0.7	1.5	1.4	0.2	52.5	0.0	100.0	4,058
Residence										
Urban	76.7	12.4	0.3	0.9	0.4	0.0	9.3	0.1	100.0	10,626
Rural	40.6	26.9	1.3	1.2	2.1	0.2	27.7	0.1	100.0	29,051
Education										
No education	28.7	28.0	1.3	1.6	2.3	0.1	37.9	0.1	100.0	18,792
<5 years complete	51.7	25.3	1.6	0.7	2.8	0.2	17.6	0.0	100.0	2,876
5-7 years complete	60.6	22.9	1.1	1.2	1.1	0.1	13.0	0.0	100.0	5,846
8-9 years complete	69.2	19.7	0.6	0.8	0.9	0.1	8.6	0.0	100.0	4,892
10-11 years complete	79.2	13.8	0.7	0.6	0.7	0.1	4.9	0.1	100.0	3,254
12 or more years complete	88.1	9.2	0.4	0.3	0.2	0.0	1.7	0.0	100.0	4,016
Religion										
Hindu	50.0	23.7	0.8	1.2	1.9	0.1	22.3	0.0	100.0	31,295
Muslim	48.2	21.3	2.2	0.7	0.5	0.2	26.8	0.1	100.0	6,486
Christian	69.8	10.3	0.7	1.3	0.7	0.1	17.1	0.1	100.0	814
Sikh	57.8	25.8	1.5	4.8	0.2	0.1	9.8	0.0	100.0	514
Buddhist/Neo-Buddhist	58.2	23.9	0.1	2.0	2.8	0.0	12.9	0.0	100.0	250
Jain	95.8	3.5	0.0	0.0	0.0	0.0	0.7	0.0	100.0	76
Other	25.4	20.5	0.7	0.6	4.4	0.1	48.3	0.0	100.0	205
Caste/tribe										
Scheduled caste	42.0	28.1	0.7	1.5	1.8	0.1	25.9	0.0	100.0	7,946
Scheduled tribe	32.8	28.3	1.0	2.3	5.9	0.2	29.4	0.1	100.0	3,746
Other backward class	48.4	23.1	0.8	0.7	1.3	0.1	25.5	0.1	100.0	15,889
Other	63.6	17.7	1.6	1.1	0.7	0.1	15.2	0.1	100.0	11,789
Don't know	62.4	22.1	4.3	0.0	0.0	0.0	11.1	0.0	100.0	158
Wealth index										
Lowest	22.5	29.6	1.8	1.4	3.2	0.2	41.3	0.0	100.0	9,571
Second	36.4	28.1	1.4	1.2	2.0	0.2	30.7	0.1	100.0	8,605
Middle	52.4	24.0	0.9	1.3	1.4	0.1	19.9	0.0	100.0	7,774
Fourth	69.0	18.7	0.4	1.2	0.6	0.1	10.0	0.0	100.0	7,256
Highest	86.2	10.0	0.3	0.6	0.1	0.0	2.6	0.1	100.0	6,471
Total	50.2	23.0	1.0	1.2	1.6	0.1	22.8	0.1	100.0	39,677

Note: If more than one source of ANC was mentioned, only the provider with the highest qualification is considered in this tabulation. Total includes women with missing information on education, religion, and caste/tribe, who are not shown separately.
ANM = Auxiliary nurse midwife; LHV = Lady health visitor; TBA = Traditional birth attendant; ICDS = Integrated Child Development Services

The majority of women in all religious groups receive antenatal care; nonetheless, there is substantial variation by religion in the likelihood of women receiving antenatal care. Antenatal care was received by 73 percent of Muslim women and 78 percent of Hindu women, compared with almost all Jain women and 90 percent of Sikh women. Jain women are most likely to have received antenatal care from a doctor, followed by Christian women. By caste/tribe, the likelihood of having received any antenatal care and care from a doctor is lowest for scheduled tribe mothers and highest for mothers who do not belong to a scheduled caste, scheduled tribe, or

other backward class. The likelihood of having received antenatal care at all, as well as antenatal care from a doctor, increases sharply with the household's wealth index. Among mothers in households with the lowest wealth quintile, 59 percent received antenatal care and only 23 percent received antenatal care from a doctor. By contrast, among mothers in households in the highest wealth quintile, 97 percent received antenatal care and 86 percent received antenatal care from doctors.

In summary, almost one out of every five women in India did not receive any antenatal care for their last birth in the five years preceding the survey. Women not receiving antenatal care tend disproportionately to be older women, women having children of higher birth orders, scheduled tribe women, women with no education, and women in households with a low wealth index. These differentials suggest that improving the coverage of antenatal programmes requires special efforts to reach older and higher-parity women and women who are socioeconomically disadvantaged.

Table 8.3 Antenatal care by state

Percent distribution of women who had a live birth in the five years preceding the survey by antenatal care (ANC) provider during pregnancy for the most recent live birth, according to state, India, 2005-06

State	Doctor	ANM/ nurse/ midwife/ LHV	Other health personnel	*Dai*/TBA	*Anganwadi*/ ICDS worker	Other	No one	Missing	Total
India	50.2	23.0	1.0	1.2	1.6	0.1	22.8	0.1	100.0
North									
Delhi	79.2	7.9	0.2	2.6	0.3	0.1	9.6	0.0	100.0
Haryana	42.1	30.0	1.4	10.8	5.2	0.3	10.1	0.0	100.0
Himachal Pradesh	66.0	18.3	0.0	5.0	0.2	0.0	10.4	0.0	100.0
Jammu & Kashmir	77.2	6.2	0.6	1.1	0.1	0.1	14.7	0.1	100.0
Punjab	56.1	25.8	0.7	7.6	0.1	0.0	9.7	0.0	100.0
Rajasthan	33.9	39.2	0.2	0.5	1.1	0.0	25.1	0.0	100.0
Uttaranchal	47.9	11.4	0.3	12.9	0.6	0.8	25.9	0.1	100.0
Central									
Chhattisgarh	41.8	33.7	2.4	0.9	9.8	0.1	11.3	0.0	100.0
Madhya Pradesh	32.6	41.1	0.3	2.2	3.5	0.1	20.3	0.0	100.0
Uttar Pradesh	22.5	42.9	0.5	0.3	0.3	0.1	33.5	0.0	100.0
East									
Bihar	29.1	3.9	0.9	0.2	0.2	0.0	65.7	0.1	100.0
Jharkhand	39.3	13.4	4.3	0.1	2.0	0.0	40.6	0.2	100.0
Orissa	57.6	16.4	0.7	0.4	12.1	0.0	12.7	0.0	100.0
West Bengal	56.5	29.4	5.8	0.0	0.5	0.0	7.7	0.0	100.0
Northeast									
Arunachal Pradesh	50.3	3.2	0.0	2.1	0.0	1.3	42.6	0.5	100.0
Assam	52.9	13.2	0.7	2.7	0.4	2.4	27.8	0.0	100.0
Manipur	83.1	2.6	0.2	0.7	0.0	0.0	13.4	0.0	100.0
Meghalaya	55.7	7.9	0.2	4.0	0.2	0.0	31.7	0.2	100.0
Mizoram	54.8	11.1	3.8	3.0	2.1	0.0	25.1	0.0	100.0
Nagaland	51.2	3.5	2.6	0.4	0.0	0.1	42.2	0.0	100.0
Sikkim	63.7	24.7	1.0	0.0	0.2	0.0	10.4	0.0	100.0
Tripura	74.2	1.8	0.6	1.7	0.4	0.0	21.1	0.2	100.0
West									
Goa	96.9	0.6	0.2	0.3	0.1	0.1	1.4	0.4	100.0
Gujarat	63.4	20.5	0.1	2.1	1.3	0.0	12.6	0.1	100.0
Maharashtra	75.9	12.1	0.1	1.6	2.9	0.0	7.3	0.0	100.0
South									
Andhra Pradesh	87.5	6.4	0.2	0.2	0.3	0.0	5.2	0.2	100.0
Karnataka	79.1	9.6	0.4	0.5	0.4	0.3	9.4	0.3	100.0
Kerala	98.1	0.5	0.5	0.4	0.2	0.1	0.1	0.1	100.0
Tamil Nadu	83.6	14.3	0.0	0.0	1.0	0.0	1.1	0.0	100.0

Note: If more than one source of ANC was mentioned, only the provider with the highest qualification is considered.
ANM = Auxiliary nurse midwife; LHV = Lady health visitor; TBA = Traditional birth attendant; ICDS = Integrated Child Development Services

Table 8.3 shows wide variations in the use of antenatal care services among the states. Utilization of antenatal care is almost universal in Kerala, Tamil Nadu, and Goa. In addition, more than 90 percent of women received ANC in Andhra Pradesh, Maharashtra, West Bengal, Karnataka, Delhi, and Punjab. The percentage of women receiving antenatal care was lowest in Bihar (34 percent), followed by Arunachal Pradesh, Nagaland, and Jharkhand (57-59). In most states, a majority of women received antenatal care from a doctor, with Kerala and Goa on the top. Uttar Pradesh, Madhya Pradesh, and Rajasthan had the largest proportion of women who received antenatal care from an ANM, nurse, midwife, or LHV. More than 10 percent of women in Uttaranchal and Haryana received ANC from a *dai* (TBA). The use of an *anganwadi* or ICDS worker for ANC was highest in Orissa (12 percent) and Chhattisgarh (10 percent).

8.1.3 Number and Timing of Antenatal Care Visits

The number of antenatal care visits and the timing of the first visit are important for the health of the mother and the outcome of the pregnancy. The World Health Organization recommends that all pregnant women should have at least four antenatal care (ANC) assessments by or under the supervision of a skilled attendant (World Health Organization, 2006). These assessments should be spaced at regular intervals throughout pregnancy, commencing as early as possible in the first trimester. Studies on the timing of the initial antenatal check-up, however, show that even when antenatal care is initiated as late as the third trimester, there is a substantial reduction in perinatal mortality (Ramachandran, 1992). The first antenatal check-up should take place at the latest during the second trimester of pregnancy. NFHS-3 asked women who received antenatal care for the most recent birth in the five years preceding the survey about the total number of antenatal care visits they had and when in their pregnancies they had their first visit.

Table 8.4 Number of antenatal care visits and timing of first visit

Percent distribution of women who had a live birth in the five years preceding the survey by number of antenatal care (ANC) visits for the most recent birth, and by the timing of the first visit, according to residence, India, 2005-06

Number and timing of ANC visits	Urban	Rural	Total
Number of ANC visits			
None	9.3	27.7	22.8
1	3.1	7.1	6.0
2	12.0	20.8	18.5
3	12.3	16.0	15.0
4+	62.4	27.7	37.0
Don't know/missing	1.0	0.7	0.8
Total	100.0	100.0	100.0
Number of months pregnant at time of first ANC visit			
No antenatal care	9.3	27.7	22.8
<4	63.6	36.7	43.9
4-5	18.3	23.9	22.4
6-7	6.9	8.5	8.0
8+	1.2	2.4	2.1
Don't know/missing	0.7	0.9	0.8
Total	100.0	100.0	100.0
Number of women	10,626	29,051	39,677
Median months pregnant at first visit (for those with ANC)	3.3	4.0	3.8
Number of women with ANC	9,635	20,986	30,621

Table 8.4 shows the percent distribution of mothers who had a live birth in the five years preceding the survey by the number and timing of antenatal care visits for their most recent birth. Twenty-five percent of mothers had 1-2 antenatal care visits and 52 percent had three or more visits. There are substantial differences in the number of antenatal care visits by residence. Seventy-five percent of mothers in urban areas had at least three antenatal care visits, compared with 44 percent in rural areas. The shorter distances to antenatal care services and the comparative ease of travel in urban areas, as well as the higher educational attainment of mothers in urban areas, could be important factors in explaining the larger proportion of antenatal care visits in urban areas.

Forty-four percent of mothers had their first antenatal care visit in the first trimester of pregnancy and another 22 percent had their first visit during their fourth or fifth month of pregnancy (Table 8.4). Only 10 percent of women had their first antenatal care when they were six or more months pregnant. Visits during the first trimester were much more common in urban areas (64 percent) than in rural areas (37 percent). Among women who received at least one antenatal check-up, the median timing of the first antenatal care visit is 3.8 months for India as a whole and is almost one month later in rural areas (4.0 months) than in urban areas (3.3 months).

Table 8.5 shows the timing of antenatal care visits according to the source of ANC. More than half of mothers (54 percent) receiving antenatal care from the public sector had 2-3 visits, whereas 64 percent of mothers who received antenatal care from the private sector, including NGOs, had four or more visits. Two-thirds of mothers receiving antenatal care from both the private and public/NGO sector had four or more visits. The percentage with antenatal care visits during the first trimester was much higher for the private/NGO sector (70 percent) than for the public sector (49 percent). The median duration of pregnancy at the time of the first antenatal care visit is 3.3 months for the private/NGO sector and 4.0 months for the public sector. The median duration of pregnancy at the time of the first ANC check-up is highest (4.4 months) for women who received ANC only at home.

Table 8.5 Number of antenatal care visits and timing of first visit by source

Percent distribution of women who had a live birth in the five years preceding the survey who received antenatal care for the most recent live birth by number of antenatal care (ANC) visits, and by the timing of the first visit, according to the source of antenatal care, India, 2005-06

Number and timing of ANC visits	Source				Total
	Public sector only	Private/ NGO sector only	Both public and private/ NGO sector	ANC received only at home	
Number of ANC visits					
1	7.4	7.1	1.3	15.0	7.8
2	31.2	13.5	9.5	35.4	23.9
3	22.8	14.5	21.7	21.0	19.4
4+	37.9	64.1	67.1	25.5	47.9
Don't know/missing	0.7	0.7	0.4	3.2	1.0
Total	100.0	100.0	100.0	100.0	100.0
Number of months pregnant at time of first ANC visit					
<4	49.1	69.8	64.2	42.6	56.9
4-5	35.6	19.1	28.2	34.8	29.0
6-7	12.0	7.9	6.4	14.2	10.4
8+	2.3	2.7	0.6	5.6	2.7
Don't know/missing	1.0	0.6	0.6	2.8	1.0
Total	100.0	100.0	100.0	100.0	100.0
Median months pregnant at first visit (for those with ANC)	4.0	3.3	3.6	4.4	3.8
Number of women with ANC	14,327	11,318	1,681	3,248	30,621

Note: Total includes women with missing information on source of ANC.
NGO = Nongovernmental organization

8.1.4 Components of Antenatal Care

Important elements of antenatal care include the provision of iron supplementation for pregnant mothers, two doses of tetanus toxoid vaccine, and a drug to get rid of intestinal worms. Nutritional deficiencies in women are often exacerbated during pregnancy because of the additional nutrient requirements of foetal growth. Iron deficiency anaemia is the most common

Table 8.6 Components of antenatal care

Among women with a live birth in the five years preceding the survey, percentage who were given or purchased iron and folic acid (IFA) tablets or syrup, took IFA for 90 days or more, received two or more tetanus toxoid (TT) injections during the pregnancy, received one TT injection during pregnancy and at least one in the three years preceding the survey, and who took a drug for intestinal parasites during the pregnancy for their most recent live birth, by background characteristics, India, 2005-06

	Among women with a live birth in the past five years, percentage who during the pregnancy for their last birth:					
Background characteristic	Were given or purchased IFA	Took IFA for 90 days or more	Received two or more TT injections	Received one TT injection during the pregnancy and at least one in the three years prior to the pregnancy	Took an intestinal parasite drug	Number of women
Age at birth						
<20	66.2	19.5	79.7	1.1	3.6	6,881
20-34	66.2	24.6	76.9	1.6	3.8	30,716
35-49	45.0	12.4	56.0	0.7	3.2	2,080
Birth order						
1	76.1	32.2	86.1	0.3	4.5	10,457
2-3	69.0	25.8	80.3	2.0	4.0	18,207
4-5	53.8	12.4	66.2	1.8	2.9	6,955
6+	38.7	6.0	49.7	1.5	2.2	4,058
Residence						
Urban	75.7	34.8	86.4	1.2	4.4	10,626
Rural	61.2	18.8	72.6	1.6	3.5	29,051
Education						
No education	49.2	10.2	63.6	1.4	2.4	18,792
<5 years complete	70.8	21.7	79.7	2.0	4.5	2,876
5-7 years complete	74.2	25.9	85.1	1.5	3.6	5,846
8-9 years complete	79.1	31.7	87.3	1.9	4.7	4,892
10-11 years complete	81.7	40.7	91.1	1.4	6.0	3,254
12 or more years complete	91.7	55.7	94.6	0.9	6.7	4,016
Religion						
Hindu	66.2	23.6	76.9	1.4	3.7	31,295
Muslim	58.4	18.2	73.4	1.8	4.2	6,486
Christian	74.5	38.2	74.4	1.9	4.4	814
Sikh	67.1	30.6	85.5	0.7	2.7	514
Buddhist/Neo-Buddhist	75.9	24.6	75.6	5.8	2.4	250
Jain	84.2	47.7	92.2	0.6	5.5	76
Other	54.1	15.1	50.2	1.6	6.0	205
Caste/tribe						
Scheduled caste	63.0	17.4	73.6	1.5	2.7	7,946
Scheduled tribe	62.0	17.6	61.9	1.2	3.7	3,746
Other backward class	61.6	22.1	76.5	1.7	3.7	15,889
Other	72.2	30.1	82.3	1.3	4.6	11,789
Don't know	74.4	24.5	78.3	0.6	5.3	158
Wealth index						
Lowest	49.2	10.0	59.7	1.5	2.6	9,571
Second	57.1	13.2	70.2	1.6	3.0	8,605
Middle	67.0	21.5	79.3	1.7	3.9	7,774
Fourth	75.0	30.6	87.2	1.4	4.5	7,256
Highest	86.0	49.1	92.9	1.0	5.5	6,471
Total	65.1	23.1	76.3	1.5	3.8	39,677

Note: Total includes women with missing information on education, religion, and caste/tribe, who are not shown separately.

micronutrient deficiency in the world. It is a major threat to safe motherhood and to the health and survival of infants because it contributes to low birth weight, lowered resistance to infection, impaired cognitive development, and decreased work capacity. The provision of iron and folic acid (IFA) tablets to pregnant women to prevent nutritional anaemia forms an integral part of the safe motherhood services offered as part of the Reproductive and Child Health Programme in India. The programme recommendation is that women consume 100 tablets of iron and folic acid during pregnancy.

For the most recent birth during the five years preceding the survey, NFHS-3 collected information on whether the mother received IFA tablets or syrup during pregnancy. IFA syrup was included in the question along with IFA tablets since IFA syrup is sometimes prescribed in the private sector and may even be prescribed in the public sector when and where tablets are not available. Table 8.6 shows that 65 percent of mothers received IFA supplements for their most recent birth. IFA coverage is well below average for older women, women with fourth or higher-order births, women with no education, Muslim women, and women in households in the lowest wealth quintile. IFA coverage is also lower in rural areas (61 percent) than in urban areas (76 percent).

Overall, only 23 percent of women consumed IFA for at least 90 days. This percentage is universally low among all groups of women except women who have completed 12 years of education or more (56 percent) and women in households in the highest wealth quintile (49 percent).

Seventy-six percent of mothers received two or more tetanus toxoid injections during pregnancy for their most recent birth. Another 2 percent received one tetanus toxoid injection during the most recent pregnancy and one or more TT injections in the three years preceding the most recent pregnancy. The proportion of mothers receiving two or more tetanus toxoid injections during pregnancy for the most recent birth is substantially lower than the national average among older mothers, mothers of higher-order births (six or more), mothers with no education, scheduled tribe mothers, and mothers in households in the lowest wealth quintile. Tetanus toxoid coverage increases with the education level of women and is considerably higher in urban areas (86 percent) than in rural areas (73 percent).

Only 4 percent of women took a drug for intestinal parasites during their pregnancy. Variations by background characteristics are small, and there is no group of women with more than 7 percent coverage of deworming medication.

8.1.5 Antenatal Care Services and Information

The effectiveness of antenatal care in ensuring safe motherhood depends in part on the tests and measurements done and the advice given as part of antenatal care. NFHS-3 collected information on this important aspect of antenatal care by asking women who received antenatal care whether they received each of several types of service or information at any time as part of their antenatal care. Table 8.7 shows the percentage of mothers receiving selected services during antenatal care. All of these measurements and tests are part of essential obstetric care or

Table 8.7 Antenatal care services and information

Among women with a live birth in the five years preceding the survey who received antenatal care for the most recent live birth, percentage receiving specific services and information on specific signs of pregnancy complications and where to go if there was a pregnancy complication, according to background characteristics, India, 2005-06

Background characteristic	Percentage receiving selected services during antenatal care					Percentage receiving information on specific pregnancy complications				Number of women
	Weighed	Blood pressure measured	Urine sample taken	Blood sample taken	Abdomen examined	Vaginal bleeding	Convulsions	Prolonged labour	Where to go if experienced pregnancy complications	
Age at birth										
<20	62.7	62.2	57.1	57.9	70.3	13.8	13.9	18.0	35.4	5,532
20-34	64.2	65.0	59.3	60.7	73.1	17.4	15.9	20.7	42.8	23,949
35-49	45.5	45.7	38.1	40.3	58.5	13.2	12.5	16.2	32.4	1,139
Birth order										
1	72.9	74.6	71.7	72.4	81.2	20.2	18.9	24.8	47.8	9,236
2-3	66.9	67.3	60.8	61.9	74.0	17.6	15.7	20.6	43.1	15,000
4-5	45.2	44.9	37.4	39.9	58.4	10.4	10.4	13.2	29.1	4,458
6+	29.5	28.4	19.2	23.2	44.1	6.8	7.9	9.5	20.5	1,927
Residence										
Urban	80.1	82.8	80.1	80.0	86.5	23.5	21.4	26.7	53.0	9,635
Rural	55.5	55.0	48.0	50.0	65.4	13.5	12.6	17.1	35.6	20,986
Education										
No education	43.6	41.5	35.1	37.2	54.8	9.2	9.2	12.2	25.5	11,656
<5 years complete	63.8	63.1	52.3	56.0	69.8	14.5	13.4	19.0	37.2	2,370
5-7 years complete	68.7	69.5	62.5	64.4	76.5	16.4	15.8	20.5	45.0	5,085
8-9 years complete	72.1	75.8	70.4	71.2	81.7	19.1	17.7	22.8	49.2	4,470
10-11 years complete	81.2	85.2	82.4	82.4	89.7	23.5	21.6	28.3	55.0	3,091
12 or more years complete	89.5	92.1	90.6	89.7	93.8	31.9	26.9	34.1	64.4	3,948
Religion										
Hindu	63.2	63.0	57.8	59.3	72.3	16.6	15.7	20.2	41.6	24,317
Muslim	58.6	62.6	54.8	55.8	67.2	14.6	12.5	17.0	34.1	4,741
Christian	83.5	84.3	74.5	74.5	88.7	24.5	19.9	28.6	55.6	674
Sikh	63.0	75.1	73.9	74.0	79.6	22.9	20.1	31.1	59.3	463
Buddhist/Neo-Buddhist	82.7	78.3	74.2	75.4	82.5	15.9	14.0	15.6	42.6	218
Jain	97.3	92.7	87.1	94.3	92.2	37.9	32.7	43.2	73.0	76
Other	72.0	54.1	41.0	44.6	59.1	13.9	13.9	24.8	31.5	106
Caste/tribe										
Scheduled caste	57.8	56.5	50.3	52.7	67.0	13.2	13.1	17.3	38.4	5,889
Scheduled tribe	59.6	48.7	40.2	44.7	63.5	12.5	11.1	14.9	32.4	2,642
Other backward class	59.4	61.9	57.5	58.1	71.7	16.1	14.9	19.6	39.7	11,827
Other	71.6	74.1	68.1	69.0	77.7	20.4	18.4	23.7	46.8	9,997
Don't know	82.2	80.5	67.8	67.0	77.8	17.1	15.6	15.1	40.7	140
Wealth index										
Lowest	44.6	35.5	26.7	30.9	49.5	8.5	8.5	11.2	24.4	5,613
Second	48.5	48.8	40.0	42.7	60.6	11.2	10.8	14.7	30.3	5,958
Middle	61.0	63.4	57.5	58.3	71.8	13.9	13.7	17.8	40.0	6,223
Fourth	71.6	75.6	72.1	72.3	82.2	19.1	17.0	23.4	47.1	6,531
Highest	87.1	91.1	89.3	88.7	92.6	29.1	25.7	31.9	61.0	6,297
Total	63.2	63.8	58.1	59.5	72.0	16.6	15.4	20.1	41.1	30,621

Note: Total includes women with missing information on education, religion, and caste/tribe, who are not shown separately.

are required for monitoring high-risk pregnancies. Among women receiving antenatal care for their most recent birth, 72 percent had an abdominal examination, 64 percent had their blood pressure checked, and 63 percent had their weight measured. Blood and urine tests were conducted for 60 and 58 percent of women, respectively. All of these measurements or tests were much more likely to be performed for women in urban areas, younger women (under age 35), women having lower-order births, more educated women, Jain and Sikh women, women in households in the higher wealth quintiles, and women who are not from scheduled castes, scheduled tribes, or other backward classes.

During their contacts with health workers, pregnant women are expected to be told about the signs of pregnancy complications and where they should go if they have pregnancy complications. In NFHS-3, women who received antenatal care for a birth in the five years preceding the survey were asked (for their most recent birth) whether they were told about the signs of pregnancy complications and where to go if they experienced any of these signs. Table 8.7 shows that most women did not receive information on specific pregnancy complications and they were not given advice on where to go if they experienced pregnancy complications. Only 20 percent were told about prolonged labour as a sign of a pregnancy complication, and even fewer (15-17 percent) were told about convulsions and vaginal bleeding as signs of pregnancy complications. Urban women, more educated women, and women in households in the highest wealth quintile were better informed about each pregnancy complication. Overall, 41 percent of mothers were given advice on where to go if they experienced pregnancy complications. Women with at least 12 years of education and women in households in the highest wealth quintile were more likely than other women to get advice on where to go if they experienced pregnancy complications. Jain women were most likely to be informed about each pregnancy complication and about where to go if they experienced pregnancy complications.

8.1.6 Male Involvement in Antenatal Care

The Reproductive and Child Health Programme in India envisages the involvement of men in women's reproductive health. Health workers are supposed to provide expectant fathers with information on several aspects of maternal and child care during their contacts with expectant fathers. In NFHS-3, information was collected through the Men's Questionnaire about several aspects of their involvement in antenatal care, including whether the mother of their youngest child had any antenatal check-ups when she was pregnant, whether they were present at any of these antenatal check-ups, and the reason the mother did not have any antenatal check-ups if she did not have any. Men were also asked whether at any time during the pregnancy any health provider or health worker told them about the various signs of pregnancy complications (vaginal bleeding, convulsions, and prolonged labour) and what to do if the mother had any of those complications. Table 8.8 presents information on men's involvement during antenatal care visits and information given to them by a health provider or health worker about signs of pregnancy complications. Two-thirds of men age 15-49 said that the mother received some antenatal care when pregnant with their youngest child under three years of age. For 50 percent of the pregnancies, the father said he was present during at least one of the mother's check-ups. For 17 percent of the pregnancies, the mother had at least one antenatal check-up but the father was not present during any of the check-ups.

Table 8.8 Male involvement in antenatal care: Men's reports

Among men age 15-49 whose youngest living child was age 0-35 months, percentage for whom the mother of the child received antenatal care (ANC) and the father was present or not present at the time of any ANC visit, percentage who were told by a health provider or health worker at any time during the pregnancy about specific signs of pregnancy complications, and percentage who were told what to do if the mother had any pregnancy complication, according to background characteristics, India, 2005-06

Background characteristic	Percentage for whom the child's mother received ANC and the father was:			Percentage who were told by a health provider or worker about specific signs of pregnancy complications			Percentage ever told what to do if mother had any pregnancy complication	Number of men
	Present for ANC	Not present for any ANC	Total	Vaginal bleeding	Convulsions	Prolonged labour		
Age at birth								
<20	30.3	22.2	52.5	12.0	14.9	13.3	25.3	170
20-34	50.4	17.6	68.1	22.1	22.3	25.6	38.2	11,127
35-49	46.6	14.4	61.0	18.9	19.6	23.1	33.7	2,732
Number of children ever born								
1	61.9	18.5	80.4	27.0	26.8	31.1	44.2	4,388
2-3	50.6	18.1	68.7	21.6	22.0	25.4	38.6	6,601
4+	28.9	12.8	41.7	12.6	13.6	15.2	23.8	3,039
Residence								
Urban	64.9	17.3	82.1	27.8	28.8	33.0	47.3	4,233
Rural	42.8	16.9	59.7	18.5	18.7	21.5	32.7	9,795
Education								
No education	28.8	15.6	44.4	11.6	11.8	13.6	22.4	3,412
<5 years complete	40.2	24.1	64.3	16.1	17.6	19.1	30.7	1,548
5-7 years complete	48.6	20.9	69.4	21.5	21.9	26.2	36.5	2,350
8-9 years complete	53.8	17.0	70.8	23.1	23.5	27.0	40.8	2,691
10-11 years complete	62.8	15.7	78.5	29.9	29.0	34.3	48.9	1,586
12 or more years complete	71.7	11.9	83.5	30.6	31.2	35.0	50.7	2,437
Religion								
Hindu	49.7	16.9	66.6	21.2	21.7	24.7	37.7	11,189
Muslim	46.1	17.1	63.2	18.6	19.2	23.5	30.9	2,167
Christian	60.3	17.2	77.5	33.5	29.7	35.5	46.3	281
Sikh	54.1	24.2	78.3	34.0	28.5	36.6	49.5	179
Buddhist/Neo-Buddhist	59.9	14.3	74.2	26.9	25.0	26.9	48.9	107
Jain	(78.0)	(17.4)	(95.3)	(51.9)	(54.6)	(67.5)	(68.8)	35
Other	25.5	20.8	46.3	22.9	27.6	23.3	42.9	67
Caste/tribe								
Scheduled caste	44.0	17.8	61.8	19.3	19.8	22.4	35.3	2,928
Scheduled tribe	39.0	17.7	56.6	17.3	17.9	22.8	34.4	1,402
Other backward class	47.9	16.1	64.0	20.8	21.8	23.9	36.3	5,482
Other	58.8	17.5	76.3	24.9	24.3	28.8	40.4	4,153
Don't know	(57.9)	(23.5)	(81.4)	(36.7)	(29.5)	(43.9)	(58.5)	21
Wealth index								
Lowest	27.6	15.1	42.6	10.6	11.3	13.2	21.7	3,130
Second	38.6	17.5	56.1	17.1	17.5	18.6	29.8	2,936
Middle	49.6	19.2	68.8	20.4	20.7	25.1	37.8	2,842
Fourth	61.7	19.2	80.8	27.5	27.9	32.5	45.4	2,818
Highest	77.9	14.0	91.9	34.8	34.9	39.8	56.5	2,303
Total	49.5	17.0	66.5	21.3	21.7	25.0	37.1	14,028

Note: Total includes men with missing information on education, religion, and caste/tribe, who are not shown separately.
( ) Based on 25-49 unweighted cases.

Men under age 20 at the time of the birth of their youngest child were less likely to be present for antenatal check-ups of the mother than older men. There is a strong negative relationship between the father's number of children ever born and his presence during any antenatal check-up of the mother, and a positive relationship between both the man's educational level and his wealth status and his presence during antenatal check-ups. For example, men with one child ever born are more than twice as likely (62 percent) to be present during antenatal care than men with four or more children ever born (29 percent). Similarly, men with 12 or more years of education and men in households in the highest wealth quintile are at least two and a half times as likely to be present during an antenatal check-up as men with no education and men in the lowest wealth quintile households. Men in urban areas are more likely than men in rural

areas to be present during an antenatal check-up. The man's presence is lower than average for scheduled tribes and Muslims.

Only one-quarter of fathers or less were told about signs of each of the major pregnancy complications (vaginal bleeding, convulsions, and prolonged labour), and 37 percent were told what to do if the mother had a pregnancy complication. The percentage of men who were told about the signs of specific pregnancy complications is particularly low among men who were less than 20 years of age at the time of the birth, men with four or more children ever born, men in rural areas, men with no education, Muslim men, and men in households in the lowest wealth quintile. The pattern is similar with respect to information given to men about the action to be taken in case the mother had any pregnancy complication.

Table 8.9 shows the distribution of men age 15-49 whose youngest child was less than three years of age at the time of the survey and for whom the mother did not receive any antenatal care by the main reason for not receiving antenatal care. Two out of five men thought it was not necessary for the mother to receive antenatal care. Another 15 percent of men said that their family did not think it was necessary or did not allow the mother to receive antenatal care. For 20 percent of men, the main reason for the mother not receiving antenatal care was that it costs too much. The reasons given by men for the mother not receiving antenatal care are similar in rural and urban areas. However, a much higher proportion of rural men (21 percent) than urban men (14 percent) gave cost as the main reason for the mother not receiving antenatal care. Surprisingly, a larger proportion of men in urban areas than in rural areas said that their family did not think it necessary or did not allow the mother to receive antenatal care.

Table 8.9 Reasons why child's mother did not receive antenatal care: Men's reports

Percent distribution of men age 15-49 whose youngest living child was age 0-35 months and the child's mother did not receive antenatal care when pregnant with the child by the main reason for not receiving antenatal care, according to residence, India, 2005-06

Reason why mother did not receive antenatal care	Urban	Rural	Total
Man did not think it was necessary/did not allow	38.8	40.7	40.4
Family did not think it was necessary/did not allow	20.3	14.0	15.0
Child's mother did not want check-up	10.4	9.1	9.3
Has had children before	1.5	1.6	1.6
Costs too much	14.0	20.7	19.6
Too far/no transportation	1.2	3.9	3.4
No female health worker available	0.9	1.4	1.3
Other	3.0	2.0	2.2
Don't know/missing	9.8	6.5	7.0
Total	100.0	100.0	100.0
Number of men	756	3,944	4,699

8.1.7 Antenatal Care Indicators by State

Table 8.10 shows state differentials in the percentage of live births during the five years preceding the survey whose mothers received different types of antenatal care for their most recent birth. Nine summary indicators of the utilization of antenatal care services are presented. The utilization of antenatal care services differs greatly by state; however, with a few exceptions, states that do well on any one indicator of antenatal care also perform well on the other indicators. Goa, Kerala, and Tamil Nadu rank in the top five states in the country in terms of

their performance on almost all of the indicators. In these three states, mothers of 94-99 percent of births had at least one antenatal care visit, 94-96 percent had three or more visits, 75-92 percent had a visit in the first trimester of pregnancy, 87-96 percent received two or more tetanus toxoid injections, 87-96 percent received any iron and folic acid tablets or syrup, and 42-75 percent took IFA tablets for at least 90 days. Kerala and Tamil Nadu each rank highest

Table 8.10 Antenatal care indicators by state

Among women with a live birth in the five years preceding the survey, percentage who received different types of antenatal care (ANC) during the pregnancy for their most recent live birth by state, India, 2005-06

State	Percentage who had at least one ANC visit	Percentage who had three or more ANC visits	Percentage with an ANC visit in the first trimester of pregnancy	Percentage who received information about specific pregnancy complications[1]	Percentage who received two or more TT injections during the pregnancy	Percentage who received one TT injection during the pregnancy and at least one more in the three years prior to the pregnancy	Percentage given or bought IFA	Percentage who took IFA for at least 90 days	Percentage who took an intestinal parasite drug
India	76.4	52.0	43.9	36.0	76.3	1.5	65.1	23.1	3.8
North									
Delhi	88.8	75.1	63.8	72.4	90.3	0.5	77.6	39.5	5.9
Haryana	88.3	59.2	51.4	41.1	83.4	0.7	61.3	26.7	1.1
Himachal Pradesh	86.4	62.6	56.8	64.3	72.1	5.3	84.2	37.9	2.8
Jammu & Kashmir	84.6	73.5	54.8	31.0	81.0	1.4	67.6	27.6	1.6
Punjab	88.9	74.8	60.4	63.6	83.8	0.6	65.5	27.9	2.5
Rajasthan	74.9	41.2	34.0	29.8	65.2	1.7	57.7	13.1	1.4
Uttaranchal	69.4	44.9	43.3	38.2	68.5	1.7	62.6	26.4	2.5
Central									
Chhattisgarh	88.5	54.2	46.0	38.3	74.6	2.7	74.6	20.7	1.1
Madhya Pradesh	79.5	40.7	39.3	34.3	70.6	3.2	62.8	12.4	3.2
Uttar Pradesh	66.0	26.6	25.7	14.2	64.5	1.4	53.2	8.8	2.1
East									
Bihar	34.1	17.0	18.7	15.8	73.2	1.3	29.7	9.7	3.7
Jharkhand	58.9	35.9	33.2	23.4	67.6	1.3	49.5	14.2	4.9
Orissa	86.9	61.8	48.3	37.6	83.3	0.1	83.1	33.8	4.3
West Bengal	91.9	62.0	38.6	40.8	90.9	1.4	81.9	25.7	4.4
Northeast									
Arunachal Pradesh	52.6	35.5	24.2	32.3	40.1	0.5	47.7	11.2	4.0
Assam	70.7	39.3	40.0	20.8	65.4	1.4	62.1	16.2	2.4
Manipur	86.3	68.6	64.5	38.6	79.2	2.3	65.2	13.1	2.8
Meghalaya	67.6	54.0	32.6	28.1	51.8	1.6	54.7	16.7	2.7
Mizoram	74.3	59.3	42.9	51.4	51.4	10.9	61.9	24.7	4.0
Nagaland	57.8	32.7	29.2	24.5	50.7	1.7	25.6	3.5	1.4
Sikkim	89.3	70.1	57.9	70.9	81.1	2.2	86.4	38.7	2.3
Tripura	78.3	60.0	47.2	42.9	74.9	0.3	68.8	18.0	4.1
West									
Goa	97.3	94.9	85.7	60.1	86.8	1.2	87.4	68.6	10.1
Gujarat	86.7	67.5	55.0	59.4	80.4	1.8	82.4	37.0	7.1
Maharashtra	90.8	75.1	62.1	46.2	85.1	1.7	80.9	31.4	3.7
South									
Andhra Pradesh	94.3	85.4	66.1	49.9	85.3	0.4	76.6	41.2	4.6
Karnataka	89.3	79.5	70.9	47.6	78.6	0.9	74.3	39.3	6.8
Kerala	94.4	93.6	91.9	72.9	88.7	1.9	96.4	75.1	10.1
Tamil Nadu	98.6	95.9	75.3	84.4	95.9	2.0	91.9	41.6	6.5

TT = Tetanus toxoid; IFA = Iron and folic acid tablets or syrup
[1] Vaginal bleeding, convulsions, prolonged labour, or where to go if she had pregnancy complications.

on four of the nine indicators. Kerala ranks highest in the percentage of women who were given or bought IFA tablets, the percentage who took IFA tablets for at least 90 days, the percentage with an ANC visit in the first trimester, and the percentage who took an intestinal parasite drug (tied with Goa). Goa is slightly ahead of Kerala in the percentage of women with at least one antenatal care visit as well as with three or more antenatal care visits. Tamil Nadu ranks highest in the percentage of mothers who had at least one ANC visit, the percentage who had three or more ANC visits, and coverage by two or more tetanus toxoid injections. Although Andhra

Pradesh is never in the top three, it is the only other state that performs well on almost all indicators. Other states that perform relatively well on most of the indicators include Sikkim, Karnataka, Maharashtra, West Bengal, Punjab, Delhi, Gujarat, and Himachal Pradesh.

Bihar ranks the lowest on many of the antenatal care indicators. Arunachal Pradesh, Nagaland, Uttar Pradesh, Jharkhand, and Rajasthan also perform poorly on most of the indicators. Compared with Tamil Nadu, for example, where 96 percent of mothers had three or more antenatal care visits, only 17 percent of mothers in Bihar and 27 percent in Uttar Pradesh had three or more visits. In Arunachal Pradesh, Nagaland, and Jharkhand, 53-59 percent of mothers had at least one antenatal care visit and only 33-36 percent had three or more visits. In Bihar, less than one in five mothers had an antenatal care visit in the first trimester of their pregnancy. Most of the states performed poorly on the consumption of IFA tablets for 90 days or more during the last pregnancy. The percentage who consumed IFA tablets for 90 days or more is very low in Nagaland, Uttar Pradesh, and Bihar (4-10 percent). In every state, no more than 10 percent of women took an intestinal parasite drug during pregnancy.

With respect to tetanus toxoid injections, Arunachal Pradesh, Nagaland, Mizoram, and Meghalaya perform even more poorly than Uttar Pradesh, Rajasthan, and Jharkhand. In Mizoram, however, 11 percent of mothers received one TT injection during the pregnancy and at least one more in the three years prior to the last pregnancy, bringing the total protected up to 62 percent. Manipur performs relatively well in terms of the percentage of mothers who had antenatal care but not the percentage who took iron and folic acid tablets or syrup for at least 90 days. The percentage of women who received information about pregnancy complications varied from as low as 14-16 percent in Uttar Pradesh and Bihar to more than 70 percent in Tamil Nadu, Kerala, Delhi, and Sikkim. In most other states, less than half of women received information about pregnancy complications.

In summary, antenatal care utilization in India varies greatly by state. For some indicators the variation ranges from only marginal coverage to almost complete coverage. For example, the percentage of women who had three or more antenatal care visits ranges from only 17 percent in Bihar to 96 percent in Tamil Nadu. In general, the southern and western states and some of the northern states perform uniformly well. Bihar, Rajasthan, Uttar Pradesh, and Jharkhand are large states that perform uniformly poorly. The performance of states in the Northeast Region is mixed; notably, however, except for Sikkim and Manipur, the percentage receiving tetanus toxoid injections is below the national average in all of these states.

8.1.8 Ultrasound Testing during Pregnancy

All women who were pregnant at any time in the five years preceding the survey were asked whether they had undergone ultrasound testing during each pregnancy in that period and what the outcome of each such pregnancy was. This information is presented by background characteristics in Table 8.11. Overall, an ultrasound test was performed for 24 percent of pregnancies. The percentage of pregnancies with an ultrasound test was about twice as high (21-25 percent) among women below age 35 than among older women (11 percent). Ultrasound tests were much more common in urban areas (44 percent) than in rural areas (16 percent). Women with four or more antenatal care visits were almost four times as likely to have an ultrasound test

Table 8.11 Pregnancies for which an ultrasound was done

Percentage of all pregnancies in the five years preceding the survey for which an ultrasound test was done and percent distribution of pregnancies with an ultrasound test by pregnancy outcome, according to background characteristics, India, 2005-06

Background characteristic	Percentage of pregnancies with an ultrasound test	Number of pregnancies	Pregnancy outcome[2]				Total	Number of pregnancies with an ultrasound test
			Son	Daughter	Termination	Still pregnant		
Mother's age at pregnancy								
<20	21.4	18,235	45.6	41.9	7.3	5.2	100.0	3,907
20-34	24.9	48,933	45.9	37.9	9.2	7.1	100.0	12,204
35-49	11.0	2,618	39.0	36.1	18.7	6.1	100.0	289
Residence								
Urban	44.0	18,201	46.1	38.7	8.7	6.6	100.0	8,002
Rural	16.3	51,585	45.3	38.9	9.1	6.7	100.0	8,397
Antenatal care visits[1]								
None	2.1	9,035	56.3	43.7	na	na	100.0	189
1-3	14.2	15,660	55.0	45.0	na	na	100.0	2,223
4+	57.6	14,667	55.5	44.5	na	na	100.0	8,450
Don't know/missing	34.5	315	50.5	49.5	na	na	100.0	109
Mother's education								
No education	8.5	33,989	45.7	38.6	10.3	5.4	100.0	2,882
<5 years complete	16.1	5,068	46.2	40.8	8.1	5.0	100.0	818
5-7 years complete	27.6	10,240	45.9	40.2	8.2	5.7	100.0	2,829
8-9 years complete	34.8	8,593	45.3	39.5	7.7	7.5	100.0	2,991
10-11 years complete	50.0	5,530	46.3	36.9	9.6	7.3	100.0	2,763
12 or more years complete	64.7	6,366	45.3	38.5	8.9	7.4	100.0	4,117
Religion								
Hindu	23.5	54,676	46.1	38.3	8.9	6.7	100.0	12,843
Muslim	20.1	11,923	42.6	41.6	9.2	6.6	100.0	2,401
Christian	36.6	1,377	43.6	41.7	7.9	6.9	100.0	503
Sikh	47.4	843	50.8	36.0	7.8	5.4	100.0	400
Buddhist/Neo-Buddhist	31.6	431	57.4	32.8	5.4	4.4	100.0	136
Jain	78.2	104	47.2	43.2	4.6	5.0	100.0	82
Other	6.9	367	40.6	41.1	12.5	5.8	100.0	25
Caste/tribe								
Scheduled caste	16.6	14,340	46.3	40.0	8.3	5.4	100.0	2,374
Scheduled tribe	9.9	6,486	49.1	34.9	9.3	6.7	100.0	645
Other backward class	22.7	28,184	45.7	38.1	8.9	7.3	100.0	6,392
Other	33.8	20,251	45.3	39.2	9.1	6.3	100.0	6,850
Don't know	34.7	262	38.5	46.8	7.8	7.0	100.0	91
Wealth index								
Lowest	4.3	17,283	44.8	38.6	11.3	5.4	100.0	748
Second	9.8	15,466	44.8	39.7	9.5	6.0	100.0	1,520
Middle	20.9	13,815	45.2	40.7	7.8	6.3	100.0	2,886
Fourth	37.6	12,809	45.3	38.7	9.0	7.1	100.0	4,819
Highest	61.7	10,414	46.5	37.9	8.9	6.7	100.0	6,428
Mother's number of living children at time of pregnancy								
No children	35.6	23,243	43.8	40.2	8.7	7.3	100.0	8,266
1 child	26.6	19,711	47.7	39.2	6.8	6.3	100.0	5,252
0 sons	27.6	9,843	51.5	36.4	6.4	5.7	100.0	2,715
1 son	25.7	9,868	43.7	42.3	7.1	7.0	100.0	2,537
2 children	15.8	11,798	48.3	34.0	12.1	5.6	100.0	1,865
0 sons	21.7	3,492	54.3	30.1	11.0	4.5	100.0	756
1 son	14.1	5,812	44.4	36.5	13.1	6.0	100.0	820
2 sons	11.6	2,494	43.2	37.3	12.3	7.1	100.0	288
3 children	8.7	6,921	46.4	35.6	14.2	3.8	100.0	604
0 sons	15.6	1,324	52.0	33.8	9.2	4.9	100.0	206
1 son	8.2	2,928	42.5	35.0	19.9	2.6	100.0	241
2-3 sons	5.9	2,669	45.2	38.8	12.0	4.1	100.0	156
4+ children	5.1	8,112	44.2	32.2	17.7	5.9	100.0	413
0 sons	10.7	678	53.4	35.1	7.3	4.2	100.0	73
1 son	6.9	1,979	47.3	25.6	21.8	5.3	100.0	136
2+ sons	3.7	5,455	38.9	35.6	18.7	6.8	100.0	204
Total	23.5	69,786	45.7	38.8	8.9	6.6	100.0	16,400

Note: Total includes pregnancies with missing information on mother's education, religion, and caste/tribe, which are not shown separately.
na: Not applicable
[1] Includes only the most recent pregnancy in the five years preceding the survey.
[2] For multiple births, sex of pregnancy outcome is the sex of the first listed birth.

for their births as women with 1-3 antenatal visits. There is a strong positive relationship between ultrasound tests during pregnancy and educational and wealth status. Women with at least 12 years of completed education were eight times as likely to have an ultrasound test for their births as women with no education. Only 4 percent of births to women in households in the lowest wealth quintile had an ultrasound test, compared with 62 percent of births to women in the highest wealth quintile households. There were also substantial differences in the percentage of births with an ultrasound test by religion. This percentage was the highest for Jain women (78 percent), followed by Sikh women (47 percent) and Christian women (37 percent). Scheduled tribe women were less likely to have an ultrasound test for their births than women in other caste/tribe groups.

A higher percentage of pregnant women with no living children had an ultrasound test than pregnant women who had living children. The prevalence of ultrasound testing decreased steadily with the number of living children. For example, 27 percent of women with one child had an ultrasound test, compared with only 5 percent of women who had four or more living children. The sex composition of the living children showed a noteworthy pattern. At each parity, a much higher percentage of pregnant women with no living son had an ultrasound test and this percentage declined as the number of living sons increased.

Table 8.11 also shows the percent distribution of pregnancies for which an ultrasound test was done by the outcome of the pregnancy. Among women who had an ultrasound test, 7 percent were pregnant at the time of the survey. This percentage did not vary much by background characteristics of the women or the sex composition of their living children. Forty-six percent of such pregnancies resulted in a live birth of a male child and 39 percent of a female child. The sex ratio of these live-born children was only 849 females per 1,000 males. For almost every subgroup of women in the table, there were more births of boys than girls. However, the percentage of live births that were female was particularly low for Buddhists/Neo-Buddhists, Sikhs, and scheduled tribes. There are also substantial differences in the sex composition of births by the number and sex composition of living children at the time of the birth. For women with 1-3 living children at the time of pregnancy, the fewer living sons the woman has, the less likely the next birth is to be a girl. The sex ratio of the next birth is extremely low for women with four or more living children and one son (541 girls per 1,000 boys), women with two daughters and no son (554), and women with three children and no sons (650). These data provide clear evidence of the use of ultrasound testing for sex determination leading to sex-selective abortion when couples want to have a son.

Nine percent of pregnancies with an ultrasound test resulted in a pregnancy termination (a miscarriage, an induced abortion, or a stillbirth). Termination of pregnancy increases with the increasing age of the mother, reaching a particularly high level of 19 percent for mothers age 35-49. Differences in pregnancy termination by education, religion, caste/tribe, and the wealth index are only modest. Pregnancy termination increases with number of living children at the time of pregnancy and it is least likely for women at each parity who had no sons.

8.2 DELIVERY CARE

8.2.1 Place of Delivery

Another important thrust of the Reproductive and Child Health Programme is to encourage deliveries in proper hygienic conditions under the supervision of trained health professionals. For each birth during the five years preceding the survey, NFHS-3 asked the mother where she gave birth. Table 8.12 gives the percent distribution of live births in the five years preceding the survey by place of delivery according to background characteristics.

Table 8.12 Place of delivery

Percent distribution of live births in the five years preceding the survey by place of delivery, and percentage delivered in a health facility, according to background characteristics, India, 2005-06

Background characteristic	Health facility/institution			Home			Other[1]	Total	Percentage delivered in a health facility	Number of births
	Public sector	NGO/ trust	Private sector	Own home	Parents' home	Other home				
Mother's age at birth										
<20	20.4	0.3	17.2	46.4	14.7	0.6	0.4	100.0	38.0	11,882
20-34	17.8	0.5	21.6	51.4	8.1	0.4	0.3	100.0	39.8	42,155
35-49	10.0	0.4	11.3	75.5	2.1	0.5	0.0	100.0	21.7	2,400
Birth order										
1	25.6	0.6	30.7	31.7	10.4	0.5	0.4	100.0	57.0	17,106
2-3	18.7	0.5	20.3	49.2	10.7	0.4	0.3	100.0	39.4	24,429
4-5	9.9	0.3	9.4	72.8	7.0	0.5	0.1	100.0	19.6	9,522
6+	5.1	0.1	5.7	85.4	2.9	0.6	0.3	100.0	10.9	5,381
Residence										
Urban	28.6	0.9	37.9	26.6	5.3	0.4	0.2	100.0	67.5	14,303
Rural	14.4	0.3	14.2	59.8	10.6	0.5	0.3	100.0	28.9	42,135
Antenatal care visits[2]										
None	4.1	0.0	5.7	79.6	9.8	0.5	0.2	100.0	9.8	9,035
1-3	15.2	0.2	12.6	59.8	11.5	0.5	0.2	100.0	28.0	15,660
4+	32.2	1.0	42.0	18.5	5.8	0.3	0.2	100.0	75.2	14,667
Don't know/missing	21.2	0.2	25.1	41.4	8.3	0.0	3.7	100.0	46.5	315
Mother's education										
No education	9.7	0.2	8.6	70.4	10.4	0.5	0.3	100.0	18.4	28,237
<5 years complete	23.4	0.3	12.7	51.2	11.6	0.5	0.3	100.0	36.3	4,100
5-7 years complete	27.1	0.4	20.5	40.6	10.6	0.4	0.4	100.0	47.9	8,189
8-9 years complete	28.8	0.7	28.3	32.9	8.7	0.6	0.1	100.0	57.7	6,723
10-11 years complete	28.9	1.0	42.2	21.9	5.5	0.3	0.1	100.0	72.2	4,282
12 or more years complete	22.0	1.6	62.7	11.0	2.3	0.2	0.2	100.0	86.4	4,905
Religion										
Hindu	18.4	0.5	20.3	50.9	9.3	0.4	0.3	100.0	39.1	44,152
Muslim	15.4	0.3	17.3	56.7	9.6	0.5	0.2	100.0	33.0	9,641
Christian	23.6	0.9	28.9	42.0	3.8	0.7	0.2	100.0	53.4	1,109
Sikh	15.1	1.2	42.0	32.3	9.2	0.1	0.1	100.0	58.3	716
Buddhist/Neo-Buddhist	37.2	0.2	21.3	23.4	17.2	0.6	0.1	100.0	58.8	377
Jain	30.9	2.6	59.6	4.1	2.8	0.0	0.0	100.0	93.1	87
Other	7.9	0.4	2.1	79.2	7.8	2.0	0.6	100.0	10.4	306
Caste/tribe										
Scheduled caste	19.4	0.2	13.4	56.8	9.6	0.4	0.3	100.0	32.9	11,693
Scheduled tribe	11.6	0.3	5.8	70.9	10.5	0.5	0.3	100.0	17.7	5,442
Other backward class	16.1	0.5	21.1	51.8	9.6	0.5	0.3	100.0	37.7	22,716
Other	21.8	0.6	28.7	40.5	7.9	0.4	0.2	100.0	51.0	16,176
Don't know	26.2	0.0	17.2	28.1	26.3	1.1	1.1	100.0	43.4	220
Wealth index										
Lowest	8.4	0.1	4.3	75.8	10.7	0.5	0.2	100.0	12.7	14,377
Second	14.0	0.2	9.3	63.7	11.7	0.7	0.4	100.0	23.5	12,654
Middle	22.5	0.3	16.4	48.6	11.4	0.5	0.3	100.0	39.2	11,181
Fourth	27.1	0.7	30.1	34.3	7.3	0.3	0.2	100.0	57.9	10,154
Highest	23.8	1.3	58.5	13.7	2.2	0.2	0.2	100.0	83.7	8,072
Total	18.0	0.4	20.2	51.3	9.2	0.5	0.3	100.0	38.7	56,438

Note: Total includes births with missing information on mother's education, religion, and caste/tribe, which are not shown separately.
NGO = Nongovernmental organization
[1] Includes missing.
[2] Includes only the most recent birth in the five years preceding the survey.

Less than 40 percent of births in India take place in health facilities. More than half take place in the woman's own home and 9 percent take place in the parents' home. Births in health facilities are about equally divided between those that take place in a private health facility and those that take place in public institutions (such as government-operated district, *tehsil/taluk*, town, or municipal hospitals, and Primary Health Centres). Two-thirds of deliveries in urban areas and 29 percent of deliveries in rural areas take place in health facilities. According to the Sample Registration System (Office of the Registrar General, 2006a), in 2004 a slightly lower proportion of births in rural areas occurred in institutions (24 percent) and a slightly higher proportion of births in urban areas took place in institutions (70 percent). The percentage of births to ever-married women that were delivered in health facilities in the three years preceding the survey increased steadily from 26 percent in NFHS-1 to 34 percent in NFHS-2 and 41 percent in NFHS-3 (see Table 8.23).

The proportion of births occurring in a health facility is higher for mothers under 20 years of age and age 20-34 years (38-40 percent) than for mothers age 35-49 (22 percent). Only 18 percent of births to scheduled tribe mothers are delivered in health facilities, compared with 51 percent of births to mothers who do not belong to a scheduled caste, scheduled tribe, or other backward class. The proportion of births that were delivered in a health facility decreases as birth order increases, from 57 percent at order one to 11 percent at order six and over. By religion, births to Jain mothers (93 percent), Buddhist/Neo-Buddhist mothers (59 percent), and Sikh mothers (58 percent) are most likely to take place in a health facility, and births to Muslim mothers (33 percent) are least likely to take place in a health facility. Institutional deliveries among mothers who had four or more antenatal care visits (75 percent) are more than two and a half times as common as births to mothers who had 1-3 antenatal care visits (28 percent). Institutional deliveries are least prevalent (only 10 percent) among births to mothers who did not have any antenatal care. Several factors are likely to contribute to the positive relationship between antenatal care visits and delivery in a health facility. Antenatal care providers may advise pregnant women to give birth in an institution. Conversely, women who register with a health facility for delivery may be called for regular antenatal check-ups by the facility. Another important factor may be pregnancy complications, because women with pregnancy complications are more likely than other women to have antenatal check-ups and to deliver in a health facility.

Institutional deliveries, particularly in private sector facilities, increase sharply with the mother's education and with the household wealth index. One factor contributing to these patterns may be a heightened awareness of the benefits of professional medical care during both pregnancy and delivery among urban, educated women and women in households in the highest wealth quintile. With regard to deliveries at home, the proportion of deliveries in a woman's own home increases and the proportion in her parents' home decreases with age and birth order. Mother's education and household wealth both have a strong negative association with deliveries at home.

Women who did not deliver their last child in a health facility were asked about the reason for not delivering in a health facility. The reasons given are shown in Table 8.13. A large majority of women who did not deliver their last birth in a health facility (72 percent) said they did not feel it necessary to deliver in a health facility. In addition, 26 percent reported that it costs too much to deliver in a health facility. Eleven percent said that the health facility is located too far away or that transport was not available to reach the facility. The proportion of women reporting that delivering in a health facility costs too much or that the health facility is too far or no transport was available is higher in rural than in urban areas.

Table 8.13 Reasons for not delivering in a health facility

Percentage of women who had a live birth in the five years preceding the survey by reasons for not delivering the most recent live birth in a health facility, according to residence, India, 2005-06

Reason for not delivering in a health facility	Urban	Rural	Total
Costs too much	21.5	26.9	26.2
Facility not open	2.3	3.6	3.4
Too far/no transport	5.5	11.8	11.0
Don't trust facility/poor quality service	4.0	2.4	2.6
No female provider at facility	1.3	1.1	1.1
Husband/family did not allow	6.0	5.9	5.9
Not necessary	69.6	72.1	71.8
Not customary	5.5	6.5	6.3
Other	5.0	2.7	3.0
Number of women	3,127	20,008	23,135

Note: Percentages do not add to 100.0 because multiple responses were permitted.

All men age 15-49 whose youngest living child was less than three years old were also asked whether their youngest child was delivered in a health facility and, if not, what was the main reason the child was not delivered in a health facility. More than half of men (57 percent) reported that their youngest child was not delivered in a health facility (two-thirds of births in rural areas and one-third of births in urban areas). Forty-five percent of men who said the child was not delivered in a health facility said that either they or their family did not feel it necessary to have the delivery in a health facility (or did not allow it); 24 percent reported that it costs too much; 11 percent reported that mother of the child did not think it was necessary, and 7 percent said that the health facility was too far away or that no transportation was available (Table 8.14).

Table 8.14 Institutional delivery of youngest child: Men's reports

Percent distribution of men age 15-49 whose youngest living child was 0-35 months by whether the child was delivered in a health facility, and percent distribution of men 15-49 whose youngest living child age 0-35 months was not delivered in a health facility by the main reason for not delivering in a health facility, according to residence, India, 2005-06

Place of delivery/reason for not delivering in a health facility	Urban	Rural	Total
Youngest child delivered in a health facility			
Yes	67.4	32.2	42.8
No	32.6	67.8	57.2
Total	100.0	100.0	100.0
Number of men	4,233	9,795	14,028
Main reason for not delivering in a health facility			
Cost too much	20.7	24.3	23.7
Facility not open	2.7	1.7	1.9
Too far/no transportation	4.8	7.7	7.2
Don't trust facility/poor quality service	2.6	1.4	1.6
No female provider at facility	0.2	0.7	0.6
Not the first child	4.1	3.8	3.9
Child's mother did not think it was necessary	14.4	10.1	10.8
Father of child/family did not think it was necessary/ did not allow	43.6	44.9	44.7
Other	4.6	3.3	3.5
Don't know	0.8	0.9	0.8
Missing	1.6	1.2	1.2
Total	100.0	100.0	100.0
Number of men	1,379	6,638	8,018

Thus, a substantial proportion of women and men in India are not convinced about the need to have a delivery in a health facility. These results suggest the need to inform parents and families more about the benefits of delivering in a health facility and to help overcome traditional attitudes and other hurdles that discourage institutional births. In addition, since about one-third of women and men gave reasons dealing with the cost of services and problems of accessibility, utilization of health facilities for deliveries could also be increased by lowering direct and indirect costs and making services more accessible.

8.2.2 Information Given to Men

Men who had a child less than four years of age were asked whether at any time when the mother was pregnant with their youngest child any health provider or health worker spoke to them about family planning or delaying the next children; the importance of delivering the baby in a hospital or health facility; or the importance of proper nutrition for the mother during pregnancy. They were also asked whether anyone explained to them the importance of the mother breastfeeding the baby immediately after delivery, of keeping the baby warm immediately after birth, of cleanliness at the time of delivery, and of using a new or unused blade to cut the cord. Tables 8.15 and 8.16 present the results of this information by background characteristics and states for men whose youngest living child was under three years of age. Only about two out of five men were told about family planning or the importance of delivering the baby in a health facility. Half of men said they were told about the importance of proper nutrition for the mother during pregnancy. Younger men (age less than 20 at the time of the birth) were much less likely to be given the above information than older men. A higher percentage of urban men than rural men were given each type of information. As the number of living children increases, men are less likely to be given each kind of information. The provision of the three types of information increases with the man's education level and the wealth status of the household. For example, 57 percent, 59 percent, and 68 percent of men with 12 or more years of education were given information on family planning, the importance of institutional delivery, and the importance of proper nutrition for the mother during pregnancy, compared with 21 percent, 25 percent, and 29 percent of men with no education. By religion, Muslim men are least likely to be given each type of information. Men who are not from scheduled castes, scheduled tribes, or other backward classes are more likely than men in other caste/tribe groups to be given such information.

About one-third of men were told about the importance of breastfeeding the baby and keeping the baby warm immediately after birth. Forty-eight percent of men were told about the importance of using a new or unused blade to cut the cord and 44 percent were told about the importance of cleanliness at the time of delivery. The pattern of differentials in these four indicators by background characteristics is similar to the earlier pattern.

State differentials in the provision of information related to delivery and newborn care are presented in Table 8.16. Information about the importance of delivering in a health facility was given to the most men in Gujarat and Karnataka (70 percent each). In contrast, less than one-quarter of men in Uttar Pradesh, Bihar, and Jharkhand were given this information. At least 70 percent of men in Kerala, Goa, Gujarat, Sikkim, Karnataka, and Tripura were told about the importance of proper nutrition for the mother during pregnancy. Men in Uttar Pradesh again rank last in this indicator. At least half of the men in Tamil Nadu, Gujarat, Karnataka, Andhra

Table 8.15 Delivery and other related information given to men: Men's reports

Percentage of men age 15-49 whose youngest living child was 0-35 months who were given specific types of pregnancy, delivery, and family planning information by a health provider or health worker during the mother's pregnancy, and percentage whose youngest living child age 0-35 months was not delivered in an institution who were given specific types of information needed to make home deliveries safer, according to background characteristics, India, 2005-06

Background characteristic	Percentage of fathers who said that at some time during the pregnancy, a health provider or worker spoke to them about:				Percentage of fathers who said that during the pregnancy, someone explained to them the importance of[1]:				
	The importance of delivering in a health facility	The importance of proper nutrition for the mother during pregnancy	Family planning or delaying his next child	Number of men	Breastfeeding the baby immediately after birth	Keeping the baby warm immediately after birth	Cleanliness at the time of delivery	Using a new or unused blade to cut the cord	Number of men
Age at birth									
<20	27.3	27.8	21.2	170	17.3	15.6	28.9	33.7	113
20-34	44.2	51.1	41.6	11,127	36.6	33.3	44.8	48.8	6,252
35-49	40.5	46.5	36.8	2,732	33.0	31.1	44.1	47.7	1,653
Number of children ever born									
1	51.8	58.8	46.9	4,388	40.0	37.1	49.0	49.2	1,759
2-3	44.7	51.8	42.9	6,601	38.0	34.1	44.9	48.4	3,767
4+	28.2	33.0	25.6	3,039	28.9	27.2	40.6	47.6	2,491
Residence									
Urban	55.6	61.6	54.2	4,233	42.0	41.1	50.0	53.0	1,379
Rural	38.0	44.9	34.5	9,795	34.3	30.8	43.3	47.4	6,638
Education									
No education	25.0	29.1	20.9	3,412	25.7	24.4	34.9	39.5	2,757
<5 years complete	37.6	44.4	33.5	1,548	35.2	32.5	45.8	47.5	1,040
5-7 years complete	44.7	51.8	41.0	2,350	39.0	36.6	48.5	50.5	1,339
8-9 years complete	46.8	54.2	45.5	2,691	40.7	35.5	48.9	54.5	1,458
10-11 years complete	56.0	62.7	53.8	1,586	42.6	38.6	50.5	53.9	659
12 or more years complete	59.0	67.8	57.3	2,437	50.5	44.9	56.2	61.4	761
Religion									
Hindu	43.7	50.6	41.3	11,189	35.9	32.3	44.0	48.6	6,338
Muslim	38.0	44.0	32.9	2,167	32.6	31.4	44.5	46.6	1,372
Christian	53.8	58.8	47.4	281	37.7	43.4	49.8	45.7	132
Sikh	53.9	59.3	56.3	179	(55.9)	(60.6)	(64.0)	(61.5)	68
Buddhist/Neo-Buddhist	47.7	57.8	53.3	107	45.9	34.5	47.4	46.8	45
Jain	(77.9)	(65.1)	(78.0)	35	*	*	*	*	5
Other	46.3	43.4	31.1	67	48.9	44.4	57.3	59.6	54
Caste/tribe									
Scheduled caste	39.7	46.5	39.3	2,928	33.3	33.1	43.5	50.0	1,857
Scheduled tribe	39.4	46.0	34.4	1,402	37.7	34.0	45.2	48.2	1,088
Other backward class	42.1	47.9	39.0	5,482	33.7	28.7	43.1	47.5	3,121
Other	48.6	56.2	45.1	4,153	39.8	37.7	46.9	48.1	1,921
Don't know	(69.3)	(72.9)	(51.3)	21	*	*	*	*	6
Wealth index									
Lowest	24.9	29.7	21.3	3,130	27.3	25.0	36.8	42.9	2,696
Second	33.8	41.0	32.0	2,936	36.7	33.1	45.4	48.1	2,187
Middle	44.1	51.8	40.2	2,842	37.3	33.8	47.7	51.5	1,619
Fourth	55.0	60.5	51.0	2,818	45.9	43.2	51.4	52.9	1,137
Highest	65.2	73.4	64.5	2,303	50.9	47.3	58.2	61.4	379
Total	43.3	49.9	40.4	14,028	35.6	32.6	44.4	48.3	8,018

Note: Total includes men with missing information on education, religion, and caste/tribe, who are not shown separately.
( ) Based on 25-49 unweighted cases.
* Percentage not shown; based on fewer than 25 unweighted cases.
[1] Men whose youngest living child age 0-35 months was not delivered in a health institution.

Pradesh, Kerala, Punjab, Maharashtra, Goa, and Mizoram were told about family planning or delaying their next child. Bihar ranks lowest in this indicator. More than half of men were told about the importance of breastfeeding and keeping the baby warm immediately after birth, cleanliness at the time of delivery, and using a new or unused blade to cut the cord in Tripura, Sikkim, Punjab, Manipur, Gujarat, Andhra Pradesh, and Karnataka. Tripura ranked first in all four indicators.

Table 8.16 Delivery and other related information given to men by state: Men's reports

Percentage of men age 15-49 whose youngest living child was 0-35 months who were given specific types of pregnancy, delivery, and family planning information by a health provider or health worker during the mother's pregnancy, and percentage whose youngest living child age 0-35 months was not delivered in an institution who were given specific types of information needed to make home deliveries safer, by state, India, 2005-06

State	Percentage of fathers who said that at some time during the pregnancy, a health provider or worker spoke to them about:			Percentage of fathers who said that during the pregnancy, someone explained to them the importance of[1]:			
	The importance of delivering in a health facility	The importance of proper nutrition for the mother during pregnancy	Family planning or delaying his next child	Breastfeeding the baby immediately after birth	Keeping the baby warm immediately after birth	Cleanliness at the time of delivery	Using a new or unused blade to cut the cord
India	43.3	49.9	40.4	35.6	32.6	44.4	48.3
North							
Delhi	47.7	51.1	48.1	36.6	36.0	36.3	37.2
Haryana	34.3	44.4	39.3	41.3	39.0	37.3	37.0
Himachal Pradesh	54.1	64.2	48.5	54.4	47.2	56.4	60.3
Jammu & Kashmir	37.6	46.0	26.0	44.0	45.9	53.8	52.7
Punjab	63.6	66.0	59.1	66.7	68.7	66.7	62.6
Rajasthan	39.6	42.4	38.6	22.7	24.1	28.5	37.3
Uttaranchal	32.9	35.3	30.5	33.6	27.8	45.2	50.9
Central							
Chhattisgarh	38.4	52.6	34.3	44.4	24.5	43.4	57.8
Madhya Pradesh	44.6	45.8	37.5	30.1	21.4	34.9	40.0
Uttar Pradesh	21.8	28.3	22.6	24.0	24.7	40.1	47.1
East							
Bihar	24.2	31.7	16.6	29.1	22.9	46.0	50.1
Jharkhand	24.9	31.3	25.0	27.3	26.3	41.4	55.0
Orissa	50.8	56.7	38.9	44.7	42.1	51.5	50.8
West Bengal	41.4	55.2	41.4	39.4	41.2	46.2	50.0
Northeast							
Arunachal Pradesh	31.9	33.9	25.7	24.6	30.8	30.8	29.7
Assam	35.3	49.3	37.9	43.2	45.2	51.6	51.9
Manipur	55.9	68.9	44.2	55.0	69.8	67.4	65.1
Meghalaya	44.5	45.0	24.0	46.2	45.1	47.2	44.1
Mizoram	62.0	66.2	50.8	(46.3)	(50.7)	(50.7)	(36.3)
Nagaland	47.5	56.0	24.8	49.2	55.3	59.5	62.4
Sikkim	61.9	73.1	47.4	64.4	69.4	77.5	68.5
Tripura	60.1	71.2	45.0	79.8	76.9	79.8	80.4
West							
Goa	53.9	80.0	51.7	*	*	*	*
Gujarat	70.3	74.2	63.6	65.9	50.8	67.6	54.2
Maharashtra	57.4	63.5	56.4	45.0	39.2	48.4	49.9
South							
Andhra Pradesh	64.9	68.0	60.1	59.6	52.4	56.1	51.5
Karnataka	70.1	72.7	60.8	55.5	55.9	54.7	51.4
Kerala	61.3	85.4	59.9	*	*	*	*
Tamil Nadu	60.4	66.3	64.3	53.1	39.4	53.1	46.2

( ) Based on 25-49 unweighted cases.
* Percentage not shown; based on fewer than 25 unweighted cases.
[1] Men whose youngest living child age 0-35 months was not delivered in a health institution.

The Government of India has established protocols to be followed for safe delivery at home. Table 8.17 shows whether or not the protocols were followed for the last live birth delivered at home in the last five years. A clean blade was used to cut the cord in 92 percent of deliveries, but the other protocols were not followed in most cases. The baby was immediately wiped dry and then wrapped without being bathed (as recommended) in 45 percent of deliveries. A disposable delivery kit was used for only 21 percent of deliveries. The situation was slightly better in urban areas than in rural areas with respect to the use of disposable delivery kits and clean blades.

Table 8.17 Adherence to delivery protocol for home delivery

Percentage of women who had a live birth delivered at home in the five years preceding the survey by whether the required protocol was followed at the time of delivery for the most recent live birth delivered at home, according to residence, India, 2005-06

Protocol at delivery	Urban	Rural	Total
Disposable delivery kit (DDK) used	27.1	19.7	20.7
Clean blade used to cut the cord	93.5	91.8	92.1
Either of the above	94.0	92.6	92.8
Baby was immediately wiped dry and then wrapped without being bathed	45.4	45.4	45.4
Number of women	3,127	20,008	23,135

8.2.3 Assistance during Delivery

Obstetric care from a trained provider during delivery is recognized as critical for the reduction of maternal and neonatal mortality. Births delivered at home are more likely than births delivered in a health facility to be assisted by a health professional. Table 8.18 shows the type of assistance during delivery by background characteristics. If more than one type of attendant assisted at the delivery, only the most qualified attendant is shown. Forty-seven percent of births in the five years preceding the survey were assisted by health personnel, including 35 percent by a doctor and 10 percent by an ANM, nurse, midwife, or LHV. More than one-third of births (37 percent) were assisted by a traditional birth attendant (TBA) and 16 percent were assisted by only friends, relatives, or other persons.

The percentage of births assisted by a doctor is lower for mothers age 35-49 than for younger mothers, and the percentage decreases sharply by birth order. First-order births (52 percent) are more than five times as likely as births of order six or above (10 percent) to be assisted by a doctor. Deliveries are much more likely to be assisted by a doctor in urban areas (62 percent) than in rural areas (26 percent). The proportion of deliveries assisted by doctors also increases sharply with the mother's education and the household wealth index. Eighty-one percent of births to mothers who completed at least 12 years of education were assisted by a doctor, compared with only 16 percent of births to mothers with no education. Similarly, 12 percent of births to women in the lowest wealth quintile households were assisted by a doctor, compared with 78 percent of births to women in households in the highest wealth quintile. Among religious groups, Jain women (90 percent) are most likely to have a delivery assisted by a doctor. About half of the deliveries of Buddhist/Neo-Buddhist and Sikh women (50-52 percent) were assisted by a doctor. By contrast, only 30 percent of births to Muslim women were assisted by a doctor. Only 17 percent of births to women who belong to scheduled tribes were assisted by a doctor, compared with 47 percent of births to women who do not belong to a scheduled caste, scheduled tribe, or other backward class.

Eighty-eight percent of deliveries in private health facilities were assisted by a doctor, compared with 77 percent of deliveries in public sector health facilities. Among deliveries at home (the respondents' or their parents' homes), more than half were assisted by a TBA, and only 12-18 percent were assisted by health personnel.

Table 8.18 Assistance during delivery

Percent distribution of live births in the five years preceding the survey by person providing assistance during delivery, and percentage delivered by caesarean section, according to background characteristics, India, 2005-06

Background characteristic	Person providing assistance during delivery									Percentage delivered by a skilled provider[1]	Percentage delivered by caesarean section	Number of births
	Doctor	ANM/ nurse/ midwife/ LHV	Other health personnel	*Dai* (TBA)	Friends/ relatives	Other	No one	Don't know/ missing	Total			
Mother's age at birth												
<20	34.3	11.6	1.3	36.4	15.6	0.2	0.3	0.3	100.0	47.2	6.3	11,882
20-34	36.3	10.1	1.1	35.8	16.1	0.1	0.5	0.1	100.0	47.5	9.2	42,155
35-49	20.1	6.7	1.2	50.2	20.6	0.2	1.1	0.0	100.0	28.0	6.1	2,400
Birth order												
1	52.2	12.0	1.0	24.2	10.1	0.1	0.1	0.3	100.0	65.2	14.8	17,106
2-3	35.8	10.7	1.2	35.9	15.8	0.1	0.4	0.1	100.0	47.7	8.2	24,429
4-5	17.5	8.7	1.1	48.9	22.6	0.1	1.0	0.1	100.0	27.3	1.9	9,522
6+	9.7	5.8	1.0	56.5	25.6	0.0	1.3	0.1	100.0	16.5	1.1	5,381
Residence												
Urban	61.8	11.2	0.4	20.0	6.0	0.1	0.3	0.1	100.0	73.5	16.8	14,303
Rural	26.1	10.0	1.3	42.1	19.6	0.1	0.6	0.1	100.0	37.5	5.6	42,135
Mother's education												
No education	16.3	8.4	1.4	50.4	22.5	0.1	0.8	0.1	100.0	26.1	2.5	28,237
<5 years complete	33.1	10.2	1.6	36.8	17.6	0.1	0.4	0.2	100.0	45.0	5.8	4,100
5-7 years complete	43.4	12.5	1.0	30.1	12.4	0.1	0.3	0.2	100.0	56.9	9.0	8,189
8-9 years complete	53.0	13.4	0.7	22.2	10.2	0.1	0.2	0.1	100.0	67.1	12.7	6,723
10-11 years complete	66.0	13.6	0.7	14.4	5.2	0.0	0.1	0.1	100.0	80.3	18.9	4,282
12 or more years complete	80.6	10.1	0.3	6.3	2.5	0.0	0.0	0.2	100.0	91.0	29.3	4,905
Religion												
Hindu	35.6	10.7	1.1	34.9	16.9	0.1	0.5	0.1	100.0	47.5	8.6	44,152
Muslim	30.2	7.3	1.2	47.0	13.8	0.1	0.3	0.1	100.0	38.8	6.4	9,641
Christian	48.1	11.5	0.5	21.6	16.7	0.0	1.3	0.1	100.0	60.2	16.5	1,109
Sikh	50.2	23.6	1.6	24.1	0.5	0.0	0.0	0.0	100.0	75.4	17.0	716
Buddhist/Neo-Buddhist	52.4	12.4	0.1	16.2	18.8	0.0	0.1	0.1	100.0	64.9	5.7	377
Jain	89.8	4.5	0.0	5.5	0.0	0.0	0.0	0.2	100.0	94.3	38.9	87
Other	8.3	6.2	0.1	67.3	15.4	0.0	2.2	0.5	100.0	14.6	1.8	306
Caste/tribe												
Scheduled caste	29.4	10.4	0.9	37.7	20.7	0.1	0.6	0.1	100.0	40.6	6.0	11,693
Scheduled tribe	17.1	7.0	1.2	50.2	23.0	0.0	1.3	0.2	100.0	25.4	2.8	5,442
Other backward class	33.8	11.7	1.1	37.1	15.5	0.1	0.4	0.2	100.0	46.7	7.7	22,716
Other	47.4	9.3	1.1	30.4	11.3	0.0	0.3	0.1	100.0	57.8	13.2	16,176
Don't know	34.9	11.5	7.9	26.0	18.7	0.0	0.0	1.1	100.0	54.2	7.8	220
Wealth index												
Lowest	11.7	6.4	1.3	52.8	26.6	0.2	1.0	0.1	100.0	19.4	1.5	14,377
Second	21.0	9.4	1.5	45.5	21.9	0.1	0.5	0.1	100.0	31.8	3.5	12,654
Middle	35.0	12.7	1.4	35.9	14.4	0.1	0.5	0.1	100.0	49.0	7.0	11,181
Fourth	52.2	14.3	0.7	25.1	7.3	0.1	0.1	0.1	100.0	67.2	12.4	10,154
Highest	78.1	10.3	0.3	8.8	2.1	0.0	0.1	0.2	100.0	88.8	25.7	8,072
Place of delivery												
Public sector health facility	77.2	21.8	0.3	0.2	0.5	0.0	0.0	0.0	100.0	99.2	15.2	10,166
NGO or trust hospital/clinic	85.8	13.4	0.0	0.0	0.8	0.0	0.0	0.0	100.0	99.2	24.4	251
Private sector health facility	88.4	10.8	0.2	0.3	0.2	0.0	0.0	0.0	100.0	99.4	27.8	11,405
Own home	4.6	6.3	1.4	60.2	26.5	0.1	0.9	0.0	100.0	12.4	0.0	28,980
Parents' home	6.7	8.2	2.9	57.2	24.5	0.4	0.2	0.0	100.0	17.8	0.0	5,218
Other home	10.9	22.1	2.3	43.0	20.6	0.0	1.1	0.0	100.0	35.3	0.0	263
Other[2]	4.5	4.0	6.0	14.9	23.2	1.4	3.8	42.1	100.0	14.5	0.0	156
Total	35.2	10.3	1.1	36.5	16.2	0.1	0.5	0.1	100.0	46.6	8.5	56,438

Note: If the respondent mentioned more than one person attending during delivery, only the most qualified person is considered in this tabulation. Total includes births with missing information on mother's education, religion, and caste/tribe, which are not shown separately.
ANM = Auxiliary nurse midwife; LHV = Lady health visitor; TBA = Traditional birth attendant; NGO = Nongovernmental organization
[1] Skilled provider includes doctor, ANM/nurse/midwife/LHV, and other health personnel.
[2] Includes missing.

8.2.4 Delivery Characteristics

Table 8.18 also shows the percentage of births during the five years preceding the survey that were delivered by caesarean section. Based on mothers' reports, 9 percent of children born in India in the five years before the survey were delivered by caesarean section. The proportion of deliveries by caesarean section was three times as high in urban areas (17 percent) as in rural areas (6 percent). Twenty-eight percent of births delivered in private health facilities and 15 percent of births delivered in public sector health facilities were delivered by caesarean section. There is a positive relationship between deliveries conducted by caesarean section and both the educational level of the mother and the household wealth index.

8.3 POSTNATAL CARE

The health of a mother and her newborn child depends not only on the health care she receives during her pregnancy and delivery, but also on the care she and the infant receive during the first few weeks after delivery. Postnatal check-ups soon after the delivery are particularly important for births that take place in noninstitutional settings. Recognizing the importance of postnatal check-ups, the Reproductive and Child Health Programme recommends three postnatal visits (Ministry of Health and Family Welfare, 1997).

8.3.1 Timing of First Postnatal Check-up

A large proportion of maternal and neonatal deaths occur during the 48 hours after delivery. Hence safe motherhood programmes have increasingly emphasized the importance of postnatal care, recommending that all women receive a check on their health within two days of delivery. The World Health Organization recognizes several 'crucial moments when contact with the health system/informed caregiver could be instrumental in identifying and responding to needs and complications' (World Health Organization, 1998). It is most important to have the first postnatal check-up within a few hours of birth. Another important time for a postnatal check-up is six weeks (42 days) after the birth. By this time, a woman's body should generally have returned to its pre-pregnancy state. To assess the extent of postnatal care check-ups, respondents were asked for the last birth in the five years preceding the survey whether they received a health check after the delivery, the timing of the first check, and the type of health provider. This information is presented by background characteristics in Tables 8.19 and 8.20.

A majority of women (58 percent) did not receive any postnatal check-up after their most recent birth. Only one-quarter of women (27 percent) received a health check-up in the first four hours after birth and only 37 percent received a health check-up within the critical first two days after delivery. The likelihood of a birth being followed by a postnatal check-up at all and within two days increases with the educational level of the mother and the household wealth index. There are no marked variations by mother's age, but utilization of postnatal check-ups decreases with increasing birth order. Births to urban mothers are almost twice as likely to be followed by a postnatal check-up (66 percent) as births to rural mothers (34 percent). By religion, births to Jain women are most likely to be followed by a postnatal check-up and births to Muslim women are least likely to be followed by a postnatal check-up. Births in a private health facility are most likely to have a postnatal check-up (85 percent), as well as a check-up in less than four hours (62 percent). Births in the woman's own home or her parents' home are rarely followed by a prompt postnatal check-up. Only 15 percent of women who gave birth at home or in their parents' home received a postnatal check-up; only 6 percent received a check-up within four hours of delivery.

Table 8.19 Timing of first postnatal check-up

Percent distribution of women giving birth in the five years preceding the survey by whether or not they received a postnatal health check-up after their most recent live birth and the timing of the first postnatal check-up, according to background characteristics, India, 2005-06

Background characteristic	Time between delivery and mother's first postnatal check-up					No postnatal check-up	Total	Number of women
	Less than 4 hours	4-23 hours	1-2 days	3-41 days	Don't know/ missing			
Age at birth								
<20	24.7	5.1	5.1	3.7	0.9	60.5	100.0	6,881
20-34	28.6	5.0	5.2	4.1	1.2	55.8	100.0	30,716
35-49	16.0	2.9	4.2	2.0	1.0	73.9	100.0	2,080
Birth order								
1	36.9	7.8	6.5	3.6	1.9	43.3	100.0	10,457
2-3	30.6	4.8	5.5	4.3	1.0	53.7	100.0	18,207
4-5	15.8	2.4	3.3	4.4	0.8	73.3	100.0	6,955
6+	7.1	1.9	2.8	2.6	0.6	85.0	100.0	4,058
Residence								
Urban	45.2	8.1	7.7	2.7	2.0	34.3	100.0	10,626
Rural	20.8	3.7	4.1	4.4	0.9	66.1	100.0	29,051
Education								
No education	13.4	2.4	3.3	3.9	0.7	76.4	100.0	18,792
<5 years complete	23.7	4.5	5.4	5.3	0.9	60.2	100.0	2,876
5-7 years complete	32.8	5.4	5.6	4.4	1.4	50.3	100.0	5,846
8-9 years complete	36.0	7.4	6.9	4.2	1.6	44.0	100.0	4,892
10-11 years complete	48.6	8.5	8.0	3.3	1.8	29.7	100.0	3,254
12 or more years complete	59.2	10.2	8.1	2.9	2.3	17.2	100.0	4,016
Religion								
Hindu	27.7	4.8	5.1	4.1	1.2	57.1	100.0	31,295
Muslim	21.9	5.1	5.0	3.0	0.9	64.1	100.0	6,486
Christian	41.3	6.3	6.5	4.5	1.8	39.4	100.0	814
Sikh	50.7	6.7	7.0	2.2	1.4	32.0	100.0	514
Buddhist/Neo-Buddhist	36.0	5.0	6.3	5.8	1.2	45.7	100.0	250
Jain	53.6	11.8	4.8	0.0	3.8	26.0	100.0	76
Other	7.8	2.5	2.1	3.7	0.8	83.1	100.0	205
Caste/tribe								
Scheduled caste	23.7	3.9	4.8	3.8	1.0	62.9	100.0	7,946
Scheduled tribe	16.3	2.3	4.4	7.4	1.1	68.6	100.0	3,746
Other backward class	26.4	4.5	4.7	3.7	0.8	59.8	100.0	15,889
Other	34.5	7.0	6.1	3.3	1.7	47.4	100.0	11,789
Don't know	26.3	5.2	5.6	6.9	1.5	54.5	100.0	158
Wealth index								
Lowest	9.9	2.0	2.5	4.5	0.5	80.7	100.0	9,571
Second	16.4	2.6	3.8	4.2	0.7	72.3	100.0	8,605
Middle	27.3	4.5	5.0	5.0	1.2	57.1	100.0	7,774
Fourth	37.7	7.3	7.1	3.1	1.6	43.2	100.0	7,256
Highest	55.9	10.1	8.6	2.4	2.3	20.7	100.0	6,471
Place of delivery								
Public sector health facility	53.1	11.1	8.8	1.7	1.9	23.5	100.0	7,540
NGO or trust hospital/clinic	57.6	15.2	8.3	0.8	2.7	15.4	100.0	190
Private sector health facility	61.9	10.2	7.8	1.9	2.7	15.4	100.0	8,727
Own home	5.3	0.7	2.7	4.9	0.3	86.0	100.0	19,403
Parents' home	7.1	1.2	3.9	8.3	0.4	79.2	100.0	3,552
Other home	10.6	0.4	0.9	7.0	0.0	81.2	100.0	180
Other[1]	8.1	0.4	0.4	2.6	19.2	69.3	100.0	85
Total	27.3	4.9	5.1	3.9	1.2	57.6	100.0	39,677

Note: Postnatal check-ups are checks on the woman's health within 42 days of the birth. Total includes women with missing information on education, religion, and caste/tribe, who are not shown separately.
NGO = Nongovernmental organization
[1] Includes missing.

8.3.2 Type of Provider of First Postnatal Check-up

Table 8.20 shows the percent distribution of type of provider of the mother's first postnatal check-up according to background characteristics of the woman. Thirty-eight percent of mothers received a postnatal check-up from health personnel after their most recent birth. A large majority of the postnatal check-ups were conducted by a doctor. More than half (53 percent) of mothers in urban areas received a postnatal check-up from a doctor, compared with only 21 percent in rural areas. Jain mothers, followed by Christian mothers, are more likely than other mothers to have received a postnatal check-up from a doctor. Women delivering in health facilities (particularly private sector health facilities) are most likely to have a postnatal check-up from a doctor. Postnatal check-ups conducted by a doctor increase with educational attainment and the household wealth index. Only 8 percent of mothers received a postnatal check-up from an ANM, nurse, midwife, or LHV. This proportion was highest for Sikh women.

Table 8.20 Type of provider of first postnatal check-up

Among women giving birth in the five years preceding the survey, the percent distribution by type of provider of the mother's first postnatal health check-up for the last live birth, according to background characteristics, India, 2005-06

Background characteristic	Type of health provider of mother's first postnatal check-up					Don't know/ missing	No postnatal check-up	Total	Number of women
	Doctor	ANM/nurse/ midwife/LHV	Other health personnel	*Dai* (TBA)	Other				
Age at birth									
<20	26.2	8.8	0.5	3.0	0.0	1.0	60.5	100.0	6,881
20-34	31.2	7.9	0.7	3.1	0.0	1.2	55.8	100.0	30,716
35-49	16.3	4.2	0.5	4.0	0.0	1.0	73.9	100.0	2,080
Birth order									
1	43.1	9.0	0.4	2.3	0.0	1.9	43.3	100.0	10,457
2-3	33.1	8.4	0.7	3.2	0.0	1.0	53.7	100.0	18,207
4-5	13.8	7.0	1.0	4.0	0.0	0.8	73.3	100.0	6,955
6+	5.8	4.0	1.0	3.5	0.2	0.6	85.0	100.0	4,058
Residence									
Urban	53.0	8.1	0.2	2.3	0.0	2.0	34.3	100.0	10,626
Rural	20.9	7.8	0.8	3.4	0.0	0.9	66.1	100.0	29,051
Education									
No education	11.9	6.3	0.8	3.8	0.1	0.7	76.4	100.0	18,792
<5 years complete	24.6	9.7	1.2	3.4	0.0	0.9	60.2	100.0	2,876
5-7 years complete	33.6	10.5	0.5	3.6	0.0	1.4	50.3	100.0	5,846
8-9 years complete	41.9	9.4	0.6	2.6	0.0	1.6	44.0	100.0	4,892
10-11 years complete	56.8	9.3	0.6	1.7	0.0	1.8	29.7	100.0	3,254
12 or more years complete	72.5	7.0	0.2	0.7	0.0	2.3	17.2	100.0	4,016
Religion									
Hindu	29.7	8.2	0.7	3.1	0.0	1.2	57.1	100.0	31,295
Muslim	25.5	5.4	0.8	3.3	0.0	0.9	64.1	100.0	6,486
Christian	48.4	8.0	0.2	2.1	0.1	1.8	39.4	100.0	814
Sikh	38.8	17.8	1.8	8.1	0.0	1.4	32.0	100.0	514
Buddhist/Neo-Buddhist	40.3	10.1	1.0	1.6	0.0	1.2	45.7	100.0	250
Jain	69.6	0.6	0.0	0.0	0.0	3.8	26.0	100.0	76
Other	8.6	6.0	0.6	0.9	0.0	0.8	83.1	100.0	205
Caste/tribe									
Scheduled caste	23.6	8.3	0.6	3.6	0.0	1.0	62.9	100.0	7,946
Scheduled tribe	14.2	8.5	1.8	5.6	0.1	1.1	68.6	100.0	3,746
Other backward class	28.2	8.2	0.5	2.4	0.0	0.8	59.8	100.0	15,889
Other	40.3	6.9	0.6	3.1	0.0	1.7	47.4	100.0	11,789
Don't know	35.6	6.1	1.5	0.9	0.0	1.5	54.5	100.0	158
Wealth index									
Lowest	7.9	5.9	1.1	3.8	0.1	0.5	80.7	100.0	9,571
Second	15.3	7.1	0.9	3.7	0.0	0.7	72.3	100.0	8,605
Middle	27.5	9.9	0.7	3.6	0.0	1.2	57.1	100.0	7,774
Fourth	42.8	9.4	0.3	2.7	0.0	1.6	43.2	100.0	7,256
Highest	68.0	7.5	0.2	1.2	0.0	2.4	20.7	100.0	6,471

Continued…

Table 8.20 Type of provider of first postnatal check-up—*Continued*

Background characteristic	Type of health provider of mother's first postnatal check-up					Don't know/ missing	No postnatal check-up	Total	Number of women
	Doctor	ANM/nurse/ midwife/LHV	Other health personnel	*Dai* (TBA)	Other				
Place of delivery									
Public sector health facility	58.9	15.5	0.1	0.1	0.0	1.9	23.5	100.0	7,540
NGO or trust hospital/clinic	71.7	10.2	0.0	0.0	0.0	2.7	15.4	100.0	190
Private sector health facility	72.3	9.3	0.2	0.1	0.0	2.7	15.4	100.0	8,727
Own home	3.2	4.3	1.0	5.2	0.0	0.3	86.0	100.0	19,403
Parents' home	5.8	7.6	1.4	5.6	0.0	0.4	79.2	100.0	3,552
Other home	5.2	7.0	1.4	5.2	0.0	0.0	81.2	100.0	180
Other[1]	2.8	7.3	0.0	1.4	0.0	19.2	69.3	100.0	85
Total	29.5	7.9	0.7	3.1	0.0	1.2	57.6	100.0	39,677

Note: Postnatal check-ups are checks on the woman's health within 42 days of the birth. Total includes women with missing information on education, religion, and caste/tribe, who are not shown separately.
ANM = Auxiliary nurse midwife; LHV = Lady health visitor; TBA = Traditional birth attendant; NGO = Nongovernmental organization
[1] Includes missing.

8.4 POSTPARTUM COMPLICATIONS

Every woman who had a birth in the five years preceding the survey was asked if she had massive vaginal bleeding or a very high fever—both symptoms of possible postpartum complications—at any time during the two months after delivery of her most recent child (Table 8.21). Women reported massive vaginal bleeding for 12 percent of births and a very high fever for 14 percent of births. Both complications were more common among rural than urban mothers. While the likelihood of massive vaginal bleeding did not vary much by mother's age or birth order, very high fever was somewhat more likely to be reported for births at higher orders (four or above). The likelihood of having massive vaginal bleeding did not vary much by place of delivery, but very high fever was much more common for home births than for institutional births. Both complications are somewhat lower than average for births assisted by a doctor.

Table 8.21 Symptoms of postpartum complications

Among women giving birth in the five years preceding the survey, percentage who had massive vaginal bleeding or very high fever at any time in the two months after the most recent delivery by background characteristics, India, 2005-06

Background characteristic	Massive vaginal bleeding	Very high fever	Number of women
Residence			
Urban	10.1	8.7	10,626
Rural	13.2	15.2	29,051
Age at birth			
<20	13.3	13.9	6,881
20-34	12.2	13.3	30,716
35-49	10.8	15.7	2,080
Birth order			
1	13.1	12.3	10,457
2-3	12.0	12.0	18,207
4-5	12.2	16.6	6,955
6+	12.2	18.1	4,058
Place of delivery			
Public sector health facility	11.2	9.6	7,540
NGO or trust hospital/clinic	10.3	7.7	190
Private sector health facility	12.3	9.4	8,727
Own home	12.7	16.7	19,403
Parents' home	13.2	14.9	3,552
Other home	6.1	11.1	180
Other[1]	17.7	14.0	85
Assistance during delivery			
Doctor	11.7	10.2	19,937
ANM/nurse/midwife/LHV	11.8	14.9	9,117
Other health personnel	18.6	21.9	414
Dai/TBA	16.7	17.3	458
Other[1]	13.7	18.3	9,751
Total	12.4	13.5	39,677

NGO = Nongovernmental organization; ANM = Auxiliary nurse midwife; LHV = Lady health visitor; TBA = Traditional birth attendant
[1] Includes missing.

8.5 MATERNAL CARE INDICATORS BY STATE

Table 8.22 shows state differentials in five maternal care indicators for births during the five years preceding the survey. These indicators together summarize the extent to which different states have progressed toward achieving safe motherhood goals at all three stages of the birth process: antenatal, delivery, and postnatal. The first indicator is a summary antenatal care indicator which shows the percentage of last live births whose mothers had all of the following: three or more antenatal care visits (with the first visit within the first trimester of pregnancy), two or more tetanus toxoid injections, and iron and folic acid tablets or syrup for three or more months. The next two indicators pertain to care during delivery and show the percentage of births delivered in medical institutions and deliveries assisted by health personnel. The last two indicators pertain to postnatal care for mothers and show the percentage of deliveries with a postpartum check-up within 42 days of the birth and within two days of birth.

Table 8.22 Maternal care indicators by state

Maternal care indicators for births during the five years preceding the survey by state, India, 2005-06

State	Percentage who received all recommended types of antenatal care[1]	Percentage of births delivered in a health facility	Percentage of deliveries assisted by health personnel[2]	Percentage of deliveries with a postnatal check-up[3]	Percentage of deliveries with a postnatal check-up within two days of birth[3]
India	15.0	38.7	46.6	41.2	37.3
North					
Delhi	29.0	58.9	64.1	60.9	58.4
Haryana	14.7	35.7	48.9	57.6	55.9
Himachal Pradesh	17.4	43.0	47.8	50.6	43.2
Jammu & Kashmir	17.5	50.2	56.5	51.6	48.4
Punjab	19.6	51.3	68.2	63.7	62.0
Rajasthan	8.6	29.6	41.0	31.8	28.9
Uttaranchal	16.1	32.6	38.5	35.8	32.4
Central					
Chhattisgarh	11.3	14.3	41.6	36.5	28.4
Madhya Pradesh	7.2	26.2	32.7	33.8	28.5
Uttar Pradesh	4.1	20.6	27.2	14.9	13.3
East					
Bihar	5.8	19.9	29.3	17.8	15.9
Jharkhand	7.5	18.3	27.8	19.6	17.0
Orissa	18.4	35.6	44.0	40.9	33.3
West Bengal	12.3	42.0	47.6	44.3	40.7
Northeast					
Arunachal Pradesh	6.5	28.5	30.2	23.7	22.7
Assam	9.6	22.4	31.0	15.9	13.9
Manipur	10.5	45.9	59.0	50.1	46.4
Meghalaya	8.1	29.0	31.1	33.2	28.8
Mizoram	8.7	59.8	65.4	53.5	50.6
Nagaland	1.9	11.6	24.7	11.8	10.6
Sikkim	27.2	47.2	53.7	52.4	44.9
Tripura	10.6	46.9	48.8	33.7	30.3
West					
Goa	55.7	92.3	94.0	82.8	75.5
Gujarat	25.6	52.7	63.0	61.4	56.5
Maharashtra	21.6	64.6	68.7	64.0	58.7
South					
Andhra Pradesh	28.2	64.4	74.9	73.3	64.1
Karnataka	29.6	64.7	69.7	66.9	58.5
Kerala	63.6	99.3	99.4	87.4	84.9
Tamil Nadu	34.0	87.8	90.6	91.3	87.2

[1] For the last live birth in the five years preceding the survey, mother received three or more antenatal check-ups (with the first check-up within the first trimester of pregnancy), received two or more tetanus toxoid injections, and took iron and folic acid tablets or syrup for three or more months.
[2] Doctor, auxiliary nurse midwife, nurse, midwife, lady health visitor, or other health personnel.
[3] Based on the last live birth in the five years preceding the survey. Postnatal check-ups are checks on the woman's health within 42 days of the birth.

For India as a whole, mothers of only 15 percent of births received all of the required components of antenatal care. This indicator ranges from a high of 64 percent in Kerala and 56 percent in Goa to a low of only 2 percent in Nagaland and 4 percent in Uttar Pradesh. Other states that perform almost as poorly as Uttar Pradesh and Nagaland on this indicator include Bihar, Arunachal Pradesh, Madhya Pradesh, Jharkhand, Meghalaya, Rajasthan, and Mizoram, where only 6-9 percent of women received the recommended components of antenatal care. Kerala, followed closely by Goa, also outperform all other states in terms of delivery care, with nearly all deliveries taking place in medical institutions and a similarly high percentage of deliveries assisted by a health professional. Tamil Nadu, with 88 percent of births delivered in medical institutions and 91 percent assisted by a health professional, ranks third among the states on these delivery care indicators. By contrast, only 12-20 percent of births are delivered in medical institutions in Nagaland, Chhattisgarh, Jharkhand, and Bihar. Only 25-29 percent of deliveries are assisted by health professionals in Nagaland, Uttar Pradesh, Jharkhand, and Bihar.

Tamil Nadu, where 91 percent of deliveries have a postnatal check-up within 42 days of birth and 87 percent within two days, tops the list of states with regard to both of the postnatal care indicators. Kerala and Goa are the other two states which perform quite well on the postnatal care indicators.

An examination of the performance of each state on the different safe motherhood indicators shows that several states consistently perform well below the national average on each of the five indicators. This list includes Rajasthan in the North Region, all states in the Central Region, Bihar and Jharkhand in the East Region, and Arunachal Pradesh, Assam, Meghalaya, and Nagaland in the Northeast Region. Uttaranchal also performs poorly on all the indicators except antenatal care, which is slightly higher than the national average. In contrast, Mizoram performs above the national average on the delivery care indicators and the postnatal care indicators, but poorly on the antenatal care indicator.

8.6 Trends in Maternal Care Indicators

Table 8.23 shows trends in key maternal care indicators over time. All of the measures improved substantially between NFHS-1 and NFHS-3. The first two ANC indicators (percentage with any ANC and at least three ANC visits) improved much more rapidly between NFHS-2 and NFHS-3 than between the first two surveys. The other three indicators improved at a more even pace throughout the period. Over the entire period between NFHS-1 and NFHS-3, most of the indicators improved at a rate of about one percentage point per year. The slowest increase was in the percentage who had at least three antenatal care visits. All of the indicators except the timing of the first ANC visit increased much more rapidly in rural areas than in urban areas. Despite these improvements, at least half of women did not receive appropriate care for their most recent birth. Thus, renewed efforts are required to ensure that women are provided with adequate antenatal and delivery care.

Table 8.23 Trends in maternal care indicators

Maternal care indicators for births during the three years preceding the survey by residence, NFHS-3, NFHS-2, and NFHS-1, India

Indicator	NFHS-3 (2005-06)	NFHS-2 (1998-99)	NFHS-1 (1992-93)
URBAN			
Percentage who received antenatal care[1]	90.7	86.5	83.0
Percentage who had at least three antenatal care visits[1]	73.8	70.1	66.8
Percentage who received antenatal care within the first trimester of pregnancy[1]	63.0	55.8	40.9
Percentage of births delivered in a health facility[2]	69.4	65.1	58.4
Percentage of deliveries assisted by health personnel[2,3]	75.3	73.3	66.4
RURAL			
Percentage who received antenatal care[1]	72.2	59.9	59.2
Percentage who had at least three antenatal care visits[1]	42.8	36.9	37.3
Percentage who received antenatal care within the first trimester of pregnancy[1]	36.1	26.7	20.2
Percentage of births delivered in a health facility[2]	31.1	24.7	16.7
Percentage of deliveries assisted by health personnel[2,3]	39.9	33.5	25.9
TOTAL			
Percentage who received antenatal care[1]	76.9	65.8	64.6
Percentage who had at least three antenatal care visits[1]	50.7	44.2	43.9
Percentage who received antenatal care within the first trimester of pregnancy[1]	43.0	33.1	24.9
Percentage of births delivered in a health facility[2]	40.8	33.6	26.1
Percentage of deliveries assisted by health personnel[2,3]	48.8	42.4	35.1

[1] Based on the last birth to ever-married women in the three years preceding the survey.
[2] Based on the last two births to ever-married women in the three years preceding the survey.
[3] Doctor, auxiliary nurse midwife, nurse, midwife, lady health visitor, or other health personnel.

CHILD HEALTH 9

The Government of India has been taking steps to strengthen maternal and child health services in India since the First Five Year Plan (1951-56). The Ministry of Health and Family Welfare has sponsored special projects under the Maternal and Child Health Programme, including the Oral Rehydration Therapy (ORT) programme, the establishment of Regional Institutes of Maternal and Child Health in states with high infant mortality rates, the Universal Immunization Programme, and the Maternal and Child Health Supplemental Programme within the Postpartum Programme (Ministry of Health and Family Welfare, 1992). All these programmes are now integrated into the Reproductive and Child Health Programme that was launched in 1996. The Department of Women and Child Development within the Ministry of Human Resource Development initiated the Integrated Child Development Services (ICDS) in 1976. Under the ICDS programme, *anganwadi* centres provide children with health, nutrition, and education services from birth to six years of age and a nutritional and health services to pregnant and breastfeeding mothers.

This chapter presents NFHS-3 findings on several areas of importance to child health: characteristics of the neonate (birth weight and size at birth), vaccination status of children, and treatment of childhood illnesses. Information on birth weight and birth size is important for the design and implementation of programmes aimed at reducing neonatal and infant mortality. Vaccination coverage information focuses on the age group 12-23 months, the age by which children should have received all basic vaccinations. Overall coverage levels are shown for this age group at the time of the survey and by 12 months of age. Additionally, the source of the vaccination information (whether based on a written vaccination card or on mother's recall) is shown. Differences in vaccination coverage between subgroups of the population aid in programme planning.

Treatment practices and contact with health services among children ill with the three most important childhood illnesses (acute respiratory infection, fever, and diarrhoea) help in the assessment of national programmes aimed at reducing the mortality impact of these illnesses. Information is provided on the prevalence and treatment of acute respiratory infection (ARI), including treatment with antibiotics, and the prevalence of fever and its treatment with antimalarial drugs and antibiotics. Data on the treatment of diarrhoeal disease with oral rehydration therapy and increased fluids aids in the assessment of programmes that recommend such treatment. Because appropriate sanitary practices can help prevent and reduce the severity of diarrhoeal disease, information is also provided on the manner of disposing of children's faecal matter. Finally, the chapter provides information on the utilization of health, education, and nutrition services provided under the ICDS programme by *anganwadi* centres to children and their mothers. In NFHS-3, information on child health and health-care practices was collected from mothers for children born since 1 January, 2000 (in states that began fieldwork in 2005) and since 1 January, 2001 (in states that began fieldwork in 2006). Information was collected for all live births. The information on child health presented in this chapter pertains only to children born during the five years preceding the survey unless otherwise specified.

9.1 CHILD'S SIZE AT BIRTH

Birth weight is an important indicator of a child's vulnerability to the risk of childhood illness and chances of survival. In the absence of birth weight, a mother's subjective assessment of the size of the baby at birth is a useful proxy for birth weight. Children whose birth weight is less than 2.5 kilogrammes, or children reported to be 'very small' or 'smaller than average' are considered to have a higher than average risk of early childhood death. Birth weight was recorded in the NFHS-3 questionnaire for births in the five years preceding the survey either from a written record or the mother's recall. Since birth weight may not be known for many babies, the mother's estimate of the baby's size at birth was obtained for all births. Table 9.1 presents information on children's weight and size at birth according to background characteristics.

In NFHS-3, a birth weight was recorded for 34 percent of babies born in the five years preceding the survey; this weight came either from a weight recorded on a health card or from the mother's memory (recall). A small percentage of mothers reported that the baby was weighed at birth but did not have a record of the weight and did not remember the birth weight. The proportion of births with a reported birth weight is 60 percent in urban areas and 25 percent in rural areas. Since the sample of births for which weights are reported is only one-third of all births, results on birth weight should be interpreted with caution.

Among children for whom birth weight was reported, 22 percent had a low birth weight, that is, they weighed less than 2.5 kilogrammes. The proportion weighing less than 2.5 kilogrammes is slightly higher in rural areas (23 percent) than in urban areas (19 percent). The proportion of births with a low birth weight is greater among children born to Jain women, young women (age at birth <20 years), Sikh women, and women who use tobacco. The proportion of births with a low birth weight declines with increases in the wealth quintile and with increasing education.

Table 9.1 also shows the distribution of all births born in the five years preceding the survey by the mother's report of the baby's size at birth. Size at birth was reported for all babies, regardless of whether or not they were weighed at birth. Fifteen percent of babies were reported by the mother to have been smaller than average and 6 percent were reported to have been very small, resulting in a total of 21 percent reported to have been of smaller than average size. The patterns by background characteristics in the proportion of babies reported to have been small or very small at birth are similar to the patterns found in birth weight by background characteristics.

Table 9.1 Child's size at birth

Among live births in the five years preceding the survey, percent distribution by birth weight and percentage whose birth weight was reported, and percent distribution of all live births in the five years preceding the survey by mother's estimate of baby's size at birth, according to background characteristics, India, 2005-06

Background characteristic	Percent distribution of births with a reported birth weight[1]				Percentage of live births whose birth weight was reported[1]	Percent distribution of all live births by size of child at birth					
	Less than 2.5 kg	2.5 kg or more	Total	Number of births		Very small	Smaller than average	Average or larger	Don't know/ missing	Total	Number of births
Mother's age at birth											
<20	26.1	73.9	100.0	3,901	32.8	7.1	15.9	75.0	2.0	100.0	11,882
20-34	20.4	79.6	100.0	14,918	35.4	5.7	14.6	78.4	1.3	100.0	42,155
35-49	20.1	79.9	100.0	430	17.9	6.2	13.7	78.7	1.5	100.0	2,400
Birth order											
1	22.3	77.7	100.0	8,557	50.0	6.5	15.1	76.9	1.5	100.0	17,106
2-3	20.2	79.8	100.0	8,785	36.0	5.6	14.4	78.5	1.4	100.0	24,429
4-5	24.6	75.4	100.0	1,509	15.8	5.9	15.1	77.5	1.5	100.0	9,522
6+	22.3	77.7	100.0	399	7.4	6.5	15.3	77.2	1.0	100.0	5,381
Residence											
Urban	19.3	80.7	100.0	8,624	60.3	5.6	13.2	80.0	1.2	100.0	14,303
Rural	23.3	76.7	100.0	10,626	25.2	6.2	15.4	76.9	1.5	100.0	42,135
Mother's education											
No education	26.2	73.8	100.0	3,944	14.0	6.4	15.9	76.2	1.6	100.0	28,237
<5 years complete	26.5	73.5	100.0	1,369	33.4	7.5	15.7	74.5	2.4	100.0	4,100
5-7 years complete	22.3	77.7	100.0	3,540	43.2	6.4	14.1	77.8	1.6	100.0	8,189
8-9 years complete	22.3	77.7	100.0	3,540	52.7	6.4	14.8	77.6	1.2	100.0	6,723
10-11 years complete	18.8	81.2	100.0	2,862	66.8	3.9	12.7	82.7	0.6	100.0	4,282
12 or more years complete	15.7	84.3	100.0	3,995	81.5	3.3	11.1	85.0	0.6	100.0	4,905
Religion											
Hindu	21.8	78.2	100.0	15,343	34.8	5.9	15.0	77.8	1.3	100.0	44,152
Muslim	20.2	79.8	100.0	2,622	27.2	6.9	14.2	77.4	1.6	100.0	9,641
Christian	16.3	83.7	100.0	579	52.2	4.6	11.8	80.4	3.2	100.0	1,109
Sikh	26.0	74.0	100.0	342	47.7	6.5	17.1	73.1	3.4	100.0	716
Buddhist/Neo-Buddhist	23.7	76.3	100.0	230	60.9	6.9	10.5	77.5	5.1	100.0	377
Jain	27.2	72.8	100.0	75	86.0	12.0	19.3	68.7	0.0	100.0	87
Other	11.3	88.7	100.0	47	15.3	4.3	15.9	77.2	2.5	100.0	306
Caste/tribe											
Scheduled caste	23.7	76.3	100.0	3,310	28.3	6.1	14.7	78.0	1.2	100.0	11,693
Scheduled tribe	22.3	77.7	100.0	1,156	21.2	6.1	17.5	72.8	3.6	100.0	5,442
Other backward class	21.3	78.7	100.0	7,373	32.5	5.9	14.8	78.5	0.8	100.0	22,716
Other	20.7	79.3	100.0	7,250	44.8	6.1	13.9	78.3	1.6	100.0	16,176
Don't know	15.3	84.7	100.0	109	49.7	4.8	23.0	70.5	1.7	100.0	220
Wealth index											
Lowest	25.4	74.6	100.0	1,638	11.4	6.6	16.9	74.6	1.9	100.0	14,377
Second	25.4	74.6	100.0	2,518	19.9	6.5	15.8	76.2	1.5	100.0	12,654
Middle	23.7	76.3	100.0	3,753	33.6	6.5	14.4	77.5	1.6	100.0	11,181
Fourth	21.8	78.2	100.0	5,206	51.3	5.5	13.2	80.1	1.2	100.0	10,154
Highest	17.4	82.6	100.0	6,134	76.0	4.2	12.2	83.0	0.7	100.0	8,072
Mother's current tobacco use											
Uses tobacco	25.7	74.3	100.0	1,119	19.4	6.6	16.4	74.7	2.3	100.0	5,756
Does not use tobacco	21.3	78.7	100.0	18,129	35.8	6.0	14.6	78.1	1.3	100.0	50,674
Total	21.5	78.5	100.0	19,250	34.1	6.0	14.8	77.7	1.4	100.0	56,438

Note: Total includes births with missing information on mother's education, religion, caste/tribe and mother's current tobacco use, which are not shown separately.
[1] Based on either a written record or the mother's recall.

Table 9.2 presents the distribution of births by weight (among those with a reported birth weight) and size at birth (among all births) and percentage whose birth weight was reported by state. The percentage of births with a reported birth weight varies considerably across states, from a low of 8 percent in Uttar Pradesh and 10-15 percent in Nagaland, Bihar, and Jammu and Kashmir, to a high of 97 percent in Kerala and 84-88 percent in Tamil Nadu, Goa, and Mizoram. Among babies with a reported birth weight, the proportion of babies with a birth weight less than 2.5 kilogrammes varies from a low of 8 percent in Mizoram to 33 percent in Haryana, followed by Delhi, Punjab, Rajasthan, Bihar, and Tripura where also more than 25 percent of babies had low birth weight. The proportion of births reported to have been smaller than average or very small ranges from a high in Tripura (35 percent) and Jammu and Kashmir (32 percent) to a low in Delhi (10 percent) and Andhra Pradesh (8 percent).

Table 9.2 Child's size at birth by state

Among live births in the five years preceding the survey with a reported birth weight, percent distribution by birth weight and percentage whose weight was reported, and percent distribution of all live births in the five years preceding the survey by mother's estimate of baby's size at birth, according to state, India, 2005-06

State	Percent distribution of births with a reported birth weight[1]			Percentage of live births whose birth weight was reported[1]	Percent distribution of all live births by size of child at birth				
	Less than 2.5 kg	2.5 kg or more	Total		Very small	Smaller than average	Average or larger	Don't know/ missing	Total
India	21.5	78.5	100.0	34.1	6.0	14.8	77.7	1.4	100.0
North									
Delhi	26.5	73.5	100.0	51.1	6.0	3.8	89.6	0.6	100.0
Haryana	32.7	67.3	100.0	29.9	6.2	11.9	81.7	0.1	100.0
Himachal Pradesh	24.8	75.2	100.0	44.2	9.2	10.8	79.4	0.6	100.0
Jammu & Kashmir	19.4	80.6	100.0	14.8	18.3	13.2	68.3	0.2	100.0
Punjab	27.7	72.3	100.0	40.4	7.5	20.9	66.4	5.1	100.0
Rajasthan	27.5	72.5	100.0	20.9	8.5	17.4	73.9	0.2	100.0
Uttaranchal	24.6	75.4	100.0	23.7	6.9	13.6	79.1	0.4	100.0
Central									
Chhattisgarh	17.5	82.5	100.0	22.6	3.5	11.6	83.9	0.9	100.0
Madhya Pradesh	23.4	76.6	100.0	22.3	6.0	18.7	75.1	0.2	100.0
Uttar Pradesh	25.1	74.9	100.0	8.3	5.2	15.4	79.3	0.1	100.0
East									
Bihar	27.6	72.4	100.0	11.6	5.7	13.5	80.3	0.6	100.0
Jharkhand	19.1	80.9	100.0	16.9	7.1	16.1	75.8	1.0	100.0
Orissa	20.6	79.4	100.0	36.7	6.4	17.5	71.0	5.2	100.0
West Bengal	22.9	77.1	100.0	43.0	9.3	15.0	73.7	2.0	100.0
Northeast									
Arunachal Pradesh	14.1	85.9	100.0	27.8	14.8	13.1	69.4	2.8	100.0
Assam	19.4	80.6	100.0	20.0	4.4	15.1	76.7	3.8	100.0
Manipur	13.1	86.9	100.0	44.8	3.3	13.2	80.3	3.2	100.0
Meghalaya	18.0	82.0	100.0	33.5	3.7	18.4	64.1	13.7	100.0
Mizoram	7.6	92.4	100.0	84.1	1.3	12.6	81.3	4.8	100.0
Nagaland	11.0	89.0	100.0	10.0	3.0	12.6	84.1	0.3	100.0
Sikkim	10.3	89.7	100.0	54.2	2.7	11.0	86.0	0.3	100.0
Tripura	27.3	72.7	100.0	44.0	14.1	20.8	63.8	1.3	100.0
West									
Goa	22.2	77.8	100.0	84.9	4.0	15.2	76.9	4.0	100.0
Gujarat	22.0	78.0	100.0	53.2	7.3	14.5	77.1	1.1	100.0
Maharashtra	22.1	77.9	100.0	70.3	3.8	13.6	77.4	5.2	100.0
South									
Andhra Pradesh	19.4	80.6	100.0	62.7	1.7	6.1	91.1	1.2	100.0
Karnataka	18.7	81.3	100.0	62.9	7.5	15.7	75.5	1.3	100.0
Kerala	16.1	83.9	100.0	97.0	1.9	12.1	85.5	0.5	100.0
Tamil Nadu	17.2	82.8	100.0	88.4	8.1	19.5	70.5	1.8	100.0

[1] Based on either a written record or the mother's recall.

9.2 VACCINATION COVERAGE

Universal immunization of children against the six vaccine-preventable diseases (namely, tuberculosis, diphtheria, whooping cough, tetanus, polio, and measles) is crucial to reducing infant and child mortality. Differences in vaccination coverage among subgroups of the population are useful for programme planning and targeting resources to areas most in need. Additionally, information on immunization coverage is important for monitoring and evaluation of the Expanded Programmes on Immunization (EPI).

NFHS-3 collected information on vaccination coverage for all living children born in the five years preceding the survey. According to the guidelines developed by the World Health Organization, children are considered fully vaccinated when they have received a vaccination against tuberculosis (BCG), three doses of the diphtheria, whooping cough (pertussis), and tetanus (DPT) vaccine; three doses of the poliomyelitis (polio) vaccine; and one dose of the measles vaccine by the age of 12 months. BCG should be given at birth or at first clinical contact, DPT and polio require three vaccinations at approximately 4, 8, and 12 weeks of age, and measles should be given at or soon after reaching 9 months of age.

NFHS-3 asked mothers in India whether they had a vaccination card for each child born since January 2000 (in states which began fieldwork in 2005) or since January 2001 (in states which began fieldwork in 2006). If a card was available, the interviewer was required to carefully copy the day, month, and year that each vaccination was received. For vaccinations not recorded on the card, the mother's report that the vaccination was or was not given was accepted. If the mother could not show a vaccination card, she was asked whether the child had received any vaccinations. If any vaccinations had been received, the mother was asked whether the child had received a vaccination against tuberculosis (BCG); against DPT; against polio; and against measles. For DPT and polio, information was obtained on the number of doses of the vaccine given to the child. In such cases, mothers were not asked the dates of vaccinations. To distinguish Polio 0 (polio vaccine given at the time of birth) from Polio 1 (polio vaccine given about six weeks after birth), mothers were also asked whether the first polio vaccine was given just after birth or later[1].

Table 9.3 gives the percentages of all children age 12-23 months who received specific vaccinations at any time before the interview and before 12 months of age**,** according to whether a vaccination card was shown to the interviewer or the mother was the source of all vaccination information. The 12-23 month age group was chosen for analysis because both international and Government of India guidelines specify that children should be fully vaccinated by the time they complete their first year of life. Because the date of vaccination was not asked of the mother if she could not show a vaccination card, for children whose information is based on the mother's

[1] Because mothers sometimes report that the first polio dose was given just after birth even if it was given several weeks later, an adjustment was made to the estimates of the number of polio vaccinations given, based on reports of the number of DPT vaccinations. This adjustment is based on the fact that when children receive a DPT vaccination, they are almost always given a polio vaccination at the same time. Thus, if the number of polio vaccinations was reported to be less than the number of DPT vaccinations and the first polio vaccination was reported to be given just after birth, then Polio 0 is assumed to really be Polio 1, Polio 1 is assumed to be Polio 2, etc. Similar adjustments were made to the NFHS-1 and NFHS-2 vaccination estimates.

Table 9.3 Vaccinations by source of information

Percentage of children age 12-23 months who received specific vaccines at any time before the survey, by source of information (vaccination card or mother's report), and percentage vaccinated by 12 months of age, India, 2005-06

Source of information	BCG	DPT			Polio[1]				Measles	All basic vaccinations[2]	No vaccinations	Number of children
		1	2	3	0	1	2	3				
Vaccinated at any time before the survey												
Vaccination card	97.2	98.5	93.1	86.9	63.0	98.0	93.0	86.6	81.1	76.1	0.1	3,910
Mother's report	66.7	62.5	50.8	36.3	39.6	90.2	86.3	73.2	45.4	24.0	8.1	6,509
Either source	78.1	76.0	66.7	55.3	48.4	93.1	88.8	78.2	58.8	43.5	5.1	10,419
Vaccinated by 12 months of age[3]	75.6	72.8	63.3	51.5	48.0	89.1	84.7	73.2	48.4	36.3	8.9	10,419

[1] Polio 0 is the polio vaccination given at birth.
[2] BCG, measles, and three doses each of DPT and polio vaccine (excluding polio vaccine given at birth).
[3] For children whose information was based on the mother's report, the proportion of vaccinations given during the first year of life was assumed to be the same as for children with a written record of vaccination.

report, the proportion of vaccinations given during the first year of life is assumed to be the same as the proportion of vaccinations given during the first year of life among children with an exact date of vaccination on the card.

Children who received BCG, measles, and three doses each of DPT and polio (excluding Polio 0) are considered to be fully vaccinated. Based on information obtained from a card or reported by the mother ('either source'), 44 percent of children age 12-23 months are fully vaccinated and 5 percent have not received any vaccinations. Coverage for BCG, DPT, and polio (except Polio 0) vaccinations is much higher than for 'all vaccinations'. BCG, the first dose of DPT, and all three doses of polio vaccine have each been received by at least 76 percent of children. Fifty-five percent of children have received three doses of DPT. Although DPT and polio vaccinations are given at the same time as part of the routine immunization programme, the coverage rates are higher for polio than for DPT (for all three doses), undoubtedly because of the Pulse Polio campaigns. Not all children who begin the DPT and polio vaccination series go on to complete them. The difference between the percentages of children receiving the first and third doses is 21 percentage points for DPT and 15 percentage points for polio. Fifty-nine percent of children age 12-23 months have been vaccinated against measles. The relatively low percentages of children vaccinated with the third dose of DPT and measles are mainly responsible for the low proportion of children fully vaccinated. As expected, vaccination coverage for each type of vaccine and for full vaccination is much higher for children for whom a vaccination card was shown than for the children whose vaccination information is all based on mother's recall because no vaccination card was shown.

According to the immunization schedule outlined by Government of India and the World Health Organization (WHO), all primary vaccinations, including measles, should be administered by the time a child is 12 months old. Table 9.3 shows that only 36 percent of children age 12-23 months were fully vaccinated by age 12 months. The percentages of children who received BCG, each dose of DPT, and each dose of polio by age 12 months are only slightly lower than the percentages who received these vaccines at any time before the survey (i.e., at any age up to their current age). The gap is wider, however, for the measles vaccination, which is supposed to be given when the child is nine months old. Fifty-nine percent of children age 12-23 months received a measles vaccine at some time before their current age, while only 48 percent

received it before 12 months of age. Eighteen percent of children who were vaccinated against measles received the vaccination after their first birthday.

Vaccination coverage (according to a vaccination card or mother's report) is presented in Table 9.4 for children age 12-23 months by selected background characteristics. The table also shows the percentage of children whose vaccination cards were shown to the interviewer.

Table 9.4 Vaccinations by background characteristics

Percentage of children age 12-23 months who received specific vaccines at any time before the survey (according to a vaccination card or the mother's report), and percentage with a vaccination card seen by the interviewer, by background characteristics, India, 2005-06

Background characteristic	BCG	DPT 1	DPT 2	DPT 3	Polio[1] 0	Polio[1] 1	Polio[1] 2	Polio[1] 3	Measles	All basic vaccinations[2]	No vaccinations	Percentage with a vaccination card seen	Number of children
Sex													
Male	80.2	78.4	69.2	57.4	50.4	94.1	89.5	79.3	61.4	45.3	4.3	38.8	5,546
Female	75.8	73.2	63.8	53.0	46.2	91.9	88.0	77.1	55.8	41.5	6.0	36.1	4,873
Birth order													
1	86.6	84.9	77.6	66.9	57.8	94.9	91.0	81.3	69.5	54.6	3.7	47.9	3,273
2-3	80.8	78.6	69.5	57.9	50.2	93.4	89.1	77.7	60.7	45.3	4.7	36.5	4,632
4-5	68.3	64.9	53.8	40.5	34.5	91.4	86.5	75.7	46.3	29.9	7.0	30.4	1,618
6+	51.2	49.7	35.6	26.4	29.9	88.0	82.9	74.4	32.2	18.5	8.6	17.4	895
Residence													
Urban	86.9	84.4	78.1	69.1	68.5	94.8	91.1	83.1	71.8	57.6	3.3	46.2	2,723
Rural	75.1	73.0	62.6	50.4	41.3	92.5	88.0	76.5	54.2	38.6	5.7	34.5	7,696
Mother's education													
No education	64.7	61.4	49.9	36.9	32.5	90.3	84.9	74.1	41.0	26.1	7.4	25.1	4,976
<5 years complete	80.9	80.1	69.4	57.3	49.7	90.5	85.2	75.4	58.7	46.1	7.6	46.1	694
5-7 years complete	87.1	86.1	77.3	64.6	55.1	94.6	91.4	78.8	69.2	51.8	3.7	41.6	1,591
8-9 years complete	90.9	90.2	82.7	73.0	63.1	96.3	93.3	82.4	75.1	59.7	2.3	50.5	1,297
10-11 years complete	95.3	93.4	86.9	80.0	68.5	97.0	93.0	83.5	82.6	66.1	2.0	53.2	859
12 or more years complete	97.5	96.1	93.3	86.6	79.7	99.0	97.1	89.9	89.3	75.2	0.3	56.8	1,002
Religion													
Hindu	79.6	77.5	67.9	56.4	48.6	93.9	89.9	78.7	60.0	44.4	4.4	37.4	8,092
Muslim	69.7	66.9	58.3	47.8	45.0	90.3	84.5	76.6	49.6	36.3	7.3	36.4	1,814
Christian	82.1	81.6	76.3	65.1	52.9	90.0	87.3	77.6	68.0	56.3	9.4	44.0	234
Sikh	90.4	88.6	86.2	76.9	65.5	91.0	89.1	81.1	80.2	67.3	6.6	46.0	139
Buddhist/Neo-Buddhist	98.5	94.1	75.6	58.0	81.3	95.2	87.3	74.1	96.0	50.9	0.7	39.1	59
Other	69.3	75.3	53.8	42.3	20.7	91.9	84.3	79.5	41.4	27.2	7.9	25.8	52
Caste/tribe													
Scheduled caste	75.4	74.2	64.6	51.9	46.8	92.2	88.6	76.3	56.7	39.7	5.4	34.8	2,141
Scheduled tribe	71.7	65.9	53.2	40.9	30.9	86.8	79.8	64.6	46.1	31.3	11.5	27.4	972
Other backward class	76.4	74.1	63.9	52.6	46.2	94.4	90.3	81.4	55.4	40.7	3.9	34.5	4,120
Other	84.1	82.6	75.8	65.4	57.6	94.0	89.7	79.6	68.8	53.8	4.3	46.0	3,108
Don't know	(92.7)	(92.5)	(85.0)	(84.9)	(85.0)	(97.5)	(97.4)	(92.2)	(67.8)	(60.2)	(2.5)	(80.0)	47
Wealth index													
Lowest	64.0	60.0	46.9	33.9	30.2	87.6	81.4	69.7	39.9	24.4	9.1	25.5	2,580
Second	71.4	70.3	59.3	47.1	39.1	92.7	88.2	76.7	48.2	33.2	6.1	32.3	2,324
Middle	80.1	79.0	70.5	58.4	48.6	94.0	90.6	81.1	61.6	46.9	4.3	38.9	2,029
Fourth	88.8	86.5	79.3	68.5	60.4	96.0	92.7	81.0	72.0	55.3	2.9	43.0	1,840
Highest	95.6	93.5	89.3	81.9	76.7	97.9	94.7	87.2	85.2	71.0	0.9	55.9	1,646
Total	78.1	76.0	66.7	55.3	48.4	93.1	88.8	78.2	58.8	43.5	5.1	37.5	10,419

Note: Total includes Jain children and children with missing information on religion and caste/tribe, who are not shown separately.
( ) Based on 25-49 unweighted cases.
[1] Polio 0 is the polio vaccination given at birth.
[2] BCG, measles, and three doses each of DPT and polio vaccine (excluding polio vaccine given at birth).

Mothers were able to show vaccination cards for 38 percent of children age 12-23 months, slightly higher from the 35 percent in NFHS-2**.** Vaccination coverage for each type of vaccine is much higher in urban areas than in rural areas. Fifty-eight percent of children in urban areas age 12-23 months have received all of the recommended vaccinations by the time of the survey, compared with only 39 percent of children in rural areas. In addition, dropout rates for both DPT

and polio are lower in urban areas than in rural areas. Boys (45 percent) are slightly more likely than girls (42 percent) to be fully vaccinated. Boys are also somewhat more likely than girls to receive each of the individual vaccinations. Mothers showed vaccination cards for 39 percent of boys and 36 percent of girls.

The relationship between vaccination coverage and birth order is consistently negative for all vaccinations. The vast majority of first-order births occur to younger women and they are more likely than older women to utilize maternal and child health care services. As with the use of maternal health care services, a strong positive relationship exists between mother's education and children's vaccination coverage. Only 26 percent of children of mothers with no education are fully vaccinated while 75 percent of children of mothers who have completed 12 or more years of education are fully vaccinated, and the percentage vaccinated rises steadily with increasing levels of education. A smaller proportion of Muslim children (36 percent) are fully vaccinated than children of any other religion specified in the table, who range in coverage from 44 to 67 percent. A much smaller percentage of scheduled-tribe children (31 percent) are fully vaccinated than children belonging to any other caste/tribe status. As expected, household wealth index has a strong positive relationship with vaccination coverage. Only 24 percent of children from households in the lowest wealth quintile are fully vaccinated, compared with 71 percent of children from households in the highest wealth quintile. Differentials in immunization coverage of individual vaccines are similar to those for full immunization.

Table 9.5 shows vaccination coverage rates for each recommended vaccination and the percentage of mothers showing a vaccination card for children age 12-23 months in each state. There are considerable interstate differentials in the coverage rates for different vaccinations and for children receiving all vaccinations. The percentage of children who are fully vaccinated ranges from 21 percent in Nagaland to 81 percent in Tamil Nadu. Tamil Nadu, Goa, Kerala and Himachal Pradesh stand out in full immunization coverage as about three-fourths or more of children in each of these states are fully immunized. Among the more populous states, Uttar Pradesh (23 percent), Rajasthan (27 percent), Assam (31 percent), Bihar (33 percent), Jharkhand (34 percent), and Madhya Pradesh (40 percent) stand out as having a much lower percentage of children fully vaccinated than the national average of 44 percent (see Figure 9.1). As these states account for nearly one-third of the total population of the country, their low vaccination coverage pulls down the coverage rate for the country as a whole. In addition to Nagaland and Assam, some of the other northeastern states (Arunachal Pradesh and Meghalaya) also have a relatively poor record on vaccination coverage. A similar picture emerges with respect to individual vaccinations. In Tamil Nadu, Himachal Pradesh, Goa, Kerala, Sikkim, and Maharashtra, the coverage for BCG and at least the first doses of DPT and polio is generally in excess of 90 percent and in some cases, nearly universal. In Tamil Nadu and Goa, measles coverage is also above 90 percent. However, in most states, there is a considerable drop from the second to the third dose for both DPT and polio, and in almost every state fewer children have received measles vaccine than any of the other vaccinations except polio 0.

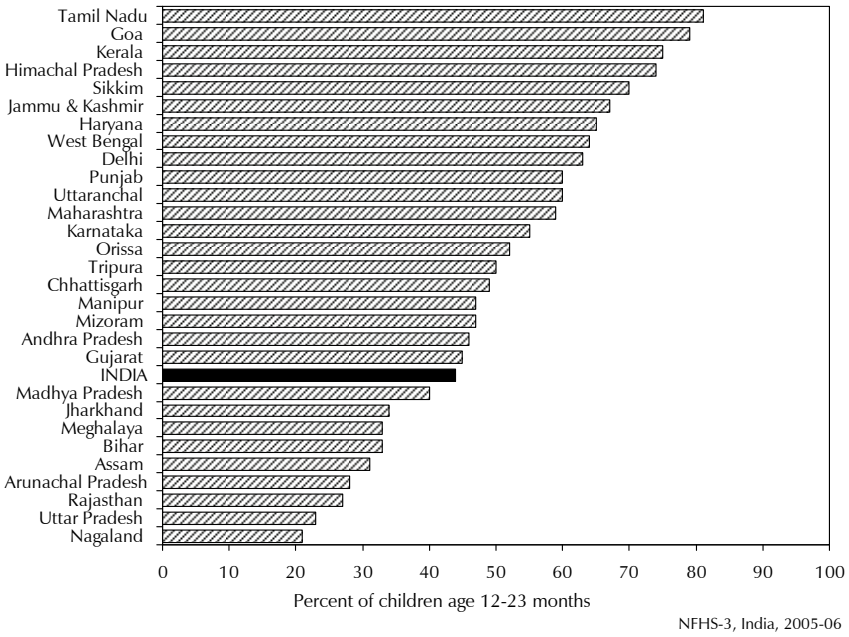
Table 9.5 Vaccinations by state

Percentage of children age 12-23 months who received specific vaccines at any time before the survey (according to a vaccination card or the mother's report), and percentage with a vaccination card seen by the interviewer, by state, India, 2005-06

State	BCG	DPT			Polio[1]				Measles	All basic vaccinations[2]	No vaccinations	Percentage with a vaccination card seen
		1	2	3	0	1	2	3				
India	78.1	76.0	66.7	55.3	48.4	93.1	88.8	78.2	58.8	43.5	5.1	37.5
North												
Delhi	87.0	83.4	80.5	71.7	70.4	88.5	86.5	79.1	78.2	63.2	9.1	30.4
Haryana	84.9	83.8	81.0	74.2	52.7	92.2	91.3	82.8	75.5	65.3	7.8	27.0
Himachal Pradesh	97.2	96.6	91.9	85.1	67.1	96.8	94.6	88.6	86.3	74.2	1.9	57.5
Jammu & Kashmir	90.9	90.5	88.8	84.5	48.3	95.1	93.8	82.2	78.3	66.7	4.5	49.1
Punjab	88.0	85.9	80.4	70.5	65.6	90.1	86.7	75.9	78.0	60.1	6.6	38.5
Rajasthan	68.5	65.0	53.2	38.7	30.0	93.0	84.0	65.2	42.7	26.5	5.5	20.8
Uttaranchal	83.5	81.4	76.4	67.1	51.8	89.1	84.5	80.3	71.6	60.0	9.1	48.4
Central												
Chhattisgarh	84.6	87.2	77.4	62.8	37.0	96.7	93.8	85.1	62.5	48.7	2.5	33.1
Madhya Pradesh	80.5	76.0	63.7	49.8	41.3	94.0	88.4	75.6	61.4	40.3	5.0	25.4
Uttar Pradesh	61.0	55.7	43.6	30.0	34.4	94.6	92.3	87.6	37.7	23.0	2.7	20.3
East												
Bihar	64.7	65.2	55.5	46.1	30.5	90.6	87.5	82.4	40.4	32.8	7.0	34.4
Jharkhand	72.7	66.0	53.2	40.3	25.2	93.4	87.2	79.3	47.6	34.2	4.4	40.7
Orissa	83.6	83.6	77.6	67.9	38.5	85.7	80.3	65.1	66.5	51.8	11.6	54.5
West Bengal	90.1	89.7	83.2	71.5	53.4	93.2	88.6	80.7	74.7	64.3	5.9	71.9
Northeast												
Arunachal Pradesh	57.7	57.0	48.4	39.3	34.3	72.6	65.5	55.8	38.3	28.4	24.1	35.0
Assam	62.4	66.7	56.2	44.9	27.5	81.6	72.7	59.0	37.4	31.4	15.2	46.6
Manipur	80.0	77.4	72.3	61.2	23.1	93.5	90.2	77.5	52.8	46.8	6.5	51.3
Meghalaya	65.9	62.0	56.0	47.3	31.0	81.5	74.2	56.6	43.8	32.9	16.5	32.6
Mizoram	86.4	89.1	84.5	66.8	46.4	89.0	83.7	63.5	69.5	46.5	7.0	38.7
Nagaland	46.3	47.5	36.3	28.7	13.2	79.8	68.4	46.2	27.3	21.0	18.4	24.9
Sikkim	95.9	94.9	91.2	84.3	63.4	94.0	91.2	85.6	83.1	69.6	3.2	59.7
Tripura	81.1	80.2	76.0	60.2	56.0	84.7	77.8	65.3	59.9	49.7	14.7	67.7
West												
Goa	96.8	95.7	92.6	87.5	85.6	98.6	94.0	87.2	91.2	78.6	0.0	74.3
Gujarat	86.4	82.2	73.4	61.4	59.9	92.6	83.5	65.3	65.7	45.2	4.5	36.4
Maharashtra	95.3	94.3	86.8	76.1	71.7	95.9	91.7	73.4	84.7	58.8	2.8	46.1
South												
Andhra Pradesh	92.9	92.6	76.4	61.4	68.3	96.2	94.5	79.2	69.4	46.0	3.8	37.2
Karnataka	87.8	86.7	81.5	74.0	75.1	91.8	87.9	73.8	72.0	55.0	6.9	52.8
Kerala	96.3	94.0	90.8	84.0	86.7	94.5	88.6	83.1	82.1	75.3	1.8	75.3
Tamil Nadu	99.5	98.9	97.7	95.7	94.5	99.6	96.3	87.8	92.5	80.9	0.0	36.9

[1] Polio 0 is the polio vaccination given at birth.
[2] BCG, measles, and three doses each of DPT and polio vaccine (excluding polio vaccine given at birth).

Figure 9.1 Full Immunization Coverage by State



NFHS-3, India, 2005-06

The percentage of children with a vaccination card that was shown by their mother to the interviewer varies considerably by state, from 20 percent in Uttar Pradesh to 75 percent in Kerala. These differentials reflect both differences in the proportion of children who have a vaccination card and, among those who have cards, differences in the ability or willingness of mothers to find the card and show it to the interviewer.

9.2.1 Trends in Vaccination Coverage

Table 9.6 Trends over time in vaccinations

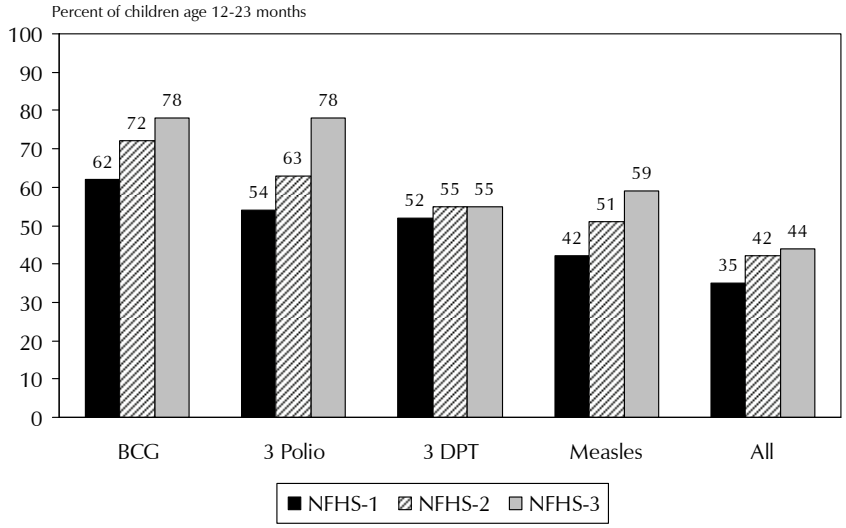
Percentage of children age 12-23 months who received specific vaccines at any time before the survey (according to a vaccination card or the mother's report), and percentage with a vaccination card seen by the interviewer, by residence, NFHS-3, NFHS-2, and NFHS-1

Vaccinations given any time before the survey	Urban			Rural			Total		
	NFHS-3 (2005-06)	NFHS-2 (1998-99)	NFHS-1 (1992-93)	NFHS-3 (2005-06)	NFHS-2 (1998-99)	NFHS-1 (1992-93)	NFHS-3 (2005-06)	NFHS-2 (1998-99)	NFHS-1 (1992-93)
BCG	86.9	86.8	77.6	75.1	67.1	57.6	78.1	71.6	62.2
DPT									
1	84.4	86.1	80.5	73.0	67.1	62.2	76.0	71.4	66.4
2	78.1	81.9	75.2	62.6	60.1	54.5	66.7	65.0	59.2
3	69.1	73.4	68.8	50.4	49.8	46.6	55.3	55.1	51.7
Polio[1]									
0	68.5	23.3	7.8	41.3	10.1	3.6	48.4	13.1	4.6
1	94.8	92.2	80.8	92.5	81.1	62.9	93.1	83.6	67.0
2	91.1	89.4	76.9	88.0	75.0	56.6	88.8	78.2	61.2
3	83.1	78.2	70.4	76.5	58.3	48.6	78.2	62.8	53.6
Measles	71.8	69.2	57.5	54.2	45.3	37.7	58.8	50.7	42.2
All basic vaccinations[2]	57.6	60.5	50.7	38.6	36.6	30.9	43.5	42.0	35.4
No vaccinations	3.3	6.4	16.4	5.7	16.7	34.0	5.1	14.4	30.0
Percentage with a vaccination card seen	46.2	45.9	37.8	34.5	30.1	28.5	37.5	33.7	30.6
Number of children	2,723	2,282	2,715	7,696	7,795	9,138	10,419	10,076	11,853

[1] Polio 0 is the polio vaccination given at birth.
[2] BCG, measles, and three doses each of DPT and polio vaccine (excluding polio vaccine given at birth).

As shown in Table 9.6 and Figure 9.2, there is an increase in the proportion of children fully immunized and a decline in the proportion of children who did not receive any vaccinations between NFHS-1 and NFHS-3. The coverage of BCG, three doses of polio and measles has also improved considerably since NFHS-1. Nevertheless, gains in full vaccination coverage and in the coverage of each individual vaccine were greater between NFHS-1 and NFHS-2, than between NFHS-2 and NFHS-3. The very limited progress in coverage of full immunization between NFHS-2 and NFHS-3 is mainly due to the coverage of the third dose of DPT, which has remained almost constant between NFHS-2 and NFHS-3 (55 percent). The trends in vaccination coverage between NFHS-2 and NFHS-3 in urban and rural areas show that there is greater improvement in the coverage of full immunization, as well as in most vaccines, in rural areas than in urban areas. In fact, there is a nearly two percentage point decline in full immunization coverage in urban areas between NFHS-2 and NFHS-3. Further, coverage for each of the three doses of DPT also declined in urban areas between the two surveys. The proportion of children receiving three doses of DPT declined from 73 percent in NFHS-2 to 69 percent in NFHS-3. These data indicate that India still lags far behind the goal of universal immunization coverage for children.

Figure 9.2 Trends in Vaccination Coverage



9.3 CHILD MORBIDITY AND TREATMENT

This section discusses the prevalence and treatment of acute respiratory infection, fever, and diarrhoea. Mothers of children born during the five years preceding the survey were asked if their children had suffered from cough, fever, or diarrhoea during the two weeks preceding the survey, and if so, the type of treatment given. Accuracy of all these measures is affected by the reliability of the mother's recall of when the disease episode occurred. The two-week recall period is thought to be most suitable for ensuring that there will be an adequate number of cases to analyze and that recall errors will not be too serious. It should be noted that the morbidity data collected are based on mothers' perceptions of illness without validation by medical personnel.

9.3.1 Acute Respiratory Infection

Acute respiratory infection (ARI) is one of the leading causes of childhood morbidity and mortality throughout the world. Early diagnosis and treatment with antibiotics can prevent a large proportion of deaths caused by ARI. In NFHS-3, the prevalence of ARI was estimated by asking mothers whether their children under age five years had been ill with a cough accompanied by short, rapid breathing which was chest related in the two weeks preceding the survey. These symptoms are compatible with ARI.

Table 9.7 shows the percentage of children with symptoms of ARI during the two weeks preceding the survey and the percentage with ARI symptoms who were taken to a health facility or provider, by selected background characteristics. Six percent of children under age five years in India showed symptoms of ARI at some time in the two weeks preceding the survey. A comparison of ARI NFHS-3 prevalence data with NFHS-2 is not meaningful because the questions employed to estimate ARI have changed between the two surveys, and because prevalence of ARI is subject to seasonal variation, and the surveys took place at different times of the year.

Table 9.7 shows that there are only marginal differences in the prevalence of ARI by most of the background characteristics included in the table. ARI is somewhat less prevalent among older children, children of mothers who have completed 12 or more years of education school, children in households belonging to the highest wealth quintile, Buddhist/Neo-Buddhist children, and children in the 'other' religion category. The prevalence of ARI is highest among Muslim and Jain children and among children age 6-11 months. The small variation in the prevalence of ARI by most socioeconomic characteristics indicates that, in India, respiratory infections affect children from all strata, irrespective of their socioeconomic background.

Table 9.7 also shows the percentage of children suffering from ARI symptoms in the two weeks before the survey who were taken to a health facility or provider. Sixty-nine percent of children received some advice or treatment from a health facility or health provider when ill with ARI. The percentage is relatively low for scheduled-tribe children, children in households belonging to the lowest wealth quintile, Christian children, and children whose mothers use tobacco. A greater proportion of Sikh children with symptoms of ARI are taken to a health facility than are children of other religions. Urban children, boys, children of mothers with the highest level of education and belonging to the highest wealth quintile are taken to a health facility or provider for advice or treatment in greater proportions than are their counterparts. Thirteen percent of children with ARI symptoms receive antibiotics.

Table 9.7 Prevalence and treatment of symptoms of ARI

Among children under age five, percentage who had symptoms of acute respiratory infection (ARI) in the two weeks preceding the survey and percentage with symptoms of ARI who received specific treatments, according to background characteristics, India, 2005-06

	Children under age five		Children under age five with symptoms of ARI		
Background characteristic	Percentage with symptoms of ARI[1]	Number of children	Percentage for whom treatment was sought from a health facility or provider[2]	Percentage who received antibiotics	Number of children
Age in months					
<6	6.2	5,127	70.7	14.6	319
6-11	8.1	5,276	76.9	11.9	427
12-23	7.1	10,419	69.0	12.7	743
24-35	5.8	10,383	68.7	13.8	602
36-47	5.0	10,829	67.4	11.6	536
48-59	4.0	10,835	62.2	10.7	431
Sex					
Male	6.0	27,626	71.7	13.2	1,647
Female	5.6	25,242	65.8	11.7	1,411
Residence					
Urban	5.1	13,665	78.1	15.5	691
Rural	6.0	39,203	66.3	11.7	2,367
Mother's education					
No education	6.0	25,960	65.7	9.4	1,546
<5 years complete	7.3	3,808	70.3	10.3	277
5-7 years complete	5.6	7,765	71.1	15.8	438
8-9 years complete	6.3	6,433	70.5	12.4	407
10-11 years complete	4.8	4,128	75.0	23.2	197
12 or more years complete	4.0	4,773	79.0	22.8	192
Religion					
Hindu	5.2	41,284	68.3	13.9	2,164
Muslim	8.6	9,085	70.6	9.0	783
Christian	3.4	1,058	48.8	12.6	36
Sikh	6.7	682	94.5	9.8	46
Buddhist/Neo-Buddhist	3.1	352	(67.4)	(2.9)	11
Jain	8.6	87	*	*	7
Other	3.1	273	(49.6)	(23.1)	9
Caste/tribe					
Scheduled caste	5.3	10,817	73.5	9.8	573
Scheduled tribe	4.6	5,022	57.4	12.6	231
Other backward class	5.5	21,321	68.1	14.0	1,162
Other	7.0	15,322	70.6	12.4	1,069
Don't know	7.5	205	*	*	15
Mother's current tobacco use					
Uses tobacco	7.3	5,314	60.5	10.7	386
Does not use tobacco	5.6	47,547	70.2	12.8	2,671
Cooking fuel					
Electricity or gas[3]	4.2	9,586	79.8	18.2	398
Kerosene	4.4	1,131	82.1	20.0	50
Coal/lignite	6.9	925	(82.3)	(16.6)	64
Charcoal	5.6	201	*	*	11
Wood/straw[4]	6.0	33,193	65.6	11.8	1,982
Animal dung	7.1	7,809	70.1	9.8	552
Wealth index					
Lowest	5.9	13,200	60.7	5.9	785
Second	6.9	11,671	67.0	12.2	805
Middle	6.2	10,492	70.1	12.1	650
Fourth	5.1	9,684	76.5	20.2	495
Highest	4.1	7,821	80.2	18.5	323
Total	5.8	52,868	69.0	12.5	3,058

Note: Total includes children with missing information on mother's education, religion, caste/tribe, mother's current tobacco use, and cooking fuel and children living in households using 'other' cooking fuel, who are not shown separately.
( ) Based on 25-49 unweighted cases.
* Percentage not shown; based on fewer than 25 unweighted cases.
[1] Symptoms of ARI (cough accompanied by short, rapid breathing which was chest-related) is considered a proxy for pneumonia.
[2] Excludes pharmacy, shop, and traditional practitioner.
[3] Includes LPG, natural gas, and biogas.
[4] Includes grass, shrubs, and crop waste.

Table 9.8 shows that the percentage of children with ARI symptoms varies greatly by state, from 1 percent in Himachal Pradesh to 13 percent in West Bengal and 14 percent in Tripura. More than 80 percent of children with ARI symptoms were taken to a health facility or provider in Delhi, Kerala, Haryana, Punjab, Goa, and Tripura. The percentage of children with ARI symptoms who received antibiotics was highest in Mizoram (52 percent), followed by Uttaranchal (46 percent), and lowest in Chhattisgarh (1 percent), followed by Tamil Nadu and Gujarat (both 7 percent).

Table 9.8 Prevalence and treatment of symptoms of ARI by state

Among children under age five, percentage who had symptoms of acute respiratory infection (ARI) in the two weeks preceding the survey and percentage with symptoms of ARI who received specific treatments, according to state, India, 2005-06

State	Percentage of children under five with symptoms of ARI[1]	Children under age five with symptoms of ARI	
		Percentage for whom treatment was sought from a health facility or provider[2]	Percentage who received antibiotics
India	5.8	69.0	12.5
North			
Delhi	6.4	89.3	23.4
Haryana	2.7	(88.0)	(12.0)
Himachal Pradesh	1.3	*	*
Jammu & Kashmir	7.6	71.6	9.2
Punjab	6.9	87.1	12.8
Rajasthan	6.9	64.7	16.5
Uttaranchal	4.3	74.0	46.0
Central			
Chhattisgarh	4.4	66.8	1.0
Madhya Pradesh	3.7	51.5	14.2
Uttar Pradesh	7.1	73.4	8.5
East			
Bihar	6.8	70.2	13.5
Jharkhand	5.2	67.0	12.4
Orissa	2.8	(76.5)	(13.5)
West Bengal	13.0	69.1	7.7
Northeast			
Arunachal Pradesh	6.7	43.6	36.2
Assam	7.3	34.3	8.6
Manipur	4.7	45.1	17.5
Meghalaya	1.9	*	*
Mizoram	4.1	(61.5)	(51.8)
Nagaland	4.2	27.1	31.2
Sikkim	5.0	(45.8)	(17.1)
Tripura	14.2	81.2	18.8
West			
Goa	3.6	(83.0)	(28.3)
Gujarat	4.7	63.0	7.2
Maharashtra	4.6	71.8	23.5
South			
Andhra Pradesh	2.0	(58.5)	(35.3)
Karnataka	1.7	(68.9)	(27.3)
Kerala	2.7	(88.8)	(33.2)
Tamil Nadu	3.7	75.3	6.5

( ) Based on 25-49 unweighted cases.
* Percentage not shown; based on fewer than 25 unweighted cases.
[1] Symptoms of ARI (cough accompanied by short, rapid breathing which was chest-related) are considered a proxy for pneumonia.
[2] Excludes pharmacy, shop, and traditional practitioner.

9.3.2 Fever

Fever is a major manifestation of malaria and other acute infections in children. Malaria and fever contribute to high levels of malnutrition and mortality. While fever can occur year-round, malaria is more prevalent after the end of the rainy season. For this reason, temporal factors must be taken into account when interpreting fever as an indicator of malaria prevalence. Since malaria is a major contributory cause of death in infancy and childhood in many developing countries, the so-called presumptive treatment of fever with anti-malarial medication is advocated in many countries where malaria is endemic.

Table 9.9 presents the percentage of children under five with fever during the two weeks preceding the survey and the percentage receiving various treatments, by selected background characteristics. Fifteen percent of children suffered from fever during the two weeks before the survey. The prevalence of fever is high among children in the age groups 6-11 months and 12-23 months (21 and 19 percent) and among Muslim children (20 percent). The prevalence of fever does not vary widely by other demographic and socioeconomic characteristics. Overall, seventy-one percent of children who were ill with fever were taken to a health facility or provider. As is true for treatment of ARI, treatment from a health facility or provider is sought more often for urban than for rural children and for boys than for girls. The percentage of children taken for treatment rises steadily with increasing education of the mother and increasing wealth quintile, from two-thirds of children being taken for treatment to over 80 percent being taken. The percentage of children taken for treatment is relatively low for scheduled-tribe children and relatively high for Sikh and Buddhist/Neo-Buddhist children.

Table 9.9 Prevalence and treatment of fever

Among children under age five, percentage who had a fever in the two weeks preceding the survey and percentage of children with fever for whom advice or treatment was sought from a health facility or provider, who took antimalarial drugs, and who took antibiotic drugs, by background characteristics, India, 2005-06

Background characteristic	Children under age five		Children under age five with fever			
	Percentage with fever	Number of children	Percentage for whom treatment was sought from a health facility or provider[1]	Percentage who took antimalarial drugs	Percentage who took antibiotic drugs	Number of children
Age in months						
<6	11.6	5,127	71.0	7.5	14.6	593
6-11	21.1	5,276	76.4	7.2	14.9	1,113
12-23	19.1	10,419	71.4	9.2	13.8	1,991
24-35	16.0	10,383	70.6	8.8	12.4	1,659
36-47	12.7	10,829	68.6	7.5	12.9	1,376
48-59	10.3	10,835	66.8	8.1	9.8	1,120
Sex						
Male	15.4	27,626	72.8	9.4	13.9	4,264
Female	14.2	25,242	68.4	6.8	11.9	3,587
Residence						
Urban	14.0	13,665	79.0	10.3	15.4	1,918
Rural	15.1	39,203	68.1	7.6	12.2	5,934
Mother's education						
No education	14.6	25,960	65.8	6.9	9.5	3,779
<5 years complete	15.8	3,808	70.6	4.6	10.1	603
5-7 years complete	14.7	7,765	72.6	8.8	15.5	1,140
8-9 years complete	16.6	6,433	76.8	11.7	15.6	1,065
10-11 years complete	15.8	4,128	77.1	10.6	19.9	651
12 or more years complete	12.9	4,773	80.7	10.6	20.7	614

Continued…

Table 9.9 Prevalence and treatment of fever—*Continued*

Background characteristic	Children under age five		Children under age five with fever			
	Percentage with fever	Number of children	Percentage for whom treatment was sought from a health facility or provider[1]	Percentage who took antimalarial drugs	Percentage who took antibiotic drugs	Number of children
Religion						
Hindu	13.8	41,284	70.4	9.2	13.9	5,693
Muslim	20.0	9,085	71.7	4.9	10.0	1,815
Christian	13.8	1,058	67.5	8.0	14.9	146
Sikh	15.1	682	84.3	9.3	20.0	103
Buddhist/Neo-Buddhist	9.6	352	83.5	19.8	5.2	34
Jain	16.3	87	*	*	*	14
Other	14.6	273	41.2	7.2	7.3	40
Caste/tribe						
Scheduled caste	14.6	10,817	69.5	7.7	10.6	1,584
Scheduled tribe	12.2	5,022	61.3	12.1	11.4	615
Other backward class	14.6	21,321	71.1	8.3	13.9	3,109
Other	16.2	15,322	73.7	7.7	13.9	2,486
Don't know	18.9	205	(72.6)	(0.0)	(6.9)	39
Wealth index						
Lowest	14.4	13,200	63.0	6.5	9.0	1,904
Second	15.9	11,671	67.0	6.0	11.8	1,861
Middle	15.0	10,492	72.4	8.2	12.7	1,569
Fourth	14.9	9,684	75.2	11.1	14.9	1,445
Highest	13.7	7,821	82.8	11.5	19.9	1,074
Total	14.9	52,868	70.8	8.2	13.0	7,852

Note: Total includes children with missing information on mother's education, religion, and caste/tribe, who are not shown separately.
( ) Based on 25-49 unweighted cases.
* Percentage not shown; based on fewer than 25 unweighted cases.
[1] Excludes pharmacy, shop, and traditional practitioner.

In NFHS-3, mothers were asked whether the child took any medicine at any time when ill with fever, and if yes, to give the name of the drug. Overall, children with fever are more likely to have taken an antibiotic drug (13 percent) than to have taken an antimalarial drug (8 percent). Older children age 48-59 months, children for whom caste/tribe was not known, Buddhist/Neo-Buddhist children, and children belonging to the 'other' religions category were less likely to receive antibiotics if they suffered from fever. Use of antibiotics for fever among children increases with increasing education of the mother and increasing wealth status of the household. Antibiotic use was highest (21 percent) among children whose mothers had completed at least 12 years of education. The percentage of children who took antimalarial drugs while suffering from fever varies similarly by sex of child, residence, mother's education, and household wealth as did the percentage of children taking antibiotics. However, antimalarial drug use during fever varies little by age of child, and is highest among Buddhist/Neo-Buddhist children and children belonging to the scheduled tribes.

Mothers were not always able to report the name of the antimalarial drug given to the child. Table 9.10 shows that among the 8 percent of children with fever who took antimalarial drugs, about half (4 percent of all children with fever) took an antimalarial of an unknown type. Chloroquine was found to be the most commonly identified drug (specifically mentioned for 2 percent of children with fever). The pattern of drug use for malaria did not differ much between rural and urban areas. However, the use of most types of antimalarials tends to be somewhat higher in urban areas than in rural areas.

Table 9.10 Availability at home of antimalarial drugs taken by children

Among children under age five who had fever in the two weeks preceding the survey, percentage who took specific antimalarial drugs and, among children who took specific drugs, percentage for whom the drug was at home when the child became ill with fever, India, 2005-06

Drug	Percentage with fever who took specific antimalarial drugs[1]	Percentage of children who took specific drugs for whom the drug was at home when the child became ill with fever	Number of children who took specific drugs
URBAN			
Chloroquine	3.4	29.0	65
Primaquine	0.7	*	13
SP/Fansidar	1.2	(12.8)	24
Combination with artemisinin	0.5	*	10
Other antimalarial	0.8	*	16
Unknown antimalarial	4.3	42.7	83
Any antimalarial drugs	10.3	31.8	197
RURAL			
Chloroquine	2.1	26.2	123
Primaquine	0.5	(45.7)	29
SP/Fansidar	0.5	(11.8)	29
Combination with artemisinin	0.5	*	27
Other antimalarial	1.1	(0.6)	67
Unknown antimalarial	3.4	15.0	202
Any antimalarial drugs	7.6	17.7	450
TOTAL			
Chloroquine	2.4	27.2	188
Primaquine	0.5	(44.3)	42
SP/Fansidar	0.7	12.2	53
Combination with artemisinin	0.5	(9.8)	37
Other antimalarial	1.1	0.8	83
Unknown antimalarial	3.6	23.0	285
Any antimalarial drugs	8.2	22.0	647

( ) Based on 25-49 unweighted cases.
* Percentage not shown; based on fewer than 25 unweighted cases.
[1] Based on 7,852 children who had fever in the two weeks preceding the survey.

Mothers were also asked whether the antimalarials given to the child were already available in the home at the time the child became ill with fever. As shown in Table 9.10, for one out of every five children who were given an antimalarial drug, the drug had already been available in the home, although antimalarial drugs at home were more readily available to urban children than to rural children. For one out of every three urban children who were given an antimalarial drug, the specific drugs given were already available in the home, while this was true for only one out of every six rural children who were given antimalarial drugs. The urban-rural differential, however, is largely due to the availability of antimalarials of the unspecified type. The percentages of children for whom Chloroquine and SP/Fansidar were in the home were fairly similar in urban and rural areas.

9.3.3 Diarrhoea

Diarrhoea is one of the single most common causes of death among children under age five worldwide, following acute respiratory infection. Deaths from acute diarrhoea are most often caused by dehydration due to loss of water and electrolytes. Nearly all dehydration-related deaths can be prevented by prompt administration of rehydration solutions. Because deaths from

diarrhoea are a significant proportion of all child deaths, the Government of India has launched the Oral Rehydration Therapy Programme as one of its priority activities for child survival. One major goal of this programme is to increase awareness among mothers and communities about the causes and treatment of diarrhoea. Oral rehydration salt (ORS) packets are made widely available and mothers are taught how to use them. NFHS-3 asked mothers of children born during the five years preceding the survey a series of questions about episodes of diarrhoea suffered by their children in the two weeks before the survey, including questions on feeding practices during diarrhoea, the treatment of diarrhoea, and their knowledge and use of ORS.

Table 9.11 shows the percentage of children under age five with diarrhoea in the two weeks preceding the survey, by selected background characteristics. Overall, 9 percent of all children under age five had diarrhoea, with 1 percent having diarrhoea with blood. As there are seasonal variations in the prevalence of diarrhoea, percentages shown in Table 9.11 may not reflect the situation throughout the year.

Among children 0-59 months, children 6-11 months are most susceptible to diarrhoea (as is generally the case with ARI and fever as well). Differentials by other background characteristics are small, although Jain children and children in the 'other' religion category are more likely to suffer from diarrhoea than children belonging to other religions. The prevalence of diarrhoea with blood is minimal across all groups.

Table 9.11 Prevalence of diarrhoea

Percentage of children under age five who had diarrhoea in the two weeks preceding the survey, by background characteristics, India, 2005-06

Background characteristic	Diarrhoea in the two weeks preceding the survey: Any diarrhoea	Diarrhoea with blood	Number of children
Age in months			
<6	10.6	0.2	5,127
6-11	18.1	1.0	5,276
12-23	13.8	1.3	10,419
24-35	8.3	1.2	10,383
36-47	5.0	0.5	10,829
48-59	3.9	0.6	10,835
Sex			
Male	9.5	0.8	27,626
Female	8.4	0.9	25,242
Residence			
Urban	8.9	0.6	13,665
Rural	9.0	1.0	39,203
Mother's education			
No education	8.7	1.0	25,960
<5 years complete	8.9	1.2	3,808
5-7 years complete	9.9	0.9	7,765
8-9 years complete	9.4	0.6	6,433
10-11 years complete	10.1	0.5	4,128
12 or more years complete	7.9	0.5	4,773
Religion			
Hindu	8.7	0.7	41,284
Muslim	10.0	1.4	9,085
Christian	8.2	0.3	1,058
Sikh	8.1	0.6	682
Buddhist/Neo-Buddhist	10.4	1.3	352
Jain	13.6	0.0	87
Other	16.2	1.9	273
Caste/tribe			
Scheduled caste	8.7	0.9	10,817
Scheduled tribe	8.8	1.1	5,022
Other backward class	9.5	0.7	21,321
Other	8.6	1.0	15,322
Don't know	7.2	0.0	205
Wealth index			
Lowest	8.8	1.3	13,200
Second	9.0	1.1	11,671
Middle	9.3	0.7	10,492
Fourth	9.5	0.5	9,684
Highest	8.3	0.4	7,821
Source of drinking water[1]			
Improved	9.0	0.9	45,735
Not improved	8.9	0.8	7,125
Toilet facility[2]			
Improved, not shared	8.5	0.6	12,167
Non-improved or shared	9.2	0.9	40,611
Total	9.0	0.9	52,868

Note: Total includes children with missing information on mother's education, religion, caste/tribe, source of drinking water, and toilet facility and children from households with 'other' source of drinking water, who are not shown separately.
[1] See Table 2.11 for definition of categories.
[2] See Table 2.12 for definition of categories.

9.3.4 Diarrhoea Treatment

Table 9.12 shows diarrhoea treatment and management practices by demographic and socioeconomic characteristics. Twenty-six percent of children who suffered from diarrhoea in the two weeks preceding the survey did not receive any treatment at all. Advice or treatment was sought from a health provider for 6 in 10

children who had diarrhoea. As is true for treatment of ARI and fever, urban children, boys, children of mothers with at least 12 years of education and children in households belonging to the highest two wealth quintiles are more likely than other children to be taken to a health facility or provider for advice or treatment. The percentage of children for whom treatment is sought from a health provider rises steadily with increasing education of the mother and increasing wealth quintile, from about half of children to about three-quarters of children. The percentage of children for whom treatment is sought from a provider is relatively low for children age 48-59 months, Christian children, children belonging to the 'other' religion category, and children in households belonging to the lowest wealth quintile, and relatively high for Sikh and Buddhist/Neo-Buddhist children.

Table 9.12 also shows the percentages of children with diarrhoea in the past two weeks who received various types of oral rehydration therapy (ORT) and who received other types of treatment, by background characteristics. Twenty-six percent of children age 0-59 months who suffered from diarrhoea during the two weeks preceding the survey were treated with a solution made from ORS packets. As expected, use of ORS packets is relatively high among urban children, children of more educated mothers, and children belonging to households in the higher wealth quintiles. Use of ORS packets is lower among Muslim, Hindu, and Buddhist/Neo-Buddhist children than among children belonging to other religions. However, as Figure 9.3 shows, the use of ORS to treat diarrhoea has not increased in urban or rural areas in the seven years between NFHS-2 and NFHS-3, although there had been a substantial increase, particularly in urban areas, in the period between NFHS-1 and NFHS-2.

Table 9.12 Diarrhoea treatment

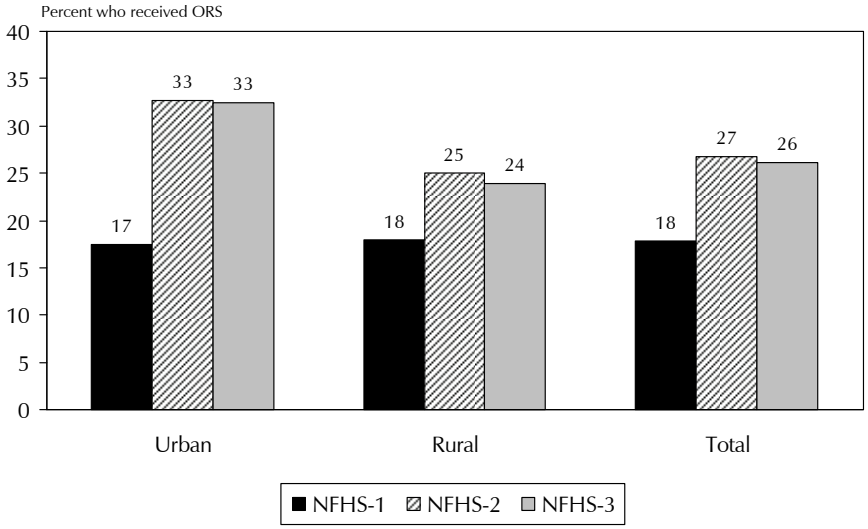
Among children under age five who had diarrhoea in the two weeks preceding the survey, percentage who received advice or treatment from a health provider, percentage who received oral rehydration therapy (ORT), and percentage who were given other treatments, by background characteristics, India, 2005-06

Background characteristic	Percentage of children with diarrhoea taken to a health provider[1]	Oral rehydration therapy (ORT)			Other treatments											
		ORS packets	Gruel	Either ORS or gruel	Increased fluids	Any ORT or increased fluids	Anti-biotic drugs	Anti-motility drugs	Zinc supple-ments	Other drug	Unknown drug	Intra-venous solution	Home remedy/ herbal/ other	Missing	No treat-ment	Number of children
Age in months																
<6	57.1	13.7	3.7	15.6	2.6	17.8	12.9	1.4	0.0	5.3	29.0	1.1	7.0	0.0	38.8	542
6-11	60.3	21.3	15.9	31.8	7.9	34.8	18.2	1.9	0.5	4.5	24.1	0.2	8.2	0.0	33.3	956
12-23	66.1	34.6	23.6	48.0	11.1	52.3	16.2	1.2	0.3	3.1	34.2	0.5	7.0	0.5	20.4	1,434
24-35	57.5	25.0	22.4	39.8	10.6	44.7	14.1	1.5	0.3	3.2	30.4	0.5	7.4	0.3	25.6	862
36-47	55.2	26.4	25.0	41.5	14.3	48.5	15.5	1.9	0.8	4.8	31.8	0.5	5.7	0.7	21.1	536
48-59	51.5	25.1	28.4	44.7	16.1	52.0	12.5	0.8	0.1	3.4	32.3	0.3	10.7	0.5	20.5	424
Sex																
Male	61.6	26.2	20.6	39.1	10.6	43.7	16.8	1.3	0.3	4.1	28.7	0.4	7.5	0.4	25.6	2,630
Female	57.7	25.9	19.6	37.8	9.7	42.2	13.8	1.7	0.4	3.6	32.6	0.7	7.5	0.2	26.8	2,125
Type of diarrhoea																
Non-bloody	59.1	25.7	19.9	38.1	10.0	42.5	15.5	1.5	0.4	3.8	29.4	0.5	7.4	0.3	26.8	4,262
Bloody	66.0	30.6	23.3	44.4	12.4	48.7	15.4	1.2	0.2	2.8	39.3	0.4	8.7	0.1	20.7	456
Residence																
Urban	64.5	32.6	22.0	44.2	11.3	48.6	18.9	2.0	0.7	4.6	31.3	0.6	8.1	0.1	19.6	1,215
Rural	58.2	23.8	19.5	36.6	9.9	41.1	14.3	1.3	0.2	3.6	30.1	0.5	7.3	0.4	28.4	3,540
Mother's education																
No education	54.7	18.4	17.8	31.7	8.5	36.6	13.0	1.0	0.1	2.8	32.5	0.3	6.7	0.4	30.8	2,246
<5 years complete	60.9	19.9	14.5	28.5	13.7	35.9	11.1	3.0	0.3	3.4	35.9	0.4	10.0	0.6	27.5	339
5-7 years complete	62.5	29.3	19.9	40.9	8.9	44.2	17.2	1.9	0.5	3.3	29.5	0.5	6.0	0.0	27.8	771
8-9 years complete	63.2	30.8	24.4	45.5	10.8	50.1	14.1	1.3	0.5	7.3	31.2	0.3	8.5	0.0	19.1	604
10-11 years complete	66.5	37.0	21.2	47.8	12.5	51.3	20.8	2.6	0.6	4.6	21.6	0.9	10.6	0.0	18.1	419
12 or more years complete	71.4	50.4	32.0	62.2	16.9	64.7	26.7	0.8	1.0	5.4	23.8	2.0	8.0	1.0	14.1	376
Religion																
Hindu	59.3	26.5	19.1	38.3	9.6	42.4	15.7	1.3	0.4	3.7	30.0	0.5	6.8	0.3	27.0	3,608
Muslim	61.8	21.9	22.8	37.6	12.8	43.8	13.9	2.3	0.3	3.9	35.1	0.4	8.7	0.5	22.9	909
Christian	50.0	40.3	28.0	54.1	13.9	56.6	20.1	0.1	0.1	11.1	14.7	0.1	11.7	0.1	24.7	87
Sikh	75.2	36.1	16.1	39.7	2.9	42.0	17.2	0.0	0.0	1.5	22.3	0.0	19.6	1.5	31.0	56
Buddhist/Neo-Buddhist	70.9	27.2	20.1	28.2	13.8	35.1	14.3	6.5	0.0	11.1	17.6	0.0	18.8	0.0	21.3	37
Other	45.0	30.6	26.8	46.9	4.7	50.2	7.7	0.0	0.0	0.2	18.5	2.9	10.8	0.0	27.7	44
Caste/tribe																
Scheduled caste	60.7	24.4	14.9	32.8	10.1	37.7	13.4	1.1	0.5	3.6	33.8	0.3	6.2	0.1	29.3	942
Scheduled tribe	54.3	28.5	21.4	42.8	10.2	46.3	12.9	0.1	0.0	2.1	25.0	0.9	9.1	0.2	30.5	440
Other backward class	57.5	23.3	21.2	38.0	9.0	41.4	15.1	1.4	0.2	4.1	31.5	0.4	6.4	0.4	25.9	2,029
Other	64.9	30.6	21.9	42.1	12.3	48.3	18.6	2.3	0.6	4.3	28.5	0.7	9.4	0.5	22.3	1,313
Wealth index																
Lowest	50.5	19.0	19.5	33.3	8.4	37.4	12.3	1.7	0.0	1.8	29.6	0.3	6.5	0.3	34.7	1,166
Second	56.7	19.4	16.4	30.9	9.4	37.1	13.1	1.0	0.3	4.0	33.1	0.2	6.6	0.2	30.1	1,046
Middle	60.3	25.5	19.6	39.0	8.7	43.1	16.1	1.0	0.5	3.3	32.6	0.8	8.6	0.3	21.6	978
Fourth	65.0	31.1	19.6	41.0	12.8	45.2	17.8	2.0	0.0	5.9	28.4	0.3	8.1	0.6	23.8	915
Highest	73.6	43.0	29.0	56.2	13.4	59.2	20.6	1.6	1.1	5.4	27.4	1.2	8.2	0.4	14.5	649
Total	59.8	26.0	20.2	38.5	10.2	43.0	15.5	1.5	0.3	3.9	30.4	0.5	7.5	0.3	26.1	4,755

Note: ORT includes solution prepared from an oral rehydration salt (ORS) packet and gruel. Total includes Jain children, children with missing information on type of diarrhoea, religion, and caste/tribe, and children whose caste/tribe is not known, who are not shown separately.

[1] Excludes pharmacy, shop, and traditional practitioner.

Figure 9.3 Trends in Use of Oral Rehydration Salts (ORS) by Residence



Note: Table based on children under age three years with diarrhoea in the two weeks preceding the survey

Only 20 percent of children who suffered from diarrhoea received gruel and 39 percent received either ORS or gruel or both. Only one in ten children were given increased fluids when sick with diarrhoea. More than half (57 percent) of children received neither oral rehydration therapy nor increased fluids when sick with diarrhoea. The youngest children (age 0-11 months), children living in rural areas, children of mothers with little or no education, Buddhist/Neo-Buddhist children, and children belonging to households in the lower wealth quintiles are less likely than other children to receive ORT or increased fluids.

The use of antibiotics and other antidiarrhoeal drugs is not generally recommended for the treatment of childhood diarrhoea. Yet significant proportions of children who had diarrhoea in the two weeks before the survey were treated with drugs, including 30 percent who were treated with 'unknown' drugs and 16 percent who were treated with antibiotics. Eight percent of children were treated with home or herbal remedies. These figures indicate poor knowledge of proper treatment of diarrhoea not only among mothers but also among health-care providers. The results underscore the need for informational programmes for mothers and supplemental training for health-care providers that emphasizes the importance of ORT, increased fluid intake, and continued feeding, and discourages the use of drugs to treat childhood diarrhoea. The use of unnecessary antibiotic drugs is widespread across most socioeconomic groups, and is particularly common for children of more educated mothers and for children in households belonging to the higher wealth quintiles.

Table 9.13 shows state differentials in the percentage of children age 0-59 months with diarrhoea during the two weeks preceding the survey for whom advice or treatment was sought from a health facility or provider, the percentage who received various types of oral rehydration therapy, and the percentage who received other types of treatment. The percentage of children for whom advice or treatment was sought from a health facility or provider when sick with diarrhoea is considerably higher in Haryana, Maharashtra, Punjab, Delhi, Meghalaya, and Goa

(72-82 percent) than in other states. The northeastern and eastern states, on the other hand, have lower percentages of children for whom treatment for diarrhoea is sought from a health facility or provider.

Use of ORS packets for treatment of diarrhoea remains particularly limited in several states. Their use ranges from 13 percent of children sick with diarrhoea receiving ORS in Uttar Pradesh, 15 percent in Assam, and 17 percent in Rajasthan, Nagaland, and Jharkhand to almost two-thirds of children sick with diarrhoea receiving ORS in Meghalaya and almost half or more in Tripura, Himachal Pradesh, Goa, and Mizoram. The provision of any ORT or increased fluids to children with diarrhoea is also quite limited in Rajasthan, Uttar Pradesh, and Assam, where about three-quarters of children who had diarrhoea in the two weeks preceding the survey were given neither ORT nor increased fluids. In Kerala, on the other hand, more than 8 out of 10 children received ORT or increased fluids, and in Himachal Pradesh this proportion was only somewhat lower (75 percent).

While the use of antibiotics is not generally recommended for the treatment of childhood diarrhoea, more than 3 in 10 children who had diarrhoea in the two weeks before the survey were treated with antibiotics in Delhi and Andhra Pradesh and more than half in Mizoram. Use of other unknown drugs is particularly common in Uttar Pradesh and Madhya Pradesh, where 4 in 10 children with diarrhoea were given drugs of an unknown type.

Table 9.13 Diarrhoea treatment by state

Among children under age five who had diarrhoea in the two weeks preceding the survey, percentage who received advice or treatment from a health provider, percentage who received oral rehydration therapy (ORT), and percentage who were given other treatments, by state, India, 2005-06

State	Percentage of children with diarrhoea taken to a health provider[1]	Oral rehydration therapy (ORT)					Other treatments								
		ORS packets	Gruel	Either ORS or gruel	Increased fluids	Any ORT or increased fluids	Anti-biotic drugs	Anti-motility drugs	Zinc supple-ments	Other drug	Unknown drug	Intra-venous solution	Home remedy/ herbal/ other	Missing	No treatment
India	59.8	26.0	20.2	38.5	10.2	43.0	15.5	1.5	0.3	3.9	30.4	0.5	7.5	0.3	26.1
North															
Delhi	75.0	29.9	19.1	42.1	9.4	43.4	31.3	0.0	0.0	0.0	19.1	1.3	6.2	0.0	25.9
Haryana	81.7	24.3	17.3	32.3	2.3	33.1	24.0	0.0	0.0	1.9	21.5	0.0	10.0	0.0	26.2
Himachal Pradesh	68.9	56.3	39.2	69.9	32.3	75.3	12.6	0.0	0.0	3.3	19.2	0.0	4.3	0.0	16.4
Jammu & Kashmir	67.0	40.6	13.9	44.0	14.8	46.6	15.2	0.0	0.0	0.9	33.2	0.0	5.9	0.9	28.0
Punjab	75.2	34.1	15.5	39.3	1.1	40.4	16.4	0.0	1.1	1.0	22.5	0.0	15.7	1.0	31.9
Rajasthan	56.7	16.5	6.7	21.4	5.5	25.4	11.7	2.9	0.0	8.5	32.7	1.6	7.6	1.1	28.7
Uttaranchal	61.7	33.1	29.7	49.1	16.7	53.2	14.0	0.7	0.7	4.6	23.1	0.0	13.3	0.6	16.8
Central															
Chhattisgarh	61.6	40.0	20.5	46.4	3.2	46.4	20.9	6.1	0.0	0.0	31.4	0.0	9.0	0.0	25.1
Madhya Pradesh	58.1	29.8	25.0	44.2	8.4	47.8	14.9	4.0	0.0	2.1	40.2	0.0	7.5	0.0	22.7
Uttar Pradesh	58.3	12.5	11.9	22.3	5.5	26.2	8.9	1.2	0.5	4.4	46.9	0.0	6.7	0.9	28.1
East															
Bihar	53.9	20.9	25.8	39.7	18.2	46.6	23.0	0.0	0.0	2.2	27.8	0.2	3.6	0.0	28.1
Jharkhand	44.1	17.3	17.4	31.3	9.9	38.9	10.3	2.1	0.6	1.9	25.0	1.1	6.4	0.0	37.5
Orissa	58.9	39.8	15.0	48.6	9.4	54.8	11.7	1.2	0.0	3.2	24.9	1.8	12.0	0.0	26.7
West Bengal	67.4	42.3	22.6	52.3	17.4	63.3	10.3	2.7	0.0	4.6	29.5	0.0	8.3	0.0	17.3
Northeast															
Arunachal Pradesh	35.5	31.7	12.4	39.9	12.4	47.2	14.4	0.7	0.0	3.2	4.9	0.0	13.6	0.0	38.3
Assam	31.4	14.5	13.0	24.6	1.0	25.6	10.1	1.9	0.0	1.9	17.9	1.0	15.0	1.0	40.1
Manipur	37.8	36.2	13.3	44.2	13.0	47.7	18.6	0.6	0.0	1.7	17.1	0.8	36.5	0.0	20.9
Meghalaya	72.2	65.1	13.0	72.1	16.0	72.1	24.9	0.0	0.0	10.1	32.1	0.0	21.0	0.0	7.0
Mizoram	27.4	48.3	30.3	64.8	24.2	69.4	54.5	0.0	1.1	2.2	1.1	1.1	16.9	0.0	11.1
Nagaland	17.6	16.5	34.3	44.8	16.9	52.7	20.2	0.0	0.0	4.5	9.3	0.0	15.9	1.4	25.8
Sikkim	33.4	33.2	27.5	47.7	43.9	65.3	9.6	10.8	0.0	1.0	4.0	1.2	9.8	0.0	24.2
Tripura	64.5	58.1	23.4	64.5	19.1	66.6	12.8	2.1	0.0	3.5	20.5	0.0	20.6	0.0	10.7
West															
Goa	72.1	50.6	40.6	64.8	8.1	68.2	28.4	1.7	0.0	5.6	15.6	0.0	17.2	0.0	15.1
Gujarat	56.8	26.3	21.7	38.8	8.8	42.9	8.8	0.0	0.0	1.0	30.5	0.0	7.2	0.0	31.9
Maharashtra	77.3	38.5	30.3	52.1	9.8	53.8	24.4	2.1	1.0	7.7	20.6	2.7	3.2	0.0	17.4
South															
Andhra Pradesh	65.3	36.9	7.9	43.1	9.8	47.0	32.3	0.4	1.1	8.9	12.7	0.0	7.5	0.0	25.0
Karnataka	65.6	31.9	24.2	46.5	10.1	48.7	21.6	1.7	1.1	3.4	20.0	0.0	8.3	0.6	23.0
Kerala	63.3	32.3	78.0	80.9	44.1	85.3	13.3	0.0	2.9	11.7	5.9	0.0	19.1	0.0	10.3
Tamil Nadu	63.3	32.2	32.4	54.5	9.6	58.7	8.5	0.0	0.0	1.3	31.9	0.0	7.1	0.0	20.4

Note: ORT includes solution prepared from an oral rehydration salt (ORS) packet and gruel.
[1] Excludes pharmacy, shop, and traditional practitioner.

9.4 FEEDING PRACTICES AND KNOWLEDGE OF ORS PACKETS

Mothers are encouraged to treat children suffering from diarrhoea by increasing their fluid intake and continuing to feed them normally. Such practices help to reduce the risk of dehydration and minimize the adverse consequences of diarrhoea on the child's nutritional status. To assess knowledge of proper treatment practices, mothers with a child who suffered from diarrhoea within the two weeks preceding the survey were asked about the relative amounts of fluids and foods given to the child during the diarrhoea episode. Specifically, these mothers were asked whether the amounts of food and fluids given to the child when he/she was sick with diarrhoea were more than usual, about the same as usual, somewhat less than usual, or much less than usual. Table 9.14 shows the percent distribution of children 0-59 months who had diarrhoea in the two weeks prior to the survey by feeding practices, according to background characteristics. Only one in ten children in India who had recently suffered diarrhoea were given more than the usual amount of fluids to drink. Half of children who had diarrhoea within the two weeks preceding the survey (49 percent) were given the same amount of liquids as they usually consume. Directly contrary to recommendations for treatment during episodes of diarrhoea, 27 percent of children were given less to drink, 10 percent were given much less to drink, and 4 percent were not given anything to drink, resulting in 4 in 10 children with diarrhoea having their fluids decreased while suffering from diarrhoea. Differentials in the proportions of children receiving increased fluids are very limited. Even among the most educated mothers, only 17 percent of children who had diarrhoea in the two weeks preceding the survey were given increased fluids.

While suffering from diarrhoea, children are to continue to be fed as they normally are, and this occurs for only a minority of children when they suffer from diarrhoea. Table 9.14 shows that only 37 percent of children were given the same as usual to eat when recently suffering from diarrhoea. Two percent of children were given more to eat, 31 percent were given somewhat less than the usual amount of food, 11 percent were given much less than the usual amount of food, and 4 percent were not given any food. Fifteen percent of children were never given any food, presumably because these children have not yet started eating solid food. Behaviour contrary to recommendations for proper management of diarrhoea suggests the need for public education programmes on proper feeding practices during diarrhoea.

According to UNICEF, diarrhoea can be managed at home by providing children with an increased amount of fluids, or ORT, and a continuation of usual feeding. Table 9.14 provides information about home management of diarrhoea as recommended by UNICEF. Overall, only 8 percent of children with diarrhoea received increased fluids and continued feeding. One-third of children with an episode of diarrhoea received continued feeding along with ORT or an increased amount of fluids. Home management of diarrhoea is provided to a higher percentage of children who are older, are Christian, have mothers who have completed at least 12 years of education, and live in households in the highest wealth quintile, and to a significantly lower percentage of Buddhist/Neo-Buddhist children and the youngest children.

Table 9.14 Feeding practices during diarrhoea

Percent distribution of children under age five who had diarrhoea in the two weeks preceding the survey by amount of liquids and food offered compared with normal practice, according to background characteristics, India, 2005-06

Background characteristic	Amount of liquids offered							Amount of food offered								Percentage given increased fluids and continued feeding[1,2]	Percentage given ORT or increased fluids and continued feeding[2]	Number of children with diarrhoea
	More	Same as usual	Some-what less	Much less	None	Don't know/ missing	Total	More	Same as usual	Some-what less	Much less	None	Never gave food	Don't know/ missing	Total			
Age in months																		
<6	2.6	58.7	19.4	7.0	12.0	0.2	100.0	1.7	23.3	11.9	6.9	0.7	54.4	1.0	100.0	1.6	8.9	542
6-11	7.9	48.3	28.4	9.7	5.4	0.4	100.0	1.9	30.3	25.2	7.4	5.6	29.2	0.3	100.0	4.3	22.3	956
12-23	11.1	45.7	29.8	10.6	2.4	0.4	100.0	1.7	39.7	34.2	13.6	4.0	6.0	0.9	100.0	7.9	39.6	1,434
24-35	10.6	50.5	25.5	11.1	1.6	0.7	100.0	2.3	43.3	36.9	11.7	2.9	2.2	0.7	100.0	8.6	37.1	862
36-47	14.3	47.5	27.8	8.6	1.5	0.3	100.0	1.9	45.4	36.9	11.6	3.3	0.7	0.3	100.0	12.2	41.0	536
48-59	16.1	43.1	29.5	7.9	1.6	1.7	100.0	3.2	41.5	38.4	11.1	3.5	1.3	0.9	100.0	12.2	43.2	424
Sex																		
Male	10.6	48.8	27.1	9.2	3.9	0.3	100.0	2.3	37.5	30.6	10.2	3.8	15.3	0.2	100.0	7.7	33.9	2,630
Female	9.7	48.2	27.5	10.2	3.6	0.8	100.0	1.6	37.3	31.5	11.5	3.3	13.4	1.3	100.0	7.2	31.2	2,125
Type of diarrhoea																		
Non bloody	10.0	49.5	26.4	9.9	4.0	0.4	100.0	1.9	37.7	30.5	10.5	3.4	15.4	0.5	100.0	7.3	32.2	4,262
Bloody	12.4	39.5	35.6	8.6	2.4	1.5	100.0	2.5	35.2	36.0	12.7	5.9	5.7	2.1	100.0	8.8	37.2	456
Residence																		
Urban	11.3	51.6	24.8	8.7	3.2	0.4	100.0	2.5	42.5	28.7	10.6	3.0	12.1	0.5	100.0	7.7	37.8	1,215
Rural	9.9	47.5	28.1	10.0	4.0	0.6	100.0	1.8	35.7	31.8	10.9	3.8	15.3	0.7	100.0	7.4	30.9	3,540
Mother's education																		
No education	8.5	49.9	27.7	9.6	4.0	0.4	100.0	1.7	36.5	31.8	10.3	4.0	15.2	0.6	100.0	6.5	28.7	2,246
<5 years complete	13.7	45.9	29.1	7.4	2.2	1.8	100.0	0.1	35.1	33.2	11.3	3.9	14.5	2.0	100.0	11.3	27.3	339
5-7 years complete	8.9	50.3	26.4	10.7	3.3	0.5	100.0	1.6	42.0	28.3	12.2	3.0	12.4	0.5	100.0	5.9	32.4	771
8-9 years complete	10.8	51.4	25.9	7.2	4.4	0.3	100.0	2.5	38.5	30.3	9.5	4.6	14.4	0.2	100.0	7.0	38.1	604
10-11 years complete	12.5	40.8	30.7	12.2	3.4	0.5	100.0	2.4	30.8	34.5	13.8	2.6	14.6	1.4	100.0	7.6	36.7	419
12 or more years complete	16.9	43.4	23.6	11.2	4.3	0.6	100.0	5.4	41.3	27.4	9.5	1.7	14.2	0.6	100.0	13.8	48.3	376
Religion																		
Hindu	9.6	49.5	26.9	9.5	4.0	0.5	100.0	1.9	37.9	30.0	10.2	3.9	15.4	0.7	100.0	6.9	31.7	3,608
Muslim	12.8	45.2	28.7	10.0	2.7	0.6	100.0	2.0	35.8	34.9	13.1	2.9	10.5	0.8	100.0	9.8	35.2	909
Christian	13.9	49.5	17.0	13.1	6.2	0.2	100.0	3.1	44.6	28.8	7.8	3.7	12.0	0.0	100.0	12.1	47.9	87
Sikh	2.9	53.1	36.4	6.1	1.5	0.0	100.0	3.8	42.3	31.4	7.6	1.5	13.4	0.0	100.0	2.2	33.5	56
Buddhist/Neo-Buddhist	13.8	53.0	26.2	6.9	0.2	0.0	100.0	4.8	23.1	20.1	19.6	0.5	31.9	0.0	100.0	1.1	15.6	37
Other	4.7	29.1	38.5	21.0	6.5	0.3	100.0	3.5	23.9	39.9	9.1	2.5	20.9	0.2	100.0	3.5	40.6	44
Caste/tribe																		
Scheduled caste	10.1	49.6	26.9	9.6	3.7	0.1	100.0	3.2	38.2	27.8	11.4	3.8	15.2	0.3	100.0	7.6	28.5	942
Scheduled tribe	10.2	45.7	29.9	9.3	4.8	0.1	100.0	2.2	38.5	36.2	9.8	2.6	10.7	0.0	100.0	7.6	38.1	440
Other backward class	9.0	50.4	26.9	9.5	3.6	0.6	100.0	1.0	37.1	30.7	9.6	4.6	16.1	0.8	100.0	6.3	31.3	2,029
Other	12.3	45.7	27.4	10.2	3.6	0.8	100.0	2.7	36.7	32.2	12.4	2.2	12.8	0.9	100.0	9.3	36.1	1,313
Wealth index																		
Lowest	8.4	47.7	27.7	9.9	5.4	1.0	100.0	1.5	36.1	28.5	12.5	4.3	15.6	1.4	100.0	6.0	28.9	1,166
Second	9.4	50.3	27.5	8.7	3.5	0.5	100.0	1.1	37.1	33.7	9.1	4.4	14.0	0.6	100.0	6.8	29.4	1,046
Middle	8.7	51.0	26.6	10.2	3.5	0.0	100.0	2.5	38.1	29.4	10.1	2.8	17.0	0.1	100.0	6.0	30.5	978
Fourth	12.8	46.2	26.0	11.0	3.3	0.6	100.0	2.7	38.3	32.2	11.6	2.9	11.6	0.7	100.0	10.8	34.9	915
Highest	13.4	47.0	29.0	7.9	2.6	0.2	100.0	2.7	37.9	32.1	10.3	3.4	13.5	0.2	100.0	8.6	44.7	649
Total	10.2	48.6	27.3	9.7	3.8	0.5	100.0	2.0	37.4	31.0	10.8	3.6	14.5	0.7	100.0	7.5	32.7	4,755

Note: Total includes Jain children, children with missing information on type of diarrhoea, religion, and caste/tribe, and children whose caste/tribe is not known, who are not shown separately.
ORT = Oral rehydration therapy, which includes solution prepared from an oral rehydration salt packet and gruel
[1] Equivalent to the UNICEF/WHO indicator 'Home management of diarrhoea'.
[2] Continued feeding includes children who were given more, same as usual, or somewhat less food during the diarrhoea episode.

A simple and effective response to dehydration caused by diarrhoea is a prompt increase in the child's fluid intake through some form of oral rehydration therapy, which may include the use of a solution prepared from packets of oral rehydration salts (ORS). To ascertain how widespread knowledge of ORS is in India, respondents were asked whether they know about ORS packets. Table 9.15 presents knowledge of ORS among all women and among mothers who gave birth in the five years preceding the survey. Seventy-three percent of all women and 74 percent of mothers with recent births know about ORS packets. Knowledge of ORS among recent mothers in NFHS-3 is not only much higher than it was in NFHS-1 (43 percent); it has increased by about 12 percentage points from its level in NFHS-2 (62 percent).

Table 9.15 Knowledge of ORS packets

Percentage of women and percentage of women who had a live birth in the five years preceding the survey who know about ORS packets for treatment of diarrhoea, by background characteristics, India, 2005-06

Background characteristic	All women		Women who gave birth in the past five years	
	Percentage who know about ORS packets	Number of women	Percentage who know about ORS packets	Number of women
Age				
15-19	71.0	24,811	64.9	2,985
20-24	76.7	22,779	75.7	13,287
25-34	75.9	38,073	76.1	19,621
35-49	69.2	38,722	67.1	3,784
Residence				
Urban	83.7	40,817	86.1	10,626
Rural	67.7	83,568	70.0	29,051
Education				
No education	58.4	50,487	62.0	18,792
<5 years complete	70.2	9,918	71.8	2,876
5-7 years complete	76.3	18,820	79.8	5,846
8-9 years complete	84.1	17,383	88.1	4,892
10-11 years complete	88.0	12,887	90.8	3,254
12 or more years complete	93.8	14,882	95.4	4,016
Religion				
Hindu	72.9	100,151	73.9	31,295
Muslim	72.2	16,936	74.7	6,486
Christian	78.7	3,053	81.3	814
Sikh	73.4	2,222	75.7	514
Buddhist/Neo-Buddhist	79.3	1,010	85.1	250
Jain	91.4	406	98.4	76
Other	54.2	484	57.9	205
Caste/tribe				
Scheduled caste	71.4	23,125	72.6	7,946
Scheduled tribe	61.4	10,119	64.0	3,746
Other backward class	70.8	48,880	73.1	15,889
Other	79.4	41,207	80.2	11,789
Don't know	66.2	649	74.1	158
Wealth index				
Lowest	56.8	21,718	59.3	9,571
Second	63.8	23,616	68.0	8,605
Middle	69.8	25,088	74.4	7,774
Fourth	80.1	26,106	84.9	7,256
Highest	89.5	27,856	92.8	6,471
Total	73.0	124,385	74.3	39,677

Note: Total includes women with missing information on education, religion, and caste/tribe, who are not shown separately.
ORS = Oral rehydration salts

Patterns of knowledge by background characteristics are the same among women regardless of whether or not they have recently had a birth. Knowledge of ORS packets is somewhat lower among mothers age 15-19 and among mothers age 35 years or older than among mothers in the middle age groups. As expected, knowledge is considerably higher among urban mothers (86 percent) than rural mothers (70 percent). The proportion of women who know of ORS packets increases with education and increasing wealth index. A smaller proportion of mothers belonging to scheduled tribes know about ORS packets than mothers belonging to other caste/tribe groups. Of all the groups shown in the table, knowledge of ORS packets is lowest among mothers belonging to the lowest wealth quintile (59 percent) and mother's belonging to `other' religions (58 percent).

The percent distribution of children under five years who had diarrhoea in the two weeks prior to the survey by feeding practices and the percentage of women who know about ORS packets are shown by state in Table 9.16. Kerala and Sikkim (each with 44 percent), followed by Himachal Pradesh (32 percent), stand out among the states as having the highest percentage of children given more to drink than usual during a diarrhoea episode. The proportion reporting that

Table 9.16 Feeding practices during diarrhoea by state

Percent distribution of children under age five who had diarrhoea in the two weeks preceding the survey by amount of liquids and food offered compared with normal practice, and percentage of women who know about oral rehydration salt (ORS) packets for treatment of diarrhoea by state, India, 2005-06

State	Amount of liquids offered							Amount of food offered								Percentage of women who know about ORS packets
	More	Same as usual	Some-what less	Much less	None	Don't know/ missing	Total	More	Same as usual	Some-what less	Much less	None	Never gave food	Don't know/ missing	Total	
India	10.2	48.6	27.3	9.7	3.8	0.5	100.0	2.0	37.4	31.0	10.8	3.6	14.5	0.7	100.0	73.0
North																
Delhi	9.4	22.7	46.6	8.4	12.9	0.0	100.0	5.1	22.7	47.4	10.6	0.0	14.2	0.0	100.0	95.2
Haryana	2.3	44.9	33.9	13.1	5.8	0.0	100.0	1.7	36.3	33.5	12.2	0.0	16.2	0.0	100.0	70.3
Himachal Pradesh	32.3	41.4	13.1	10.0	3.3	0.0	100.0	13.3	28.1	28.0	6.4	3.8	20.4	0.0	100.0	87.9
Jammu & Kashmir	14.8	41.7	32.9	8.8	1.8	0.0	100.0	0.0	24.5	36.0	6.9	9.7	22.8	0.0	100.0	72.9
Punjab	1.1	56.5	29.9	8.3	3.1	1.1	100.0	1.0	42.2	29.9	10.4	2.1	13.4	1.1	100.0	71.6
Rajasthan	5.5	75.6	14.3	1.6	2.4	0.5	100.0	0.5	51.0	21.9	2.1	1.4	23.1	0.0	100.0	66.2
Uttaranchal	16.7	54.7	18.1	5.8	4.0	0.7	100.0	4.0	40.9	18.6	9.2	4.1	22.4	0.7	100.0	77.4
Central																
Chhattisgarh	3.2	64.9	20.6	6.7	4.6	0.0	100.0	2.3	50.0	25.6	10.5	0.0	11.6	0.0	100.0	66.8
Madhya Pradesh	8.4	61.3	22.3	3.7	2.8	1.6	100.0	3.2	51.6	21.7	3.5	4.4	14.4	1.2	100.0	79.6
Uttar Pradesh	5.5	62.9	24.0	5.3	2.1	0.2	100.0	1.4	38.7	25.4	8.0	5.3	20.5	0.7	100.0	76.1
East																
Bihar	18.2	31.8	31.7	18.2	0.2	0.0	100.0	1.4	25.4	45.0	14.2	3.6	9.8	0.6	100.0	57.6
Jharkhand	9.9	27.3	35.6	15.1	12.1	0.0	100.0	1.1	21.6	35.5	12.2	8.2	20.3	1.1	100.0	63.4
Orissa	9.4	50.7	27.9	5.9	5.0	1.2	100.0	1.2	48.1	37.0	7.9	1.2	3.5	1.2	100.0	83.2
West Bengal	17.4	38.0	30.0	5.6	7.2	1.8	100.0	1.8	36.3	38.4	7.4	1.8	12.5	1.8	100.0	77.0
Northeast																
Arunachal Pradesh	12.4	50.2	27.2	6.2	2.4	1.6	100.0	3.2	56.3	27.8	3.1	0.7	7.9	0.9	100.0	69.5
Assam	1.0	66.2	28.0	2.4	2.4	0.0	100.0	0.0	56.0	22.2	20.8	1.0	0.0	0.0	100.0	78.1
Manipur	13.0	56.2	25.0	4.0	1.2	0.6	100.0	2.5	46.1	31.6	8.1	3.3	7.7	0.6	100.0	84.4
Meghalaya	16.0	52.0	24.9	3.0	4.0	0.0	100.0	2.0	38.0	39.9	14.0	4.0	2.0	0.0	100.0	74.7
Mizoram	24.2	36.9	26.8	7.7	3.2	1.2	100.0	0.0	38.1	47.7	5.5	7.6	1.1	0.0	100.0	96.2
Nagaland	16.9	58.9	16.1	5.0	1.0	2.1	100.0	2.7	57.6	23.3	12.4	1.4	2.5	0.0	100.0	52.6
Sikkim	43.9	36.4	11.0	2.3	6.3	0.0	100.0	14.5	56.6	16.5	4.0	2.3	6.1	0.0	100.0	88.9
Tripura	19.1	29.1	43.3	6.4	0.0	2.1	100.0	0.0	27.7	48.2	15.6	0.0	6.4	2.1	100.0	89.1
West																
Goa	8.1	45.0	32.2	13.4	1.3	0.0	100.0	1.7	39.3	34.1	10.4	6.4	8.1	0.0	100.0	83.2
Gujarat	8.8	47.5	24.2	16.0	3.6	0.0	100.0	2.6	34.6	30.3	13.9	3.1	15.4	0.0	100.0	66.6
Maharashtra	9.8	38.7	32.6	10.1	7.9	1.0	100.0	2.7	30.7	31.1	16.1	2.8	15.6	1.0	100.0	73.5
South																
Andhra Pradesh	9.8	24.8	35.7	25.3	4.4	0.0	100.0	3.9	24.7	28.8	24.5	8.3	9.9	0.0	100.0	66.9
Karnataka	10.1	34.1	36.0	15.4	3.8	0.5	100.0	2.9	31.5	33.5	18.6	2.7	10.8	0.0	100.0	71.9
Kerala	44.1	36.8	7.3	11.8	0.0	0.0	100.0	7.3	41.2	29.4	16.2	1.5	2.9	1.5	100.0	90.3
Tamil Nadu	9.6	53.1	28.1	3.9	5.4	0.0	100.0	1.3	52.1	28.8	6.5	1.5	8.3	1.7	100.0	74.2

children with diarrhoea were given more to drink is particularly low, at less than 5 percent, in Assam, Punjab, Haryana, and Chhattisgarh. At least half of children are continued to be fed as usual, as is recommended, in only eight states (Nagaland, Sikkim, Arunachal Pradesh, Assam, Tamil Nadu, Madhya Pradesh, Rajasthan, and Chhattisgarh). The proportions of children who were given more fluids or were continued to be fed as usual when suffering from diarrhoea are universally low, suggesting that mothers in all states still need education in the proper management of diarrhoea.

Knowledge of ORS packets is nearly universal among women in Mizoram and Delhi (95-96 percent) and also exceeds 80 percent in Kerala, Tripura, Sikkim, Himachal Pradesh, Manipur, Goa, and Orissa. Knowledge of ORS packets is lowest in Bihar (58 percent) and Nagaland (53 percent). About one-third of women in Jharkhand, Rajasthan, Gujarat, Chhattisgarh, and Andhra Pradesh do not know of ORS packets.

9.5 DISPOSAL OF CHILDREN'S STOOLS

Unsafe disposal of human faeces spreads disease either by direct contact or through animal transmission. Hence, the proper disposal of children's stools is extremely important in preventing the spread of disease. Table 9.17 presents information on the disposal of stools of children under five years of age. The stools of 79 percent of children are disposed of unsafely: 8 percent are put or rinsed into a drain or ditch, 26 percent are thrown into the garbage, and 44 percent are left in the open. Only in the case of one in five children are the stools disposed of hygienically. Twelve percent of children under five use a toilet or latrine. Stools of 9 percent of children are disposed of in a toilet or latrine, and for 1 percent of children their stools are buried.

There is a very strong positive relationship between both education of the mother and her household wealth index and the safe disposal of children's stools. Stools are disposed of safely for 61 percent of children of mothers with 12 or more years of education, compared with only 9 percent of children of mothers with no education. Similarly, stools are safely disposed of for 65 percent of children living in households belonging to the highest wealth quintile, compared with only 4 percent of children living in households of the lowest wealth quintile. Stools of children who do not belong to the scheduled castes, scheduled tribes, or other backward classes are more likely to be disposed of safely than of other children. The percentage of children with safe disposal of stools increases with age, as their use of a toilet or latrine increases. Stools of children belonging to the lowest wealth quintile are most likely to be left in open.

The safe disposal of children's stools is more than four times higher in urban (47 percent) than in rural areas (11 percent). Eighty percent of children's stools in rural areas are left in the open or thrown in the garbage, compared with 41 percent in urban areas. Twenty-seven percent of urban children use latrines, compared with 6 percent of rural children. Additionally, for 20 percent children in urban areas, stools are put into latrines, compared with 5 percent in rural areas. Although this marked difference in the disposal of children's stools between urban and rural areas can be partially attributed to greater access to toilet facilities in urban areas, it is notable that even in households with improved toilet facilities, children's stools are not necessarily disposed of safely. Table 9.17 shows that while a higher proportion of stools for children who live in households with improved, not shared toilets, are disposed of safely than for

Table 9.17 Disposal of children's stools

Percent distribution of mothers with a child under age five living with her by the manner of disposing of the youngest child's last stools, according to background characteristics, India, 2005-06

Background characteristic	Manner of disposal of child's stools								Total	Percentage of children whose stools are disposed of safely	Number of mothers
	Child used toilet or latrine	Put/ rinsed into toilet or latrine	Buried	Put/ rinsed into drain or ditch	Thrown into garbage	Left in the open	Other	Missing			
Child's age in months											
<6	1.4	9.3	1.2	20.2	33.7	28.3	5.1	0.8	100.0	11.9	5,081
6-11	2.5	9.6	1.0	11.3	38.0	34.9	2.1	0.5	100.0	13.1	5,241
12-23	6.0	9.0	0.9	7.0	33.5	42.8	0.4	0.4	100.0	15.9	9,825
24-35	14.1	8.1	0.7	3.8	22.8	49.2	0.4	0.8	100.0	23.0	7,657
36-47	20.8	8.3	0.4	2.8	12.8	53.5	0.3	0.9	100.0	29.6	5,917
48-59	27.8	9.0	0.2	2.4	7.0	52.9	0.1	0.7	100.0	37.0	4,775
Residence											
Urban	26.8	20.1	0.3	10.2	16.7	24.6	0.7	0.6	100.0	47.2	10,384
Rural	5.9	4.7	0.9	6.5	28.8	51.1	1.4	0.7	100.0	11.4	28,111
Education											
No education	4.9	3.1	0.8	6.9	28.9	53.9	1.1	0.5	100.0	8.7	18,123
<5 years complete	7.0	5.1	0.8	8.4	26.0	49.9	2.3	0.6	100.0	12.8	2,784
5-7 years complete	10.9	8.2	0.7	8.9	26.5	42.6	1.5	0.8	100.0	19.8	5,658
8-9 years complete	15.4	12.1	1.0	8.1	25.5	35.7	1.3	0.9	100.0	28.5	4,787
10-11 years complete	22.7	17.3	0.6	7.3	19.3	31.2	0.9	0.7	100.0	40.5	3,191
12 or more years complete	32.5	27.7	0.7	7.1	13.7	16.8	0.6	0.9	100.0	60.8	3,950
Religion											
Hindu	10.6	7.8	0.8	7.1	26.4	45.6	1.1	0.7	100.0	19.1	30,334
Muslim	13.8	11.0	0.6	9.5	24.7	38.4	1.6	0.4	100.0	25.4	6,316
Christian	18.3	17.7	1.3	8.6	13.9	38.4	1.2	0.6	100.0	37.4	793
Sikh	26.8	24.8	0.5	5.0	17.8	24.2	0.1	0.7	100.0	52.1	503
Buddhist/Neo-Buddhist	10.4	15.2	1.9	11.3	16.4	41.1	0.0	3.8	100.0	27.4	243
Jain	49.1	29.3	0.0	4.1	5.5	11.9	0.0	0.0	100.0	78.4	76
Other	4.2	3.5	3.1	6.4	12.9	66.9	2.1	0.8	100.0	10.8	194
Caste/tribe											
Scheduled caste	7.0	5.5	0.7	8.2	29.0	47.7	1.3	0.7	100.0	13.2	7,700
Scheduled tribe	4.1	4.7	1.4	6.2	21.2	60.1	1.7	0.6	100.0	10.2	3,602
Other backward class	9.2	7.4	0.8	6.8	27.3	47.0	0.7	0.8	100.0	17.4	15,412
Other	20.0	14.3	0.6	8.4	22.2	32.5	1.6	0.4	100.0	34.9	11,484
Don't know	11.1	5.8	2.3	6.6	16.3	51.1	6.0	0.9	100.0	19.2	154
Toilet facility[1]											
Improved, not shared	30.4	23.4	0.5	7.1	15.7	21.1	1.1	0.7	100.0	54.2	9,525
Non-improved or shared	5.3	4.0	0.9	7.6	28.8	51.6	1.2	0.6	100.0	10.2	28,907
Wealth index											
Lowest	1.7	1.0	0.9	5.9	30.9	57.4	1.7	0.5	100.0	3.5	9,225
Second	3.0	2.4	0.8	7.8	30.3	53.3	1.6	0.8	100.0	6.2	8,303
Middle	6.2	4.7	1.0	7.5	28.9	50.0	1.0	0.7	100.0	11.9	7,535
Fourth	17.2	14.2	0.7	9.7	21.6	35.0	0.9	0.7	100.0	32.1	7,073
Highest	36.9	27.5	0.3	6.9	12.0	15.3	0.5	0.6	100.0	64.7	6,359
Total	11.5	8.8	0.8	7.5	25.6	44.0	1.2	0.7	100.0	21.1	38,495

Note: Total includes mothers with missing information on education, religion, caste/tribe, and toilet facility, who are not shown separately.
[1] See Table 2.12 for definition of categories.

other children, even among this group stools are not disposed of safely for almost half of the children.

Table 9.18 presents the disposal of children's stools by state. The proportion of children whose stools are disposed of safely varies from 7 percent in Bihar and Orissa to 74 percent in Kerala and Sikkim. Chhattisgarh, Jharkhand, Madhya Pradesh, Rajasthan, Assam, Uttar Pradesh, West Bengal, Andhra Pradesh, and Karnataka are other states where the percentage of children whose stools are disposed of safely is below the national average. In Orissa, Jharkhand, Madhya

Pradesh, Bihar, Rajasthan, Chhattisgarh, Andhra Pradesh, and Assam the stools of more than three-fourths of children (76-86 percent) under age five years are either left in the open or thrown into the garbage.

Table 9.18 Disposal of children's stools by state

Percent distribution of mothers with a child under age five living with her by the manner of disposing of the youngest child's last stools, according to state, India, 2005-06

State	Manner of disposal of child's stools								Total	Percentage of children whose stools are disposed of safely
	Child used toilet or latrine	Put/ rinsed into toilet or latrine	Buried	Put/ rinsed into drain or ditch	Thrown into garbage	Left in the open	Other	Missing		
India	11.5	8.8	0.8	7.5	25.6	44.0	1.2	0.7	100.0	21.1
North										
Delhi	39.0	22.4	0.5	6.8	13.9	17.2	0.1	0.2	100.0	61.8
Haryana	20.0	15.8	0.0	5.8	18.9	39.3	0.0	0.2	100.0	35.8
Himachal Pradesh	20.2	11.7	0.4	9.1	10.7	43.5	2.3	2.1	100.0	32.3
Jammu & Kashmir	15.9	17.4	0.2	9.4	4.9	51.8	0.2	0.2	100.0	33.5
Punjab	26.6	25.2	0.4	3.9	17.9	25.3	0.0	0.8	100.0	52.2
Rajasthan	6.0	4.6	0.5	5.7	27.9	55.2	0.0	0.2	100.0	11.1
Uttaranchal	18.9	17.3	0.4	3.7	8.8	48.7	0.2	2.0	100.0	36.6
Central										
Chhattisgarh	4.3	5.4	0.1	8.4	29.0	48.9	3.9	0.1	100.0	9.9
Madhya Pradesh	6.6	3.4	0.4	6.0	21.0	62.6	0.0	0.0	100.0	10.4
Uttar Pradesh	10.8	5.3	0.6	9.0	39.0	34.6	0.2	0.5	100.0	16.8
East										
Bihar	4.7	1.9	0.4	8.2	32.3	50.9	0.7	1.0	100.0	6.9
Jharkhand	4.5	4.3	1.5	4.7	17.4	67.1	0.1	0.3	100.0	10.4
Orissa	4.8	0.8	1.4	1.3	32.3	53.7	5.0	0.6	100.0	7.0
West Bengal	11.2	6.2	0.6	13.7	32.1	30.1	6.1	0.0	100.0	18.0
Northeast										
Arunachal Pradesh	13.5	14.5	0.7	12.2	14.4	42.7	0.7	1.2	100.0	28.7
Assam	7.1	6.5	0.4	7.5	41.9	34.1	2.4	0.2	100.0	14.0
Manipur	7.1	32.1	0.6	32.5	16.2	10.9	0.3	0.4	100.0	39.8
Meghalaya	20.2	9.9	1.6	18.1	18.9	25.0	4.6	1.6	100.0	31.7
Mizoram	21.0	46.2	0.0	5.5	16.6	8.3	2.2	0.2	100.0	67.2
Nagaland	9.1	18.4	3.1	14.3	18.1	36.0	0.3	0.6	100.0	30.6
Sikkim	32.4	40.4	0.7	5.8	7.8	12.8	0.0	0.0	100.0	73.5
Tripura	11.2	24.1	0.3	21.8	22.0	16.5	3.7	0.4	100.0	35.5
West										
Goa	16.1	27.9	0.3	6.7	17.2	29.1	1.4	1.3	100.0	44.2
Gujarat	23.2	14.3	0.3	5.7	10.9	44.0	0.7	1.0	100.0	37.8
Maharashtra	20.2	18.2	1.3	8.5	15.5	34.8	0.3	1.2	100.0	39.7
South										
Andhra Pradesh	7.2	11.8	0.2	1.5	9.2	68.4	0.1	1.7	100.0	19.2
Karnataka	7.0	11.3	2.3	8.4	15.2	51.2	2.4	2.2	100.0	20.6
Kerala	35.7	37.4	0.6	4.2	3.1	18.2	0.4	0.5	100.0	73.7
Tamil Nadu	13.2	6.8	2.1	7.3	28.7	40.7	1.1	0.1	100.0	22.1

9.6 UTILIZATION OF ICDS

Established in 1975, India's Integrated Child Development Services (ICDS) programme is the world's largest early child development programme. The programme approaches child health holistically and comprises health, nutrition, and education components for pregnant women, lactating mothers, and children under six years of age. The programme is implemented through a network of community-level *anganwadi* centres. The range of services targeted at young children and their mothers include growth monitoring, immunization, health check-ups, and supplementary feeding, as well as nutrition and health education to improve the childcare and feeding practices that mothers adopt. Preschool education is provided to children between

three and six years of age. The coverage of ICDS has steadily increased since its inception in 1975. According to a recent report, the programme is operational in almost every block, and the country currently has more than 700,000 *anganwadi*s. Nonetheless, the report suggests that the effective coverage of ICDS remains quite limited: barely one-fourth of all children under six are covered under the supplementary nutrition component, for example (Citizen's Initiative for Rights of Children under Six, 2006).

To provide information on the coverage of the ICDS programme, NFHS-3 collected information on the existence of an *anganwadi* centre in each of the NFHS-3 sample enumeration areas and on the utilization by children under age 6 years and by their mothers (during pregnancy and when breastfeeding) of selected nutrition, health, and education services provided through *anganwadi* centres. Specifically, for each child under age six years, NFHS-3 asked the mother questions regarding the receipt, in the 12 months preceding the survey, of supplementary food, immunizations, health check-ups, and early childhood care or preschool education from an AWC, and whether the child had been weighed at an AWC and counselling provided after the child was weighed. Information was also obtained on the frequency with which each service was obtained. In addition, for each of her children age 0-71 months, the mother was asked whether she herself had received supplementary food, health check-ups, and health and nutrition education, during pregnancy and during the period of lactation.

9.6.1 Coverage of *Anganwadi* Centres

In NFHS-3, the supervisor of each interviewing team was responsible for collecting selected information on each enumeration area that the team visited. The supervisor was trained to obtain this information from community leaders or knowledgeable persons in the community and enter it into a PSU information sheet. These data were later entered into the computer. Along with other information that was collected was information on whether the enumeration area was served by an *anganwadi* centre (AWC), and if yes, the year in which the AWC was established. Table 9.19 shows, for India and in each state, the number of NFHS-3 enumeration areas covered by an *anganwadi* centre. In addition, the table provides information on the proportion of all children age 0-71 months who are in areas that are covered by an AWC and the proportion of children age 0-71 months that received any service from an AWC.

The NFHS-3 sample consists of 3,850 enumeration areas and information was collected for a total of 64,016 children age 0-71 months living in these areas. Overall, 72 percent of the sample enumeration areas are covered by an AWC and 62 percent are covered by an AWC that had, by the time of the survey, existed for at least five years. The coverage of enumeration areas by an AWC ranges from 100 percent in Tripura to only 27 percent in Meghalaya. In Tamil Nadu, Mizoram, Karnataka, and Nagaland more than 90 percent of the enumeration areas were covered by an *anganwadi* centre. In Manipur, Kerala, Jharkhand, Jammu and Kashmir, Gujarat, Goa, Assam, Andhra Pradesh, Bihar, and West Bengal the coverage of enumeration areas by *anganwadi* centres is also above the national average. In addition to Meghalaya, coverage of enumeration areas by *anganwadi* centres is also much lower in Delhi and Arunachal Pradesh (each 35 percent). The statewise pattern of coverage of enumeration areas by *anganwadi* centres that were established five or more years ago is similar to the statewise pattern of coverage of all

Table 9.19 Coverage of *anganwadi* centres by state

Percentage of enumeration areas covered by an *anganwadi* centre (AWC) that has been established for at least five years, percentage of enumeration areas covered by an AWC, percentage of living children under age six years who are in enumeration areas covered by an AWC, and percentage of living children under age six years who received any service from an AWC in the 12 months preceding the survey, according to state, India, 2005-06

State	Enumeration areas[1]			Children under age six	
	Percentage of enumeration areas covered by an AWC that has been established for at least five years	Percentage of enumeration areas covered by an AWC	Number of enumeration areas	Percentage of children under age six living in enumeration areas covered by an AWC	Percentage of children under age six who received any service from an AWC in the past year[2]
India	62.1	72.4	3,850	81.1	28.4
North					
Delhi	33.0	34.8	112	45.5	8.4
Haryana	64.8	69.2	91	73.8	21.2
Himachal Pradesh	52.8	56.6	106	62.4	34.7
Jammu & Kashmir	68.0	81.4	97	83.2	16.6
Punjab	60.6	64.6	99	64.9	10.5
Rajasthan	60.4	63.2	106	65.7	15.9
Uttaranchal	15.3	66.3	98	73.3	24.5
Central					
Chhattisgarh	63.8	68.1	94	78.6	55.2
Madhya Pradesh	64.0	64.5	186	79.8	43.8
Uttar Pradesh	45.9	62.6	353	76.2	18.6
East					
Bihar	57.8	73.5	102	87.9	8.8
Jharkhand	57.9	86.3	95	91.5	38.6
Orissa	57.4	71.3	115	80.4	60.5
West Bengal	65.9	72.2	205	88.4	38.0
Northeast					
Arunachal Pradesh	32.3	35.4	65	38.7	9.6
Assam	58.6	77.0	87	88.6	26.8
Manipur	85.3	86.7	150	88.9	28.0
Meghalaya	22.5	26.8	71	34.7	21.9
Mizoram	93.8	95.3	64	94.6	52.7
Nagaland	90.5	93.0	200	95.8	37.9
Sikkim	61.7	66.7	60	77.6	35.4
Tripura	96.4	100.0	56	100.0	26.6
West					
Goa	77.0	77.0	126	74.6	32.3
Gujarat	72.6	80.5	113	84.0	40.5
Maharashtra	41.9	57.4	289	74.7	38.0
South					
Andhra Pradesh	56.9	74.9	195	86.2	27.5
Karnataka	69.9	92.0	176	92.9	33.5
Kerala	82.4	87.2	125	90.4	28.7
Tamil Nadu	90.2	96.3	214	97.0	41.6

[1] Unweighted.
[2] AWC services include distribution of supplementary food, growth promotion, immunizations, health check-ups, health and nutrition education, and pre-school education.

anganwadi centres. Uttaranchal has the greatest proportion of new *anganwadi* centres, as 66 percent of the enumeration areas are covered by an *anganwadi* centre, while only 15 percent of them have been in existence for five or more years.

Table 9.19 shows also that the vast majority of children age 0-71 months live in areas covered by *anganwadi* centres. Specifically, in India as a whole, 81 percent of children age 0-71 months are in areas covered by an AWC, and this proportion ranges across states, from 100 percent in Tripura to 35 percent in Meghalaya. Notably, in 21 of the 29 states, three-fourths or more of children age 0-71 months are in areas covered by an *anganwadi* centre. The only states,

besides Meghalaya, where less than half of children age 0-71 months are in areas covered by an AWC are Arunachal Pradesh and Delhi.

While the coverage of children by an *anganwadi* centre is relatively high, only one out of every four children (28 percent) in the country age 0-71 months has received any service from an *anganwadi* centre in the year preceding the survey. In most states, the proportion of children who received services is less than one out of every three children. The percentage of children age 0-71 months who received any service from an AWC in the past 12 months is as low as 8-10 percent in Delhi, Bihar, and Arunachal Pradesh. Orissa, Chhattisgarh, and Mizoram are the only states where more than 50 percent of all children age 0-71 months have received any service in the previous one year from an AWC.

Note that all subsequent discussion of the utilization of ICDS services is limited to children who are in areas covered by an *anganwadi* centre.

9.6.2 Utilization of ICDS by Children in Areas Covered by an *Anganwadi* Centre

Table 9.20 shows the proportion of children in areas served by an *anganwadi* centre who received any service from an AWC in the past 12 months and who received supplementary food in the past 12 months, by background characteristics and by the number of years that an AWC has been in existence in the area where the child is. Overall, one in three children in areas served by an AWC received one or more services from an AWC and this proportion does not vary greatly by age or sex of the child. Utilization of AWC services is higher in rural than in urban areas served by an AWC. While there is no clear pattern in the utilization of services by mother's education, a smaller proportion of children with mothers who have completed at least 12 years of education received any services (22 percent), compared with children of less educated mothers (30-42 percent). Sikh and Jain children are least likely to have received any service from an AWC. Utilization of services is highest among Buddhist/Neo-Buddhist children (64 percent). Fifty percent of scheduled-tribe children received services, compared with 28 percent of children who do not belong to any scheduled caste, scheduled tribe, or other backward class. Utilization of services is more common among children living in enumeration areas where an AWC has existed for 6 or more years (35 percent) than in areas where the AWC has been established in the past five years (27 percent).

One of the important mandates of an *anganwadi* centre is to provide supplementary nutrition to young children in the form of cooked food served at the AWC on a daily basis or given in the form of take-home rations. However, as Table 9.20 shows, three-fourths of children age 0-71 months in areas covered by an *anganwadi* centre did not receive any supplementary food from the centre in the 12 months preceding the survey. Further, only a small proportion (12 percent) received supplementary food almost daily. Six percent received supplementary food at least once a week, and another 6 percent, at least once a month. Differentials in the daily utilization of the supplementary food scheme are small. The youngest children (age 0-12 months) are least likely to have received any supplementary food from an AWC in the past 12 months.

Table 9.20 Utilization of ICDS services: Any services and supplementary food

Percentage of children under age six years who are in an area covered by an *anganwadi* centre (AWC) who received any service from an AWC in the 12 months preceding the survey and percent distribution of children under age six who are in an area covered by an AWC by how often they received supplementary food from an AWC in the 12 months preceding the survey, by background characteristics, India, 2005-06

Background characteristic	Percentage of children age 0-71 months receiving any services from an AWC[1]	Among children in an area covered by an AWC, frequency of receiving supplementary food[2]							Number of children age 0-71 months living in an area covered by an AWC
		Not at all	Almost daily	At least once a week	At least once a month	Less often	Don't know/ missing	Total	
Age in months									
<12	28.3	81.4	4.8	4.8	6.3	2.3	0.4	100.0	8,456
12-23	33.0	74.9	7.4	6.3	7.9	3.3	0.3	100.0	8,489
24-35	36.1	70.6	12.1	7.0	6.5	3.5	0.2	100.0	8,367
36-47	36.0	68.7	16.4	6.4	5.2	3.2	0.1	100.0	8,765
48-59	34.0	71.1	16.1	5.7	3.9	3.0	0.2	100.0	8,833
60-71	30.2	74.5	14.0	4.9	3.8	2.6	0.2	100.0	8,977
0-35	32.5	75.6	8.1	6.0	6.9	3.1	0.3	100.0	25,312
36-71	33.4	71.5	15.5	5.6	4.3	2.9	0.2	100.0	26,574
Sex									
Male	32.2	74.2	11.2	5.9	5.5	2.9	0.3	100.0	27,037
Female	33.7	72.7	12.7	5.7	5.6	3.0	0.2	100.0	24,849
Residence									
Urban	23.4	81.5	11.0	3.4	2.7	1.3	0.1	100.0	8,472
Rural	34.8	71.9	12.1	6.3	6.1	3.3	0.3	100.0	43,414
Mother's education									
No education	31.6	75.0	10.1	6.2	5.7	2.9	0.2	100.0	26,909
<5 years complete	42.3	63.6	17.3	7.0	7.2	4.7	0.2	100.0	3,898
5-7 years complete	37.6	69.1	15.2	6.6	5.5	3.2	0.3	100.0	7,592
8-9 years complete	34.9	71.1	14.5	5.8	5.3	3.1	0.1	100.0	6,200
10-11 years complete	30.4	76.2	11.4	3.5	6.1	2.5	0.4	100.0	3,673
12 or more years complete	22.1	83.8	8.4	2.8	2.8	1.9	0.2	100.0	3,613
Religion									
Hindu	34.0	72.8	12.2	6.3	5.7	2.8	0.3	100.0	41,096
Muslim	26.7	78.7	9.9	3.9	3.7	3.7	0.1	100.0	8,466
Christian	36.8	68.0	11.5	5.2	9.1	6.1	0.2	100.0	993
Sikh	16.2	85.2	7.2	4.7	2.0	0.6	0.3	100.0	633
Buddhist/Neo-Buddhist	63.9	45.5	45.5	1.6	4.5	2.9	0.0	100.0	326
Jain	(15.2)	(93.9)	(0.0)	(0.0)	(6.1)	(0.0)	(0.0)	100.0	37
Other	52.2	50.6	7.2	2.4	34.5	4.8	0.4	100.0	287
Caste/tribe									
Scheduled caste	36.1	69.6	14.4	7.2	5.5	3.1	0.2	100.0	10,894
Scheduled tribe	49.9	56.1	15.6	9.9	13.2	4.9	0.3	100.0	4,996
Other backward class	30.3	77.6	9.9	5.4	4.7	2.1	0.3	100.0	21,803
Other	28.3	76.8	11.5	4.0	4.0	3.5	0.2	100.0	13,766
Don't know	48.8	51.8	22.3	6.0	18.4	1.1	0.5	100.0	239
Wealth index									
Lowest	36.7	70.1	10.7	7.3	7.7	4.0	0.2	100.0	14,158
Second	35.9	71.0	13.5	6.1	5.7	3.5	0.2	100.0	12,329
Middle	35.7	71.1	13.8	6.3	5.4	3.0	0.3	100.0	10,830
Fourth	30.3	75.7	12.7	4.8	4.3	2.0	0.4	100.0	9,089
Highest	15.6	88.9	6.0	2.2	2.0	0.9	0.0	100.0	5,481
Years since AWC was established									
<6 years ago	26.9	77.8	9.3	4.5	4.8	3.3	0.2	100.0	12,135
6 or more years ago	34.8	72.2	12.7	6.2	5.8	2.9	0.2	100.0	39,751
Total	32.9	73.5	11.9	5.8	5.6	3.0	0.2	100.0	51,887

Note: Total includes children with missing information on mother's education, religion, and caste/tribe, who are not shown separately.
( ) Based on 25-49 unweighted cases.
[1] AWC services for children include distribution of supplementary food, growth monitoring, immunizations, health check-ups, and pre-school education.
[2] Supplementary food includes both food cooked and served at the AWC on a daily basis or given in the form of take home rations.

Immunization of children with the basic vaccinations (BCG, polio, DPT, and measles) and the provision of regular health check-ups are other important components of the ICDS programme. Table 9.21 presents information on the percentage of children under age six years

who are in areas covered by an *anganwadi* centre, who received any vaccination in the past 12 months and received health check-ups in the past 12 months from an *anganwadi* centre. Only one in five children received any vaccination through an *anganwadi* centre in the past 12 months; and this proportion is not much higher even among children younger than 23 months, an age when children should have received basic vaccinations. The highest proportions of children to have received vaccinations in the past 12 months from an *anganwadi* centre are Buddhist/Neo-Buddhist children (49 percent) and scheduled-tribe children (33 percent). The lowest utilization of ICDS immunization services is by Sikh children (4 percent), followed by children living in the wealthiest households (9 percent). A higher proportion of rural children (21 percent) got vaccinations from an AWC in the past 12 months, than did urban children (14 percent) living in areas served by an AWC.

Table 9.21 Utilization of ICDS services: Immunization and health check-ups

Percentage of children under age six years in areas covered by an *anganwadi* centre (AWC) who received any immunizations through an AWC in the 12 months preceding the survey and percent distribution of children under age six years in areas covered by an AWC by frequency of receiving health check-ups at an AWC in the 12 months preceding the survey, according to background characteristics, India, 2005-06

Background characteristic	Percentage of children age 0-71 months who received any immunizations from an AWC	Frequency of receiving health check-ups at an AWC					Number of children age 0-71 months in areas covered by an AWC
		Not at all	At least once a month	Less often	Don't know/ missing	Total	
Age in months							
<12	21.1	85.7	9.9	3.7	0.7	100.0	8,456
12-23	23.2	82.8	11.5	4.4	1.2	100.0	8,489
24-35	22.4	80.3	13.1	4.7	1.9	100.0	8,367
36-47	19.2	79.7	12.8	4.7	2.7	100.0	8,765
48-59	18.3	80.9	12.2	4.1	2.7	100.0	8,833
60-71	15.8	83.7	9.6	4.1	2.6	100.0	8,977
0-35	22.3	83.0	11.5	4.3	1.3	100.0	25,312
36-71	17.8	81.5	11.5	4.3	2.7	100.0	26,574
Sex							
Male	19.4	82.4	11.4	4.4	1.9	100.0	27,037
Female	20.5	82.0	11.7	4.2	2.1	100.0	24,849
Residence							
Urban	13.9	86.3	9.4	2.6	1.7	100.0	8,472
Rural	21.1	81.4	11.9	4.6	2.0	100.0	43,414
Mother's education							
No education	19.8	84.4	9.6	3.8	2.2	100.0	26,909
<5 years complete	23.5	75.0	16.3	5.9	2.8	100.0	3,898
5-7 years complete	22.5	77.6	14.5	5.8	2.0	100.0	7,592
8-9 years complete	19.7	79.6	14.2	4.9	1.2	100.0	6,200
10-11 years complete	19.1	82.7	11.9	3.6	1.7	100.0	3,673
12 or more years complete	13.5	87.0	8.8	2.9	1.3	100.0	3,613
Religion							
Hindu	21.4	81.3	12.2	4.4	2.0	100.0	41,096
Muslim	12.7	86.9	7.7	3.7	1.8	100.0	8,466
Christian	18.1	83.3	10.6	4.5	1.6	100.0	993
Sikh	3.8	92.4	4.5	1.3	1.8	100.0	633
Buddhist/Neo-Buddhist	49.0	52.7	34.6	6.4	6.3	100.0	326
Jain	(15.2)	(100.0)	(0.0)	(0.0)	(0.0)	100.0	37
Other	33.1	77.4	13.8	8.2	0.6	100.0	287
Caste/tribe							
Scheduled caste	21.4	80.1	13.3	4.5	2.1	100.0	10,894
Scheduled tribe	33.1	68.2	21.4	7.8	2.6	100.0	4,996
Other backward class	20.5	85.3	9.4	3.5	1.7	100.0	21,803
Other	13.3	84.2	9.6	4.1	2.0	100.0	13,766
Don't know	19.1	66.1	22.3	5.0	6.6	100.0	239
Wealth index							
Lowest	22.8	80.8	12.3	4.9	2.0	100.0	14,158
Second	21.3	81.5	11.7	4.6	2.2	100.0	12,329
Middle	22.2	79.8	13.2	4.6	2.4	100.0	10,830
Fourth	17.9	82.8	11.6	3.8	1.8	100.0	9,089
Highest	8.8	91.2	5.7	2.1	1.0	100.0	5,481

Continued…

Table 9.21 Utilization of ICDS services: Immunization and health check-ups—*Continued*

Background characteristic	Percentage of children age 0-71 months who received any immunizations from an AWC	Frequency of receiving health check-ups at an AWC					Number of children age 0-71 months in areas covered by an AWC
		Not at all	At least once a month	Less often	Don't know/ missing	Total	
Years since AWC was established							
<6 years ago	13.0	88.4	7.5	2.9	1.2	100.0	12,135
6+ years ago	22.1	80.3	12.7	4.7	2.2	100.0	39,751
Total	20.0	82.2	11.5	4.3	2.0	100.0	51,887

Note: Total includes children with missing information on mother's education, religion, and caste/tribe, who are not shown separately.
( ) Based on 25-49 unweighted cases.

More than 80 percent of children age 0-71 months did not receive a health check-up from an *anganwadi* centre in the past 12 months, 12 percent received health check-ups at least once a month, and 4 percent received them less often. Health check-ups at least once a month are most received by scheduled-tribe children and Buddhist/Neo-Buddhist children (21 percent and 35 percent, respectively). There is little variation in the proportions receiving health check-ups by most other background characteristics.

Provision of early childhood care or preschool education for children 3 to 5 years of age is another important component of the ICDS programme. Table 9.22 presents information on the utilization of early childhood care or preschool education services in the 12 months preceding the survey by children age 36-71 months in areas covered by an AWC. More than three-fourths of children age 3-5 years did not go to an *anganwadi* centre for early childhood care or preschool education. Only one out of seven children age 36-71 months in areas covered by an AWC went regularly for early childhood care or preschool education to an AWC and an additional one in eleven children went occasionally. The vast majority of children from all groups did not access this service at all in the 12 months preceding the survey, with the exception of Buddhists/Neo-Buddhists. Differences in the regular utilization of early childhood care and preschool education by background characteristics are small and follow the same patterns as observed in the utilization of other *anganwadi* services.

Table 9.22 Utilization of ICDS services: Early childhood care or preschool education

Among children under age six years in areas covered by an *anganwadi* centre (AWC), percent distribution of children age 36-71 months by frequency of going for early childhood care or preschool education to the AWC in the 12 months preceding the survey, according to background characteristics, India, 2005-06

Background characteristic	Frequency of going to an AWC for early childhood care or preschool education for children age 36-71 months					Number of children age 36-71 months in areas covered by an AWC
	Regularly	Occasionally	Not at all	Don't know	Total	
Age in months						
36-47	13.5	10.0	76.0	0.5	100.0	8,765
48-59	15.1	8.9	75.4	0.6	100.0	8,833
60-71	13.5	7.4	78.6	0.5	100.0	8,977
36-71	14.0	8.8	76.7	0.6	100.0	26,574
Sex						
Male	12.8	8.8	77.8	0.5	100.0	13,852
Female	15.3	8.7	75.4	0.6	100.0	12,722
Residence						
Urban	12.0	5.7	81.9	0.4	100.0	4,420
Rural	14.4	9.4	75.6	0.6	100.0	22,154
Mother's education						
No education	11.9	8.7	78.8	0.6	100.0	14,468
<5 years complete	21.8	12.4	64.9	1.0	100.0	2,070
5-7 years complete	17.6	10.3	71.5	0.6	100.0	3,685
8-9 years complete	17.3	7.9	74.3	0.5	100.0	2,959
10-11 years complete	13.9	6.1	79.8	0.1	100.0	1,758
12 or more years complete	9.5	4.9	85.3	0.3	100.0	1,633
Religion						
Hindu	14.8	8.9	75.8	0.5	100.0	21,095
Muslim	10.3	7.7	81.4	0.6	100.0	4,316
Christian	14.0	7.3	78.2	0.5	100.0	487
Sikh	6.0	6.4	86.6	1.0	100.0	324
Buddhist/Neo-Buddhist	41.8	19.3	38.9	0.0	100.0	158
Other	5.6	17.4	76.9	0.1	100.0	153
Caste/tribe						
Scheduled caste	15.8	9.7	74.0	0.5	100.0	5,578
Scheduled tribe	16.0	14.4	68.8	0.8	100.0	2,551
Other backward class	12.9	7.5	79.1	0.5	100.0	11,246
Other	13.4	8.1	77.9	0.5	100.0	6,965
Don't know	28.4	7.1	64.5	0.0	100.0	132
Wealth index						
Lowest	12.4	10.5	76.4	0.7	100.0	7,334
Second	16.2	9.1	74.3	0.4	100.0	6,357
Middle	16.8	9.6	73.0	0.6	100.0	5,559
Fourth	14.6	7.3	77.5	0.5	100.0	4,535
Highest	6.9	4.2	88.4	0.5	100.0	2,791
Years since AWC was established						
<6 years ago	13.0	6.1	80.3	0.5	100.0	6,188
6+ years ago	14.3	9.5	75.5	0.6	100.0	20,386
Total	14.0	8.8	76.7	0.6	100.0	26,574

Note: Total includes Jain children and children with missing information on mother's education, religion, and caste/tribe, who are not shown separately.
* Percentage not shown; based on fewer than 25 unweighted cases.

Growth monitoring of children is another basic component of the nutritional services provided through an *anganwadi* centre. It is recommended that children age 0-35 months be weighed monthly and older children be weighed quarterly. Table 9.23 presents information about the growth monitoring of children age 0-59 months who are in areas served by an *anganwadi* centre. The vast majority of children age 0-59 months (80 percent) in areas covered by an AWC were not weighed at all in an *anganwadi* centre in the 12 months preceding the survey; and this proportion varies little by most background characteristics. As in the case of most other AWC services, the only exceptions are Buddhist/Neo-Buddhist children, 56 percent of whom have been weighed in the past 12 months in an AWC and scheduled-tribe children, one-third of whom

have been weighed in an AWC. More than 20 percent of scheduled-tribe children were weighed at least once a month, compared with less than 10 percent of children of other backward classes and of the 'other' caste/tribe category. Overall, 62 percent of children who were weighed in the past 12 months and for whom information on frequency is known had their weight taken at least once a month. Notably, among children who were weighed in the past 12 months, the proportion weighed monthly did not vary by age.

Table 9.23 Utilization of ICDS services: Growth promotion

Percent distribution of children 0-59 months in areas covered by an *anganwadi* centre (AWC) by frequency of weighing in the 12 months preceding the survey, and for children who were ever weighed, percentage whose mothers received counselling from an AWC after the child was weighed, according to background characteristics, India, 2005-06

	Frequency of weighing							Children age 0-59 months who were weighed at an AWC	
Background characteristic	Not at all	At least once a month	At least once in three months	Less often	Don't know	Total	Number of children 0-59 months	Percentage whose mothers received counselling from an AWC after child was weighed	Number of children
Age in months									
<12	85.5	9.2	2.5	2.3	0.5	100.0	8,456	53.0	1,185
12-23	81.0	10.5	4.3	2.9	1.2	100.0	8,489	52.1	1,512
24-35	78.0	12.4	4.4	3.6	1.6	100.0	8,367	50.2	1,709
36-47	77.3	12.2	4.5	3.3	2.8	100.0	8,765	45.9	1,747
48-59	78.7	11.5	4.1	3.1	2.6	100.0	8,833	45.1	1,651
0-35	81.5	10.7	3.8	2.9	1.1	100.0	25,312	51.6	4,407
36-59	78.0	11.9	4.3	3.2	2.7	100.0	17,597	45.5	3,398
Sex									
Male	80.4	11.0	3.8	3.1	1.6	100.0	22,331	49.2	4,009
Female	79.7	11.3	4.2	3.0	1.8	100.0	20,579	48.6	3,796
Residence									
Urban	84.4	9.8	2.9	1.5	1.3	100.0	7,020	51.8	1,002
Rural	79.2	11.4	4.2	3.3	1.8	100.0	35,890	48.5	6,803
Mother's education									
No education	82.9	9.1	3.4	2.8	1.9	100.0	21,805	45.4	3,320
<5 years complete	71.5	15.8	5.2	4.8	2.6	100.0	3,256	47.8	843
5-7 years complete	74.3	15.0	5.7	3.4	1.6	100.0	6,367	50.1	1,535
8-9 years complete	76.9	13.9	4.3	3.4	1.5	100.0	5,244	54.7	1,133
10-11 years complete	80.0	11.9	4.3	2.6	1.2	100.0	3,123	52.2	588
12 or more years complete	86.5	7.9	2.8	1.7	1.0	100.0	3,113	55.4	386
Religion									
Hindu	79.2	11.7	4.3	3.1	1.7	100.0	33,872	48.9	6,463
Muslim	85.2	8.1	2.6	2.6	1.5	100.0	7,130	51.2	944
Christian	80.0	11.1	4.2	3.0	1.7	100.0	819	49.2	149
Sikh	92.1	3.4	1.8	0.7	2.0	100.0	523	(16.4)	31
Buddhist/Neo-Buddhist	43.9	31.6	12.1	7.8	4.5	100.0	260	47.2	134
Jain	(92.5)	(7.5)	(0.0)	(0.0)	(0.0)	100.0	31	*	2
Other	68.4	17.4	4.6	9.1	0.5	100.0	234	39.9	73
Caste/tribe									
Scheduled caste	78.1	12.8	4.6	2.9	1.7	100.0	8,977	49.0	1,819
Scheduled tribe	64.2	21.4	6.5	6.0	1.9	100.0	4,146	48.0	1,407
Other backward class	83.3	9.1	3.4	2.5	1.7	100.0	17,903	52.8	2,693
Other	82.7	9.4	3.4	2.8	1.7	100.0	11,535	44.0	1,799
Don't know	61.2	16.9	11.1	5.2	5.6	100.0	200	55.7	66
Wealth index									
Lowest	78.3	11.9	4.5	3.7	1.6	100.0	11,653	46.7	2,348
Second	79.0	11.2	4.4	3.3	2.0	100.0	10,102	48.8	1,917
Middle	77.8	12.8	4.0	3.1	2.3	100.0	9,021	53.4	1,791
Fourth	80.7	11.6	3.8	2.6	1.4	100.0	7,558	48.9	1,356
Highest	90.6	5.3	2.0	1.3	0.8	100.0	4,575	42.7	394
Years since AWC was established									
< 6 years ago	87.4	7.1	2.2	2.1	1.1	100.0	10,012	46.0	1,152
6+ years ago	77.9	12.4	4.5	3.3	1.9	100.0	32,898	49.4	6,653
Total	80.1	11.2	4.0	3.0	1.7	100.0	42,910	48.9	7,805

Note: Total includes children with missing information on mother's education, religion, and caste/tribe, who are not shown separately.
( ) Based on 25-49 unweighted cases.
* Percentage not shown; based on fewer than 25 unweighted cases.

Table 9.23 also presents, for children who were weighed in an AWC, the percentage whose mothers received counselling. Mothers of half of the children who were weighed at an *anganwadi* centre in the 12 months preceding the survey were counselled. In general, mothers of children age less than 3 years were somewhat more likely to receive counselling than mothers of children above age three years (52 and 46 percent, respectively). The percentage of children whose mothers were counselled generally increases with increasing education of mothers. Differences across religious groups are small. Mothers of children belonging to the other backward classes are somewhat more likely to receive counselling than mothers belonging to other caste groups. Mothers in the highest wealth quintile are least likely to receive counseling after the child was weighed.

Information on utilization by state of different ICDS services during the 12 months preceding the survey by children under six years in areas covered by an *anganwadi* centre is shown in Table 9.24. Nationally, one-third of children under six years of age in areas served by an *anganwadi* centre received at least one ICDS service in the 12 months preceding the survey.

Table 9.24 Indicators of utilization of ICDS services by state

Percentage of living children under age six years in areas covered by an *anganwadi* centre (AWC) who received any service from an AWC in the 12 months preceding the survey, percentage who received specific services from an AWC in the 12 months preceding the survey, and among children who were weighed at an AWC in the 12 months preceding the survey, the percentage whose mothers received counselling from an AWC after the child was weighted by state, India, 2005-06

State	Percentage of children age 0-71 months who received any services	Percentage of children under age six years who:					Percentage whose mothers received counselling from an AWC after child was weighed
		Received food supplements[1]	Received immunizations	Received health check-ups	Went for early childhood care/pre-school[2]	Were weighed[3]	
India	32.9	26.3	20.0	15.8	22.8	18.2	48.9
North							
Delhi	12.4	11.5	4.9	3.4	7.7	3.7	*
Haryana	27.6	22.3	17.2	14.8	18.1	9.3	44.1
Himachal Pradesh	37.5	37.0	6.9	14.7	24.9	24.1	45.0
Jammu & Kashmir	18.8	17.1	8.4	4.8	10.2	3.4	(46.3)
Punjab	14.1	13.0	2.7	5.2	9.8	5.1	(16.7)
Rajasthan	21.1	17.3	12.9	9.6	10.3	9.6	37.2
Uttaranchal	31.6	27.9	14.3	10.0	20.4	12.5	47.1
Central							
Chhattisgarh	65.2	58.4	46.0	32.2	37.1	45.1	48.1
Madhya Pradesh	49.8	36.4	37.8	31.5	28.9	39.1	61.8
Uttar Pradesh	22.3	14.7	13.5	2.7	12.8	2.8	38.1
East							
Bihar	9.9	4.2	7.7	0.8	4.8	0.7	*
Jharkhand	41.7	36.5	26.5	11.9	17.0	14.4	45.9
Orissa	65.8	52.5	41.6	43.1	27.7	56.1	29.6
West Bengal	42.3	40.2	11.6	24.8	39.2	31.6	48.7
Northeast							
Arunachal Pradesh	15.8	14.7	6.5	2.4	18.6	1.7	*
Assam	29.8	28.0	6.5	4.9	14.7	5.0	36.0
Manipur	30.1	21.4	12.2	1.1	10.7	0.6	*
Meghalaya	48.1	48.1	10.3	25.9	25.7	22.5	78.0
Mizoram	55.8	54.7	21.6	14.3	45.7	35.8	20.0
Nagaland	39.3	38.8	3.0	1.4	3.8	0.9	*
Sikkim	41.6	40.8	22.7	17.6	11.1	26.7	56.7
Tripura	26.6	19.6	15.3	10.4	22.5	7.7	(43.8)
West							
Goa	35.4	31.3	19.3	15.3	15.5	26.4	68.5
Gujarat	43.9	31.7	33.9	26.5	37.0	25.3	45.1
Maharashtra	49.5	42.4	33.4	36.2	49.9	37.4	40.2

Continued…

Table 9.24 Indicators of utilization of ICDS services by state—*Continued*

State	Percentage of children age 0-71 months who received any services	Percentage of children under age six years who:					Percentage whose mothers received counselling from an AWC after child was weighed
		Received food supplements[1]	Received immunizations	Received health check-ups	Went for early childhood care/pre-school[2]	Were weighed[3]	
South							
Andhra Pradesh	30.5	28.0	14.9	15.5	22.0	17.8	56.5
Karnataka	35.5	28.0	26.2	17.1	32.9	17.8	52.5
Kerala	30.8	24.7	9.0	17.6	30.7	19.2	56.1
Tamil Nadu	42.5	32.2	33.7	25.5	26.5	31.6	75.7

( ) Based on 25-49 unweighted cases.
* Percentage not shown; based on fewer than 25 unweighted cases.
[1] Supplementary food includes both food cooked and served at the AWC on a daily basis or given in the form of take home rations.
[2] Children age 36-71 months.
[3] Children age 0-59 months.

This percentage ranges from 10 percent in Bihar to 65-66 percent in Chhattisgarh and Orissa. In addition to Bihar, less than one-fourth of children received any service from an *anganwadi* centre in Delhi, Punjab, Arunachal Pradesh, Jammu and Kashmir, Rajasthan, and Uttar Pradesh. Utilization of an *anganwadi* centre for ICDS is above the national average of 33 percent in 15 states of India.

Nationally, one-fourth of children age 0-71 months (26 percent) in areas covered by an *anganwadi* centre received supplementary food from an AWC in the 12 months preceding the survey. The proportion of children receiving supplementary food from an *anganwadi* centre ranges from 4 percent in Bihar to 58 percent in Chhattisgarh. Orissa and Mizoram are the other two states where more than 50 percent of children received supplementary food. Less than one-fifth of children in Delhi, Punjab, Uttar Pradesh, Arunachal Pradesh, Jammu and Kashmir, Rajasthan, and Tripura received supplementary food from an *anganwadi* centre.

Overall, 20 percent of children age 0-71 months in areas covered by an *anganwadi* centre received an immunization from an AWC in the 12 months preceding the survey. This proportion ranges from a low of less than 5 percent in Delhi, Nagaland, and Punjab, to a high of 42 percent in Orissa and 46 percent in Chhattisgarh. In addition, at least one in four children received immunizations from an *anganwadi* centre in Madhya Pradesh, Gujarat, Tamil Nadu, Maharashtra, Jharkhand, and Karnataka.

Only one in six children age 0-71 months in areas served by an *anganwadi* centre has gone to an AWC for a health check-up in the 12 months preceding the survey. Differentials in the percentage of children receiving health check-ups from an *anganwadi* centre are significant across states and vary from 12 percent or less in Bihar, Manipur, and Nagaland, to 43 percent in Orissa. In addition to Orissa, at least one-quarter of children received health check-ups from an *anganwadi* centre in West Bengal, Tamil Nadu, Meghalaya, Gujarat, Madhya Pradesh, Chhattisgarh, and Maharashtra.

In India, nearly one-fourth of children age 36-71 months in areas served by an *anganwadi* centre went for early childhood care or preschool education to an AWC. The percentage of children going to an *anganwadi* centre varies from 4-5 percent in Nagaland and Bihar to 50

percent in Maharashtra. Including Maharashtra, there are 12 states where 25 percent or more of children in areas served by an AWC have gone to an *anganwadi* for early childhood care or preschool education in the past 12 months.

Eighteen percent of children age 0-59 months in areas served by an *anganwadi* centre have had their weight measured in an AWC. Orissa is the only state where more than half of the children under age five were weighed in an *anganwadi* centre. There are 11 states where not even 10 percent of children in areas covered by an *anganwadi* centre were weighed in an AWC. With the exception of Bihar and Uttar Pradesh, all these states belong to the North and Northeastern regions. With 24 percent of children under age 5 being weighed, Himachal Pradesh is an exception in the northern region. Similarly, Meghalaya, Mizoram and Sikkim are exceptions in the northeastern region, as at least 23 percent children under age five are weighed in each of these three states.

Mothers of half of the children age 0-59 months who were weighed received counselling services from an *anganwadi* centre after their child was weighed. The percentage of mothers who received counselling from an *anganwadi* centre after their children were weighed differs greatly across states, ranging from 17 percent in Punjab and 20 percent in Mizoram to 76 percent in Tamil Nadu and 78 percent in Meghalaya.

9.6.3 Utilization of ICDS by Pregnant and Lactating Mothers

Pregnant and lactating mothers are expected to receive supplementary food from an *anganwadi* centre. *Anganwadi* centres are also supposed to monitor the health status of mothers during pregnancy and breastfeeding and provide them with health and nutritional education. Tables 9.25 and 9.26 present the utilization of ICDS services by mothers during pregnancy and lactation for each of their births in the six years preceding the survey, by background characteristics of women and by state, respectively.

Table 9.25 shows that for a vast majority of their births, women in India who are in areas covered by *anganwadi* centre, did not receive any service from an AWC during pregnancy (78 percent) or during the lactation period (83 percent). This is true for women in every group except for those belonging to religions categorized as 'other' religions, Buddhist/Neo-Buddhist women, and scheduled-tribe women. Jain and Sikh women and women in the highest wealth quintile received services from an *anganwadi* centre during pregnancy or the lactation period for less than 10 percent of their births in the past six years. Notably, women with little education were somewhat more likely to have received services than women with no education or with higher levels of education.

Pregnant and lactating mothers in areas served by an *anganwadi* centre received supplementary food for a higher percentage of their births than health check-ups or health and nutrition education. While supplementary food was received from an *anganwadi* centre by pregnant women for 21 percent of births and by lactating mothers for 17 percent of births, for only 11-12 percent of births did pregnant women and for 8-9 percent of births did lactating mothers receive health check-ups and nutrition education from an *anganwadi* centre. The

Table 9.25 Utilization of ICDS services during pregnancy and while breastfeeding

Among children under age six years in areas covered by an *anganwadi* centre (AWC), percentage whose mothers received specific services from an AWC during pregnancy and while breastfeeding, according to background characteristics, India, 2005-06

Background characteristic	Mother received from an AWC during pregnancy					Mother received from an AWC while breastfeeding[2]				
	No services	Supplementary food[1]	Health check-ups	Health and nutrition education	Number of children	No services	Supplementary food[1]	Health check-ups	Health and nutrition education	Number of children breastfed
Residence										
Urban	83.2	15.6	8.5	9.3	8,472	87.1	12.3	6.0	6.7	8,457
Rural	76.4	21.4	13.0	11.3	43,414	81.7	17.3	9.0	8.6	43,380
Mother's education										
No education	79.3	18.6	10.7	8.5	26,909	83.9	15.2	7.1	6.5	26,888
<5 years complete	71.5	25.6	15.9	15.3	3,898	77.3	21.5	10.8	11.7	3,890
5-7 years complete	72.2	25.4	15.3	14.9	7,592	79.0	19.9	10.5	10.7	7,587
8-9 years complete	74.8	23.5	14.8	14.1	6,200	80.3	19.0	10.9	10.7	6,199
10-11 years complete	78.6	19.9	13.1	12.8	3,673	83.2	15.4	10.5	10.1	3,664
12 or more years complete	84.9	13.7	9.1	9.0	3,613	89.2	10.0	6.3	6.7	3,608
Religion										
Hindu	75.9	21.9	13.5	11.9	41,096	81.5	17.5	9.3	8.9	41,064
Muslim	86.6	12.1	5.5	5.5	8,466	89.3	10.1	3.5	4.2	8,449
Christian	71.1	27.4	15.5	16.1	993	75.6	23.4	14.5	14.9	993
Sikh	90.5	8.0	4.1	3.2	633	94.2	5.6	2.7	2.4	633
Buddhist/Neo-Buddhist	59.5	36.1	30.4	23.6	326	74.2	24.4	21.7	19.0	326
Jain	(93.9)	(6.1)	(6.1)	(6.1)	37	(100.0)	(0.0)	(0.0)	(0.0)	37
Other	41.1	56.6	27.8	24.7	287	44.5	54.3	17.5	20.1	287
Caste/tribe										
Scheduled caste	72.5	25.5	14.0	13.5	10,894	78.5	20.8	10.1	10.5	10,893
Scheduled tribe	59.8	36.9	25.7	19.5	4,996	66.3	32.3	17.8	15.1	4,986
Other backward class	79.3	18.8	11.6	10.3	21,803	84.5	14.6	7.9	7.7	21,793
Other	85.0	13.1	7.2	6.7	13,766	88.8	10.3	4.7	4.9	13,741
Don't know	63.5	34.6	16.5	20.2	239	77.9	21.1	11.3	14.4	237
Wealth index										
Lowest	73.6	24.1	14.9	11.4	14,158	78.5	20.5	9.9	9.0	14,149
Second	76.8	21.3	12.2	11.1	12,329	81.8	17.4	8.7	8.4	12,314
Middle	75.4	22.2	13.9	13.6	10,830	81.3	17.6	9.9	10.2	10,820
Fourth	79.1	19.1	10.9	10.7	9,089	85.1	14.1	7.3	7.7	9,076
Highest	90.4	8.3	5.0	4.6	5,481	93.2	5.9	3.5	3.5	5,478
Years since AWC was established										
<6 years ago	86.4	12.5	6.4	6.0	12,135	89.1	10.5	4.3	4.5	12,129
6+ years ago	74.7	22.9	14.1	12.5	39,751	80.6	18.3	9.8	9.4	39,709
Total	77.5	20.5	12.3	10.9	51,887	82.6	16.5	8.5	8.3	51,838

Note: Total includes children with missing information on mother's education, religion, and caste/tribe, who are not shown separately.
( ) Based on 25-49 unweighted cases.
[1] Supplementary food includes both food cooked and served at the AWC on a daily basis or given in the form of take home rations.
[2] Services are usually provided to breastfeeding mothers during the first six months of breastfeeding.

differentials in the utilization of these services by background characteristics of women are not very significant. However, services during pregnancy and the lactation period tend to be utilized more for births to women belonging to the 'other' religion category, scheduled-tribe women, and Buddhist/Neo-Buddhist women. The utilization of all services was also slightly more common for births to Christian women and for births to women in the lowest wealth quintile. Services during pregnancy and lactation are more commonly received from *anganwadi* centres that have existed for six or more years than from those that have been established more recently.

The percentage of women in areas covered by an *anganwadi* centre receiving supplementary food during pregnancy and lactation is more common in all states than is utilization of an *anganwadi* centre for receiving health check-ups and health and nutrition education. The percentage of births for which women received supplementary food during

pregnancy in the six years preceding the survey ranged from a high of 64 percent in Chhattisgarh to less than 1 percent in Bihar. Mizoram and Tamil Nadu are the other two states where mothers received supplementary food during pregnancy for 50 percent or more births. In Goa, Orissa, Meghalaya, Jharkhand, Himachal Pradesh, Madhya Pradesh, and Karnataka pregnant women received supplementary food for at least 30 percent of their births in the past six years. The percentage of births whose mothers received health check-ups from an *anganwadi* centre was much higher in Orissa and Chhattisgarh (42-44 percent) than in other states. In addition to Orissa and Chhattisgarh, mothers received health check-ups from an *anganwadi* centre for at least 20 percent of births in Maharashtra, Madhya Pradesh, and Tamil Nadu. This percentage is less than

Table 9.26 Indicators of women's utilization of ICDS services by state

Among children under age six years in areas covered by an *anganwadi* centre (AWC), percentage whose mothers received specific services from an AWC during pregnancy and while breastfeeding by state, India, 2005-06

State	Mother received from an AWC during pregnancy			Mother received from an AWC while breastfeeding[2]		
	Supplementary food[1]	Health check-ups	Health and nutrition education	Supplementary food[1]	Health check-ups	Health and nutrition education
India	20.5	12.3	10.9	16.5	8.5	8.3
North						
Delhi	5.3	3.5	2.7	5.0	2.8	2.7
Haryana	11.0	6.3	4.6	6.1	2.9	2.7
Himachal Pradesh	33.6	13.7	15.5	30.3	10.4	12.5
Jammu & Kashmir	6.3	1.4	2.7	4.4	1.0	1.7
Punjab	7.5	3.2	3.2	5.5	2.0	2.5
Rajasthan	17.0	10.2	4.3	12.4	7.1	3.2
Uttaranchal	18.9	4.4	5.5	14.1	4.6	4.8
Central						
Chhattisgarh	64.1	43.6	30.2	63.2	26.6	24.6
Madhya Pradesh	31.0	25.1	21.7	26.9	18.3	17.5
Uttar Pradesh	9.6	1.8	1.3	7.3	0.6	0.7
East						
Bihar	0.6	0.3	0.2	0.6	0.3	0.3
Jharkhand	34.7	13.6	13.4	35.9	9.5	12.2
Orissa	44.6	41.8	23.0	39.8	28.3	16.7
West Bengal	23.1	9.7	14.3	19.3	7.7	10.8
Northeast						
Arunachal Pradesh	9.0	1.9	1.6	5.4	0.5	1.4
Assam	12.7	2.1	1.7	12.7	1.9	2.1
Manipur	3.7	0.3	1.1	6.0	0.3	0.9
Meghalaya	36.1	15.0	25.9	34.2	14.2	25.7
Mizoram	54.5	11.7	14.5	54.6	10.3	14.4
Nagaland	5.4	0.2	0.6	4.3	0.1	0.1
Sikkim	24.6	11.3	11.7	25.2	9.4	9.9
Tripura	6.8	2.3	3.4	5.5	4.5	4.6
West						
Goa	46.4	10.8	20.5	43.3	11.4	20.8
Gujarat	19.1	14.9	13.5	12.1	7.6	8.4
Maharashtra	25.8	20.7	13.4	17.5	13.0	10.4
South						
Andhra Pradesh	22.9	13.1	15.5	17.4	11.4	12.8
Karnataka	30.3	16.9	20.8	18.4	10.5	12.5
Kerala	15.8	9.6	10.4	10.5	5.0	6.8
Tamil Nadu	50.4	35.6	36.3	42.5	29.0	29.1

[1] Supplementary food includes both food cooked and served at the AWC on a daily basis or given in the form of take home rations.
[2] Excludes children who were not breastfed. Services to breastfeeding mothers are usually provided during the first six months of breastfeeding.

2 percent in Nagaland, Manipur, Bihar, and Jammu and Kashmir. Mothers in Tamil Nadu were most likely to receive health and nutrition education from an *anganwadi* centre for their births in the six years preceding the survey. In addition to Tamil Nadu, mothers in Chhattisgarh, Meghalaya, Orissa, Madhya Pradesh, and Goa received health and nutrition education from an *anganwadi* centre for 20 percent or more of their births in the past six years.

The utilization of *anganwadi* centres for receiving supplementary foods, health check-ups and health and nutrition education by lactating mothers in areas served by an *anganwadi* centre was even lower in each state than the utilization of each of these services during pregnancy. The percentage of births for which mothers received supplementary food during the lactational period ranged from 63 percent in Chhattisgarh to less than one percent in Bihar. Women in Tamil Nadu received health check-ups and health and nutrition education in greater proportions than women in other states. In general, the pattern of utilization of services providing supplementary food, health check-ups, and health and nutrition education by lactating mothers by state was similar to the utilization of these services during pregnancy.

NUTRITION AND ANAEMIA 10

This chapter focuses on the nutrition of young children, women, and men, examining the types of food consumed and the consequences of inadequate nutrition and poor feeding practices. The chapter covers a variety of related nutrition topics, including infant and young child feeding practices, diversity of foods consumed, frequency of feeding, micronutrient intake, and prevalence of anaemia. The sections on nutritional status cover anthropometric assessment of the nutritional status of children less than five years of age, women age 15-49, and men age 15-54.

Adequate nutrition is critical to child development. The period from birth to two years of age is important for optimal growth, health, and development. At this age, children are particularly vulnerable to growth retardation, micronutrient deficiencies, and common childhood illnesses such as diarrhoea and acute respiratory infections (ARI).

Malnutrition in women and men can result in reduced productivity, slow recovery from illnesses, increased susceptibility to infections, and a heightened risk of adverse pregnancy outcomes. A woman's nutritional status has important implications for her health as well as the health of her children. A woman with poor nutritional status, as indicated by a low body mass index (BMI), short stature, anaemia, or other micronutrient deficiencies, has a greater risk of obstructed labour, having a baby with a low birth weight, having adverse pregnancy outcomes, producing lower quality breast milk, death due to postpartum haemorrhage, and illness for herself and her baby.

10.1 NUTRITIONAL STATUS OF CHILDREN

In developing countries, children and adults are vulnerable to malnutrition because of low dietary intakes, infectious diseases, lack of appropriate care, and inequitable distribution of food within the household. To assess nutritional status, NFHS-3 included an anthropometric component, in which all children under five years of age were weighed and measured. Every interviewing team included two health investigators who conducted the anthropometric measurements. Each health investigator carried a scale and a measuring board. The scale was a solar-powered electronic SECA scale with a digital screen designed and manufactured under the guidance of the United Nations Children's Fund (UNICEF). The measuring board was specially designed by Shorr Productions for use in survey settings. Children younger than 24 months were measured lying down on the board (recumbent length); older children were measured while standing.

In previous NFHS surveys, anthropometric measurements were restricted to children born to women interviewed with the Women's Questionnaire. However, the data from those surveys do not represent all children, since they exclude children whose mothers were not in the household (either because they did not live there or because they had died), children whose mothers were not eligible for the individual interview (i.e., they were under age 15 or age 50 and over), and children whose mothers did not complete an individual interview. To overcome these

biases, NFHS-3 included height and weight measurements for all children born in the five years preceding the survey who were listed in the Household Questionnaire.

Evaluation of nutritional status is based on the rationale that in a well-nourished population, there is a statistically predictable distribution of children of a given age with respect to height and weight. In any large population, there is variation in height and weight; this variation approximates a normal distribution. Use of a standard reference population as a point of comparison facilitates the examination of differences in the anthropometric status of subgroups in a population and of changes in nutritional status over time. The use of a reference population is based on the empirical finding that well-nourished children in all population groups for which data exist follow very similar growth patterns before puberty. Until 2006 the most commonly used reference population, which was used in NFHS-1 and NFHS-2, was the U.S. National Center for Health Statistics (NCHS) standard, which was recommended at that time by the World Health Organization (Dibley et al., 1987a; 1987b). The tables in this chapter show estimates based on a new international reference population released by WHO in April 2006 (WHO Multicenter Growth Reference Study Group, 2006) and accepted by the Government of India. However, to facilitate the analysis of changes in nutritional status over time, nutritional status in NFHS-2 has also been recalculated using the new WHO standard.

The new WHO growth standard adopts a prescriptive approach, describing how healthy children should grow. The new standard is based on children around the world (Brazil, Ghana, India, Norway, Oman, and the United States) who are raised in healthy environments, whose mothers do not smoke, and who are fed with recommended feeding practices (exclusive breastfeeding for the first 6 months and appropriate complementary feeding from 6 to 23 months). The WHO growth standard identifies breastfed child as the normative model for growth and development standards, depicts normal early childhood growth under optimal environmental conditions, and can be used to assess children regardless of ethnicity, socioeconomic status, and type of feeding.

Three standard indices of physical growth that describe the nutritional status of children are presented in this report:

- Height-for-age (stunting)
- Weight-for-height (wasting)
- Weight-for-age (underweight)

Each of the three nutritional status indicators is expressed in standard deviation units (Z-scores) from the median of the reference population. Each index provides different information about growth and body composition, which is used to assess nutritional status. The height-for-age index is an indicator of linear growth retardation and cumulative growth deficits. Children whose height-for-age Z-score is below minus two standard deviations (-2 SD) from the median of the reference population are considered short for their age (stunted) and are chronically malnourished. Children below minus three standard deviations (-3 SD) from the median of the reference population are considered to be severely stunted. Stunting reflects failure to receive adequate nutrition over a long period of time and is also affected by recurrent and chronic illness.

Height-for-age, therefore, represents the long-term effects of malnutrition in a population and does not vary according to recent dietary intake.

The weight-for-height index measures body mass in relation to body length and describes current nutritional status. Children whose Z-score is below minus two standard deviations (-2 SD) from the median of the reference population are considered thin (wasted) for their height and are acutely malnourished. Wasting represents the failure to receive adequate nutrition in the period immediately preceding the survey and may be the result of inadequate food intake or a recent episode of illness causing loss of weight and the onset of malnutrition. Children whose weight-for-height is below minus three standard deviations (-3 SD) from the median of the reference population are considered to be severely wasted.

Weight-for-age is a composite index of height-for-age and weight-for-height. It takes into account both acute and chronic malnutrition. Children whose weight-for-age is below minus two standard deviations from the median of the reference population are classified as underweight. Children whose weight-for-age is below minus three standard deviations (-3 SD) from the median of the reference population are considered to be severely underweight.

The validity of these indices is determined by many factors, including the coverage of the population of children and the accuracy of the anthropometric measurements. Height and weight data were collected in all sample households. The survey was not able to measure the height and weight of all eligible children, usually because either the child was not at home at the time of the health investigator's visit or the mother refused to allow the child to be weighed and measured. In India, NFHS-3 did not measure 9 percent of children under age five. Also excluded from the analysis are 8 percent of eligible children whose month and year of birth were not known or who had grossly improbable height or weight measurements. In addition, two of the three indices (weight-for-age and height-for-age) are sensitive to misreporting of children's ages, including heaping on preferred digits.

Table 10.1 shows the percentage of children classified as undernourished by selected demographic characteristics. Almost half of children under five years of age (48 percent) are stunted and 43 percent are underweight. The proportion of children who are severely undernourished (more than three standard deviations below the median of the reference population) is also notable—24 percent according to height-for-age and 16 percent according to weight-for-age. Wasting is also quite a serious problem in India, affecting 20 percent of children under five years of age. Very few children under five years of age are overweight. Less than 2 percent have a weight-for-height estimate more than two standard deviations above the median for the reference population and less than 1 percent are more than two standard deviations above the median on the weight-for-age indicator.

The proportion of children who are stunted or underweight increases rapidly with the child's age through age 20-23 months (see Figure 10.1). Undernutrition decreases thereafter for stunting and levels off for underweight. For both of these measures, undernutrition peaks at age 20 months. Wasting generally decreases throughout the age range. Even during the first six months of life, when most babies are breastfed, 20-30 percent of children are undernourished

Table 10.1 Nutritional status of children

Percentage of children under age five years classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by background characteristics, India, 2005-06

Background characteristic	Height-for-age			Weight-for-height				Weight-for-age				Number of children
	Percentage below -3 SD	Percentage below -2 SD[1]	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD[1]	Percentage above +2 SD	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD[1]	Percentage above +2 SD	Mean Z-score (SD)	
Age in months												
<6	8.4	20.4	-0.6	13.1	30.3	4.1	-1.2	10.9	29.5	1.0	-1.4	3,845
6-8	10.8	25.9	-1.0	10.1	29.3	3.1	-1.1	13.7	34.7	0.6	-1.5	2,570
9-11	12.8	32.0	-1.2	10.9	28.9	1.6	-1.2	14.1	36.7	0.2	-1.6	2,086
12-17	21.7	46.9	-1.8	7.3	23.3	1.7	-1.1	14.2	40.2	0.3	-1.7	4,642
18-23	30.4	57.8	-2.2	7.6	22.2	1.1	-1.1	19.5	45.9	0.2	-1.9	4,636
24-35	28.9	55.9	-2.2	5.0	16.7	0.9	-1.0	17.7	44.9	0.4	-1.9	9,335
36-47	27.8	54.3	-2.1	4.7	15.5	1.0	-0.9	16.6	45.6	0.2	-1.9	9,780
48-59	23.9	50.3	-2.0	4.1	15.7	1.3	-1.0	15.3	44.8	0.3	-1.9	9,762
Sex												
Male	23.9	48.1	-1.9	6.8	20.5	1.7	-1.0	15.3	41.9	0.4	-1.8	24,346
Female	23.4	48.0	-1.9	6.1	19.1	1.4	-1.0	16.4	43.1	0.3	-1.8	22,309
Birth interval in months[2]												
First birth[3]	18.0	41.1	-1.6	5.4	17.8	2.0	-0.9	12.1	36.1	0.5	-1.6	13,546
<24	30.4	55.6	-2.2	6.1	18.9	1.4	-1.0	19.0	47.6	0.1	-2.0	8,448
24-47	26.0	51.2	-2.0	7.3	21.8	1.2	-1.1	17.9	46.2	0.3	-1.9	16,976
48+	20.9	44.7	-1.7	6.9	20.4	1.7	-1.1	14.5	40.3	0.5	-1.7	6,367
Birth order[2]												
1	17.9	41.0	-1.6	5.4	17.8	1.9	-0.9	12.0	36.1	0.5	-1.6	13,473
2-3	22.2	47.8	-1.8	6.3	19.6	1.6	-1.0	14.4	41.4	0.3	-1.8	20,032
4-5	30.4	54.3	-2.1	7.6	21.8	1.0	-1.1	21.2	49.9	0.2	-2.0	7,640
6+	37.2	61.0	-2.3	8.7	24.5	0.9	-1.2	26.3	56.6	0.3	-2.2	4,192
Size at birth[2]												
Very small	28.2	53.4	-2.1	9.6	28.7	1.0	-1.3	23.6	54.0	0.3	-2.1	2,533
Small	27.3	53.9	-2.0	8.2	25.8	1.5	-1.2	20.5	51.5	0.2	-2.0	6,664
Average or larger	22.7	46.5	-1.8	5.9	18.2	1.6	-1.0	14.5	40.1	0.4	-1.7	35,575
Residence												
Urban	17.6	39.6	-1.6	5.7	16.9	2.5	-0.8	10.8	32.7	0.6	-1.5	11,337
Rural	25.6	50.7	-2.0	6.7	20.7	1.2	-1.1	17.5	45.6	0.3	-1.9	35,318
Mother's education[4]												
No education	31.6	57.2	-2.2	8.0	22.7	1.1	-1.2	22.1	52.0	0.2	-2.1	22,730
<5 years complete	24.1	50.4	-1.9	6.2	20.8	1.1	-1.1	15.6	45.8	0.2	-1.9	3,361
5-7 years complete	20.3	45.6	-1.8	5.5	18.8	1.8	-1.0	12.3	38.5	0.4	-1.7	6,748
8-9 years complete	15.6	40.7	-1.6	5.2	17.5	1.9	-0.9	9.4	34.9	0.3	-1.6	5,514
10-11 years complete	10.9	33.0	-1.4	3.9	14.3	2.2	-0.8	6.5	26.8	0.9	-1.3	3,530
12 or more years complete	7.0	21.9	-1.0	4.0	12.8	2.6	-0.6	4.5	17.9	0.8	-1.0	3,995
Religion												
Hindu	23.4	48.0	-1.9	6.6	20.3	1.5	-1.0	16.1	43.2	0.3	-1.8	36,675
Muslim	26.2	50.3	-2.0	6.1	18.4	1.6	-0.9	15.6	41.8	0.4	-1.8	7,758
Christian	17.9	39.0	-1.5	5.1	15.5	3.1	-0.7	8.7	29.7	0.9	-1.4	929
Sikh	13.4	29.8	-1.3	2.8	11.0	1.9	-0.6	7.8	22.0	0.7	-1.1	619
Buddhist/Neo-Buddhist	23.2	56.1	-1.9	7.0	21.0	3.1	-0.9	14.7	39.2	0.8	-1.7	316
Jain	5.9	31.2	-1.2	5.2	15.8	0.8	-0.9	6.6	24.0	0.0	-1.3	78
Other	34.0	58.5	-2.2	10.5	33.6	1.3	-1.5	35.4	62.7	0.1	-2.4	233
Caste/tribe												
Scheduled caste	27.6	53.9	-2.1	6.6	21.0	1.3	-1.1	18.5	47.9	0.3	-1.9	9,531
Scheduled tribe	29.1	53.9	-2.1	9.3	27.6	1.5	-1.3	24.9	54.5	0.4	-2.1	4,448
Other backward class	24.5	48.8	-1.9	6.6	20.0	1.3	-1.0	15.7	43.2	0.3	-1.8	18,969
Other	17.8	40.7	-1.6	5.2	16.3	2.1	-0.8	11.1	33.7	0.5	-1.5	13,351
Don't know	22.3	45.8	-1.8	3.1	14.1	1.4	-0.9	16.3	35.1	0.0	-1.7	193
Mother's interview status												
Interviewed	23.7	48.1	-1.9	6.5	19.9	1.5	-1.0	15.9	42.6	0.4	-1.8	45,337
Not interviewed but in household	22.8	47.5	-1.7	7.9	18.0	0.3	-1.0	14.9	38.5	0.3	-1.7	541
Not interviewed and not in household[5]	20.7	45.3	-1.7	4.8	16.4	2.3	-0.9	13.1	36.9	1.0	-1.6	778
Mother's nutritional status												
Underweight (BMI<18.5)	27.3	53.5	-2.1	7.9	25.2	1.1	-1.3	20.9	52.0	0.2	-2.1	17,656
Normal (BMI 18.5-24.9)	22.5	46.3	-1.8	5.9	17.4	1.7	-0.9	13.6	38.7	0.4	-1.7	24,510
Overweight (BMI ≥ 25)	12.0	31.2	-1.3	2.7	9.3	3.0	-0.5	4.6	20.1	1.0	-1.1	3,159
Mother not measured	28.9	51.7	-1.9	7.7	19.6	1.4	-0.9	19.6	41.3	0.3	-1.7	524

Continued…

Table 10.1 Nutritional status of children—*Continued*

Background characteristic	Height-for-age			Weight-for-height				Weight-for-age				Number of children
	Percentage below -3 SD	Percentage below -2 SD[1]	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD[1]	Percentage above +2 SD	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD[1]	Percentage above +2 SD	Mean Z-score (SD)	
Child's living arrangements												
Living with both parents	23.9	48.4	-1.9	6.4	19.6	1.5	-1.0	15.9	42.8	0.3	-1.8	38,020
Living with mother (not father)	23.0	46.6	-1.8	7.0	21.2	1.8	-1.0	15.7	41.6	0.4	-1.8	7,858
Living with father (not mother)	25.5	52.4	-1.9	6.8	18.8	3.8	-1.1	19.4	42.4	0.9	-1.8	154
Living with neither parent	19.5	43.5	-1.7	4.3	15.8	1.9	-0.9	11.5	35.6	1.0	-1.6	624
Wealth index												
Lowest	34.2	59.9	-2.3	8.7	25.0	1.0	-1.2	24.9	56.6	0.2	-2.2	11,689
Second	27.9	54.3	-2.1	6.7	22.0	1.1	-1.1	19.4	49.2	0.2	-2.0	10,398
Middle	23.1	48.9	-1.9	6.2	18.8	1.3	-1.0	14.1	41.4	0.3	-1.8	9,449
Fourth	16.5	40.8	-1.6	5.0	16.6	2.1	-0.9	9.5	33.6	0.5	-1.5	8,543
Highest	8.2	25.3	-1.1	4.2	12.7	2.7	-0.7	4.9	19.7	0.8	-1.1	6,577
Total	23.7	48.0	-1.9	6.4	19.8	1.5	-1.0	15.8	42.5	0.4	-1.8	46,655

Note: Table is based on children who stayed in the household the night before the interview. Each of the indices is expressed in standard deviation units (SD) from the median of the 2006 WHO International Reference Population. Table is based on children with valid dates of birth (month and year) and valid measurement of both height and weight. Total includes births with missing information on size at birth, religion, and caste/tribe, who are not shown separately.

[1] Includes children who are below -3 standard deviations (SD) from the International Reference Population median.

[2] Excludes children whose mothers were not interviewed.

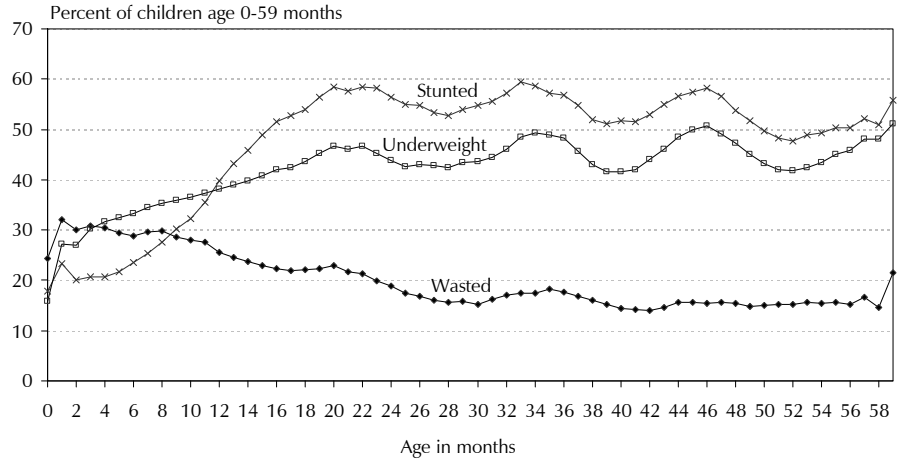
[3] First born twins (triplets, etc.) are counted as first births because they do not have a previous birth interval.

[4] For women who are not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the household schedule.

[5] Includes children whose mothers are deceased.

according to the three nutritional indices. It is notable that at age 18-23 months, when many children are being weaned from breast milk, 30 percent of children are severely stunted and one-fifth are severely underweight.

Figure 10.1 Nutritional Status of Children



NFHS-3, India, 2005-06

Overall, girls and boys are about equally undernourished. Undernutrition is generally lower for first births than for subsequent births and consistently increases with increasing birth order for all measures of nutritional status. Short birth intervals are associated with higher levels of undernutrition, except in the case of wasting.

Undernutrition is substantially higher in rural areas than in urban areas. Even in urban areas, however, 40 percent of children are stunted and 33 percent are underweight. Children who are judged by their mother to have been small or very small at the time of birth are more likely to be undernourished than those who were average size or larger. Undernutrition has a strong negative relationship with the mother's education. The percentage of children who are severely underweight is almost five times as high for children whose mothers have no education as for children whose mothers have 12 or more years of education. Hindu and Muslim children are about equally likely to be undernourished, but Christian, Sikh, and Jain children are considerably better nourished. Children belonging to scheduled castes, scheduled tribes, or other backward classes have relatively high levels of undernutrition according to all three measures. Children from scheduled tribes have the poorest nutritional status on almost every measure, and the high prevalence of wasting in this group (28 percent) is of particular concern. There is not much difference in nutritional status for children by whether or not the mother was interviewed, but it is interesting to note that children who do not live with either parent have slightly better nutritional status than those who live with both parents or with only one parent.

The nutritional status of children is strongly related to maternal nutritional status. Undernutrition is much more common for children of mothers whose body mass index is below 18.5 than for children whose mothers are not underweight. All of the measures decrease steadily with an increase in the wealth index of the household. Children from households with a low standard of living are twice as likely to be undernourished as children from households with a high standard of living.

Inadequate nutrition is a problem throughout India, but the situation is considerably better in some states than in others. Table 10.2 shows that undernutrition is most pronounced in Madhya Pradesh, Bihar, and Jharkhand. Nutritional problems are also substantially higher than average in Meghalaya and (for stunting) in Uttar Pradesh. Nutritional problems are least evident in Mizoram, Sikkim, Manipur, and Kerala, and low levels of undernutrition are also notable in Goa and Punjab. Even in these states, however, levels of undernutrition are unacceptably high.

Table 10.2 Nutritional status of children by state

Percentage of children under age five years classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, according to state, India, 2005-06

State	Height-for-age			Weight-for-height				Weight-for-age			
	Percent-age below -3 SD	Percent-age below -2 SD[1]	Mean Z-score (SD)	Percent-age below -3 SD	Percent-age below -2 SD[1]	Percent-age above +2 SD	Mean Z-score (SD)	Percent-age below -3 SD	Percent-age below -2 SD[1]	Percent-age above +2 SD	Mean Z-score (SD)
India	23.7	48.0	-1.9	6.4	19.8	1.5	-1.0	15.8	42.5	0.4	-1.8
North											
Delhi	20.4	42.2	-1.6	7.0	15.4	4.0	-0.5	8.7	26.1	1.0	-1.3
Haryana	19.4	45.7	-1.8	5.0	19.1	1.4	-1.0	14.2	39.6	0.2	-1.7
Himachal Pradesh	16.0	38.6	-1.5	5.5	19.3	1.1	-1.0	11.4	36.5	0.5	-1.6
Jammu & Kashmir	14.9	35.0	-1.3	4.4	14.8	2.3	-0.7	8.2	25.6	0.5	-1.3
Punjab	17.3	36.7	-1.5	2.1	9.2	1.5	-0.5	8.0	24.9	0.5	-1.2
Rajasthan	22.7	43.7	-1.7	7.3	20.4	1.6	-1.1	15.3	39.9	0.4	-1.7
Uttaranchal	23.1	44.4	-1.8	5.3	18.8	2.3	-0.9	15.7	38.0	0.3	-1.7
Central											
Chhattisgarh	24.8	52.9	-2.0	5.6	19.5	1.3	-1.1	16.4	47.1	0.0	-1.9
Madhya Pradesh	26.3	50.0	-2.0	12.6	35.0	1.0	-1.6	27.3	60.0	0.1	-2.3
Uttar Pradesh	32.4	56.8	-2.2	5.1	14.8	1.2	-0.8	16.4	42.4	0.1	-1.8
East											
Bihar	29.1	55.6	-2.1	8.3	27.1	0.3	-1.4	24.1	55.9	0.1	-2.2
Jharkhand	26.8	49.8	-1.9	11.8	32.3	0.6	-1.5	26.1	56.5	0.2	-2.2
Orissa	19.6	45.0	-1.7	5.2	19.5	1.7	-1.0	13.4	40.7	0.5	-1.7
West Bengal	17.8	44.6	-1.7	4.5	16.9	1.9	-0.9	11.1	38.7	0.5	-1.6
Northeast											
Arunachal Pradesh	21.7	43.3	-1.6	6.1	15.3	3.4	-0.7	11.1	32.5	0.6	-1.4
Assam	20.9	46.5	-1.8	4.0	13.7	1.2	-0.8	11.4	36.4	0.3	-1.6
Manipur	13.1	35.6	-1.4	2.1	9.0	2.2	-0.6	4.7	22.1	0.5	-1.2
Meghalaya	29.8	55.1	-2.0	19.9	30.7	2.6	-1.2	27.7	48.8	0.2	-2.0
Mizoram	17.7	39.8	-1.6	3.5	9.0	4.3	-0.3	5.4	19.9	1.2	-1.1
Nagaland	19.3	38.8	-1.4	5.2	13.3	4.7	-0.5	7.1	25.2	0.8	-1.2
Sikkim	17.9	38.3	-1.4	3.3	9.7	8.3	-0.1	4.9	19.7	1.3	-0.9
Tripura	14.7	35.7	-1.5	8.6	24.6	2.2	-1.2	15.7	39.6	0.1	-1.7
West											
Goa	10.2	25.6	-1.1	5.6	14.1	4.3	-0.7	6.7	25.0	1.9	-1.1
Gujarat	25.5	51.7	-2.0	5.8	18.7	1.2	-1.0	16.3	44.6	0.1	-1.8
Maharashtra	19.1	46.3	-1.8	5.2	16.5	2.8	-0.9	11.9	37.0	0.9	-1.6
South											
Andhra Pradesh	18.7	42.7	-1.7	3.5	12.2	2.2	-0.7	9.9	32.5	0.6	-1.5
Karnataka	20.5	43.7	-1.7	5.9	17.6	2.6	-1.0	12.8	37.6	0.5	-1.6
Kerala	6.5	24.5	-1.1	4.1	15.9	1.2	-0.9	4.7	22.9	0.4	-1.2
Tamil Nadu	10.9	30.9	-1.1	8.9	22.2	3.6	-1.0	6.4	29.8	1.9	-1.3

Note: Table is based on children who stayed in the household the night before the interview. Each of the indices is expressed in standard deviation units (SD) from the median of the 2006 WHO International Reference Population. Table is based on children with valid dates of birth (month and year) and valid measurements of both height and weight.
[1] Includes children who are below -3 standard deviations (SD) from the International Reference Population median.

In NFHS-2, the nutritional status of children was measured only for the last two children under three years of age of ever-married women who were interviewed, whereas in NFHS-3 all children in the household under five years of age were eligible to be measured. Therefore, in comparing nutritional indicators in the two surveys, it is necessary to restrict the calculations to the NFHS-2 criteria for eligibility (as has been done in Table 10.3 and Figure 10.2). The proportion of children under three years of age who are underweight decreased from 43 percent in NFHS-2 to 40 percent in NFHS-3, and the proportion severely underweight decreased from 18 percent to 16 percent. Stunting decreased by a larger margin, from 51 percent to 45 percent. Severe stunting also decreased, from 28 percent to 22 percent. However, the improvement in height-for-age combined with a somewhat slower improvement in weight-for-age actually produced an increase in wasting and severe wasting over time. The decrease in stunting over time was greater in rural areas than urban areas. The prevalence of children who were underweight decreased slightly more in urban areas than rural areas, but there was very little improvement in the percentage of children who were severely underweight in urban areas.

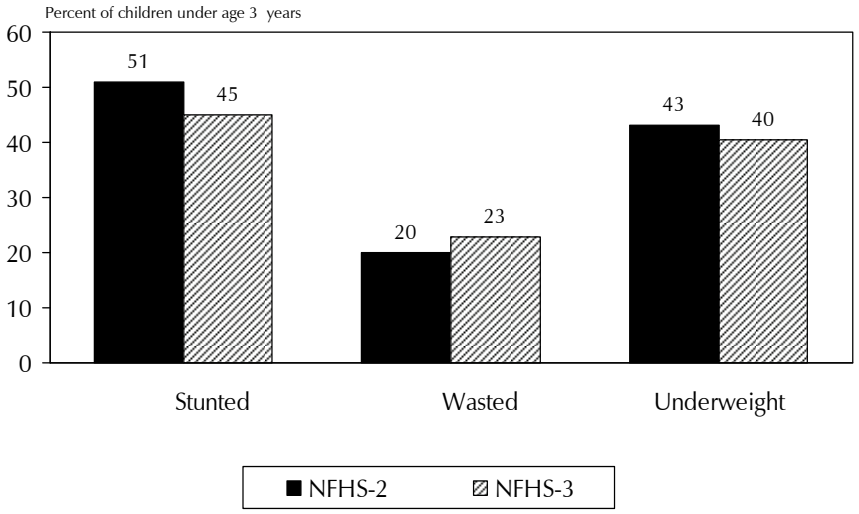
Table 10.3 Trends in nutritional status of children

Percentage of children under age three years born to ever-married women classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by residence, India, NFHS-3 and NFHS-2

	NFHS-3 (2005-06)			NFHS-2 (1998-99)		
Measure of nutrition	Urban	Rural	Total	Urban	Rural	Total
Height-for-age						
Percentage below -3 SD	16.4	23.8	22.0	19.7	30.2	27.7
Percentage below -2 SD[1]	37.4	47.2	44.9	41.1	54.0	51.0
Weight-for-height						
Percentage below -3 SD	6.8	8.3	7.9	5.3	7.1	6.7
Percentage below -2 SD[1]	19.0	24.1	22.9	16.3	20.7	19.7
Weight-for-age						
Percentage below -3 SD	10.6	17.4	15.8	11.3	19.6	17.6
Percentage below -2 SD[1]	30.1	43.7	40.4	34.1	45.3	42.7
Number of children	6,436	20,105	26,541	5,741	18,475	24,215

Note: Table is based on children who stayed in the household the night before the interview. Each of the indices is expressed in standard deviation units (SD) from the median of the 2006 WHO International Reference Population. Table is based on children with valid dates of birth (month and year) and valid measurements of both height and weight.
[1] Includes children who are below -3 standard deviations (SD) from the International Reference Population median.

Figure 10.2 **Trends in Nutritional Status of Children**



10.2 BREASTFEEDING AND SUPPLEMENTATION

Infant feeding practices have significant effects on both mothers and children. Mothers are affected through the influence of breastfeeding on the period of postpartum infertility and hence on fertility levels and the length of birth intervals. These effects vary by the duration and intensity of breastfeeding. Proper infant feeding, starting from the time of birth, is important for the physical and mental development of children. Breastfeeding improves the nutritional status

of young children and reduces morbidity and mortality. Breast milk not only provides important nutrients but also protects the child against infection. The timing and type of supplementary foods introduced in an infant's diet also have significant effects on the child's nutritional status.

10.2.1 Initiation of Breastfeeding

The Government of India recommends that initiation of breastfeeding should begin immediately after childbirth, preferably within one hour (Ministry of Women and Child Development, 2006). Early initiation of breastfeeding is encouraged for a number of reasons. Mothers benefit from early suckling because it stimulates breast milk production and facilitates the release of oxytocin, which helps the contraction of the uterus and reduces postpartum blood loss. The first breast milk (colostrum) is highly nutritious and has antibodies that protect the newborn from diseases. Late initiation of breastfeeding not only deprives the child of valuable colostrum, but becomes a reason for introduction of prelacteal feeds (that is, something other than breast milk) like glucose water, honey, *ghutti*, animal milk, or powdered milk that are potentially harmful and contribute to diarrhoea in the newborn.

In NFHS-3, data on breastfeeding and complementary feeding were obtained from a series of questions in the Women's Questionnaire. These questions were asked for all children born since January of the fifth calendar year before the survey, but the tables are restricted to children born in the five years preceding the survey.

Tables 10.4 and 10.5 show the percentage of children born during the five years before the survey who were ever breastfed and who started breastfeeding soon after birth. These tables also give the percentage of children who received a prelacteal feed during the first three days after delivery.

Although breastfeeding is nearly universal in India, very few children are put to the breast immediately after birth. Ninety-six percent of children under age five have ever been breastfed, but only one-quarter of last-born children who were ever breastfed started breastfeeding within one hour of birth, as is recommended (Table 10.4). Almost half (45 percent) did not start breastfeeding within one day of birth. Timely initiation of breastfeeding was not common for any group, but it was highest for children born to urban women, more educated women, Christian and Buddhists/Neo-Buddhist women, and women whose birth was attended by health personnel, children not born at home, and children born to women in households in the highest wealth quintile. Ever-breastfed children were least likely to be put to the breast within the first hour after birth if the mother was Sikh, if she was not educated, or if the baby was delivered by a *dai*.

Most mothers (57 percent) gave their last-born child something to drink other than breast milk in the three days after delivery. Prelacteal feeds were more common in rural areas than in urban areas, and among women with no education, Muslims, Sikhs, OBCs, women in the lowest two wealth quintiles, and women whose child was born at home or whose birth was assisted by someone other than health personnel.

Table 10.4 Initial breastfeeding

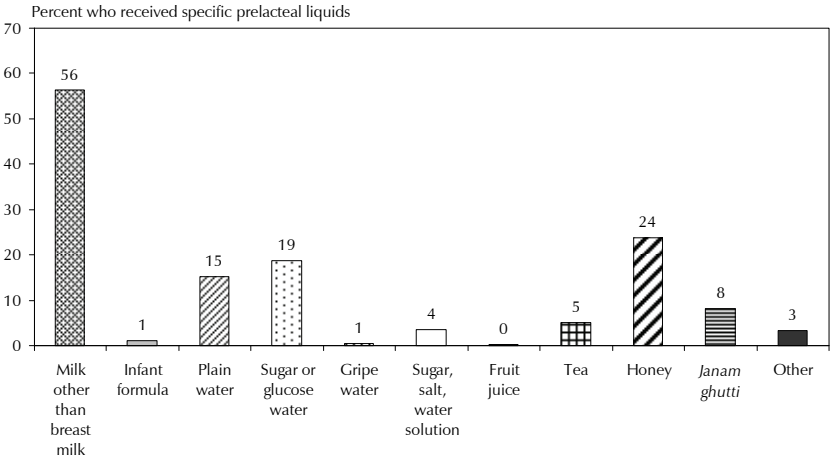
Percentage of children born in the five years preceding the survey who were ever breastfed, and for last-born children born in the five years preceding the survey who were ever breastfed, percentage who started breastfeeding within half an hour, one hour, and one day of birth and percentage who received a prelacteal feed, by background characteristics, India, 2005-06

Background characteristic	Percentage ever breastfed	Number of children	Percentage who started breastfeeding: Within half an hour of birth	Within one hour of birth[1]	Within one day of birth[2]	Percentage who received a prelacteal feed[3]	Number of last-born ever breastfed children
Residence							
Urban	96.0	14,303	29.4	30.3	64.5	50.2	10,333
Rural	95.7	42,135	21.4	22.4	51.9	59.8	28,255
Sex							
Male	95.6	29,415	23.7	24.7	55.5	57.3	20,775
Female	95.9	27,022	23.4	24.3	55.0	57.0	17,813
Mother's education							
No education	95.5	28,237	15.9	16.7	43.1	67.5	18,251
<5 years complete	95.4	4,100	27.6	28.6	61.4	51.7	2,791
5-7 years complete	96.0	8,189	27.0	27.9	61.8	51.4	5,690
8-9 years complete	95.8	6,723	31.6	32.8	67.7	46.9	4,773
10-11 years complete	96.0	4,282	33.3	34.4	69.8	45.7	3,166
12 or more years complete	96.7	4,905	33.5	34.6	71.6	43.4	3,915
Religion							
Hindu	95.7	44,152	23.4	24.4	55.0	57.2	30,434
Muslim	96.1	9,641	21.3	21.7	52.6	62.4	6,325
Christian	95.9	1,109	48.7	49.5	82.5	25.7	790
Sikh	93.3	716	12.3	13.1	49.6	61.9	483
Buddhist/Neo-Buddhist	94.2	377	49.9	50.9	79.5	25.1	245
Jain	100.0	87	22.5	23.1	74.0	38.5	76
Other	95.5	306	18.9	19.6	60.5	46.1	198
Caste/tribe							
Scheduled caste	95.3	11,693	21.9	23.2	51.8	59.1	7,709
Scheduled tribe	96.6	5,442	27.8	28.5	62.6	43.2	3,671
Other backward class	95.9	22,716	21.1	21.9	50.2	62.7	15,471
Other	95.5	16,176	26.3	27.2	61.9	53.5	11,432
Don't know	97.9	220	31.4	32.1	67.9	45.2	158
Assistance at delivery							
Health personnel[4]	95.7	26,293	31.0	32.1	68.1	45.7	19,150
Dai (TBA)	95.7	20,618	14.7	15.4	43.4	69.2	13,331
Other/no one	96.0	9,449	19.7	20.5	41.4	67.3	6,087
Place of delivery							
Health facility	95.5	21,570	33.0	34.0	71.3	42.6	15,746
At home	95.9	34,461	16.9	17.8	44.1	67.5	22,578
Other	93.6	340	30.9	31.4	65.7	47.7	249
Wealth index							
Lowest	96.0	14,377	17.2	17.9	45.3	64.9	9,321
Second	95.2	12,654	19.7	20.6	47.1	63.3	8,348
Middle	95.6	11,181	25.6	26.4	57.1	55.4	7,579
Fourth	95.9	10,154	27.7	29.0	64.4	51.0	7,052
Highest	96.1	8,072	31.0	32.1	68.7	46.9	6,288
Total	95.7	56,438	23.6	24.5	55.3	57.2	38,588

Note: Table is based on children born in the last five years whether the children are living or dead at the time of interview. Total includes children with missing information on mother's education, religion, caste/tribe, assistance at delivery, and place of delivery, who are not shown separately.
TBA = Traditional birth attendant
[1] Includes children who started breastfeeding within half an hour of birth.
[2] Includes children who started breastfeeding within half an hour and one hour of birth.
[3] Children given something other than breast milk during the first three days of life.
[4] Doctor, nurse, midwife, auxiliary nurse midwife, lady health visitor, or other health personnel.

Mothers who gave their child anything to drink other than breast milk in the three days after delivery were asked what was given to the child. By far, the most common prelacteal liquid is milk other than breast milk (Figure 10.3). Other common prelacteal liquids are honey (often given as part of a blessing ceremony), sugar or glucose water, and plain water.

Figure 10.3 Prelacteal Liquids



Note: Based on last-born children under age 5 years who received a prelacteal feed

NFHS-3, India, 2005-06

Table 10.5 presents data on feeding practices for individual states. The percentage of children under age five who were ever breastfed is almost universal in every state, with a slightly lower percentage in Uttaranchal (90 percent) and Himachal Pradesh (92 percent). There is considerable variation, however, in the amount of time after birth that breastfeeding started. The percentage who started breastfeeding with one hour of birth ranges from 4 percent in Bihar and 7 percent in Uttar Pradesh to 66 percent in Mizoram. The majority of women in most states in the Northeast and West Regions, and in Tamil Nadu, Kerala, and Orissa begin breastfeeding their baby within one hour of birth. In those regions, at least 75 percent of mothers start breastfeeding within one day of delivery in almost every state. Prelacteal feeding also varies substantially from one state to another. Prelacteal feeding is most common in Bihar (91 percent) and Uttar Pradesh (86 percent) and least common in Kerala and Sikkim (11-12 percent).

Table 10.5 Initial breastfeeding by state

Percentage of children born in the five years preceding the survey who were ever breastfed, and for last-born children born in the five years preceding the survey who were ever breastfed, percentage who started breastfeeding within half an hour, one hour, and one day of birth and percentage who received a prelacteal feed, according to state, India, 2005-06

State	Percentage ever breastfed	Among last-born children born in the last 5 years who were ever breastfed			
		Percentage who started breastfeeding:			Percentage who received a prelacteal feed[3]
		Within half an hour of birth	Within one hour of birth[1]	Within one day of birth[2]	
India	95.7	23.6	24.5	55.3	57.2
North					
Delhi	95.6	21.0	21.0	67.9	45.5
Haryana	95.8	19.2	22.1	63.0	53.9
Himachal Pradesh	92.3	44.1	45.4	77.6	21.7
Jammu & Kashmir	95.2	31.5	31.6	72.3	36.6
Punjab	94.1	11.4	12.7	44.5	62.9
Rajasthan	96.0	13.7	14.1	54.0	71.6
Uttaranchal	90.1	30.0	33.5	71.0	44.9
Central					
Chhattisgarh	96.3	22.7	25.0	63.6	23.3
Madhya Pradesh	95.7	14.7	15.9	52.6	58.1
Uttar Pradesh	96.0	7.2	7.3	23.7	86.0
East					
Bihar	94.4	2.8	3.7	30.0	90.6
Jharkhand	95.4	10.3	10.7	45.1	66.3
Orissa	94.6	50.7	54.8	82.3	42.1
West Bengal	96.2	22.5	23.5	72.9	47.8
Northeast					
Arunachal Pradesh	95.5	58.1	58.6	87.0	16.7
Assam	96.4	49.5	50.9	74.7	32.7
Manipur	96.0	57.4	57.8	79.8	37.5
Meghalaya	96.5	57.2	57.8	90.8	31.2
Mizoram	98.0	66.1	66.4	90.6	23.3
Nagaland	96.1	54.1	54.2	82.9	53.8
Sikkim	98.1	42.7	42.9	88.4	12.3
Tripura	97.1	33.7	34.6	77.1	36.4
West					
Goa	96.7	59.1	59.4	82.0	38.3
Gujarat	96.8	25.2	27.8	58.0	57.3
Maharashtra	97.1	51.5	52.0	78.4	32.2
South					
Andhra Pradesh	95.5	24.4	24.6	58.1	42.7
Karnataka	96.3	35.1	35.7	74.6	29.2
Kerala	97.4	56.1	56.5	95.7	10.8
Tamil Nadu	94.5	57.7	58.8	91.0	20.6

Note: Table is based on births in the last five years whether the children are living or dead at the time of interview.
[1] Includes children who started breastfeeding within half an hour of birth.
[2] Includes children who started breastfeeding within half an hour and one hour of birth.
[3] Children given something other than breast milk during the first three days of life.

10.2.2 Breastfeeding Status by Age

The Government of India recommends that children should be exclusively breastfed for the first six months of life (that is, the child should be given only breast milk and nothing else, not even water) and that children should be given appropriate and adequate complementary feeding in addition to continued breastfeeding from six months of age (Ministry of Women and

Child Development, 2006). Exclusive breastfeeding is recommended because breast milk is uncontaminated and contains all the nutrients necessary for children in the first few months of life. In addition, the mother's antibodies in breast milk give the child considerable immunity to diseases. Early supplementation is discouraged for several reasons. First, it exposes infants to pathogens and increases their risk of infection, especially disease. Second, it decreases infants' intake of breast milk and therefore suckling, which reduces breast milk production. Third, in a harsh socioeconomic environment, supplementary food is often nutritionally inferior.

The purpose of complementary feeding is to complement the breast milk and sustain the growth and development of the child. Information on supplementation was obtained by asking mothers about the current breastfeeding status of all children under five years of age and, for the youngest child born in the three-year period before the survey and living with the mother, about food (liquids or solids) given to the child the day before the survey.

Table 10.6 shows the percent distribution of youngest children less than three years of age living with the mother by breastfeeding status and the percentage of all children under three years of age using a bottle with a nipple, according to age in months. Children who received nothing but breast milk during the previous day or night are classified as being exclusively breastfed. Only 69 percent of children under two months of age are exclusively breastfed. Exclusive breastfeeding drops to 51 percent at 2-3 months of age and 28 percent at 4-5 months of age. Overall, slightly less than half of children under six months of age are exclusively breastfed. Twenty-two percent of children under six months of age received only breast milk and plain water and 15 percent drank both breast milk and other milk.

Table 10.6 Breastfeeding status by age

Percent distribution of youngest children under three years living with the mother by breastfeeding status and percentage of all children under three years using a bottle with a nipple, according to age in months, India, 2005-06

Age in months	Not breast-feeding	Exclusively breastfed	Breastfeeding and consuming: Plain water only	Non-milk liquids/ juice	Other milk	Comple-mentary foods	Total	Number of youngest children under three years	Percentage using a bottle with a nipple[1]	Number of children
<2	2.7	69.0	16.2	2.6	7.8	1.7	100.0	1,268	5.4	1,276
2-3	1.5	50.9	23.1	4.9	14.6	5.0	100.0	1,848	13.3	1,864
4-5	1.5	27.6	25.6	6.4	20.2	18.6	100.0	1,966	16.4	1,987
6-8	4.0	9.7	18.8	3.2	11.6	52.7	100.0	2,918	17.0	2,933
9-11	6.2	2.9	9.8	1.7	5.7	73.6	100.0	2,324	18.2	2,343
12-17	12.5	0.7	2.7	1.2	1.7	81.3	100.0	5,077	14.6	5,211
18-23	23.2	0.2	1.3	0.6	0.8	74.0	100.0	4,748	12.5	5,208
24-35	45.5	0.3	0.3	0.1	0.3	53.6	100.0	7,657	8.3	10,383
<4	2.0	58.3	20.3	4.0	11.8	3.7	100.0	3,115	10.1	3,140
<6	1.8	46.4	22.4	4.9	15.0	9.5	100.0	5,081	12.5	5,127
6-9	4.2	8.2	17.2	3.1	10.6	56.7	100.0	3,803	17.2	3,822
12-23	17.7	0.4	2.0	0.9	1.3	77.8	100.0	9,825	13.6	10,419

Note: Breastfeeding status refers to a "24-hour" period (yesterday and last night). Children who are classified as *breastfeeding and consuming plain water only* consumed no liquid or solid supplements. The categories of not breastfeeding, exclusively breastfed, breastfeeding and consuming plain water, non-milk liquids/juice, other milk, and complementary foods (solids and semi-solids) are hierarchical and mutually exclusive, and their percentages add to 100 percent. Thus any children who get complementary food are classified in that category as long as they are breastfeeding as well. Children who receive breast milk and non-milk liquids and who do not receive complementary foods are classified in the non-milk liquid category even though they may also get plain water.
[1] Based on all children under three years.

At age 6-8 months, only about half of children (53 percent) are given timely complementary feeding (breast milk and complementary food). The timely complementary feeding rate increases to 74 percent at age 9-11 months and 81 percent at age 12-17 months. The proportion of children given both breast milk and complementary foods decreases thereafter as children are weaned from the breast and their food consumption no longer supplements breast milk.

Bottle feeding has a direct effect on the mother's exposure to the risk of pregnancy because the period of amenorrhoea may be shortened when breastfeeding is reduced or replaced by bottle feeding. Because it is often difficult to sterilize the nipple properly, the use of bottles with nipples also exposes children to an increased risk of getting diarrhoea and other diseases. In India, the use of bottles with nipples is not common. Bottle feeding increases from 5 percent under age two months to 18 percent at age 9-11 months and declines at older ages.

10.2.3 Duration and Frequency of Breastfeeding

Both duration and frequency of breastfeeding can affect the length of postpartum amenorrhoea. It is important that breastfeeding is continued for two years or more because breast milk provides useful amounts of energy, good quality protein, and other nutrients. Table 10.7 shows the median duration of breastfeeding for last-born children born in the three years preceding the survey by background characteristics. The estimates of median durations of breastfeeding are based on current status data, that is, the proportion of last-born children in the three years preceding the survey who were being breastfed at the time of the survey. Information on current status is usually more accurate than information based on mother's recall. The median duration of any breastfeeding is 24 months. Supplementation begins relatively early, however. The median length of exclusive breastfeeding is only 2 months and the median length of predominant breastfeeding (that is, breastfeeding plus receiving plain water and/or non-milk liquids only) is 5 months. The median duration of breastfeeding is two months shorter for girls than for boys. The duration of breastfeeding is also shorter in urban areas, and it decreases steadily with the mother's education and the wealth index. The duration of breastfeeding is relatively high for children from scheduled castes and scheduled tribes.

Table 10.7 also shows that almost all breastfeeding children under six months old were fed six or more times during the day or night before the survey. The average number of feeds during the daylight hours ranges narrowly from 6.1 to 7.7. Similarly, the number of night-time feeds ranges from 5.3-6.3. On average, women breastfed their babies 12 times during the day and night before the survey.

The median durations and frequency of breastfeeding in each state are shown in Table 10.8. The median duration of breastfeeding is 20 months or more in every state except Tamil Nadu (16 months) and Nagaland (19 months). The longest median durations (more than 32 months) are in Orissa, Jharkhand, Manipur, West Bengal, Tripura, and Assam. Chhattisgarh has the longest median duration of exclusive breastfeeding. At least 89 percent of breastfeeding children under age six months were breastfed six or more times in the day and night before the survey in every state. The mean number of daytime feeds is between five and seven in 20 states and the mean number of night feeds is between four and six in 20 states. The number of times children were fed during the day and night preceding the survey is particularly high (18-19) in Orissa and Tripura.

Table 10.7 Median duration and frequency of breastfeeding

Median duration of any breastfeeding, exclusive breastfeeding, and predominant breastfeeding among last-born children born in the three years preceding the survey, percentage of breastfeeding children under six months of age living with the mother who were breastfed six or more times in the 24 hours preceding the survey, and mean number of feeds (day/night), by background characteristics, India, 2005-06

	Median duration (months) of breastfeeding among last-born children born in the last three years[1]				Frequency of breastfeeding among children under six months[2]			
Background characteristic	Any breast-feeding	Exclusive breast-feeding	Predomi-nant breast-feeding[3]	Number of children	Percentage breastfed 6+ times in last 24 hours	Mean number of day feeds	Mean number of night feeds	Number of children
Sex								
Male	25.4	2.1	5.1	17,335	96.7	6.7	5.6	2,462
Female	23.6	1.9	5.1	15,780	96.7	6.6	5.4	2,500
Residence								
Urban	22.0	1.7	4.2	8,357	95.9	6.5	5.3	1,188
Rural	25.7	2.1	5.4	24,757	97.0	6.7	5.5	3,774
Mother's education								
No education	26.5	2.0	5.9	15,989	96.6	6.5	5.3	2,366
<5 years complete	25.3	2.8	5.9	2,285	96.1	7.4	5.7	354
5-7 years complete	24.1	1.8	4.9	4,977	97.1	6.6	5.6	752
8-9 years complete	23.0	2.0	4.6	4,145	97.9	6.9	5.9	653
10-11 years complete	22.4	1.9	3.7	2,635	97.1	6.7	5.5	375
12 or more years complete	20.6	1.8	3.4	3,082	95.2	6.4	5.4	462
Religion								
Hindu	24.9	2.0	5.1	25,925	96.7	6.7	5.5	3,912
Muslim	23.8	2.0	5.3	5,616	97.5	6.6	5.3	837
Christian	21.8	2.6	4.4	663	98.4	6.8	6.3	90
Sikh	21.9	0.6	2.7	428	91.0	6.1	5.3	57
Buddhist/Neo-Buddhist	24.8	1.4	7.7	230	92.8	6.1	5.5	32
Jain	15.6	2.0	2.0	53	*	*	*	3
Other	0.0	2.0	6.1	167	94.3	7.7	5.6	26
Caste/tribe								
Scheduled caste	26.3	2.4	5.3	6,807	96.8	6.5	5.4	1,026
Scheduled tribe	26.1	2.9	6.2	3,161	96.1	6.8	5.6	502
Other backward class	23.9	1.7	5.2	13,366	97.2	6.6	5.3	2,042
Other	23.8	1.9	4.3	9,549	96.0	6.8	5.6	1,353
Wealth index								
Lowest	27.7	2.5	6.3	8,331	97.5	6.9	5.5	1,279
Second	25.8	2.3	5.5	7,432	97.0	7.0	5.8	1,143
Middle	25.0	1.8	5.2	6,518	96.5	6.4	5.3	1,007
Fourth	22.8	1.6	4.4	6,032	97.0	6.3	5.4	878
Highest	20.8	1.4	3.3	4,802	94.6	6.5	5.3	654
Total	24.4	2.0	5.1	33,114	96.7	6.6	5.5	4,962
Mean for all children	24.7	3.7	6.4	na	na	na	na	na

Note: Median and mean durations are based on current status. Table includes children living and deceased at the time of the survey. Total includes children whose mothers do not know their caste/tribe, and children with missing information on mother's education, religion, and caste/tribe, which are not shown separately.
na = Not applicable
* Figure not shown; based on fewer than 25 unweighted cases.
[1] It is assumed that children not currently living with the mother are not currently breastfeeding.
[2] Excludes children for whom there is not a valid answer on the number of times breastfed. The 24-hour period refers to the day and night preceding the survey.
[3] Either exclusively breastfed or received breast milk and plain water and/or non-milk liquids only.

Table 10.8 Median duration and frequency of breastfeeding by state

Median duration of any breastfeeding, exclusive breastfeeding, and predominant breastfeeding among last-born children born in the three years preceding the survey, percentage of children under three years using a bottle with a nipple, percentage of breastfeeding children under six months of age living with the mother who were breastfed six or more times in the 24 hours preceding the survey, and mean number of feeds (day/night), according to state, India, 2005-06

State	Median duration (months) of breastfeeding among last-born children in the last three years[1]				Frequency of breastfeeding among children under six months[2]		
	Any breast-feeding	Exclusive breast-feeding	Predomi-nant breast-feeding[3]	Percentage using a bottle with a nipple	Percentage breastfed 6+ times in last 24 hours	Mean number of day feeds	Mean number of night feeds
India	24.4	2.0	5.1	6.5	96.7	6.6	5.5
North							
Delhi	21.2	1.1	2.6	15.0	89.4	5.8	4.5
Haryana	25.7	1.0	5.1	6.2	97.8	6.5	5.8
Himachal Pradesh	23.4	1.1	3.9	11.0	93.4	6.0	4.5
Jammu & Kashmir	21.9	0.6	0.7	11.8	92.1	5.8	3.7
Punjab	21.5	0.9	3.6	14.0	95.9	5.9	5.2
Rajasthan	23.6	1.4	7.1	5.0	94.6	5.2	4.2
Uttaranchal	25.0	0.7	3.1	16.8	88.7	5.5	5.4
Central							
Chhattisgarh	29.6	5.8	6.9	3.3	96.5	6.3	4.9
Madhya Pradesh	23.3	0.6	5.5	3.9	98.8	6.1	4.7
Uttar Pradesh	25.4	2.4	5.5	9.3	96.5	6.1	5.0
East							
Bihar	25.4	0.7	3.7	4.6	98.0	7.6	5.9
Jharkhand	34.8	2.9	5.6	3.4	96.6	7.0	4.7
Orissa	35.2	2.3	5.1	3.5	98.5	11.1	8.3
West Bengal	33.7	3.2	4.7	7.8	95.6	8.1	6.6
Northeast							
Arunachal Pradesh	29.8	3.0	4.1	4.0	98.8	8.0	6.5
Assam	32.8	3.5	4.8	2.0	99.3	6.8	5.6
Manipur	34.1	3.4	4.5	4.2	97.1	7.9	5.4
Meghalaya	20.7	0.7	2.5	9.2	98.5	6.8	6.3
Mizoram	21.2	2.0	5.1	8.1	98.4	7.8	7.8
Nagaland	18.9	0.6	3.4	9.7	97.2	6.3	5.3
Sikkim	28.1	0.7	3.1	8.8	98.1	7.2	5.0
Tripura	33.3	1.7	4.5	13.2	96.8	9.0	9.0
West							
Goa	20.4	0.5	0.7	22.4	89.9	5.4	4.5
Gujarat	22.9	2.1	5.2	3.9	95.5	6.6	5.8
Maharashtra	22.2	2.6	6.5	3.7	95.5	6.7	5.6
South							
Andhra Pradesh	23.2	3.5	4.9	4.2	99.8	5.6	6.4
Karnataka	20.5	3.1	4.1	6.5	95.9	6.1	4.9
Kerala	25.2	3.0	3.4	8.5	100.0	7.2	6.9
Tamil Nadu	15.5	1.1	2.5	12.1	99.2	6.8	6.0

Note: Median and mean durations are based on current status. Durations include children living and deceased at the time of the survey.
[1] It is assumed that children not currently living with the mother are not currently breastfeeding.
[2] Excludes children for whom there is not a valid answer on the number of times breastfed. The 24-hour period refers to the day and night preceding the survey.
[3] Either exclusively breastfed or received breast milk and plain water, and/or non-milk liquids only.

10.2.4 Types of Supplemental Food

Table 10.9 shows the types of food given to the youngest child under three years of age living with the mother on the day and night preceding the survey, according to their breastfeeding status. For many breastfeeding children the introduction of liquids other than breast milk takes place earlier than the recommended age of six months. Even among the

youngest breastfeeding children (less than two months), 9 percent drink milk other than breast milk, 1 percent are given infant formula, and 4 percent consume other liquids. Two percent of breastfeeding children under two months of age are given solid or semi-solid food. Consumption of milk other than breast milk increases steadily through age 18-23 months and decreases slightly at age 24-35 months. For nonbreastfeeding children, consumption of milk other than breast milk decreases after 9-11 months of age. Consumption of other liquids generally increases with age for both breastfeeding and nonbreastfeeding children. By age 12-17 months, 45 percent of breastfeeding children are given other milk and 58 percent are given other liquids. Infant formula is not commonly given to breastfeeding children, but it is much more likely to be given to nonbreastfeeding children. More than one-quarter of nonbreastfeeding children age 4-11 months are given infant formula.

Table 10.9 Foods and liquids consumed by children in the day and night preceding the interview

Percentage of youngest children under age three years living with the mother who consumed specific types of foods in the day and night preceding the interview, by breastfeeding status and age, India, 2005-06

	Liquids			Solid or semi-solid foods										
Age in months	Infant formula	Other milk[1]	Other liquids[2]	Fortified baby food	Food made from grains[3]	Fruits and vegetables rich in vitamin A[4]	Other fruits and vege-tables	Food made from roots	Food made from beans, peas, lentils, nuts	Meat, fish, poultry, eggs	Cheese, yogurt, other milk products	Any solid or semi-solid food	Food made with oil, fat, *ghee*, butter	Number of children
BREASTFEEDING CHILDREN														
<2	0.7	8.5	3.9	0.7	0.9	0.4	0.2	0.4	0.2	0.3	0.4	1.7	0.2	1,234
2-3	3.1	15.1	8.7	2.4	2.4	0.2	0.2	0.1	0.1	0.1	0.4	5.1	0.2	1,819
4-5	6.2	27.1	14.8	7.3	11.5	1.6	1.1	1.1	1.1	0.5	1.8	18.9	0.7	1,935
6-8	10.0	35.7	28.8	15.2	43.9	7.4	4.5	4.3	3.8	2.1	5.6	54.8	3.9	2,801
9-11	11.9	42.1	39.2	17.5	69.6	22.0	8.8	13.1	11.1	6.6	8.7	78.4	8.5	2,178
12-17	8.7	45.4	58.1	14.5	86.6	39.7	17.9	28.0	16.4	13.0	11.5	92.9	16.3	4,444
18-23	7.2	49.1	64.1	13.7	89.8	48.8	21.1	32.6	19.0	16.0	12.6	96.3	17.6	3,646
24-35	6.1	46.2	71.4	11.8	93.3	56.0	26.1	41.1	22.5	20.0	12.9	98.3	22.6	4,175
6-23	9.1	43.8	50.4	14.9	75.5	32.4	14.4	21.7	13.5	10.4	10.1	83.3	12.7	13,069
Total	7.3	38.5	45.2	11.9	63.1	29.7	13.5	20.6	12.3	10.0	8.5	69.6	11.8	22,233
NON-BREASTFEEDING CHILDREN														
<2	(4.4)	(58.8)	(14.3)	(4.4)	(0.1)	(0.0)	(0.2)	(0.0)	(3.0)	(0.0)	(0.2)	(7.6)	(0.2)	34
2-3	(21.7)	(75.4)	(7.5)	(16.1)	(11.5)	(3.0)	(0.0)	(0.0)	(1.2)	(0.2)	(0.2)	(20.7)	(8.8)	28
4-5	(27.3)	(78.3)	(24.6)	(22.7)	(20.0)	(5.5)	(2.7)	(1.1)	(5.4)	(0.4)	(4.3)	(30.4)	(4.3)	30
6-8	28.9	82.5	44.9	37.2	58.6	9.4	11.1	6.7	10.5	2.6	16.1	75.1	3.1	117
9-11	30.1	82.7	54.1	35.3	80.2	26.2	17.8	21.6	17.1	11.1	11.9	91.9	17.8	145
12-17	19.1	82.4	66.5	22.8	91.7	44.0	20.4	24.5	16.6	15.7	18.2	95.3	20.5	633
18-23	13.5	69.3	65.7	17.6	91.2	56.1	23.7	33.6	23.4	19.0	18.3	97.3	21.9	1,102
24-35	9.9	63.3	76.0	14.1	94.2	59.3	30.0	35.7	24.6	22.7	19.4	99.0	24.0	3,482
6-23	17.4	75.2	63.9	21.7	88.6	47.4	21.5	28.3	20.1	16.4	17.7	95.0	20.0	1,997
Total	12.7	67.7	70.6	16.8	90.8	54.1	26.5	32.4	22.6	20.1	18.5	96.2	22.3	5,571

Note: Breastfeeding status and food consumed refer to a '24-hour' period (yesterday and last night).
( ) Based on 25-49 unweighted cases.
[1] Other milk includes tinned, powdered, and fresh animal milk.
[2] Does not include plain water.
[3] Includes fortified baby food.
[4] Includes pumpkin, carrots, sweet potatoes that are yellow or orange inside, dark green leafy vegetables, ripe mangoes, papayas, cantaloupe, or jackfruit.

WHO recommends the introduction of solid or semi-solid food to infants around the age of six months because by that age breast milk by itself is no longer sufficient to maintain a child's optimal growth. The percentage of breastfeeding children receiving solid or semisolid food increases with the age of the child. The largest increase is from 19 percent at age 4-5 months to 55 percent at 6-8 months. This rapid increase is consistent with the recommendation that solid or semi-solid food should be introduced around six months of age. Nevertheless, it is

disconcerting to note that even at 6-8 months of age, almost half of breastfeeding children are not given any solid or semi-solid food.

The most common types of solid or semi-solid foods fed to both breastfeeding and nonbreastfeeding children under three years of age are foods made from grains (including bread, *roti*, *chapati*, rice, noodles, biscuits, and *idli*), fruits and vegetables rich in vitamin A, and food made from roots (not including root foods that are yellow or orange inside). However, only one-third of breastfeeding children and half of nonbreastfeeding children age 6-23 months ate fruits and vegetables that are rich in vitamin A during the day or night before the survey. Only 10 percent of breastfeeding children and 20 percent of nonbreastfeeding children under three years of age consume meat, fish, poultry, or eggs. Milk products, such as cheese and yogurt, are even less likely to be given to young children, and foods made with oil, fat, *ghee*, or butter, are also not commonly given to young children. As expected, every type of solid or semi-solid food is more likely to be consumed by nonbreastfeeding children than breastfeeding children.

10.2.5 Infant and Young Child Feeding Practices

Tables 10.10 and 10.11 and Figure 10.4 provide information about adherence to appropriate feeding practices for the youngest child age 6-23 months living with the mother. The percentage of children who are fed with appropriate feeding practices is calculated on the basis of the number of food groups and the number of times the children were fed during the day or night preceding the survey. The results are shown separately for children who are breastfed and children who are not breastfed because appropriate feeding practices are different for these two groups. It is recommended that breastfeeding children age 6-23 months should be fed from three or more different food groups. Moreover, infants age 6-8 months should be fed at least twice a day and children age 9-23 months should be fed at least three times a day. Nonbreastfeeding children age 6-23 months should be fed milk or milk products every day; in addition, they should be fed from at least four food groups and they should be fed four or more times a day. Table 10.10 shows that only 44 percent of breastfed children are fed at least the minimum number of times recommended, but only half of them also consume food from three or more food groups. Feeding recommendations are even less likely to be followed for nonbreastfeeding children age 6-23 months. More than four out of five children in this group were given milk or milk products the day before the survey, but only 31 percent consumed food from four or more food groups, as recommended. Even fewer children (27 percent) are fed four or more times a day. Only 12 percent of nonbreastfed children are fed with all three infant and young child feeding (IYCF) practices. When breastfeeding and nonbreastfeeding children are combined, it is clear that most children age 6-23 months are not fed according to the IYCF recommendations. Only 21 percent are fed appropriately according to all three recommended IYCF practices. The percentage of children given food from the appropriate number of food groups and the percentage fed with all three IYCF practices increase steadily with age and the wealth index and generally increase with the mother's education. Feeding practices are somewhat better in urban areas than in rural areas. Feeding practices are better among Jains and Christians than among other religious groups. Among the caste/tribe groups, feeding practices are worst among scheduled tribes and scheduled castes. Differences in feeding practices for girls and boys are minor.

Table 10.10 Infant and young child feeding (IYCF) practices

Percentage of youngest children age 6-23 months living with the mother who are fed with appropriate feeding practices based upon number of food groups and times they are fed during the day or night preceding the survey by breastfeeding status and background characteristics, India, 2005-06

	Among breastfed children 6-23 months, percentage fed:				Among nonbreastfed children 6-23 months, percentage fed:					Among all children 6-23 months, percentage fed:				
Background characteristic	Three or more food groups[1]	Minimum number of times[2]	3+ food groups and minimum number of times	Number of children	Milk or milk products[3]	Four or more food groups[1]	Four or more times	With 3 IYCF practices[4]	Number of children	Breast milk, milk, or milk products[3]	Appropriate number of food groups[5]	Minimum times[6]	With 3 IYCF practices	Number of children
Age in months														
6-8	10.3	40.7	9.2	2,801	88.4	6.0	21.6	5.4	117	99.5	10.1	39.9	9.0	2,918
9-11	26.0	28.8	13.5	2,178	91.3	20.0	15.6	5.0	145	99.5	25.6	28.0	13.0	2,324
12-17	44.5	45.1	25.6	4,444	88.5	31.1	26.1	13.3	633	98.6	42.9	42.7	24.0	5,077
18-23	51.3	53.3	32.9	3,646	75.8	35.2	28.9	12.7	1,102	94.4	47.5	47.6	28.2	4,748
Sex														
Male	36.2	43.2	21.8	6,944	81.5	33.3	28.7	13.5	1,036	97.6	35.8	41.3	20.7	7,979
Female	35.8	44.3	22.4	6,126	82.0	28.8	24.4	10.1	961	97.6	34.8	41.6	20.8	7,087
Residence														
Urban	42.1	48.4	27.2	3,024	85.4	35.1	25.3	13.7	833	96.8	40.6	43.4	24.3	3,857
Rural	34.1	42.3	20.6	10,046	79.1	28.3	27.5	10.5	1,163	97.8	33.5	40.8	19.5	11,209
Mother's education														
No education	28.5	40.3	17.2	6,417	71.4	19.9	23.0	6.1	671	97.3	27.7	38.7	16.2	7,088
<5 years complete	36.3	42.0	22.8	907	83.8	30.4	23.4	10.5	115	98.2	35.6	39.9	21.4	1,022
5-7 years complete	38.7	42.7	22.4	2,050	81.5	30.1	29.1	12.7	252	98.0	37.7	41.2	21.3	2,302
8-9 years complete	42.4	47.2	26.1	1,555	83.5	38.4	27.2	15.5	311	97.2	41.8	43.9	24.4	1,866
10-11 years complete	47.8	50.6	29.6	1,002	89.4	35.9	27.5	12.6	233	98.0	45.6	46.3	26.4	1,235
12 or more years complete	53.7	55.3	36.4	1,137	92.2	41.8	30.9	18.0	416	97.9	50.5	48.8	31.5	1,553
Religion														
Hindu	36.1	43.7	22.1	10,239	82.9	31.1	28.0	12.7	1,498	97.8	35.5	41.7	20.9	11,737
Muslim	34.8	42.8	21.0	2,206	77.5	29.2	21.2	8.3	372	96.8	34.0	39.7	19.2	2,578
Christian	44.9	60.9	34.9	255	74.3	39.9	32.7	12.3	66	94.7	43.9	55.1	30.2	321
Sikh	42.2	31.0	22.9	157	94.4	36.7	19.8	15.4	40	98.9	41.1	28.8	21.4	197
Buddhist/Neo-Buddhist	20.6	41.1	15.2	100	61.1	41.3	3.7	2.2	7	97.6	21.9	38.8	14.4	106
Jain	61.1	53.2	41.0	16	100.0	33.1	19.8	18.3	10	100.0	50.4	40.4	32.3	26
Other	25.9	49.6	19.3	82	9.6	6.9	41.2	1.3	5	94.6	24.7	49.1	18.3	87
Caste/tribe														
Scheduled caste	33.2	43.0	19.6	2,768	76.3	30.0	29.5	11.7	324	97.5	32.9	41.6	18.8	3,092
Scheduled tribe	23.9	42.4	14.3	1,335	50.2	26.3	34.3	10.9	127	95.7	24.1	41.7	14.0	1,462
Other backward class	37.0	44.2	23.4	5,154	84.7	31.0	27.3	12.0	796	97.9	36.2	42.0	21.9	5,950
Other	40.8	44.0	24.9	3,720	86.0	32.4	23.7	12.3	735	97.7	39.4	40.7	22.8	4,455
Don't know	48.5	42.1	24.2	49	*	*	*	*	12	98.1	48.8	35.9	19.6	61
Wealth index														
Lowest	26.8	41.4	16.3	3,448	63.7	25.4	26.8	10.5	275	97.3	26.7	40.4	15.9	3,723
Second	33.6	41.7	20.6	3,042	71.5	24.6	25.3	8.3	298	97.5	32.8	40.3	19.5	3,340
Middle	37.1	41.3	21.5	2,573	81.4	28.5	27.2	10.9	347	97.8	36.1	39.7	20.2	2,920
Fourth	40.1	45.1	24.6	2,307	86.0	31.5	22.5	9.8	446	97.7	38.7	41.4	22.2	2,753
Highest	51.5	53.7	33.9	1,699	91.4	37.8	29.7	16.2	631	97.7	47.8	47.2	29.1	2,330
Total	36.0	43.7	22.1	13,069	81.7	31.1	26.6	11.9	1,997	97.6	35.3	41.5	20.7	15,066

Note: Total includes children with missing information on mother's education, religion, and caste/tribe, who are not shown separately.
* Percentage not shown; based on fewer than 25 unweighted cases.
[1] Food groups are:
a. infant formula, milk other than breast milk, cheese or yogurt or other milk products; b. foods made from grains or roots, including porridge or gruel, fortified baby food; c. vitamin A-rich fruits and vegetables; d. other fruits and vegetables; e. eggs; f. meat, poultry, fish, shellfish, or organ meats; g. beans, peas, lentils, or nuts; h. foods made with oil, fat, *ghee*, or butter.
[2] At least twice a day for breastfed infants 6-8 months and at least three times a day for breastfed children 9-23 months.
[3] Commercially produced infant formula; tinned, powdered, or fresh animal milk; cheese; yogurt; or other milk products.
[4] Non-breastfed children ages 6-23 months are considered to be fed with three IYCF practices if they receive milk or milk products and are fed at least the minimum number of times per day with at least the minimum number of food groups.
[5] Three or more food groups for breastfed children and four or more food groups for non-breastfed children.
[6] Fed solid or semi-solid food at least twice a day for infants 6-8 months, 3 or more times for other breastfed children, and 4 or more times for non-breastfed children.

Differentials in infant and young child feeding practices among states are shown in Table 10.11. Adherence to appropriate IYCF practices varies widely among the states. Appropriate feeding practices are followed most often in Kerala and Sikkim, but even in these two states a large percentage of children are not fed appropriately according to all three IYCF practices. Other states with much better than average feeding practices are Goa, Manipur, Himachal Pradesh, and Delhi. Compliance with all recommended feeding practices is lowest in Andhra Pradesh and Maharashtra, where only 1 in 10 children are fed according to all three IYCF practices.

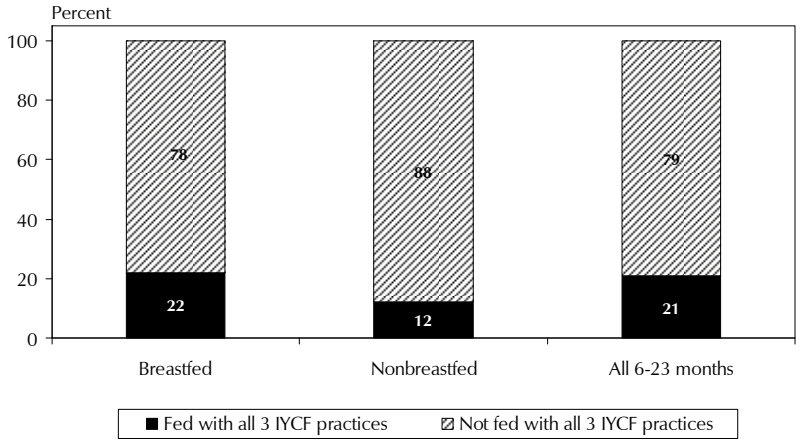
Table 10.11 Infant and young child feeding (IYCF) practices by state

Percentage of youngest children age 6-23 months living with the mother who are fed with appropriate feeding practices based upon number of food groups and times they are fed during the day or night preceding the survey, according to state, India, 2005-06

State	Among breastfed children 6-23 months, percentage fed:			Among nonbreastfed children 6-23 months, percentage fed:				Among all children 6-23 months, percentage fed:			
	Three or more food groups[1]	Mini-mum number of times[2]	3+ food groups and minimum number of times	Milk or milk products[3]	Four or more food groups[1]	Four or more times	With 3 IYCF practices[4]	Breast milk, milk, or milk products[3]	Appro-priate number of food groups[5]	Mini-mum times[6]	With 3 IYCF practices
India	36.0	43.7	22.1	81.7	31.1	26.6	11.9	97.6	35.3	41.5	20.7
North											
Delhi	51.5	58.1	39.5	87.4	38.1	43.5	17.8	96.9	48.2	54.5	34.2
Haryana	31.3	35.0	18.8	85.3	23.2	22.3	6.4	97.3	29.8	32.7	16.5
Himachal Pradesh	69.2	49.0	41.2	91.6	55.8	34.3	33.5	98.5	66.9	46.4	39.8
Jammu & Kashmir	46.8	40.4	27.6	93.7	46.8	26.0	18.9	98.9	46.8	37.9	26.1
Punjab	39.9	32.7	21.2	94.5	32.3	23.9	15.5	98.8	38.3	30.7	19.9
Rajasthan	20.8	38.7	15.7	92.2	15.3	28.3	6.6	99.0	20.1	37.4	14.6
Uttaranchal	47.9	40.4	27.6	89.7	49.5	33.9	16.8	98.3	48.2	39.3	25.9
Central											
Chhattisgarh	34.2	53.2	27.2	*	*	*	*	98.1	34.1	51.9	26.5
Madhya Pradesh	23.5	45.7	18.0	75.5	23.5	42.7	18.3	97.4	23.5	45.4	18.1
Uttar Pradesh	36.1	35.2	18.7	83.6	30.9	16.7	8.2	98.0	35.4	33.0	17.4
East											
Bihar	34.9	54.8	24.3	78.0	20.9	41.1	11.9	97.9	33.6	53.5	23.1
Jharkhand	28.5	44.3	18.0	(71.9)	(21.4)	(26.7)	(5.1)	97.8	27.9	43.0	17.0
Orissa	44.9	56.3	30.6	(77.9)	(33.9)	(45.9)	(19.9)	98.7	44.2	55.7	30.0
West Bengal	58.7	40.1	29.5	81.9	62.1	16.3	12.2	98.9	58.9	38.6	28.5
Northeast											
Arunachal Pradesh	33.8	63.9	28.4	*	*	*	*	97.8	33.9	63.0	27.9
Assam	32.7	41.1	16.4	*	*	*	*	98.8	32.1	40.8	16.1
Manipur	55.3	66.1	42.9	(53.6)	(47.9)	(34.1)	(15.0)	96.1	54.6	63.4	40.5
Meghalaya	35.3	43.9	22.7	50.1	34.8	35.8	6.6	90.2	35.2	42.3	19.5
Mizoram	35.0	56.1	20.9	(59.9)	(38.8)	(33.0)	(21.3)	93.7	35.6	52.5	20.9
Nagaland	27.7	63.9	22.6	60.6	35.2	44.7	21.1	90.5	29.5	59.3	22.2
Sikkim	70.1	66.2	51.1	*	*	*	*	100.0	70.6	63.7	49.4
Tripura	56.8	46.2	31.1	*	*	*	*	99.4	56.3	43.3	29.4
West											
Goa	65.2	61.5	48.3	95.4	62.6	43.4	32.5	98.6	64.3	55.8	43.3
Gujarat	35.3	44.7	23.8	87.9	25.5	26.7	5.4	97.8	33.5	41.5	20.5
Maharashtra	20.4	35.9	11.9	71.6	20.8	23.3	7.8	95.8	20.5	34.1	11.3
South											
Andhra Pradesh	29.1	29.7	12.2	78.0	17.0	5.9	2.0	95.7	26.7	25.1	10.2
Karnataka	42.2	48.4	25.0	82.0	49.2	22.8	18.2	96.1	43.7	42.9	23.5
Kerala	73.6	79.7	62.2	(86.7)	(76.7)	(76.7)	(50.0)	98.7	73.9	79.4	61.0
Tamil Nadu	47.6	62.7	33.7	86.8	43.6	35.5	19.9	95.4	46.2	53.1	28.9

( ) Based on 25-49 unweighted cases.
* Percentage not shown; based on fewer than 25 unweighted cases.
[1] Food groups are: a. infant formula, milk other than breast milk, cheese or yogurt or other milk products; b. foods made from grains or roots, including porridge or gruel, fortified baby food; c. vitamin A-rich fruits and vegetables; d. other fruits and vegetables; e. eggs; f. meat, poultry, fish, shellfish, or organ meats; g. beans, peas, lentils, or nuts; h. foods made with oil, fat, *ghee*, or butter.
[2] At least twice a day for breastfed infants 6-8 months and at least three times a day for breastfed children 9-23 months.
[3] Commercially produced infant formula; tinned, powdered, or fresh animal milk; cheese; yogurt; or other milk products.
[4] Non-breastfed children ages 6-23 months are considered to be fed with three IYCF practices if they receive milk or milk products and are fed at least the minimum number of times per day with at least the minimum number of food groups.
[5] Three or more food groups for breastfed children and four or more food groups for non-breastfed children.
[6] Fed solid or semi-solid food at least twice a day for infants 6-8 months, 3 or more times for other breastfed children, and 4 or more times for non-breastfed children.

Figure 10.4 Infant and Young Child (IYCF) Feeding Practices



NFHS-3, India, 2005-06

10.3 Prevalence of Anaemia in Children

Anaemia is characterized by a low level of haemoglobin in the blood. Haemoglobin is necessary for transporting oxygen from the lungs to other tissues and organs of the body. Anaemia in young children is a serious concern because it can result in impaired cognitive performance, behavioural and motor development, coordination, language development, and scholastic achievement, as well as increased morbidity from infectious diseases. One of the most vulnerable groups is children age 6-23 months.

Because anaemia is such a serious health problem in India, NFHS-3 undertook direct measurement of the haemoglobin levels of all children under age five years, women age 15-49, and men age 15-54. Measurements were taken in the field using the HemoCue Hb 201+ analyzer[1]. This system uses a single drop of blood from a finger prick (or heel prick in the case of infants under six months old), which is drawn into a cuvette and then inserted into a portable, battery-operated instrument. In less than one minute, the haemoglobin concentration is indicated on a digital read-out.

[1] The HemoCue analyzer has been used extensively throughout the world for estimating the concentration of haemoglobin in capillary blood in field situations. The HemoCue has been found to give accurate results, comparable to estimates from more sophisticated laboratory instruments (Gehring et al., 2002; Von Schenk et al., 1986; McNulty et al., 1995; Krenzischeck and Tanseco, 1996; Medina et al., 2005; Rosenblit et al., 1999; Lardi et al., 1998; Gupta et al., 2007). The HemoCue Hb 201+ analyzer that was used in NFHS-3 has been validated against major automatic cell counters and was found to agree well with all tested systems (Bäck et al., 2004). However, several studies in India have found differences in the haemoglobin results estimated by different methods, with the HemoCue usually yielding somewhat higher estimates of haemoglobin than standard laboratory tests (Agarwal et al., 2006; Pathak et al., 2004; Prakash et al., 1999; Bhaskaram et al., 2003; Saxena and Malik, 2002; Kapoor et al., 2002). Some of these studies compared the HemoCue estimates to estimates based on the indirect cyanmethaemoglobin method (using filter paper cards), which was found to seriously overestimate anaemia in a study published in the Bulletin of the World Health Organization (Sari et al., 2001).

Before anaemia testing among children was undertaken in a household, the health investigator read a detailed informed consent statement to the child's parent or an adult who was responsible for the child's care, informing that person about anaemia, describing the procedure to be followed for the test, and emphasizing the voluntary nature of the test. The person was then asked whether or not he/she would consent to having the test done for eligible children. The health investigator then signed the questionnaire to indicate that the informed consent statement had been read to the parent/responsible adult and recorded the agreement or lack of agreement to the testing. If the test was performed, at the end of the test the parent/responsible adult was given a written record of the results for each eligible child who was tested for anaemia. In addition, the health investigator described the meaning of the results for each child and advised the parent/responsible adult if medical treatment was necessary. In cases of severe anaemia, an additional statement was read to the parent/responsible adult to determine whether or not he/she would give permission for the research organization conducting the survey to inform a local health official about the problem. For each Primary Sampling Unit, a local health official was given a list of severely anaemic children for whom consent had been given for a referral[2].

Tables 10.12-10.14 show anaemia levels for children age 6-59 months. Table 10.12 shows that 70 percent of these children are anaemic, including 26 percent who are mildly anaemic (10.0-10.9 g/dl), 40 percent who are moderately anaemic (7.0-9.9 g/dl), and 3 percent who are severely anaemic (less than 7.0 g/dl). Appropriate adjustments in these cutoff points have been made for children living at altitudes above 1,000 metres because these children require more haemoglobin in their blood (Centers for Disease Control and Prevention, 1998)[3]. Although there are differentials in the prevalence of anaemia by background characteristics, more than half of children in every subgroup shown in the table are anaemic. Anaemia increases slightly from age 6-8 months to age 12-17 months, and declines steadily at older ages. The prevalence of anaemia does not vary by the sex of the child. Anaemia increases with the birth order of the child, but the relationship is not strong. Anaemia is considerably higher in rural areas than in urban areas, for children of women with no education, for disadvantaged groups (particularly scheduled tribes), and for children in households in the lower wealth quintiles. The prevalence of anaemia is relatively low, but still substantial, for Jains, Christians, and Sikhs. Children's anaemia status is closely linked with the anaemia status of the mother. However, even for mothers who are not anaemic, 62 percent of their children age 6-59 months are anaemic. The prevalence of children's anaemia rises steadily with the mother's level of anaemia, reaching 82 percent for children of mothers who are severely anaemic. Children of mothers who are severely anaemic are seven times as likely to be severely anaemic as children of mothers who are not anaemic. Children who are not living with their mother are somewhat less likely to be anaemic than children living with their mother, but this is probably because children not living with their mother are more likely to be in the older age groups, in which anaemia is less prevalent.

[2] See Chapter 1, Section 1.6 for additional information on blood collection for both anaemia and HIV testing.

[3] Haemoglobin measurements that are not adjusted for the altitude of the enumeration area yield only a slightly lower level of anaemia than the adjusted estimates (69.1 percent instead of 69.5 percent), with a maximum difference of 8 percentage points in Uttaranchal and Sikkim.

Table 10.12 Prevalence of anaemia in children

Percentage of children age 6-59 months classified as having anaemia, by background characteristics, India, 2005-06

Background characteristic	Anaemia status by haemoglobin level: Mild (10.0-10.9 g/dl)	Moderate (7.0-9.9 g/dl)	Severe (<7.0 g/dl)	Any anaemia (<11.0 g/dl)	Number of children
Age in months					
6-8	27.5	50.5	1.6	79.7	2,204
9-11	27.6	51.7	2.4	81.7	2,066
12-17	24.0	56.0	4.6	84.5	4,599
18-23	23.8	53.4	4.4	81.6	4,679
24-35	26.6	44.1	3.9	74.6	9,355
36-47	27.3	33.1	2.7	63.0	9,797
48-59	26.9	24.9	1.2	53.0	9,688
Sex					
Male	25.7	40.2	3.2	69.0	22,400
Female	27.1	40.2	2.7	69.9	19,989
Birth order					
1	25.4	37.4	2.4	65.2	11,955
2-3	26.8	40.2	2.8	69.9	18,003
4-5	26.0	44.6	3.4	74.0	7,059
6+	27.2	43.3	3.9	74.5	3,836
Residence					
Urban	25.6	34.2	3.1	63.0	10,133
Rural	26.5	42.1	2.9	71.5	32,255
Mother's education[1]					
No education	26.3	44.7	3.6	74.5	20,778
<5 years complete	28.2	38.5	2.1	68.8	3,077
5-7 years complete	26.5	39.7	3.1	69.4	6,082
8-9 years complete	26.1	36.1	2.5	64.8	4,933
10-11 years complete	26.6	33.6	1.5	61.8	3,184
12 or more years complete	24.3	29.7	1.4	55.4	3,440
Religion					
Hindu	26.1	40.7	3.0	69.7	33,462
Muslim	28.4	38.5	2.8	69.7	6,929
Christian	25.6	32.5	1.9	60.0	811
Sikh	22.3	35.9	5.7	63.8	553
Buddhist/Neo-Buddhist	15.9	49.9	0.2	66.0	305
Jain	20.1	36.1	0.0	56.2	69
Other	26.4	48.7	3.9	78.9	216
Caste/tribe					
Scheduled caste	24.9	43.7	3.6	72.2	8,743
Scheduled tribe	26.3	47.2	3.3	76.8	4,150
Other backward class	26.7	40.5	3.0	70.3	17,208
Other	26.9	34.8	2.1	63.8	11,966
Don't know	27.5	34.8	3.5	65.8	169
Mother's interview status					
Interviewed	26.3	40.4	2.9	69.6	40,853
Not interviewed but in household	27.4	37.4	3.1	67.9	642
Not interviewed and not in household[2]	27.6	31.1	2.8	62.1	894
Child's living arrangements					
Living with both parents	26.5	40.2	3.0	69.7	34,752
Living with mother (not father)	25.5	41.4	2.4	69.4	6,743
Living with father (not mother)	24.2	32.5	4.4	61.1	184
Living with neither parent	28.5	30.8	2.8	62.1	710
Mother's anaemia status					
Not anaemic	26.8	33.1	1.6	61.5	16,166
Mildly anaemic	27.3	43.0	2.7	73.0	16,707
Moderately anaemic	23.2	50.0	5.6	78.8	7,189
Severely anaemic	21.6	49.7	10.5	81.9	711
Wealth index					
Lowest	27.7	45.8	3.0	76.4	10,832
Second	26.9	43.4	3.3	73.6	9,570
Middle	26.2	39.7	3.4	69.3	8,469
Fourth	24.9	37.3	2.6	64.8	7,663
Highest	25.0	29.2	2.1	56.2	5,855
Total	26.3	40.2	2.9	69.5	42,388

Note: Table is based on children who stayed in the household the night before the interview. Prevalence of anaemia, based on haemoglobin levels, is adjusted for altitude using formula in CDC (1998). Haemoglobin in g/dl = grams per decilitre. Total includes children with missing information on mother's education, religion, caste/tribe, mother's interview status, and mother's anaemia status, who are not shown separately. Table excludes Nagaland.

[1] For women who are not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the household schedule.

[2] Includes children whose mothers are deceased.

Although state differentials in the prevalence of anaemia are marked, a high prevalence of anaemia is found in every state (Table 10.13). The only states in which less than half of children are anaemic are Goa (38 percent), Manipur (41 percent), Mizoram (44 percent), and Kerala (45 percent). The highest prevalence of anaemia is found in Bihar (78 percent), Madhya Pradesh and Uttar Pradesh (74 percent each), Haryana (72 percent), and Chhattisgarh (71 percent). Severe anaemia is most prevalent in Rajasthan and Punjab.

Table 10.13 Prevalence of anaemia in children by state

Percentage of children age 6-59 months classified as having anaemia, according to state, India, 2005-06

State	Anaemia status by haemoglobin level: Mild (10.0-10.9 g/dl)	Moderate (7.0-9.9 g/dl)	Severe (<7.0 g/dl)	Any anaemia (<11.0 g/dl)
India[1]	26.3	40.2	2.9	69.5
North				
Delhi	26.3	30.0	0.7	57.0
Haryana	25.8	42.2	4.3	72.3
Himachal Pradesh	25.7	26.8	2.2	54.7
Jammu & Kashmir	25.8	30.4	2.4	58.6
Punjab	21.7	38.1	6.6	66.4
Rajasthan	22.8	40.2	6.7	69.7
Uttaranchal	28.5	30.6	2.3	61.4
Central				
Chhattisgarh	24.0	45.2	2.0	71.2
Madhya Pradesh	27.1	43.6	3.4	74.1
Uttar Pradesh	25.4	45.0	3.6	73.9
East				
Bihar	29.6	46.8	1.6	78.0
Jharkhand	29.3	39.1	1.9	70.3
Orissa	28.9	34.5	1.6	65.0
West Bengal	30.0	29.4	1.5	61.0
Northeast				
Arunachal Pradesh	27.1	29.1	0.8	56.9
Assam	28.7	38.7	2.2	69.6
Manipur	25.6	15.2	0.3	41.1
Meghalaya	31.7	31.7	1.0	64.4
Mizoram	23.5	20.0	0.6	44.2
Sikkim	28.9	29.5	0.8	59.2
Tripura	27.5	34.6	0.7	62.9
West				
Goa	19.5	17.1	1.5	38.2
Gujarat	25.0	41.1	3.6	69.7
Maharashtra	21.9	39.6	1.8	63.4
South				
Andhra Pradesh	23.7	43.5	3.6	70.8
Karnataka	28.6	38.6	3.2	70.4
Kerala	23.5	20.5	0.5	44.5
Tamil Nadu	27.1	34.6	2.6	64.2

Note: Table is based on children who stayed in the household the night before the interview. Prevalence of anaemia, based on haemoglobin levels, is adjusted for altitude using formula in CDC (1998). Haemoglobin in g/dl = grams per decilitre.
[1] Excludes Nagaland.

To allow a comparison of NFHS-2 and NFHS-3 anaemia estimates, it is necessary to restrict the analysis to only the last two children age 6-35 months of ever-married women who were interviewed (see Table 10.14). In this group, the prevalence of anaemia increased from 74 percent in NFHS-2 to 79 percent in NFHS-3. The increase is seen primarily in rural areas, where anaemia rose from 75 percent to 81 percent.

Table 10.14 Trends in children's anaemia

Percentage of children age 6-35 months classified as having anaemia by residence, NFHS-3 and NFHS-2, India

Anaemia status by haemoglobin level	NFHS-3 (2005-06)			NFHS-2 (1998-99)		
	Urban	Rural	Total	Urban	Rural	Total
Mild (10.0-10.9 g/dl)	25.8	25.7	25.7	23.7	22.7	22.9
Moderate (7.0-9.9 g/dl)	42.0	51.7	49.4	42.0	47.1	45.9
Severe (<7.0 g/dl)	4.4	3.5	3.7	5.1	5.5	5.4
Any anaemia (<11.0 g/dl)	72.2	80.9	78.9	70.8	75.3	74.3
Number of children	5,404	17,498	22,903	4,642	15,374	20,016

Note: Table includes only the last two children age 6-35 months of ever-married women who were interviewed. Prevalence of anaemia, based on haemoglobin levels, is adjusted for altitude using formulae in CDC (1998). Haemoglobin in g/dl = grams per decilitre. NFHS-3 estimates of anaemia exclude Nagaland.

10.4 MICRONUTRIENT INTAKE AMONG CHILDREN

Micronutrient deficiency is a serious contributor to childhood morbidity and mortality. Children can receive micronutrients from food, food fortification, and direct supplementation. Vitamin A is an essential micronutrient for the immune system and plays an important role in maintaining the epithelial tissue in the body. Severe vitamin A deficiency (VAD) can cause eye damage. VAD can also increase the severity of infections such as measles and diarrhoeal diseases in children and slow recovery from illness. The human liver can store an adequate amount of the vitamin for four to six months. Periodic dosing with vitamin A supplements (usually every six months) is one method of ensuring that children at risk do not develop VAD**.** The Government of India recommends that children should be given vitamin A supplements every six months until they reach three years of age, starting at age 9 months. Some states have decided to extend that period to include children until they reach age five years, as recommended by the World Health Organization.

NFHS-3 collected information on the consumption of vitamin A-rich foods and on the administration of vitamin A supplements. For the youngest child age 6-35 months living with the mother, Table 10.15 shows that 47 percent consumed foods rich in vitamin A in the day or night preceding the survey. These foods include meat, organ meat, fish, poultry, eggs, pumpkin, carrots, sweet potatoes that are yellow or orange inside, dark green leafy vegetables, ripe mango, papaya, cantaloupe, and jackfruit. The consumption of foods rich in vitamin A generally increases with the age of the child, the mother's education, and the wealth index of the household. Other groups that are much more likely to consume foods rich in vitamin A are Christians and children who are not breastfeeding.

Table 10.15 Micronutrient intake among children

Percentage of youngest children age 6-35 months living with the mother who consumed vitamin A-rich and iron-rich foods in the day or night preceding the survey, percentage of children age 12-35 months and 6-59 months who were given vitamin A supplements in the six months preceding the survey, percentage of children age 6-59 months who were given iron supplements in the past seven days, who were given deworming medication in the six months preceding the survey, and who live in households using adequately iodized salt, by background characteristics, India, 2005-06

	Youngest children age 6-35 months living with their mother			Children age 12-35 months		Children age 6-59 months				Children age 6-59 months in households with salt tested	
Background characteristic	Percentage who consumed foods rich in vitamin A in last 24 hours[1]	Percentage who consumed foods rich in iron in last 24 hours[2]	Number of children	Percentage given vitamin A supplements in last 6 months	Number of children	Percentage given vitamin A supplements in last 6 months	Percentage given iron supplements in last 7 days	Percentage given deworming medication in last 6 months[3]	Number of children	Percentage living in households using adequately iodized salt[4]	Number of children
Age in months											
6-8	8.8	2.1	2,918	na	na	9.9	4.5	2.5	2,933	45.8	2,908
9-11	25.0	6.9	2,324	na	na	27.0	5.0	2.2	2,343	46.3	2,326
12-17	45.2	13.4	5,077	36.4	5,211	36.4	5.8	8.4	5,211	48.3	5,169
18-23	56.0	16.7	4,748	24.3	5,208	24.3	4.4	12.1	5,208	48.2	5,149
24-35	64.0	21.2	7,657	19.3	10,383	19.3	4.7	14.1	10,383	47.6	10,282
36-47	na	na	na	na	na	13.4	4.5	14.8	10,829	47.0	10,744
48-59	na	na	na	na	na	9.9	4.4	13.3	10,835	47.9	10,712
Sex											
Male	46.8	14.2	12,206	25.2	11,056	18.3	4.9	12.4	25,077	48.1	24,831
Female	47.3	15.0	10,516	24.5	9,746	17.8	4.4	11.4	22,664	46.9	22,460
Birth order											
1	46.9	16.6	6,616	29.7	6,337	21.5	6.1	13.8	14,381	54.3	14,256
2-3	48.9	16.0	10,188	25.5	9,192	18.7	4.8	12.1	20,825	48.6	20,650
4-5	45.5	10.5	3,784	20.8	3,395	14.9	3.3	9.3	8,070	39.9	7,991
6+	41.5	9.0	2,135	12.5	1,879	10.0	1.7	9.8	4,466	34.0	4,394
Breastfeeding status											
Breastfeeding	42.4	12.7	17,244	27.6	12,455	23.3	4.3	9.5	20,063	46.1	19,878
Not breastfeeding	61.7	20.5	5,443	20.7	8,275	14.3	5.0	13.8	27,418	48.5	27,153
Residence											
Urban	50.3	18.8	5,948	26.8	5,436	19.5	7.0	13.3	12,417	67.9	12,308
Rural	45.9	13.1	16,775	24.2	15,366	17.5	3.8	11.5	35,324	40.3	34,983
Mother's education											
No education	42.4	9.9	10,813	17.9	10,018	13.0	2.6	8.8	23,535	36.0	23,262
<5 years complete	51.1	18.5	1,536	25.8	1,389	18.9	4.5	12.0	3,444	49.9	3,419
5-7 years complete	47.2	17.7	3,411	28.6	3,153	21.0	5.1	12.4	6,991	48.3	6,944
8-9 years complete	49.9	18.6	2,838	33.2	2,629	24.5	6.4	14.7	5,749	55.3	5,710
10-11 years complete	54.0	19.3	1,865	33.8	1,714	25.2	7.2	16.9	3,745	68.2	3,720
12 or more years complete	57.2	21.0	2,258	35.1	1,899	25.8	10.8	20.3	4,277	78.8	4,235
Religion											
Hindu	45.9	11.9	17,765	25.1	16,204	18.2	4.7	10.3	37,241	45.8	36,899
Muslim	49.9	24.4	3,864	23.7	3,595	17.3	3.9	18.4	8,227	50.6	8,132
Christian	65.5	40.8	466	29.9	436	21.8	8.0	24.6	965	63.8	961
Sikh	45.2	8.7	287	18.0	272	13.7	5.2	6.8	615	72.0	608
Buddhist/Neo-Buddhist	37.1	13.9	157	27.7	137	16.9	2.6	12.5	320	58.9	318
Jain	59.6	8.2	48	34.6	44	21.5	7.8	8.0	84	90.4	84
Other	63.4	19.2	117	21.6	94	13.9	3.9	10.6	246	52.8	246

Continued…

Table 10.15 Micronutrient intake among children—*Continued*

Background characteristic	Youngest children age 6-35 months living with their mother			Children age 12-35 months		Children age 6-59 months				Children age 6-59 months in households with salt tested	
	Percentage who consumed foods rich in vitamin A in last 24 hours[1]	Percentage who consumed foods rich in iron in last 24 hours[2]	Number of children	Percentage given vitamin A supplements in last 6 months	Number of children	Percentage given vitamin A supplements in last 6 months	Percentage given iron supplements in last 7 days	Percentage given deworming medication in last 6 months[3]	Number of children	Percentage living in households using adequately iodized salt[4]	Number of children
Caste/tribe											
Scheduled caste	46.0	14.0	4,621	24.4	4,232	18.0	3.3	9.3	9,761	42.9	9,612
Scheduled tribe	43.8	13.3	2,144	21.0	1,910	14.6	4.3	7.3	4,503	36.7	4,471
Other backward class	45.8	11.3	9,047	22.8	8,350	17.0	4.7	11.0	19,231	43.2	19,084
Other	50.5	19.7	6,750	29.1	6,167	20.7	5.6	16.4	13,900	60.0	13,785
Don't know	50.9	29.1	83	25.3	76	19.2	10.0	24.9	186	48.4	181
Wealth index											
Lowest	42.2	10.0	5,620	19.5	5,158	14.4	2.2	8.7	11,888	31.7	11,733
Second	46.9	13.0	4,989	21.5	4,596	15.6	3.6	10.6	10,503	37.7	10,415
Middle	45.4	15.4	4,368	26.8	4,076	19.6	4.3	11.1	9,455	42.1	9,385
Fourth	47.9	18.0	4,181	28.2	3,815	20.5	6.1	14.8	8,771	58.3	8,694
Highest	55.9	19.1	3,565	31.7	3,158	22.8	9.3	16.8	7,125	82.0	7,065
Total	47.1	14.6	22,723	24.8	20,802	18.1	4.7	11.9	47,742	47.5	47,291

Note: Information on iron supplements and deworming medication is based on the mother's recall. Information on vitamin A supplementation is based on the vaccination card and mother's recall. Total includes children with missing information on breastfeeding status, mother's education, religion, and caste/tribe, who are not shown separately.

na = Not applicable

[1] Includes meat and organ meats, fish, poultry, eggs, pumpkin, carrots, sweet potatoes that are yellow or orange inside, dark green leafy vegetables, ripe mango, papaya, cantaloupe, and jackfruit.

[2] Includes meat and organ meats, fish, poultry, or eggs.

[3] Deworming for intestinal parasites.

[4] Salt containing 15 parts per million or more of iodine. Excludes children in households in which salt was not tested. Includes children whose mothers were not interviewed.

The consumption of iron-rich foods (such as meat, organ meat, fish, poultry, and eggs) is considerably lower than the consumption of foods rich in vitamin A in all groups. Overall, only 15 percent of children ate foods rich in iron during the day or night before the survey. The patterns of consumption for different subgroups are quite similar to the patterns in the consumption of foods rich in vitamin A.

The percentage of children given vitamin A supplements in the last six months is shown for children age 12-35 months and children age 6-59 months in Table 10.15. Only one-quarter of children age 12-35 received vitamin A supplements in the six months before the survey. This figure drops further, to only 18 percent, among children age 6-59 months. Children age 12-17 months are most likely to have received vitamin A supplementation in the last six months.

Very few children age 6-59 months (only 5 percent) were given an iron supplement in the seven days before the survey. The administration of deworming medication is somewhat more common, but only 12 percent of children age 6-59 months received deworming medication in the six months preceding the survey. The use of all types of supplements and medication listed in the table decreases with increasing birth order and increases with mother's education and the wealth status of the household. Girls and boys are about equally likely to receive these items. Differences between urban and rural areas are small, but the percentages are consistently slightly higher in urban areas. Christians are most likely to give deworming medication to their young children, and Jains and Christians are most likely to use food supplements. Disadvantaged groups (scheduled castes, scheduled tribes, and other backward classes) are somewhat less likely than others to give their young children supplements and deworming medication, but the differences are not large.

Just under half of children age 6-59 months live in households using adequately iodized salt. The percentage is much higher in urban areas (68 percent) than in rural areas (40 percent). The percentage of children living in households that use adequately iodized salt rises sharply with the mother's education and the wealth index of the household. The use of adequately iodized salt by the household is much higher for Jain and Sikh children and for children who do not belong to a scheduled caste, a scheduled tribe, or an other backward class.

Table 10.16 shows the micronutrient intake among young children by state. The consumption of food rich in vitamin A and iron is relatively high in all of the states in the Northeast Region, plus Kerala, Goa, West Bengal, Tamil Nadu, and Jammu and Kashmir. Among the remaining states, consumption of foods rich in vitamin A is much higher than average in Himachal Pradesh and Orissa. The states with the poorest consumption of foods rich in vitamin A and iron are Rajasthan, Haryana, and Maharashtra. In Bihar, the consumption of iron-rich foods is much lower than average, but the consumption of foods rich in vitamin A is slightly better than average. Vitamin A supplementation for young children is low in most states, reaching a maximum of only 47 percent for children age 12-35 months in West Bengal and Kerala. Fewer than 1 in 10 children were given iron supplementation in the last seven days in all states except Mizoram (22 percent), Goa (17 percent), Karnataka (13 percent), and Gujarat and Tamil Nadu (10 percent each). The percentage of children living in households using adequately iodized salt is high in all of the states in the Northeast Region, as well as Himachal Pradesh, Delhi, Punjab, Kerala, and Jammu and Kashmir.

Table 10.16 Micronutrient intake among children by state

Percentage of youngest children age 6-35 months living with their mother who consumed vitamin A-rich and iron-rich foods in the day or night preceding the survey, percentage of children age 12-35 months and 6-59 months who were given vitamin A supplements in the six months preceding the survey, percentage of children age 6-59 months who were given iron supplements in the past seven days, who were given deworming medication in the six months preceding the survey, and who live in households using adequately iodized salt, by state, India, 2005-06

State	Youngest children age 6-35 months living with their mother		Children age 12-35 months	Children age 6-59 months			Children age 6-59 months
	Percentage who consumed foods rich in vitamin A in last 24 hours[1]	Percentage who consumed foods rich in iron in last 24 hours[2]	Percentage given vitamin A supplements in last 6 months	Percentage given vitamin A supplements in last 6 months	Percentage given iron supplements in last 7 days	Percentage given deworming medication in last 6 months[3]	Percentage living in households using adequately iodized salt[4]
India	47.1	14.6	24.8	18.1	4.7	11.9	47.5
North							
Delhi	48.6	15.8	20.2	13.8	9.3	9.5	79.7
Haryana	33.0	2.7	15.9	11.0	4.2	3.2	50.2
Himachal Pradesh	61.6	10.1	33.1	29.2	4.1	4.8	80.5
Jammu & Kashmir	58.8	24.3	17.2	12.7	5.3	23.3	69.8
Punjab	44.1	10.3	20.8	16.8	5.4	5.2	72.8
Rajasthan	28.8	1.3	16.4	10.0	1.0	1.6	35.1
Uttaranchal	53.4	13.2	20.4	14.4	4.1	8.3	39.6
Central							
Chhattisgarh	53.0	13.5	14.4	9.1	3.1	6.3	49.5
Madhya Pradesh	40.5	4.1	20.1	14.1	3.5	4.0	32.5
Uttar Pradesh	40.9	6.9	8.7	6.1	1.5	8.1	32.6
East							
Bihar	51.1	6.4	32.6	26.4	2.9	20.6	64.4
Jharkhand	50.3	11.4	27.5	19.7	3.5	5.4	51.1
Orissa	61.4	14.8	29.5	21.3	5.2	15.8	38.0
West Bengal	68.7	47.6	46.8	31.4	4.5	25.6	65.2
Northeast							
Arunachal Pradesh	65.6	34.3	18.7	16.3	4.1	28.4	83.0
Assam	51.1	24.0	18.7	12.6	0.8	15.0	68.1
Manipur	76.4	58.8	15.2	9.3	2.3	14.7	92.4
Meghalaya	66.6	40.3	20.9	14.8	4.8	20.6	76.8
Mizoram	64.1	31.5	46.5	40.9	22.1	41.0	82.7
Nagaland	54.4	38.4	8.9	6.7	3.1	23.2	81.0
Sikkim	66.5	23.1	24.2	19.2	9.8	26.9	73.2
Tripura	69.0	45.6	41.2	29.1	3.1	41.5	72.5
West							
Goa	75.7	48.0	41.8	30.7	16.7	57.1	67.1
Gujarat	42.2	5.6	20.6	14.8	10.3	7.1	53.2
Maharashtra	34.0	9.3	37.6	25.1	7.1	8.2	58.4
South							
Andhra Pradesh	34.8	15.7	29.0	21.1	7.1	7.7	28.7
Karnataka	53.1	19.8	22.8	16.1	12.5	16.6	37.8
Kerala	78.4	60.5	46.5	34.8	6.4	44.7	70.2
Tamil Nadu	63.1	32.8	44.8	38.5	10.0	12.0	39.0

Note: Information on iron supplements and deworming medication is based on the mother's recall. Information on vitamin A supplementation is based on the vaccination card and mother's recall.

[1] Includes meat and organ meats, fish, poultry, eggs, pumpkin, carrots, sweet potatoes that are yellow or orange inside, dark green leafy vegetables, ripe mango, papaya, cantaloupe, and jackfruit.

[2] Includes meat and organ meats, fish, poultry, or eggs.

[3] Deworming for intestinal parasites.

[4] Salt containing 15 parts per million or more of iodine. Excludes children in households in which salt was not tested. Includes children whose mothers were not interviewed.

10.5 SALT IODIZATION

Iodine is an important micronutrient. A lack of iodine in the diet can lead to Iodine Deficiency Disorders (IDD), which can cause miscarriages, stillbirths, brain disorders, and retarded psychomotor development, speech and hearing impairments, and depleted levels of energy in children. Iodine deficiency is the single most important and preventable cause of mental retardation worldwide.

It has been estimated that 200 million people in India are exposed to the risk of iodine deficiency (Vir, 2002) and more than 71 million suffer from goiter and other iodine deficiency disorders (MOHFW, 2005). Iodine deficiency can be avoided by using salt that has been fortified with iodine. In 1983-84, the Government of India adopted a policy to achieve universal iodization of edible salt by 1992. All states and union territories were advised to issue notifications banning the sale of edible salt that is not iodized. The ban on non-iodized salt was lifted in September, 2000, but it was reimposed in November, 2005. However, the reimposed ban did not take effect until May, 2006 (after most of the NFHS-3 fieldwork had been completed).

NFHS-3, with its representative sample of households throughout the country, is an ideal vehicle for measuring the degree of iodization of salt used in households in India. Iodine levels in salt can be measured in the laboratory using a standard titration test or in the field using a rapid-test kit. In NFHS-3, interviewers measured the iodine content of cooking salt in each interviewed household using a rapid-test kit. The test kit consists of ampoules of a stabilized starch solution and of a weak acid-based solution. The interviewers were instructed to squeeze two drops of the starch solution onto a sample of cooking salt obtained from the household. If the colour changed (from light blue through dark violet), the interviewer matched the colour of the salt as closely as possible to a colour chart provided with the test kit and recorded the iodine level as <15 or >15 ppm. If the initial test was negative (no change in colour), the interviewer was required to conduct a second confirmatory test, adding an acid-based solution in addition to the starch solution. This test is necessary because the starch solution will not show any colour change even on iodized salt if the salt is alkaline or is mixed with alkaline free-flow agents. If the colour of the salt does not change even after the confirmatory test, the salt is not iodized.

Table 10.17 shows the extent of salt iodization at the household level. Overall, 99 percent of households had their salt tested in the survey (data not shown). The remaining households did not have their salt tested either because the household did not have any salt (0.9 percent) or because the household had salt but a test was not done (0.3 percent). Among the households that had their salt tested, just over half (51 percent) were using salt that was adequately iodized. There was virtually no change since the time of NFHS-2, when 50 percent of households were using adequately iodized salt. In NFHS-3, one-quarter of households were using salt that was inadequately iodized, and the remaining one-quarter were using salt that was not iodized at all. The use of adequately iodized salt was much higher in urban areas (72 percent) than in rural areas (41 percent). There is a sharp and steady rise in the use of adequately iodized salt as the wealth of the household increases. Eighty-five percent of households in the highest wealth quintile use adequately iodized salt, compared with only 30 percent of households in the lowest wealth quintile. Among the religious groups, the use of adequately iodized salt is highest in households in which the head of the household is Jain (84 percent), followed by Sikh (74 percent), and Christian (63 percent). Slightly less than half of Hindu households use adequately iodized salt. By caste/tribe, the use of adequately iodized salt is highest in households where the head does not belong to a scheduled caste, scheduled tribe, or other backward class, and lowest in scheduled tribe households.

Table 10.17 Presence of iodized salt in household

Percent distribution of households with salt tested for iodine content, by level of iodine in salt (parts per million), according to background characteristics, India, 2005-06

Background characteristic	Iodine content of salt: None (0 ppm)	Inadequate (<15 ppm)	Adequate (15+ ppm)	Total	Number of households
Residence					
Urban	12.8	15.7	71.5	100.0	34,950
Rural	29.3	29.5	41.2	100.0	72,504
Religion of household head					
Hindu	25.4	25.1	49.4	100.0	87,703
Muslim	18.1	27.1	54.8	100.0	13,394
Christian	17.5	19.8	62.7	100.0	2,918
Sikh	13.6	12.7	73.8	100.0	1,691
Buddhist/Neo-Buddhist	24.1	17.1	58.9	100.0	925
Jain	8.0	8.0	84.0	100.0	365
Other	5.6	41.9	52.5	100.0	436
Caste/tribe of household head					
Scheduled caste	26.5	28.7	44.8	100.0	20,637
Scheduled tribe	35.7	27.6	36.7	100.0	9,110
Other backward class	27.1	27.3	45.7	100.0	42,592
Other	15.5	19.2	65.3	100.0	34,310
Don't know	27.3	30.2	42.5	100.0	479
Wealth index					
Lowest	33.6	36.0	30.4	100.0	22,137
Second	31.2	32.0	36.8	100.0	21,347
Middle	29.5	28.0	42.5	100.0	21,310
Fourth	18.5	20.1	61.4	100.0	21,013
Highest	6.7	8.6	84.7	100.0	21,648
Total	23.9	25.0	51.1	100.0	107,455

Note: Only 1 percent of households did not have any salt in the household. Total includes households with missing information on religion and caste/tribe of household head, which are not shown separately.
ppm = parts per million

The use of iodized salt varies dramatically from one state to another (Table 10.18). The variations are due to a number of factors, including the scale of salt production, transportation requirements, enforcement efforts, differences in state regulations, the pricing structure, and storage patterns. The use of adequately iodized salt is uniformly high (72 percent or higher) throughout the Northeast Region, in most states in the North Region, and in Kerala, reaching a high of 94 percent in Manipur. The use of adequately iodized salt is lowest (less than 40 percent) in Andhra Pradesh, Madhya Pradesh, Uttar Pradesh, and Orissa. Despite the fact that the overall use of adequately iodized salt has not changed since NFHS-2, several states have made substantial improvements over time but the situation has deteriorated in other states. The largest gains have been made in Kerala (from 39 percent in NFHS-2 to 74 percent in NFHS-3), Goa (from 42 percent to 65 percent), Jammu and Kashmir (from 53 percent to 76 percent), Tamil Nadu (from 21 percent to 41 percent), Meghalaya (from 63 percent to 82 percent), and Nagaland (from 67 percent to 83 percent). The states in which the use of adequately iodized salt has deteriorated substantially are Haryana (from 71 percent to 55 percent), Himachal Pradesh (from 91 percent to 83 percent), and Assam (from 80 percent to 72 percent).

Table 10.18 Presence of iodized salt in household by state

Percent distribution of households with salt tested for iodine content, by level of iodine in salt (parts per million), according to state, India, 2005-06

State	Iodine content of salt			Total
	None (0 ppm)	Inadequate (<15 ppm)	Adequate (15+ ppm)	
India	23.9	25.0	51.1	100.0
North				
Delhi	8.1	5.9	86.0	100.0
Haryana	28.2	16.5	55.3	100.0
Himachal Pradesh	5.9	11.6	82.5	100.0
Jammu & Kashmir	9.5	14.7	75.8	100.0
Punjab	14.2	11.2	74.6	100.0
Rajasthan	36.7	22.5	40.8	100.0
Uttaranchal	29.0	25.1	45.9	100.0
Central				
Chhattisgarh	21.0	24.1	54.9	100.0
Madhya Pradesh	41.2	22.4	36.3	100.0
Uttar Pradesh	23.4	40.2	36.4	100.0
East				
Bihar	5.3	28.6	66.1	100.0
Jharkhand	7.3	39.1	53.6	100.0
Orissa	23.9	36.5	39.6	100.0
West Bengal	6.7	24.2	69.1	100.0
Northeast				
Arunachal Pradesh	1.2	15.2	83.6	100.0
Assam	2.8	25.4	71.8	100.0
Manipur	1.2	5.0	93.8	100.0
Meghalaya	2.9	15.2	81.9	100.0
Mizoram	1.2	12.9	85.9	100.0
Nagaland	2.2	14.5	83.3	100.0
Sikkim	2.9	18.8	78.3	100.0
Tripura	2.9	21.7	75.5	100.0
West				
Goa	22.7	12.5	64.8	100.0
Gujarat	27.9	16.4	55.7	100.0
Maharashtra	25.8	13.3	61.0	100.0
South				
Andhra Pradesh	40.0	29.0	31.0	100.0
Karnataka	34.0	22.7	43.3	100.0
Kerala	17.4	8.7	73.9	100.0
Tamil Nadu	34.5	24.2	41.3	100.0

10.6 FOOD CONSUMPTION OF WOMEN AND MEN

The consumption of a wide variety of nutritious foods is important for women's and men's health. Adequate amounts of protein, fat, carbohydrates, vitamins, and minerals are required for a well-balanced diet. Meat, fish, eggs, and milk, as well as pulses and nuts, are rich in protein. Dark green, leafy vegetables are a rich source of iron, folic acid, vitamin C, carotene, riboflavin, and calcium. Many fruits are also good sources of vitamin C. Bananas are rich in carbohydrates. Papayas, mangoes, and other yellow fruits contain carotene, which is converted to vitamin A. Vitamin A is also present in milk and milk products, as well as egg yolks (Gopalan et al., 1996).

NFHS-3 asked women and men how often they consume various types of food (daily, weekly, occasionally, or never). Among these food groups, women consume dark green, leafy vegetables most often (Table 10.19). Almost two-thirds of women consume dark green, leafy vegetables daily and an additional 29 percent consume them weekly. More than half of women

(53 percent) consume pulses or beans daily and an additional 37 percent consume them weekly. Milk or curd is consumed daily by 40 percent of women and weekly by 16 percent of women, but 11 percent never consume milk or curd and 33 percent consume milk or curd only occasionally. Consumption of fruits is less common. Sixty percent of women do not consume fruits even once a week. Very few women consume chicken, meat, fish, or eggs on a daily basis, although more than one-quarter of women consume these types of food weekly.

Table 10.19 Women's and men's food consumption

Percent distribution of women age 15-49 and men age 15-49 by frequency of consumption of specific foods, India, 2005-06

Type of food	Frequency of consumption					Number
	Daily	Weekly	Occasionally	Never	Total	
WOMEN						
Milk or curd	39.8	15.6	33.2	11.4	100.0	124,385
Pulses or beans	52.7	36.8	9.6	0.9	100.0	124,385
Dark green, leafy vegetables	64.2	28.7	6.8	0.3	100.0	124,385
Fruits	12.7	27.2	56.6	3.5	100.0	124,385
Eggs	3.5	28.8	32.9	34.8	100.0	124,385
Fish	6.3	21.9	34.3	37.5	100.0	124,385
Chicken or meat	0.9	21.8	42.2	35.1	100.0	124,385
Fish or chicken/meat	6.8	28.5	32.0	32.6	100.0	124,385
MEN						
Milk or curd	46.7	20.5	25.8	7.0	100.0	69,751
Pulses or beans	52.1	38.6	8.4	0.9	100.0	69,751
Dark green, leafy vegetables	59.1	34.5	6.0	0.4	100.0	69,751
Fruits	13.1	34.4	50.0	2.6	100.0	69,751
Eggs	5.2	36.1	35.3	23.3	100.0	69,751
Fish	6.2	25.1	38.2	30.5	100.0	69,751
Chicken or meat	1.2	27.1	46.0	25.6	100.0	69,751
Fish or chicken/meat	6.9	34.1	35.1	23.9	100.0	69,751

The pattern of food consumption by men is similar to that of women, but men are more likely than women to consume milk or curd regularly. Men are less likely than women to completely abstain from eating chicken, meat, fish, or eggs. The last row of each panel shows the frequency of consumption of fish, chicken, or meat. Overall, 33 percent of women and 24 percent of men are vegetarians according to this measure.

Tables 10.20.1 and 10.20.2 show the consumption of each type of food at least once a week according to background characteristics. There are substantial differentials in food consumption patterns by selected background characteristics. Age does not play an important role in the consumption patterns of women or men. Women and men in urban areas are more likely than those in rural areas to include every type of food in their diet, particularly nutritious foods such as fruits and milk or curd. Persons in urban areas are also much more likely to eat fish, chicken, meat, or eggs. Women and men with no education have poorer and less varied diets than those with an education, and their diet is particularly deficient in the consumption of fruits. Christians are more likely than any other religious group to eat chicken, meat, fish, or eggs at least once a week. Jains and Sikhs rarely eat chicken, meat, fish, or eggs, but they are more likely than persons in any other religious group to consume milk or curd. Jains are more likely than women in any other religious group to eat fruits at least once a week.

Table 10.20.1 Women's food consumption

Percentage of women age 15-49 consuming specific foods at least once a week by background characteristics, India, 2005-06

Background characteristic	Type of food								Number of women
	Milk or curd	Pulses or beans	Dark green, leafy vegetables	Fruits	Eggs	Fish	Chicken or meat	Fish or chicken/meat	
Age									
15-19	54.4	89.9	92.3	40.4	31.8	26.2	21.8	33.4	24,811
20-29	56.0	90.0	93.3	41.0	33.8	29.3	24.4	36.9	43,196
30-39	54.6	88.9	93.0	38.4	32.1	28.3	22.1	35.2	33,522
40-49	56.6	89.0	92.7	39.1	30.1	28.2	21.2	34.9	22,856
Marital status									
Never married	57.6	89.0	91.9	46.9	34.0	28.3	23.7	36.1	25,462
Currently married	55.4	89.9	93.3	38.3	31.9	28.2	22.5	35.3	93,089
Widowed	47.5	85.6	91.7	32.6	30.6	25.7	18.7	32.0	4,023
Divorced/separated/ deserted	44.7	84.7	91.5	34.4	33.7	30.8	23.1	39.1	1,811
Maternity status									
Pregnant	56.5	90.1	93.3	39.6	28.1	24.8	21.2	31.6	6,429
Breastfeeding	48.5	89.9	92.5	29.9	29.0	27.1	19.2	32.8	23,490
Neither	57.1	89.4	93.0	42.3	33.4	28.7	23.6	36.3	94,466
Residence									
Urban	62.8	91.5	94.2	58.9	39.2	31.5	30.9	41.2	40,817
Rural	51.8	88.6	92.3	30.5	28.9	26.6	18.7	32.5	83,568
Education									
No education	44.5	88.4	92.5	22.8	25.9	21.7	18.3	28.9	50,487
<5 years complete	47.3	86.5	93.2	32.5	39.0	38.8	24.5	45.7	9,918
5-7 years complete	56.2	90.6	93.6	40.0	36.0	30.9	24.8	38.5	18,820
8-9 years complete	59.7	89.4	92.4	47.5	35.9	33.8	24.1	40.3	17,383
10-11 years complete	71.4	91.0	93.0	61.6	37.4	31.3	28.0	39.6	12,887
12 or more years complete	78.1	92.6	93.9	74.5	36.0	30.6	27.4	36.9	14,882
Religion									
Hindu	57.1	90.3	93.3	39.6	29.2	25.5	19.0	31.1	100,151
Muslim	44.8	87.9	92.4	37.2	48.6	42.3	40.7	58.3	16,936
Christian	52.6	77.3	87.9	58.5	58.4	56.4	51.9	70.7	3,053
Sikh	74.0	87.7	87.7	39.0	8.6	1.8	3.2	3.8	2,222
Buddhist/Neo-Buddhist	45.0	87.9	91.7	44.0	51.3	40.5	44.9	49.3	1,010
Jain	86.2	96.2	96.1	81.0	1.7	0.9	0.8	0.9	406
Other	15.3	63.8	80.9	25.0	21.3	26.2	18.0	30.7	484
Caste/tribe									
Scheduled caste	45.3	88.2	92.6	32.0	34.7	30.2	22.1	37.2	23,125
Scheduled tribe	33.5	83.3	89.2	27.4	30.9	26.0	22.0	32.5	10,119
Other backward class	60.6	89.5	93.7	39.0	29.7	22.0	22.5	30.4	48,880
Other	60.4	91.8	93.1	48.4	34.1	34.7	23.1	40.6	41,207
Don't know	63.3	92.1	92.9	48.6	45.5	39.5	32.2	52.8	649
Wealth index									
Lowest	31.4	84.5	90.5	16.2	23.8	23.4	12.8	27.0	21,718
Second	45.2	89.2	93.3	23.9	28.9	26.7	17.1	32.2	23,616
Middle	56.1	88.5	93.4	32.5	34.9	28.6	24.2	37.8	25,088
Fourth	63.3	90.8	93.2	46.9	37.3	31.9	28.6	41.5	26,106
Highest	74.8	93.3	93.8	71.8	34.6	29.5	28.1	36.7	27,856
Total	55.4	89.5	92.9	39.8	32.3	28.2	22.7	35.4	124,385

Note: Total includes women with missing information on education, religion, and caste/tribe, who are not shown separately.

Women and men from scheduled tribes have a relatively poor diet that is particularly deficient in fruits and milk or curd. Women and men from scheduled castes also have relatively poor diets compared with those in the 'other' category. As expected, poverty has a strong negative effect on the consumption of nutritious types of food. Women and men in households with a low standard of living are less likely than others to eat each type of food listed, and their diet is particularly deficient in fruits and milk or curd.

Table 10.20.2 Men's food consumption

Percentage of men age 15-49 consuming specific foods at least once a week by background characteristics, India, 2005-06

Background characteristic	Type of food								Number of men
	Milk or curd	Pulses or beans	Dark green, leafy vegetables	Fruits	Eggs	Fish	Chicken or meat	Fish or chicken/meat	
Age									
15-19	69.1	90.1	92.5	49.1	40.1	28.3	26.4	37.8	13,008
20-29	68.3	91.0	93.5	49.7	45.1	32.6	31.5	43.7	22,842
30-39	65.3	91.3	94.3	46.5	40.7	32.1	28.2	41.2	19,045
40-49	66.1	90.1	93.9	43.6	37.4	30.7	25.3	39.1	14,855
Marital status									
Never married	69.8	90.2	93.2	53.3	45.0	32.7	31.1	43.5	25,307
Currently married	65.9	91.1	93.9	44.4	39.5	30.7	26.9	39.7	43,501
Widowed	58.0	85.9	89.0	25.2	25.2	18.6	18.0	26.1	530
Divorced/separated/ deserted	58.5	88.9	90.2	34.2	34.8	23.1	21.6	33.2	411
Residence									
Urban	74.5	93.0	95.4	63.2	48.7	34.7	37.5	47.3	25,504
Rural	62.9	89.4	92.5	38.3	37.1	29.3	23.1	37.3	44,247
Education									
No education	52.4	88.0	90.5	24.8	33.8	26.5	22.7	35.9	12,571
<5 years complete	53.8	86.8	92.9	33.8	42.7	37.1	27.2	46.6	7,109
5-7 years complete	64.6	90.2	93.9	42.6	42.7	31.4	29.2	42.3	11,523
8-9 years complete	68.4	90.7	93.7	47.7	41.9	31.9	27.8	40.5	14,398
10-11 years complete	76.6	93.0	94.7	60.1	43.7	32.1	31.6	42.1	10,380
12 or more years complete	81.4	94.0	95.6	69.3	44.0	31.2	31.4	41.0	13,754
Religion									
Hindu	68.3	91.4	93.8	46.5	38.7	29.2	24.7	37.2	57,112
Muslim	59.3	88.1	93.1	47.0	56.1	42.2	47.5	62.2	8,747
Christian	58.9	76.6	87.6	59.6	67.4	58.7	59.0	74.1	1,567
Sikh	89.0	98.0	97.6	71.4	32.1	12.3	18.4	19.1	1,270
Buddhist/Neo-Buddhist	59.2	94.6	91.1	50.9	51.3	39.7	48.2	54.7	596
Jain	88.9	96.9	99.2	87.1	3.5	1.9	1.5	2.2	213
Other	24.5	74.8	95.2	31.6	29.4	40.2	25.8	45.7	232
Caste/tribe									
Scheduled caste	60.0	89.4	92.9	39.3	43.2	33.3	27.7	43.5	13,188
Scheduled tribe	41.8	87.6	91.0	30.5	37.1	31.4	25.9	39.6	5,725
Other backward class	73.6	90.3	93.7	49.3	39.7	25.9	27.4	35.6	27,219
Other	70.1	92.8	94.5	54.0	43.1	36.2	30.1	45.9	23,214
Don't know	76.8	96.2	95.5	55.3	48.8	33.3	38.4	50.6	177
Wealth index									
Lowest	42.6	85.5	88.8	19.3	29.5	26.7	15.2	31.3	11,031
Second	59.2	89.5	93.3	31.3	36.1	29.2	20.5	36.3	12,666
Middle	68.1	89.8	93.8	43.2	43.7	31.6	29.6	42.9	14,301
Fourth	74.2	92.1	95.0	56.9	49.1	35.7	36.9	49.1	15,493
Highest	82.6	94.7	95.6	73.7	43.9	31.4	34.0	41.6	16,260
Total age 15-49	67.2	90.7	93.6	47.4	41.3	31.3	28.3	40.9	69,751
Age 50-54	65.5	90.5	93.8	44.0	33.9	30.8	24.7	38.5	4,618
Total age 15-54	67.1	90.7	93.6	47.2	40.9	31.2	28.1	40.8	74,369

Note: Total includes men with missing information on education, religion, and caste/tribe, who are not shown separately.

Changes in consumption patterns between NFHS-2 and NFHS-3 can be compared for ever-married women. Between the two surveys, there has been an increase in the consumption at least once a week of each comparable food category except milk or curd. The largest percentage increases have been in the consumption of dark green, leafy vegetables and fruit.

The consumption of pulses and beans, as well as dark green, leafy vegetables is common in every state (Tables 10.21.1-10.21.2). The consumption of pulses and beans at least once a week ranges from 50 percent for women in Meghalaya and 57 percent for men in Tamil Nadu to 98-99 percent for women and men in Karnataka and men in Punjab. At least three-quarters of

women and men eat dark green, leafy vegetables at least once a week in every state except Kerala. The consumption of other types of food varies widely across the states. The frequent consumption of milk and curd is most common in the Northern and Southern Regions, as well as in Sikkim and Gujarat.

Table 10.21.1 Women's food consumption by state

Percentage of women age 15-49 consuming specific foods at least once a week by state, India, 2005-06

State	Type of food							
	Milk or curd	Pulses or beans	Dark green, leafy vegetables	Fruits	Eggs	Fish	Chicken or meat	Fish or chicken/meat
India	55.4	89.5	92.9	39.8	32.3	28.2	22.7	35.4
North								
Delhi	65.6	96.5	94.3	73.4	22.0	9.2	11.4	14.1
Haryana	71.5	93.5	90.0	33.3	3.3	1.3	1.1	1.5
Himachal Pradesh	74.0	93.6	75.3	48.6	6.4	2.2	3.6	4.1
Jammu & Kashmir	70.7	71.6	90.5	49.6	20.4	3.0	44.0	44.4
Punjab	70.7	85.0	85.2	37.6	8.8	1.8	3.8	4.3
Rajasthan	68.7	85.0	89.9	22.9	5.7	1.8	3.7	4.3
Uttaranchal	66.3	94.7	84.1	48.5	15.5	6.7	8.9	10.2
Central								
Chhattisgarh	25.2	90.9	93.7	30.4	25.3	17.7	13.6	19.7
Madhya Pradesh	48.0	93.2	88.1	35.0	12.1	7.7	6.5	9.5
Uttar Pradesh	52.0	94.5	94.0	24.1	13.6	6.3	9.7	11.3
East								
Bihar	57.8	95.9	97.2	34.1	20.6	16.9	11.6	18.3
Jharkhand	22.5	81.0	85.7	24.7	19.1	19.7	16.5	23.7
Orissa	25.6	91.8	97.5	12.6	32.2	51.8	15.5	53.2
West Bengal	30.7	87.4	97.4	26.6	64.4	85.9	27.5	86.9
Northeast								
Arunachal Pradesh	24.5	70.2	94.9	38.7	44.9	53.5	48.2	62.2
Assam	33.4	86.5	96.6	32.9	56.1	72.5	35.0	73.6
Manipur	28.3	77.0	97.0	68.6	37.3	65.0	18.5	70.7
Meghalaya	26.2	50.4	88.5	57.8	46.7	55.9	59.1	70.4
Mizoram	21.8	66.9	92.0	48.4	34.5	15.5	46.0	49.8
Nagaland	33.7	62.2	89.3	45.3	43.4	39.5	42.7	50.8
Sikkim	80.2	90.1	94.2	47.7	39.3	27.0	41.7	44.7
Tripura	49.0	87.5	96.9	40.7	61.9	82.5	30.3	83.6
West								
Goa	53.1	85.9	83.1	80.9	37.0	87.4	20.4	88.3
Gujarat	74.1	95.8	97.5	49.6	15.3	11.1	11.0	14.9
Maharashtra	53.4	92.6	94.0	55.9	35.9	28.1	30.6	33.1
South								
Andhra Pradesh	69.0	96.5	96.2	47.6	66.5	36.6	63.6	67.4
Karnataka	87.4	98.4	96.5	70.4	42.7	20.8	31.3	38.2
Kerala	61.6	73.1	57.5	65.7	43.8	85.8	28.3	87.2
Tamil Nadu	65.8	57.9	95.4	59.6	65.0	42.3	48.8	58.9

Table 10.21.2 Men's food consumption by state

Percent distribution of men age 15-49 consuming specific foods at least once a week by state, India, 2005-06

State	Type of food							
	Milk or curd	Pulses or beans	Dark green, leafy vegetables	Fruits	Eggs	Fish	Chicken or meat	Fish or chicken/meat
India	67.2	90.7	93.6	47.4	41.3	31.3	28.3	40.9
North								
Delhi	77.8	96.4	94.1	64.6	34.3	12.3	21.9	23.9
Haryana	87.8	97.6	95.3	63.2	9.6	3.7	5.3	5.5
Himachal Pradesh	83.4	95.0	84.7	62.5	17.4	4.3	9.8	11.5
Jammu & Kashmir	79.8	77.0	94.5	57.4	31.7	7.0	46.9	48.1
Punjab	85.7	98.6	98.7	71.5	33.0	14.0	18.7	20.1
Rajasthan	81.2	87.1	87.2	31.0	15.3	2.7	10.1	11.0
Uttaranchal	76.7	95.4	91.1	60.0	24.9	8.6	13.5	15.8
Central								
Chhattisgarh	35.3	93.4	95.4	31.8	37.9	28.7	19.4	30.3
Madhya Pradesh	71.2	94.3	85.1	38.2	19.2	13.5	10.2	16.4
Uttar Pradesh	70.1	93.7	94.3	38.4	23.5	9.9	11.6	14.7
East								
Bihar	66.4	95.9	91.9	30.8	25.4	24.3	18.1	27.6
Jharkhand	34.0	90.6	94.2	23.5	32.3	29.2	20.4	32.1
Orissa	39.2	94.7	99.2	16.6	46.5	56.9	26.2	58.7
West Bengal	37.5	90.7	98.5	27.4	67.3	82.7	29.5	84.3
Northeast								
Arunachal Pradesh	25.2	71.6	98.4	40.2	57.5	53.5	44.7	59.1
Assam	33.4	66.6	95.7	41.3	61.8	83.1	42.3	84.8
Manipur	36.2	84.2	96.6	67.5	44.0	63.3	40.2	72.0
Meghalaya	41.1	62.4	92.6	58.6	59.3	70.7	69.6	79.4
Mizoram	30.4	83.6	95.7	42.1	44.0	18.4	54.3	57.2
Nagaland	38.3	70.7	92.8	34.7	43.8	38.7	42.7	51.4
Sikkim	66.4	92.3	95.3	46.7	38.3	15.5	42.2	44.9
Tripura	44.1	91.8	95.3	38.9	67.3	83.3	32.6	85.8
West								
Goa	62.9	89.1	94.5	76.0	58.5	89.6	39.8	90.7
Gujarat	82.1	95.8	99.4	48.4	16.8	9.8	9.2	12.4
Maharashtra	63.6	95.7	94.8	59.7	48.0	33.4	43.9	48.4
South								
Andhra Pradesh	83.9	95.7	90.6	56.0	75.0	30.6	66.1	69.5
Karnataka	90.4	98.8	98.7	74.9	53.8	25.2	38.2	45.9
Kerala	60.9	73.5	71.5	79.6	56.6	87.6	46.7	89.6
Tamil Nadu	77.7	56.9	93.7	78.8	77.1	51.9	53.9	66.1

10.7 NUTRITIONAL STATUS OF WOMEN AND MEN

NFHS-3 collected information on the height and weight of women age 15-49 and men age 15-54. The same scales and measuring boards used to measure children were used for women and men. In this report, two indicators of nutritional status are presented for adults—height and body mass index (BMI). The height of an adult is an outcome of several factors, including nutrition during childhood and adolescence. Women's height can be used to identify women at risk of having a difficult delivery, since small stature is often related to small pelvic size. The risk of having a baby with a low birth weight is also higher for mothers who are short. The cutoff point for height, below which a woman can be identified as nutritionally at risk, varies among populations, but it is usually considered to be in the range of 140-150 centimetres (cm). A cutoff point of 145 cm is used for NFHS-3.

The height and weight measurements in NFHS-3 are used to calculate the BMI. The BMI is defined as weight in kilograms divided by height in metres squared (kg/m^2). This index

excludes women who were pregnant at the time of the survey and women who gave birth during the two months preceding the survey. A cut-off point of 18.5 is used to define thinness or acute undernutrition and a BMI of 25 or above indicates overweight or obesity.

Table 10.22.1 Nutritional status of women

Percentage of women age 15-49 below 145 cm, mean body mass index (BMI), and percentage with specific BMI levels, by background characteristics, India, 2005-06

Background characteristic	Height		Body Mass Index (BMI)[1] in kg/m²								
					Thin			Overweight/obese			
	Percentage below 145 cm	Number of women	Mean BMI	18.5-24.9 (normal)	<18.5 (total thin)	17.0-18.4 (mildly thin)	<17.0 (moderately/ severely thin)	≥25.0 (overweight or obese)	25.0-29.9 (over-weight)	≥30.0 (obese)	Number of women
Age											
15-19	11.7	23,679	19.0	50.8	46.8	25.9	20.9	2.4	2.1	0.2	22,147
20-29	10.9	41,332	20.0	53.7	38.1	21.7	16.4	8.2	6.8	1.4	36,413
30-39	10.9	32,233	21.1	51.6	31.0	17.0	14.0	17.4	13.5	3.9	31,321
40-49	12.8	21,975	21.9	49.8	26.4	14.1	12.3	23.7	17.4	6.4	21,900
Marital status											
Never married	10.3	24,043	19.3	50.6	44.9	24.0	20.9	4.5	3.8	0.7	24,053
Currently married	11.4	89,578	20.8	52.1	33.0	18.5	14.4	14.9	11.5	3.4	82,145
Widowed	14.8	3,872	20.8	52.1	33.5	18.2	15.3	14.4	11.1	3.2	3,865
Divorced/separated/ deserted	16.0	1,726	20.7	51.7	33.9	19.8	14.1	14.4	10.7	3.7	1,718
Residence											
Urban	9.8	38,115	22.0	51.5	25.0	13.2	11.8	23.5	17.4	6.1	36,366
Rural	12.1	81,104	19.8	51.9	40.6	22.9	17.8	7.4	6.2	1.3	75,416
Education											
No education	14.1	48,381	19.7	51.1	41.7	23.0	18.6	7.3	5.9	1.4	44,926
<5 years complete	13.8	9,647	20.2	52.2	37.2	21.3	15.9	10.7	8.6	2.1	9,120
5-7 years complete	11.5	18,175	20.7	51.7	34.1	18.8	15.4	14.2	10.7	3.5	17,032
8-9 years complete	10.3	16,779	20.6	51.0	35.0	19.4	15.6	14.0	10.9	3.1	15,781
10-11 years complete	7.1	12,340	21.3	52.5	29.4	16.0	13.4	18.1	13.3	4.8	11,718
12 or more years complete	5.2	13,890	22.1	54.5	21.8	12.3	9.4	23.8	18.4	5.4	13,198
Religion											
Hindu	11.6	96,441	20.4	51.8	36.4	20.2	16.2	11.8	9.3	2.6	90,593
Muslim	10.7	15,787	20.6	50.7	35.1	19.3	15.9	14.1	10.7	3.5	14,510
Christian	11.8	2,929	21.6	58.6	23.2	13.2	10.0	18.2	14.7	3.6	2,788
Sikh	2.8	2,160	23.2	50.6	17.8	11.0	6.8	31.6	21.5	10.1	2,080
Buddhist/Neo-Buddhist	14.7	981	20.0	49.5	40.4	19.6	20.8	10.1	8.6	1.5	939
Jain	7.1	354	22.2	51.5	21.8	9.9	11.9	26.6	20.4	6.2	348
Other	19.0	456	19.5	54.9	41.1	25.2	15.9	3.9	3.0	0.9	421
Caste/tribe											
Scheduled caste	15.0	22,264	19.9	50.0	41.1	22.6	18.5	8.9	7.3	1.6	20,728
Scheduled tribe	12.7	9,810	19.1	49.9	46.6	25.3	21.2	3.5	3.0	0.5	9,067
Other backward class	11.4	46,968	20.4	52.6	35.7	20.0	15.7	11.6	9.1	2.5	43,916
Other	8.9	39,177	21.3	52.3	29.4	16.3	13.1	18.3	13.8	4.5	37,131
Don't know	10.1	613	20.1	51.1	39.1	21.4	17.7	9.7	7.7	2.0	583
Wealth index											
Lowest	15.9	20,863	18.7	46.7	51.5	28.5	23.0	1.8	1.6	0.2	18,995
Second	14.6	22,803	19.2	49.8	46.3	25.7	20.6	3.9	3.4	0.5	21,106
Middle	11.7	24,342	19.9	54.3	38.3	21.1	17.3	7.4	6.5	0.9	22,867
Fourth	9.5	25,141	21.0	55.7	28.9	16.2	12.7	15.4	12.5	2.9	23,756
Highest	6.5	26,070	22.9	51.3	18.2	10.2	8.0	30.5	22.0	8.4	25,058
Total	11.4	119,219	20.5	51.8	35.6	19.7	15.8	12.6	9.8	2.8	111,781

Note: Total includes women with missing information on education, religion, and caste/tribe, who are not shown separately.
[1] Excludes pregnant women and women with a birth in the preceding 2 months.

Table 10.22.1 presents the mean values of height for women and Tables 10.22.1 and 10.22.2 show the proportions of women and men falling into high-risk categories of the body mass index, according to background characteristics. Persons for whom there was no information

on height and/or weight or for whom a BMI could not be estimated are excluded from the analysis. Table 10.22.1 shows that 11 percent of women are under 145 cm in height. To compare measures of nutritional status over time, it is necessary to restrict the analysis to ever-married women because NFHS-2 did not include never married women. Twelve percent of ever-married women are below 145 cm, a slight improvement from 13 percent in NFHS-2 (data not shown). The percentage of women who are below 145 cm does not vary much by age. There is a strong negative relationship between this measure of height and both education and the standard of living index. The percentage of women who are short is slightly higher in rural areas than in urban areas. Sikh women are much less likely than women of other religions to have a height below 145 cm. By caste/tribe, scheduled caste women are shortest, on average, followed by scheduled tribe women and OBC women.

Table 10.22.1 also shows several levels of the body mass index. The mean BMI for women age 15-49 in India is 20.5 (varying within the narrow range of 19-23 for the different groups shown in the table). Chronic energy deficiency is usually indicated by a BMI of less than 18.5. More than one-third (36 percent) of women have a BMI below 18.5, indicating a high prevalence of nutritional deficiency. Among women who are thin, almost half (45 percent) are moderately or severely thin. The proportion of *ever-married* women who are thin (33 percent) has decreased slightly from 36 percent in NFHS-2 (data not shown). Nutritional problems measured in NFHS-3 are particularly serious for rural women, women with no education, scheduled tribe and scheduled caste women, and women in households in the lowest two wealth quintiles.

Figure 10.5 Overweight and Obesity among Adults

Thirteen percent of women are overweight or obese (10 percent are overweight and 3 percent are obese; see Figure 10.5). This is a growing problem in India, with the percentage of *ever-married* women age 15-49 who are overweight or obese increasing from 11 percent in NFHS-2 to 15 percent in NFHS-3 (data not shown). Overweight and obesity have become

Table 10.22.2 Nutritional status of men

Among men age 15-49, mean body mass index (BMI) and percentage with specific BMI levels by background characteristics, India, 2005-06

Background characteristic	Body Mass Index (BMI) in kg/m²								
			Thin			Overweight/obese			
	Mean BMI	18.5-24.9 (normal)	<18.5 (total thin)	17.0-18.4 (mildly thin)	<17.0 (moderately/ severely thin)	≥25.0 (overweight or obese)	25.0-29.9 (overweight)	≥30.0 (obese)	Number of men
Age									
15-19	18.3	40.2	58.1	28.8	29.3	1.7	1.4	0.2	12,251
20-29	20.1	60.4	33.0	21.8	11.3	6.5	5.8	0.7	21,396
30-39	21.0	61.4	25.5	16.7	8.9	13.0	11.2	1.8	18,015
40-49	21.2	58.6	26.2	15.8	10.4	15.2	12.9	2.3	14,079
Marital status									
Never married	19.2	50.7	45.1	24.2	20.9	4.2	3.7	0.5	23,578
Currently married	20.8	59.9	27.8	18.1	9.7	12.2	10.5	1.7	41,274
Widowed	19.7	58.6	35.6	21.5	14.1	5.8	5.1	0.7	499
Divorced/separated/ deserted	19.5	50.4	44.5	27.2	17.3	5.2	4.7	0.4	391
Residence									
Urban	21.2	57.6	26.5	15.0	11.5	15.9	13.5	2.4	23,304
Rural	19.7	56.0	38.4	23.4	15.1	5.6	5.0	0.6	42,438
Education									
No education	19.4	56.1	40.3	25.8	14.5	3.6	3.3	0.3	11,828
<5 years complete	19.7	57.1	37.5	23.4	14.2	5.3	4.7	0.6	6,720
5-7 years complete	19.8	55.0	38.6	22.5	16.0	6.5	5.5	1.0	10,949
8-9 years complete	19.8	53.3	39.5	22.1	17.4	7.2	6.2	1.0	13,695
10-11 years complete	20.6	56.0	31.6	17.7	13.9	12.5	10.5	1.9	9,741
12 or more years complete	21.8	62.0	19.3	12.2	7.1	18.8	16.3	2.5	12,794
Religion									
Hindu	20.2	56.3	34.8	20.7	14.1	8.9	7.7	1.2	54,099
Muslim	20.2	57.1	34.5	21.3	13.2	8.4	7.4	1.1	7,926
Christian	21.2	64.3	22.1	13.6	8.5	13.6	11.9	1.7	1,505
Sikh	22.4	56.6	17.8	10.8	7.1	25.5	20.9	4.7	1,224
Buddhist/Neo-Buddhist	19.7	49.3	41.6	20.4	21.2	9.0	8.5	0.6	572
Jain	22.5	55.2	16.6	9.9	6.8	28.2	24.6	3.5	187
Other	19.5	55.2	42.5	31.0	11.5	2.3	2.3	0.1	216
Caste/tribe									
Scheduled caste	19.7	54.7	39.1	23.0	16.1	6.3	5.6	0.7	12,531
Scheduled tribe	19.3	55.3	41.3	26.1	15.2	3.3	3.0	0.3	5,500
Other backward class	20.2	57.0	34.6	20.6	14.0	8.4	7.4	1.1	25,805
Other	20.9	57.5	28.9	17.1	11.8	13.5	11.5	2.1	21,533
Don't know	19.9	47.5	44.0	27.8	16.2	8.5	7.5	1.0	164
Wealth index									
Lowest	18.8	50.3	48.3	29.6	18.7	1.4	1.3	0.1	10,531
Second	19.2	55.4	42.4	25.7	16.7	2.2	1.9	0.2	12,077
Middle	19.7	57.6	37.4	22.1	15.3	5.0	4.6	0.4	13,666
Fourth	20.6	60.3	29.6	17.2	12.4	10.2	9.1	1.0	14,544
Highest	22.2	57.3	19.1	11.2	7.9	23.6	19.6	4.0	14,923
Total age 15-49	20.2	56.5	34.2	20.4	13.8	9.3	8.0	1.3	65,742
Age 50-54	21.2	57.5	26.1	15.0	11.1	16.4	14.0	2.4	4,389
Total age 15-54	20.3	56.6	33.7	20.1	13.6	9.7	8.4	1.3	70,130

Note: Total includes men with missing information on education, religion, and caste/tribe, who are not shown separately.

substantial problems among several groups of women in India, particularly older women, women living in urban areas, women who are well educated, women in households in the highest wealth quintile, and Sikhs. About one-quarter or more of women in each of these groups have a BMI of 25 or more and 5-10 percent have a BMI of 30 or more. In addition to being relatively tall, Sikh women are more likely than women in any other group to be obese. Thus, Indian women suffer from a dual burden of malnutrition, with nearly half (48 percent) being either too thin or overweight. The proportion of women who are too thin or overweight is fairly constant across all

subgroups shown in Table 10.22.1, indicating that as undernutrition decreases, overnutrition increases by approximately the same amount. Therefore, nutrition programmes in India need to tackle both of these problems on a priority basis.

The mean body mass index is similar for men (20.2) and women (20.5) age 15-49 (Tables 10.22.1 and 10.22.2). As in the case of women, the mean BMI for men varies within a narrow range across population subgroups. Thirty-four percent of men age 15-49 are thin, compared with 36 percent of women. Forty percent of men who are thin are considered to be moderately or severely thin. The patterns of thinness for subgroups of men are similar to the patterns for women. The percentage overweight or obese is somewhat lower for men age 15-49 (9 percent) than for women age 15-49 (13 percent). Men are also less likely to be obese (1 percent) than women (3 percent). Again, the pattern of differentials in the percentage overweight or obese is similar for men and women. One-quarter of Sikh and Jain men and men in households in the highest wealth quintile are overweight or obese. Only 57 percent of men and 52 percent of women have a BMI within the normal range of 18.5-24.9.

In addition, Table 10.22.2 shows the nutritional indicators for men age 50-54. Men age 50-54 have a slightly higher mean BMI than younger men. They are much less likely than younger men to be too thin, but are much more likely than younger men to be overweight or obese.

State differentials in nutritional status for women and men are shown in Tables 10.23.1 and 10.23.2. The percentage of women who are short (height less than 145 cm) is highest in Meghalaya (22 percent) and Tripura (19 percent) and lowest (4-5 percent) in Haryana, Punjab, Jammu and Kashmir, and Rajasthan. The mean BMI varies very little from one state to another. The proportion of women who are too thin is particularly high in Bihar (45 percent) and Chhattisgarh and Jharkhand (43 percent each), and lowest in Delhi, Punjab, and several of the small northeastern states. The percentage of women who are overweight or obese is highest in Punjab (30 percent), followed by Kerala (28 percent) and Delhi (26 percent). The mean BMI for men does not vary much by state, but the percentage of men who are too thin varies substantially among the states. Over 40 percent of men age 15-49 are too thin in Tripura, Madhya Pradesh, and Rajasthan. Once again, Punjab, Kerala, and Delhi are the states with the highest level of overweight and obesity.

Table 10.23.1 Nutritional status of women by state

Percentage of women age 15-49 below 145 cm, mean body mass index (BMI), and percentage with specific BMI levels, by state, India, 2005-06

State	Height	Body Mass Index (BMI)[1] in kg/m^2							
				Thin			Overweight/obese		
	Percentage below 145 cm	Mean BMI	18.5-24.9 (normal)	<18.5 (total thin)	17.0-18.4 (mildly thin)	<17.0 (moderately/ severely thin)	≥25.0 (overweight or obese)	25.0-29.9 (over-weight)	≥30.0 (obese)
India	11.4	20.5	51.8	35.6	19.7	15.8	12.6	9.8	2.8
North									
Delhi	6.9	22.9	58.7	14.8	9.1	5.8	26.4	18.6	7.8
Haryana	4.4	21.1	51.2	31.3	16.8	14.5	17.4	13.0	4.4
Himachal Pradesh	6.1	20.8	56.6	29.9	16.7	13.2	13.5	11.4	2.1
Jammu & Kashmir	4.8	21.4	58.6	24.6	15.5	9.1	16.7	13.4	3.3
Punjab	4.5	22.9	51.2	18.9	11.4	7.5	29.9	20.8	9.1
Rajasthan	5.0	20.1	54.4	36.7	21.5	15.2	8.9	7.1	1.8
Uttaranchal	7.5	20.8	57.2	30.0	18.3	11.7	12.8	10.1	2.7
Central									
Chhattisgarh	11.9	19.5	51.0	43.4	24.4	19.0	5.6	4.3	1.3
Madhya Pradesh	8.4	19.7	50.8	41.7	22.8	18.9	7.6	6.2	1.4
Uttar Pradesh	14.4	20.1	54.8	36.0	21.1	14.9	9.2	7.5	1.7
East									
Bihar	15.9	19.4	50.4	45.1	25.9	19.2	4.6	4.0	0.6
Jharkhand	18.0	19.5	51.7	43.0	25.0	18.0	5.4	4.5	0.9
Orissa	13.1	19.7	52.0	41.4	23.1	18.3	6.6	5.5	1.1
West Bengal	14.3	20.2	49.6	39.1	21.4	17.6	11.4	9.4	2.0
Northeast									
Arunachal Pradesh	13.3	21.1	74.8	16.4	11.0	5.4	8.8	7.7	1.1
Assam	15.8	20.0	55.7	36.5	21.4	15.2	7.8	6.9	0.9
Manipur	8.0	21.5	72.0	14.8	11.6	3.1	13.3	11.4	1.9
Meghalaya	21.6	21.0	80.1	14.6	9.8	4.8	5.3	4.5	0.8
Mizoram	9.2	21.2	75.0	14.4	10.3	4.1	10.6	9.4	1.2
Nagaland	7.0	20.8	76.2	17.4	13.0	4.4	6.4	5.7	0.7
Sikkim	12.0	22.1	73.5	11.2	7.9	3.2	15.4	12.4	3.0
Tripura	19.2	19.9	55.9	36.9	20.8	16.1	7.1	6.4	0.7
West									
Goa	10.1	21.5	51.9	27.9	13.4	14.5	20.2	15.4	4.8
Gujarat	8.7	20.8	47.0	36.3	17.7	18.6	16.7	12.1	4.6
Maharashtra	10.6	20.6	49.3	36.2	19.3	17.0	14.5	10.9	3.6
South									
Andhra Pradesh	12.1	20.9	50.9	33.5	17.8	15.6	15.6	11.5	4.1
Karnataka	9.9	20.7	49.2	35.5	18.6	16.9	15.3	11.6	3.7
Kerala	8.6	22.6	53.9	18.0	9.6	8.4	28.1	23.1	5.0
Tamil Nadu	9.5	21.6	50.6	28.4	14.9	13.5	20.9	15.8	5.1

[1] Excludes pregnant women and women with a birth in the preceding 2 months.

Table 10.23.2 Nutritional status of men by state

Among men age 15-49, mean body mass index (BMI) and percentage with specific BMI levels, by state, India, 2005-06

State	Body Mass Index (BMI) in kg/m²							
			Thin			Overweight/obese		
	Mean BMI	18.5-24.9 (normal)	<18.5 (total thin)	17.0-18.4 (mildly thin)	<17.0 (moderately/ severely thin)	≥25.0 (overweight or obese)	25.0-29.9 (over-weight)	≥30.0 (obese)
India	20.2	56.5	34.2	20.4	13.8	9.3	8.0	1.3
North								
Delhi	22.0	67.4	15.7	11.6	4.1	16.8	14.3	2.6
Haryana	20.5	58.3	30.9	17.4	13.5	10.8	8.9	1.8
Himachal Pradesh	20.5	59.7	29.7	17.0	12.7	10.6	9.7	0.9
Jammu & Kashmir	20.3	65.8	28.0	18.3	9.7	6.2	5.5	0.7
Punjab	22.0	57.2	20.6	12.8	7.8	22.2	18.2	4.0
Rajasthan	19.7	53.3	40.5	24.5	16.0	6.2	5.4	0.8
Uttaranchal	20.5	63.7	28.4	15.8	12.6	7.9	6.7	1.2
Central								
Chhattisgarh	19.6	56.6	38.5	25.2	13.3	4.9	4.4	0.5
Madhya Pradesh	19.5	54.1	41.6	24.9	16.7	4.3	4.0	0.3
Uttar Pradesh	19.8	54.4	38.3	23.5	14.7	7.3	6.3	1.0
East								
Bihar	19.9	58.5	35.3	21.5	13.7	6.3	5.5	0.8
Jharkhand	19.6	56.5	38.6	24.8	13.8	4.9	4.4	0.5
Orissa	19.8	58.3	35.7	23.2	12.5	6.0	4.9	1.1
West Bengal	20.0	59.4	35.2	21.7	13.5	5.5	5.1	0.4
Northeast								
Arunachal Pradesh	20.9	77.6	15.2	11.0	4.2	7.1	7.1	0.0
Assam	19.8	59.5	35.6	23.1	12.5	5.0	4.6	0.4
Manipur	21.0	74.5	16.3	12.7	3.6	9.2	8.3	0.9
Meghalaya	21.2	79.9	14.1	11.6	2.5	5.9	5.6	0.3
Mizoram	21.5	79.4	9.2	7.5	1.7	11.4	10.9	0.5
Nagaland	20.8	80.2	14.2	10.4	3.8	5.7	5.2	0.5
Sikkim	21.8	75.9	12.2	9.0	3.2	11.9	10.8	1.2
Tripura	19.6	53.5	41.7	23.4	18.3	4.8	4.8	0.0
West								
Goa	21.2	59.9	24.6	13.0	11.7	15.4	13.2	2.3
Gujarat	20.3	52.6	36.1	19.2	16.9	11.3	9.3	2.0
Maharashtra	20.5	54.6	33.5	18.0	15.5	11.9	10.3	1.6
South								
Andhra Pradesh	20.8	55.6	30.8	19.1	11.7	13.6	11.7	1.9
Karnataka	20.4	55.1	33.9	19.0	14.9	10.9	9.2	1.7
Kerala	21.6	60.6	21.5	11.4	10.1	17.8	15.7	2.1
Tamil Nadu	21.1	58.4	27.1	14.8	12.3	14.5	12.5	2.0

10.8 ANAEMIA AMONG WOMEN AND MEN

The same equipment and procedures used to measure anaemia in children were employed to measure anaemia in women and men, except for persons whose blood was also collected for HIV testing. For those persons, the first 3-5 drops of blood were collected on filter paper cards for HIV testing and the next drop was collected in a microcuvette for anaemia testing. Three levels of severity of anaemia are distinguished: mild anaemia (10.0-10.9 grams/decilitre for pregnant women, 10.0-11.9 g/dl for nonpregnant women, and 12.0-12.9 g/dl for men), moderate anaemia (7.0-9.9 g/dl for women and 9.0-11.9 g/dl for men), and severe anaemia (less than 7.0 g/dl for women and less than 9.0 g/dl for men). Appropriate adjustments in these cutoff points were made for respondents living at altitudes above 1,000 metres and respondents who smoke, since both of these groups require more haemoglobin in their blood (Centers for Disease Control and Prevention, 1998).

Tables 10.24.1 and 10.24.2 show anaemia levels for women and men. Fifty-five percent of women and 24 percent of men whose haemoglobin level was tested were found to be anaemic[4]. Thirty-nine percent of women are mildly anaemic, 16 percent are moderately anaemic, and 2 percent are severely anaemic. To compare anaemia over time, it is necessary to restrict the analysis to ever-married women because NFHS-2 did not include never married women. The prevalence of anaemia for ever-married women has increased from 52 percent in NFHS-2 to 56 percent in NFHS-3. Therefore, the anaemia situation has worsened over time for both women and young children.

Table 10.24.1 Prevalence of anaemia in women

Percentage of women age 15-49 with anaemia by background characteristics, India, 2005-06, and percentage of ever-married women age 15-49 with anaemia, NFHS-3 and NFHS-2

Background characteristic	Anaemia status by haemoglobin level: Mild (10.0-11.9 g/dl)[1]	Moderate (7.0-9.9 g/dl)	Severe (<7.0 g/dl)	Any anaemia (<12.0 g/dl)[2]	Number of women
Age					
15-19	39.1	14.9	1.7	55.8	23,206
20-29	38.5	16.0	1.7	56.1	40,449
30-39	38.1	14.4	1.8	54.2	31,703
40-49	38.9	14.1	2.0	55.0	21,497
Marital status					
Never married	37.3	12.9	1.7	51.9	23,539
Currently married	38.9	15.4	1.7	56.0	87,841
Widowed	40.1	16.2	2.8	59.0	3,784
Divorced/separated/deserted	37.7	18.3	3.1	59.1	1,691
Maternity status					
Pregnant	25.8	30.6	2.2	58.7	6,028
Breastfeeding	44.9	16.6	1.7	63.2	22,109
Neither	37.9	13.5	1.7	53.2	88,718
Number of children ever born					
0	37.0	13.9	1.8	52.6	33,044
1	38.6	16.2	1.7	56.4	13,847
2-3	38.1	15.0	1.7	54.9	41,578
4-5	40.6	15.5	1.9	58.0	18,995
6+	42.1	16.2	1.6	59.9	9,391
Residence					
Urban	35.8	13.6	1.5	50.9	36,967
Rural	39.8	15.7	1.9	57.4	79,888
Education					
No education	40.8	17.2	2.1	60.1	47,466
<5 years complete	39.6	16.2	2.2	58.1	9,510
5-7 years complete	38.9	15.3	1.9	56.0	17,827
8-9 years complete	37.2	13.7	1.5	52.4	16,498
10-11 years complete	35.6	12.4	1.2	49.2	12,086
12 or more years complete	33.9	9.9	0.9	44.6	13,462
Religion					
Hindu	39.1	15.0	1.8	55.9	94,783
Muslim	38.3	15.1	1.3	54.7	15,340
Christian	32.0	16.2	2.2	50.3	2,747
Sikh	27.6	10.3	1.3	39.2	2,129
Buddhist/Neo-Buddhist	35.4	15.2	1.9	52.5	961
Jain	29.9	8.0	0.9	38.8	338
Other	49.5	19.9	2.3	71.7	448

Continued…

[4] Haemoglobin measurements that are not adjusted for the altitude of the enumeration area or the smoking status of the respondent yield only a slightly lower level of anaemia than the adjusted estimates (54.9 percent instead of 55.3 percent for women and 22.9 percent instead of 24.2 percent for men), with maximum differences of 13 percentage points for women and 5 percentage points for men in Sikkim and 7 percentage points for women and 6 percentage points for men in Uttaranchal.

Table 10.24.1 Prevalence of anaemia in women—*Continued*

Background characteristic	Anaemia status by haemoglobin level: Mild (10.0-11.9 g/dl)[1]	Moderate (7.0-9.9 g/dl)	Severe (<7.0 g/dl)	Any anaemia (<12.0 g/dl)[2]	Number of women
Caste/tribe					
Scheduled caste	39.3	16.8	2.2	58.3	21,921
Scheduled tribe	44.8	21.3	2.4	68.5	9,568
Other backward class	38.2	14.5	1.7	54.4	46,182
Other	37.0	12.9	1.4	51.3	38,216
Don't know	34.5	19.7	1.7	55.9	589
Wealth index					
Lowest	43.6	18.7	2.0	64.3	20,524
Second	41.4	16.8	2.1	60.3	22,449
Middle	38.3	15.5	2.2	56.0	23,886
Fourth	36.9	13.8	1.6	52.2	24,696
Highest	34.0	11.1	1.0	46.1	25,300
Smoking status					
Smokes cigarettes/tobacco	41.6	18.8	2.9	63.2	12,789
Does not smoke	38.2	14.5	1.6	54.4	104,060
Total	38.6	15.0	1.8	55.3	116,855
Total for ever-married women					
NFHS-3	38.9	15.5	1.8	56.2	93,316
NFHS-2	35.0	14.8	1.9	51.8	79,633

Note: Table is based on women who stayed in the household the night before the interview. Prevalence is adjusted for altitude and for smoking status, if known, using formulae in CDC (1998). Totals include women with missing information on education, religion, caste/tribe, and smoking status, who are not shown separately. Haemoglobin in g/dl = grams per decilitre. NFHS-3 estimates of anaemia exclude Nagaland.
[1] For pregnant women, the value is 10.0-10.9 g/dl.
[2] For pregnant women, the value is <11.0 g/dl.

Anaemia is pervasive among women age 15-49 in every subgroup shown in Table 10.24.1. More than half of women are anaemic in every group except for women in households in the highest wealth quintile, women with 10 or more years of education, and Jain and Sikh women. By marital status, anaemia is lowest for women who have never been married and highest for women who are widowed, divorced, separated, or deserted. The prevalence of anaemia is similar throughout the age range. Anaemia tends to increase with the number of children ever born and decreases with education and the household's wealth. Anaemia is more prevalent for women who are breastfeeding (63 percent) and women who are pregnant (59 percent) than for other women (53 percent). The prevalence of anaemia is also high for rural women, women from scheduled tribes, women who smoke, and women belonging to "other" religions.

The pattern of anaemia by characteristics is similar for men and women, except for the differentials by age. Age is not an important determinant of anaemia for women, but anaemia varies substantially by age for men. The prevalence of anaemia is more than 50 percent higher for men age 15-19 than for men age 20-24. After age 20-24, anaemia increases steadily to a maximum of 33 percent for men age 50-54. Severe anaemia is particularly high for both men and women who are widowed, divorced, separated, or deserted.

Table 10.24.2 Prevalence of anaemia in men

Percentage of men age 15-49 with anaemia by background characteristics, India, 2005-06

Background characteristic	Anaemia status by haemoglobin level: Mild (12.0-12.9 g/dl)	Moderate (9.0-11.9 g/dl)	Severe (<9.0 g/dl)	Any anaemia (<13.0 g/dl)	Number of men
Age					
15-19	16.7	12.1	1.4	30.2	12,108
20-29	10.8	7.4	1.0	19.3	21,080
30-39	12.0	9.8	1.3	23.1	17,702
40-49	14.4	12.0	1.6	27.9	13,846
Marital status					
Never married	13.2	9.6	1.2	23.9	23,226
Currently married	12.8	9.9	1.3	24.1	40,638
Widowed	18.2	19.8	3.5	41.5	489
Divorced/separated/deserted	13.9	16.4	3.0	33.2	383
Residence					
Urban	10.8	6.2	0.7	17.7	22,773
Rural	14.2	11.9	1.6	27.7	41,963
Education					
No education	17.0	14.7	1.9	33.7	11,654
<5 years complete	15.8	12.9	1.7	30.4	6,639
5-7 years complete	13.2	11.1	1.5	25.8	10,811
8-9 years complete	13.4	9.0	1.3	23.7	13,510
10-11 years complete	11.0	7.9	0.8	19.6	9,595
12 or more years complete	8.8	5.3	0.7	14.8	12,512
Religion					
Hindu	13.4	10.1	1.3	24.8	53,409
Muslim	11.8	8.7	1.2	21.6	7,736
Christian	10.5	9.6	1.0	21.0	1,400
Sikh	8.1	7.0	0.8	15.9	1,213
Buddhist/Neo-Buddhist	11.5	9.4	0.3	21.2	566
Jain	3.5	1.6	0.0	5.1	184
Other	14.5	27.6	2.9	45.0	214
Caste/tribe					
Scheduled caste	14.0	11.0	1.6	26.6	12,387
Scheduled tribe	20.4	18.1	1.1	39.6	5,378
Other backward class	12.0	9.0	1.3	22.3	25,507
Other	11.7	8.1	1.1	20.9	21,103
Don't know	10.7	10.7	3.4	24.8	157
Wealth index					
Lowest	19.2	16.8	2.0	37.9	10,410
Second	15.2	13.1	1.9	30.2	11,949
Middle	13.1	10.2	1.5	24.8	13,481
Fourth	10.9	7.0	1.0	18.8	14,315
Highest	8.9	4.9	0.4	14.2	14,582
Smoking status					
Smokes cigarettes/tobacco	13.7	10.8	1.4	25.9	37,101
Does not smoke	12.1	8.7	1.1	21.9	27,635
Total age 15-49	13.0	9.9	1.3	24.2	64,736
Age 50-54	15.0	15.1	2.5	32.6	4,327
Total age 15-54	13.1	10.2	1.4	24.7	69,064

Note: Table is based on men who stayed in the household the night before the interview. Prevalence is adjusted for altitude and for smoking status, if known, using formulae in CDC (1998). Totals include men with missing information on education, religion, and caste/tribe, who are not shown separately. Haemoglobin in g/dl = grams per decilitre. Table excludes Nagaland.

Although the prevalence of anaemia varies considerably among the states, it is widespread in every Indian state (Table 10.25). The prevalence of anaemia for both women and men is very high in all of the states in the East Region, especially Jharkhand and Bihar where more than two-thirds of women and one-third of men are anaemic. Other states with particularly

high levels of anaemia are Tripura and Assam (for both women and men), Andhra Pradesh and Sikkim (for men), and Meghalaya (for women). Kerala, Manipur, Goa, and Punjab have the lowest prevalence of anaemia for both women and men. Even in these states, however, more than one-third of women are anaemic. Severe anaemia is most prevalent in Assam for both women and men.

Table 10.25 Prevalence of anaemia in women and men by state

Percentage of women and men age 15-49 with anaemia by state, India, 2005-06

State	Women				Men			
	Mild anaemia (10.0-11.9 g/dl)[1]	Moderate anaemia (7.0-9.9 g/dl)	Severe anaemia (<7.0 g/dl)	Any anaemia (<12.0 g/dl)[2]	Mild anaemia (12.0-12.9 g/dl)	Moderate anaemia (9.0-11.9 g/dl)	Severe anaemia (<9.0 g/dl)	Any anaemia (<13.0 g/dl)
India[3]	38.6	15.0	1.8	55.3	13.0	9.9	1.3	24.2
North								
Delhi	35.2	8.8	0.2	44.3	10.5	6.8	0.4	17.8
Haryana	37.6	16.7	1.7	56.1	12.8	5.9	0.5	19.2
Himachal Pradesh	31.6	10.5	1.2	43.3	10.6	8.1	0.2	18.9
Jammu & Kashmir	37.3	13.1	1.6	52.1	11.7	6.3	1.4	19.5
Punjab	26.2	10.4	1.4	38.0	6.6	5.5	1.5	13.6
Rajasthan	35.2	15.4	2.5	53.1	12.0	10.6	1.0	23.6
Uttaranchal	40.4	13.3	1.5	55.2	17.0	11.4	0.7	29.2
Central								
Chhattisgarh	39.9	15.7	1.9	57.5	14.4	11.5	1.1	27.0
Madhya Pradesh	40.8	14.1	1.0	56.0	15.1	9.5	1.1	25.6
Uttar Pradesh	35.1	13.2	1.6	49.9	11.9	10.4	2.0	24.3
East								
Bihar	50.5	15.9	1.0	67.4	19.7	13.2	1.4	34.3
Jharkhand	49.6	18.6	1.3	69.5	18.5	17.7	0.3	36.5
Orissa	44.9	14.9	1.5	61.2	17.3	15.4	1.2	33.9
West Bengal	45.8	16.4	1.0	63.2	18.3	13.3	0.7	32.3
Northeast								
Arunachal Pradesh	36.6	12.5	1.6	50.6	13.8	13.0	1.2	28.0
Assam	44.8	21.2	3.4	69.5	18.9	17.9	2.9	39.6
Manipur	30.1	5.1	0.5	35.7	6.8	4.2	0.4	11.4
Meghalaya	32.8	12.6	1.8	47.2	15.7	20.4	0.7	36.7
Mizoram	29.1	8.8	0.7	38.6	10.0	9.0	0.3	19.4
Sikkim	42.1	16.2	1.7	60.0	11.6	12.2	1.3	25.0
Tripura	49.0	14.8	1.3	65.1	19.2	15.5	0.8	35.5
West								
Goa	29.6	7.8	0.6	38.0	6.2	3.4	0.8	10.4
Gujarat	36.2	16.5	2.6	55.3	12.0	9.2	1.0	22.2
Maharashtra	32.8	13.9	1.7	48.4	10.1	5.9	0.8	16.8
South								
Andhra Pradesh	39.0	20.6	3.3	62.9	12.0	9.5	1.8	23.3
Karnataka	34.4	15.1	2.0	51.5	9.5	7.6	1.9	19.1
Kerala	25.8	6.5	0.5	32.8	3.8	3.7	0.4	8.0
Tamil Nadu	37.4	13.6	2.2	53.2	9.2	5.9	1.5	16.5

Note: Table is based on persons who stayed in the household the night before the interview. Prevalence is adjusted for altitude and for smoking status, if known, using formulas in CDC (1998). Haemoglobin in g/dl = grams per decilitre.
[1] For pregnant women, the value is 10.0-10.9 g/dl.
[2] For pregnant women, the value is <11.0 g/dl.
[3] Excludes Nagaland.

HIV/AIDS-RELATED KNOWLEDGE, ATTITUDES, AND BEHAVIOUR

11

HIV/AIDS was first identified in India in 1986, when serological testing found that 10 of 102 female sex workers in Chennai were HIV positive. The initial response of the health authorities was slow primarily due to a common belief that AIDS would not become a problem in India due to the low levels of multi-partner sexual activity and other risky sexual behaviours among Indians (John et al., 1987). However, in the face of increasing numbers of people being identified with HIV, the Government of India (GOI) initiated a systematic response by first establishing the National AIDS Committee (NAC) and then, in 1992, the National AIDS Control Organization (NACO) under the Ministry of Health and Family Welfare. Since then, comprehensive educational and awareness programmes have been implemented with mandates to increase prevention and control of HIV/AIDS in India. Under the National AIDS Control Programme (NACP), educational programmes have focused on enhancing people's knowledge about HIV/AIDS and building behavioural skills to enhance prevention practices (NACO, 2005). This chapter presents the findings from NFHS-3 on the current levels of HIV/AIDS knowledge, attitudes, and behaviour of the adult population. The latter part of the chapter provides an additional discussion of HIV/AIDS knowledge and patterns of sexual activity among young people, as youth are a specific target of many HIV prevention efforts. The findings in this chapter will assist the NACP to identify particular groups of people most in need of information and services and most vulnerable to the risk of HIV infection.

11.1 KNOWLEDGE OF AIDS AND SOURCES OF KNOWLEDGE

All women and men interviewed were asked if they had ever heard of an illness called AIDS. Respondents who had heard of AIDS were then asked a series of questions to ascertain the extent of their knowledge. Table 11.1.1 shows the percentage of women age 15-49 who have heard of AIDS and indicates that knowledge varies substantially by all background characteristics shown in the table. Only 6 in 10 women age 15-49 in India have heard of AIDS.

While the proportion of women who have heard about AIDS shows some decline with increasing age, other background characteristics are associated with far greater differentials. Eight in 10 urban women have heard of AIDS (83 percent), while half of rural women have heard of AIDS. Less than one-third of women with no education have heard of AIDS (30 percent). Knowledge increases steadily with increasing education, reaching almost universal knowledge among women who have completed 12 or more years of schooling (99 percent). Knowledge climbs steadily with increasing wealth. Only one-quarter of women in the lowest wealth quintile have heard of AIDS; this proportion increases to 60 percent in the middle quintile and 92 percent in the highest quintile.

Table 11.1.1 Knowledge of AIDS: Women

Percentage of women age 15-49 who have heard of AIDS, and among women who have heard of AIDS, percentage who received information from specific sources, by background characteristics, India, 2005-06 and trends in percentage who have heard of AIDS and who have received information among ever married women age 15-49, NFHS-3 and NFHS-2

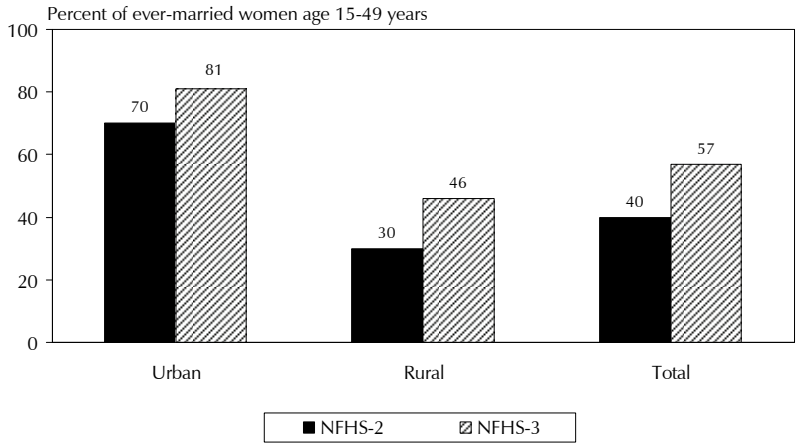
Background characteristic	Percentage who have heard of AIDS	Number of women	Among women who have heard of AIDS, percentage who received information from:									Number of women who have heard of AIDS
			Radio	Television	Cinema	Newspaper/ magazine	Poster/ hoarding	Health worker	Friend/ relative	School/ teacher	Other sources	
Age												
15-24	65.4	47,590	39.5	80.9	5.7	29.0	11.8	5.3	29.2	16.5	10.4	31,120
15-19	64.3	24,811	39.5	80.2	5.3	29.0	11.4	4.2	27.8	24.6	7.9	15,965
20-24	66.5	22,779	39.6	81.6	6.0	29.1	12.2	6.4	30.7	8.0	13.1	15,155
25-29	62.6	20,417	37.0	80.4	5.6	28.0	11.9	7.2	32.6	3.3	15.8	12,783
30-39	58.0	33,522	35.4	77.8	5.2	25.0	10.8	7.6	34.0	1.7	16.8	19,455
40-49	54.3	22,856	34.2	77.7	5.2	23.3	9.5	6.8	34.0	1.4	14.7	12,408
Residence												
Urban	83.2	40,817	32.2	91.4	8.0	36.3	15.1	5.2	26.4	9.3	12.4	33,965
Rural	50.0	83,568	41.2	69.8	3.4	19.3	8.0	7.4	36.2	7.0	14.7	41,801
Education												
No education	30.3	50,487	27.8	59.7	1.4	1.1	2.0	5.4	42.1	0.3	16.2	15,276
<5 years complete	57.2	9,918	32.5	69.1	2.6	5.1	4.1	6.4	40.5	0.5	13.3	5,670
5-7 years complete	69.4	18,820	33.4	77.7	3.6	13.4	7.5	6.6	33.9	1.9	12.2	13,070
8-9 years complete	85.1	17,383	41.3	82.7	4.5	26.3	11.5	6.2	28.0	9.7	10.5	14,788
10-11 years complete	94.9	12,887	40.9	88.8	7.5	41.5	15.4	6.4	25.9	15.8	12.7	12,227
12 or more years complete	99.0	14,882	44.7	94.6	11.7	62.4	22.9	7.8	24.6	16.1	16.5	14,730
Marital status												
Never married	76.1	25,462	40.6	84.6	7.0	36.4	14.4	4.5	26.8	24.5	7.0	19,378
Ever had sex	58.1	196	40.5	67.1	5.3	25.8	8.9	5.5	37.5	10.3	10.3	114
Never had sex	76.2	25,266	40.6	84.7	7.0	36.5	14.4	4.5	26.7	24.6	7.0	19,264
Currently married	57.2	93,089	36.2	78.0	5.0	24.0	10.2	7.1	33.2	2.4	16.1	53,264
Married once	57.5	91,254	36.3	78.1	5.0	24.1	10.2	7.1	33.1	2.4	16.2	52,500
Married more than once	41.6	1,835	30.1	70.9	2.5	17.0	6.9	8.2	34.3	2.0	12.6	764
Widowed/divorced/separated/deserted	53.6	5,834	32.0	73.6	4.1	16.6	8.9	7.1	39.6	1.6	13.1	3,124
Religion												
Hindu	60.6	100,151	37.8	80.0	5.5	26.7	11.5	6.5	32.0	7.9	13.8	60,732
Muslim	55.2	16,936	36.6	74.0	4.1	21.9	7.9	5.6	30.7	6.5	10.8	9,344
Christian	84.6	3,053	36.6	77.2	9.0	40.8	13.4	8.7	33.3	14.0	21.2	2,583
Sikh	75.7	2,222	18.6	93.4	2.1	37.1	14.2	6.2	25.6	9.7	11.9	1,682
Buddhist/Neo-Buddhist	83.8	1,010	34.5	80.9	6.7	20.0	6.4	8.4	33.6	8.6	18.2	846
Jain	93.5	406	29.4	93.4	11.7	56.8	20.2	4.3	26.4	14.6	11.4	379
Other	27.0	484	51.5	55.1	4.4	21.9	7.9	9.5	38.6	9.5	16.2	131
Caste/tribe												
Scheduled caste	55.3	23,125	33.4	76.9	4.2	18.6	8.6	8.0	34.0	7.3	14.9	12,796
Scheduled tribe	38.6	10,119	35.4	61.9	2.8	17.7	8.6	9.0	37.7	8.0	15.3	3,901
Other backward class	58.5	48,880	39.0	78.9	6.0	24.5	11.3	5.6	31.5	8.4	12.9	28,591
Other	72.7	41,207	37.2	83.5	5.8	34.1	12.6	6.2	30.3	8.0	13.7	29,951
Don't know	50.5	649	43.7	76.3	7.3	22.9	4.2	10.5	32.2	10.0	18.7	328
Wealth index												
Lowest	23.9	21,718	39.0	44.4	1.1	4.7	4.1	8.3	43.7	3.0	15.9	5,189
Second	40.7	23,616	38.9	55.9	2.1	7.8	4.6	7.2	41.6	4.9	13.9	9,620
Middle	60.0	25,088	38.1	71.7	3.4	13.5	7.5	6.9	36.2	6.4	13.7	15,051
Fourth	77.6	26,106	36.9	85.8	4.9	24.3	10.5	6.2	29.8	7.7	12.3	20,267
Highest	92.0	27,856	35.8	95.0	9.3	48.5	17.8	5.7	24.7	11.4	14.3	25,640
Total	60.9	124,385	37.2	79.5	5.4	26.9	11.2	6.4	31.8	8.0	13.7	75,766
Ever married women age 15-49												
NFHS-3 (2005-06)	57.0	98,923	36.0	77.7	4.9	23.6	10.1	7.1	33.5	2.3	16.0	56,388
NFHS-2 (1998-99)	40.3	90,303	41.5	78.8	8.1	26.8	12.5	3.6	30.9	1.0	na	35,946

Note: Total includes women with missing information on education, religion, and caste/tribe, who are not shown separately.
na = Not applicable

A smaller percentage of Hindu (61 percent) and Muslim (55 percent) women have heard of AIDS than women from most other religions. More than three-quarters of Sikh, Christian, Buddhist/Neo-Buddhist, and Jain women have heard of AIDS. A smaller proportion of scheduled tribe women have heard of AIDS (39 percent) than scheduled caste women (55 percent), women from other backward classes (59 percent), and women not belonging to any of these castes or tribes (73 percent).

Knowledge of AIDS is higher among never married women (76 percent) than currently married women (57 percent). Thus, care should be taken when comparing NFHS-2 with NFHS-3 findings to assess change in knowledge over time, as NFHS-2 did not interview never married women. A comparison of ever-married women in NFHS-3 with ever-married women interviewed in NFHS-2 indicates that knowledge of AIDS is becoming more widespread. According to NFHS-2, in 1998-99 only 40 percent of ever-married women age 15-49 had heard of AIDS; seven years later, according to NFHS-3, 57 percent of ever-married women age 15-49 reported that they had heard of AIDS. The increase in knowledge has occurred among both rural and urban women. The proportion of ever-married rural women who have heard of AIDS increased from 30 to 46 percent and the proportion of ever-married urban women who have heard of AIDS increased from 70 to 81 percent in the seven years between the two surveys (Figure 11.1).

Figure 11.1 Trends in AIDS Knowledge among Women by Residence



While one might expect knowledge of AIDS to be more common among never married women who have had sex than among never married women who have not had sex, this is not the case. The small number of never married women who ever had sex was less likely to know about AIDS (58 percent) than those who never had sex (76 percent). Similarly unexpectedly, a smaller proportion of women who have been married more than once have heard of AIDS (42 percent) than women who have been married only once (56 percent).

It is surprising that two in five women in India have not heard of AIDS, despite comprehensive efforts to enhance knowledge and awareness through various approaches, including intensive use of electronic media and programmatic efforts of more than 1,000 targeted interventions across the country.

NFHS-3 provides the first opportunity to assess the level of knowledge of AIDS among men across the country, as earlier rounds of NFHS did not interview men. Table 11.1.2 shows that the percentage of men age 15-49 who have heard of AIDS (84 percent) is substantially higher than the percentage among women (61 percent). As with women, knowledge of AIDS does not vary as much by age as it does by other background characteristics. The vast majority of urban men have heard of AIDS (95 percent), compared with three-quarters of rural men (77 percent). The greatest differentials in knowledge are seen by education and wealth quintiles. Only half of men with no education (51 percent) and half of men in the lowest wealth quintile (53 percent) have ever heard of AIDS, while knowledge is almost universal among men at the highest education level and in the highest wealth quintile (100 and 98 percent, respectively).

Variation in knowledge of AIDS among men of different religions and caste groups shows a similar pattern to that observed for women, although the differentials are not as large. The proportion of men who have heard of AIDS does not vary by the number of times they slept away from home or the amount of time they spent away from home in the past 12 months.

Similar to never married women, a higher proportion of never married men have heard of AIDS (90 percent) than have currently married men (80 percent). Unlike women, a slightly higher proportion of never married men who have ever had sex have heard of AIDS (93 percent) than never married men who have never had sex (89 percent).

Table 11.1.2 Knowledge of AIDS: Men

Percentage of men age 15-49 who have heard of AIDS, and among men who have heard of AIDS, percentage who received information from specific sources, by background characteristics, India, 2005-06

Background characteristic	Percentage who have heard of AIDS	Number of men	Among men who have heard of AIDS, percentage who received information from:									Number of men who have heard of AIDS
			Radio	Television	Cinema	Newspaper/ magazine	Poster/ hoarding	Health worker	Friend/ relative	School/ teacher	Other sources	
Age												
15-24	88.0	24,997	55.4	81.3	12.5	51.5	30.7	8.8	45.2	18.2	14.8	22,005
15-19	86.4	13,008	54.5	79.5	11.3	49.6	28.3	7.5	43.2	26.3	11.5	11,244
20-24	89.8	11,989	56.4	83.2	13.8	53.4	33.1	10.0	47.3	9.7	18.3	10,761
25-29	87.7	10,854	56.5	81.3	13.3	53.4	33.4	12.6	45.6	5.2	20.7	9,519
30-39	82.1	19,045	54.7	78.2	12.1	51.3	33.2	13.7	42.9	2.6	21.5	15,629
40-49	74.9	14,855	52.5	76.7	9.7	50.8	31.8	13.7	40.6	2.0	22.9	11,128
Residence												
Urban	94.8	25,504	49.7	90.7	16.4	60.6	37.8	9.9	42.5	9.7	19.7	24,174
Rural	77.1	44,247	58.5	71.7	8.9	45.2	27.9	12.9	44.7	8.2	18.7	34,107
Education												
No education	51.2	12,571	45.3	55.9	6.8	5.8	9.4	8.6	55.6	0.4	24.9	6,433
<5 years complete	70.7	7,109	48.8	64.5	7.1	20.3	16.8	9.7	51.3	0.4	20.2	5,029
5-7 years complete	83.0	11,523	50.5	75.2	9.2	39.2	26.5	9.0	45.7	3.2	17.8	9,559
8-9 years complete	93.3	14,398	56.9	80.3	9.7	53.8	32.3	10.8	40.9	10.0	14.8	13,427
10-11 years complete	97.6	10,380	56.4	87.2	14.2	67.2	37.3	11.1	40.1	15.6	16.9	10,129
12 or more years complete	99.6	13,754	61.4	93.0	19.0	79.7	47.8	16.9	39.6	13.5	22.9	13,694
Marital status												
Never married	89.8	25,307	55.2	84.3	13.9	55.5	32.6	9.1	44.6	18.5	15.4	22,724
Ever had sex	93.4	3,415	57.9	82.7	13.0	54.9	33.2	11.7	53.1	10.2	18.0	3,190
Never had sex	89.2	21,893	54.8	84.5	14.0	55.6	32.5	8.7	43.2	19.8	15.0	19,534
Currently married	80.3	43,501	54.5	76.8	10.9	49.4	31.7	13.3	43.4	2.6	21.6	34,942
Married once	80.9	41,184	54.5	77.1	11.0	49.9	31.9	13.3	43.2	2.7	21.6	33,325
Married more than once	69.8	2,317	54.7	69.9	9.0	39.3	27.4	13.9	47.7	1.2	20.9	1,618
Widowed/divorced/ separated/deserted	65.2	942	61.5	65.5	6.9	32.9	26.7	11.9	36.6	1.3	16.3	614
Times slept away from home in the past 12 months												
None	83.6	21,619	51.7	80.1	12.8	50.0	29.5	9.4	41.3	9.4	18.1	18,071
1-2	83.6	12,568	53.8	77.9	10.1	49.1	31.6	11.0	42.5	9.3	17.0	10,510
3-4	81.5	11,447	57.2	79.0	10.7	50.2	31.6	12.0	45.0	8.3	17.2	9,329
5+	84.4	23,926	57.2	80.2	12.9	54.8	34.5	13.8	46.1	8.2	22.0	20,194
Time away in the past 12 months												
Away for more than 1 month	82.7	7,757	59.3	74.3	11.5	50.9	32.2	11.5	44.5	8.0	20.6	6,417
Away for 1 month or less	83.7	40,320	55.7	80.3	11.7	52.6	33.3	12.9	45.0	8.6	19.4	33,749
Not away	83.6	21,619	51.7	80.1	12.8	50.0	29.5	9.4	41.3	9.4	18.1	18,071
Religion												
Hindu	83.4	57,112	55.3	80.0	12.3	52.6	32.7	11.9	43.8	9.0	19.4	47,647
Muslim	82.2	8,747	56.7	74.6	10.4	44.3	27.0	10.5	44.9	7.0	16.4	7,192
Christian	87.7	1,567	49.5	79.2	13.5	59.3	33.4	11.0	39.5	11.6	27.2	1,375
Sikh	92.7	1,270	28.3	89.9	4.3	43.3	29.1	9.4	43.3	9.0	16.3	1,177
Buddhist/Neo-Buddhist	93.6	596	59.3	86.6	13.3	58.1	33.0	9.8	34.6	5.8	16.7	557
Jain	100.0	213	54.6	94.5	28.6	74.2	54.5	21.0	44.8	14.9	26.6	213
Other	47.1	232	53.2	44.3	7.3	32.3	19.4	7.7	55.8	6.9	20.8	109

Continued…

Table 11.1.2 Knowledge of AIDS: Men—*Continued*

Background characteristic	Percentage who have heard of AIDS	Number of men	Among men who have heard of AIDS, percentage who received information from:									Number of men who have heard of AIDS
			Radio	Television	Cinema	Newspaper/ magazine	Poster/ hoarding	Health worker	Friend/ relative	School/ teacher	Other sources	
Caste/tribe												
Scheduled caste	80.8	13,188	54.8	77.0	10.6	43.6	29.6	12.0	45.9	8.2	19.7	10,651
Scheduled tribe	63.9	5,725	54.2	64.8	8.4	37.4	23.6	13.3	46.7	8.5	19.3	3,656
Other backward class	84.1	27,219	56.9	79.3	13.7	52.4	31.6	11.6	43.5	9.3	19.3	22,878
Other	89.6	23,214	52.9	83.9	11.5	57.5	35.3	11.4	42.4	8.6	18.6	20,794
Don't know	76.8	177	54.3	74.5	12.1	35.3	16.1	6.2	54.7	6.7	17.7	136
Wealth index												
Lowest	52.9	11,031	59.5	50.9	5.4	24.3	19.2	12.3	47.2	5.2	19.2	5,836
Second	74.7	12,666	59.6	63.5	8.1	34.4	22.6	12.2	48.1	6.2	17.2	9,467
Middle	87.0	14,301	55.4	75.7	10.9	44.4	26.8	10.7	45.3	7.5	18.6	12,435
Fourth	94.1	15,493	52.7	87.8	12.8	57.1	34.4	11.0	42.6	8.8	19.2	14,584
Highest	98.2	16,260	51.9	95.1	16.9	72.4	44.1	12.5	39.8	12.6	20.6	15,960
Total age 15-49	83.6	69,751	54.9	79.6	12.0	51.6	32.0	11.7	43.8	8.8	19.1	58,281
Age 50-54	73.1	4,618	50.3	76.0	9.6	51.8	31.7	13.9	36.2	2.1	24.8	3,375
Total age 15-54	82.9	74,369	54.6	79.4	11.9	51.6	32.0	11.8	43.4	8.4	19.4	61,656

Note: Total includes men with missing information on education, times slept away from home in the past 12 months, time away in the past 12 months, religion, and caste/tribe, who are not shown separately.

The Government of India has been using mass media extensively, especially electronic media, to increase awareness of AIDS and its prevention in the general population. NFHS-3 asked women and men who had heard of AIDS to identify the sources from which they learned about AIDS; results are presented in Tables 11.1.1 and 11.1.2. Television is by far the most common source of information on AIDS, reported by 80 percent of both women and men who have heard of AIDS. Television is also the most common source of information about AIDS in almost all subgroups of the population, including the rural and least educated populations. The next most frequently reported sources after television are radio (37 percent of women and 55 percent of men), friends/relatives (32 percent of women and 44 percent of men), and newspapers/magazines (27 percent of women and 52 percent of men). Other than television and schools or teachers, men mention all sources much more often than women.

11.1.1 Knowledge of HIV Prevention Methods

The National AIDS Control Programme in India has been advocating behaviour change with various innovative approaches and strategies that target audience-specific messages to identified subpopulations (Prasada Rao et al., 2004). HIV/AIDS prevention programmes focus their efforts and messages on promoting three prevention behaviours: delaying sexual debut among young persons (abstinence), limiting the number of sex partners/staying faithful to one partner (being faithful), and use of condoms (the ABC message). NFHS-3 respondents were asked specific questions about whether it is possible to reduce the chances of getting HIV/AIDS by abstaining from sex, having just one uninfected sex partner who has no other sex partners, and using a condom during every act of sexual intercourse. The proportion of women and men who are aware of these HIV/AIDS prevention methods is shown in Table 11.2 by background characteristics.

Knowledge of HIV/AIDS prevention methods differs drastically between women and men. Overall, approximately 4 in 10 women and 7 in 10 men know each of the three ABC methods. As with knowledge of AIDS, differentials knowledge of prevention methods by age are not nearly as great as differentials by most other background characteristics. Nonetheless, it is notable that knowledge of each of the three methods of HIV/AIDS prevention is more common in urban areas than in rural areas among both women and men, and the differentials are more pronounced among women than men for all three prevention methods. While it is to be expected that knowledge of each prevention method would rise with increasing education and wealth quintiles, the differentials are stark, and again, even more pronounced among women. Knowledge of each prevention method rises from a clear minority to a clear majority with increasing education. No more than 18 percent of women with no education have heard of each of the three prevention methods, while over 80 percent of women at the highest level of education have heard of each prevention method. Only 12 percent of women with no education and 33 percent of men with no education have heard of using condoms as a means of preventing HIV/AIDS, compared with 81 percent of women and 93 percent of men with 12 or more years of education. Knowledge of each prevention method rises rapidly with increasing wealth quintiles as well, and again, the differentials are larger among women than men.

Table 11.2 Knowledge of HIV prevention methods

Percentage of women and men age 15-49 who, in response to prompted questions, say that people can reduce the risk of getting HIV/AIDS by using condoms every time they have sexual intercourse, by having one uninfected sex partner who has no other partners, and by abstaining from sexual intercourse, by background characteristics, India, 2005-06

	Women					Men				
	Percentage who say that HIV/AIDS can be prevented by:					Percentage who say that HIV/AIDS can be prevented by:				
Background characteristic	Using condoms[1]	Limiting sexual intercourse to one uninfected partner[2]	Using condoms and limiting sexual intercourse to one uninfected partner[1, 2]	Abstaining from sexual intercourse	Number of women	Using condoms[1]	Limiting sexual intercourse to one uninfected partner[2]	Using condoms and limiting sexual intercourse to one uninfected partner[1, 2]	Abstaining from sexual intercourse	Number of men
Age										
15-24	39.2	48.4	35.0	43.3	47,590	74.3	76.3	68.6	70.3	24,997
15-19	36.5	46.3	32.4	41.2	24,811	71.4	73.1	65.5	68.1	13,008
20-24	42.2	50.6	37.9	45.6	22,779	77.4	79.7	71.9	72.7	11,989
25-29	39.9	47.4	35.9	42.5	20,417	75.2	77.6	70.2	70.2	10,854
30-39	34.7	42.1	30.9	38.2	33,522	68.9	71.8	63.8	66.4	19,045
40-49	29.2	37.6	25.7	34.3	22,856	60.7	64.8	56.5	60.1	14,855
Residence										
Urban	55.8	64.7	50.5	58.8	40,817	83.6	85.8	78.5	79.0	25,504
Rural	26.7	34.7	23.5	31.1	83,568	62.2	65.4	57.1	60.2	44,247
Education										
No education	11.9	17.8	10.0	15.7	50,487	33.3	37.2	29.0	33.5	12,571
<5 years complete	23.7	34.2	19.4	31.6	9,918	51.5	55.9	45.9	51.5	7,109
5-7 years complete	36.3	46.9	31.2	42.0	18,820	66.3	69.6	59.9	64.1	11,523
8-9 years complete	52.9	63.7	47.0	57.4	17,383	79.1	81.8	73.2	76.0	14,398
10-11 years complete	67.2	77.4	61.1	69.9	12,887	88.1	89.5	82.8	83.5	10,380
12 or more years complete	81.2	88.1	76.2	80.6	14,882	93.2	94.9	89.7	86.4	13,754
Regular media exposure[3]										
Yes	50.0	59.6	44.8	54.0	80,487	78.4	80.8	72.9	74.4	56,057
No	11.2	16.8	9.6	14.7	43,898	36.0	40.2	32.3	36.8	13,694
Marital status										
Never married	46.1	56.6	41.4	50.9	25,462	76.7	78.1	70.8	72.4	25,307
Ever had sex	34.6	43.9	31.2	34.6	196	82.8	84.6	78.0	79.1	3,415
Never had sex	46.2	56.7	41.5	51.0	25,266	75.7	77.1	69.7	71.4	21,893
Currently married	34.2	41.8	30.5	37.7	93,089	66.6	70.2	61.9	64.3	43,501
Married once	34.5	42.1	30.7	38.0	91,254	67.1	70.7	62.4	64.8	41,184
Married more than once	22.2	28.7	19.9	23.3	1,835	56.2	60.6	52.4	54.7	2,317
Widowed/divorced/ separated/deserted	26.0	35.0	22.4	32.4	5,834	52.2	55.1	48.3	50.6	942
Currently residing with spouse[4]										
Yes	34.7	42.2	30.9	38.2	84,101	66.3	69.9	61.6	64.0	42,136
No	30.1	38.1	27.1	33.1	8,988	75.0	78.4	71.7	73.3	1,365
Times slept away from home in the past 12 months										
None	na	na	na	na	na	67.7	71.5	62.5	65.8	21,619
1-2	na	na	na	na	na	69.9	72.4	64.4	66.6	12,568
3-4	na	na	na	na	na	69.0	71.5	64.2	66.3	11,447
5+	na	na	na	na	na	72.6	74.8	67.7	68.6	23,926
Time away in the past 12 months										
Away for more than 1 month	na	na	na	na	na	70.4	73.4	65.9	67.1	7,757
Away for 1 month or less	na	na	na	na	na	71.2	73.4	66.1	67.7	40,320
Not away	na	na	na	na	na	67.7	71.5	62.5	65.8	21,619

Continued…

Table 11.2 Knowledge of HIV prevention methods—*Continued*

Background characteristic	Women: Percentage who say that HIV/AIDS can be prevented by: Using condoms[1]	Limiting sexual intercourse to one uninfected partner[2]	Using condoms and limiting sexual intercourse to one uninfected partner[1, 2]	Abstaining from sexual intercourse	Number of women	Men: Percentage who say that HIV/AIDS can be prevented by: Using condoms[1]	Limiting sexual intercourse to one uninfected partner[2]	Using condoms and limiting sexual intercourse to one uninfected partner[1, 2]	Abstaining from sexual intercourse	Number of men
Employment (past 12 months)										
Employed	27.6	35.5	24.4	32.4	53,081	68.3	71.3	63.3	65.6	60,377
Professional	81.2	87.6	76.4	79.6	3,436	90.2	92.5	86.2	84.0	4,042
Sales worker	45.2	54.0	40.2	50.4	1,993	82.1	84.3	77.1	77.8	8,352
Service worker	40.4	50.2	36.0	46.2	3,625	77.7	81.3	72.3	75.7	3,149
Production worker	31.7	39.7	27.4	36.7	11,787	68.3	71.1	62.8	65.4	22,214
Agricultural worker	16.0	23.9	13.7	21.4	31,282	54.2	57.9	49.4	53.3	20,279
Other worker	76.3	79.6	69.2	76.1	957	91.2	92.5	86.8	84.4	2,341
Not employed	42.8	51.3	38.3	46.0	71,258	81.4	82.8	75.9	76.6	9,288
Religion										
Hindu	36.2	44.3	32.2	39.9	100,151	70.2	72.8	65.1	67.1	57,112
Muslim	31.0	39.5	27.9	35.5	16,936	66.8	70.6	61.9	63.8	8,747
Christian	50.9	63.1	44.8	59.6	3,053	69.7	74.6	64.1	65.1	1,567
Sikh	56.3	63.0	51.9	57.2	2,222	84.1	84.9	79.0	85.7	1,270
Buddhist/Neo-Buddhist	43.3	55.2	37.5	49.9	1,010	78.5	82.2	74.7	77.1	596
Jain	77.0	81.8	72.5	75.7	406	94.5	93.0	91.7	86.1	213
Other	15.5	19.8	14.0	17.6	484	34.6	36.7	30.8	34.4	232
Caste/tribe										
Scheduled caste	30.1	38.7	26.6	34.6	23,125	66.0	68.7	60.4	62.8	13,188
Scheduled tribe	19.3	25.6	16.7	22.4	10,119	49.4	51.9	44.7	48.9	5,725
Other backward class	33.1	41.2	29.0	37.0	48,880	70.8	73.6	65.8	67.8	27,219
Other	48.1	56.8	43.7	51.8	41,207	76.7	79.7	71.7	73.2	23,214
Don't know	22.2	29.2	18.1	28.0	649	58.4	60.4	52.9	57.9	177
Wealth index										
Lowest	9.1	13.4	7.6	11.7	21,718	38.6	40.7	34.1	37.3	11,031
Second	16.8	24.9	14.4	22.4	23,616	57.3	60.7	51.6	56.1	12,666
Middle	30.0	39.4	25.7	35.8	25,088	70.0	74.2	64.1	68.2	14,301
Fourth	47.1	57.6	41.6	51.6	26,106	82.3	84.2	76.6	77.4	15,493
Highest	69.5	77.7	64.2	70.7	27,856	89.7	92.0	85.8	84.8	16,260
Total age 15-49	36.3	44.5	32.3	40.2	124,385	70.0	72.8	64.9	67.0	69,751
Age 50-54	na	na	na	na	na	57.3	63.2	53.5	57.3	4,618
Total age 15-54	na	na	na	na	na	69.2	72.2	64.2	66.4	74,369

Note: Total includes women/men with missing information on education, employment (past 12 months), religion, and caste/tribe and men with missing information on number of times slept away from home in the past 12 months and time away in the past 12 months, who are not shown separately.
na = Not applicable
[1] Using condoms every time they have sexual intercourse.
[2] Partner who has no other partners.
[3] Exposure to radio, television, or newspapers/magazines at least once a week.
[4] Based on currently married respondents only.

The importance of the media as a source of knowledge of HIV/AIDS is evident from the fact that knowledge of each of the three methods of prevention is at least twice as high among women and men with regular media exposure, compared with women and men who do not have regular media exposure. For example, 45 percent of women and 73 percent of men who have regular media exposure know about avoiding HIV by using condoms and limiting sexual intercourse to one uninfected partner, compared with only 10 percent of women and 32 percent of men who are not regularly exposed to media.

Differentials in knowledge of prevention methods by caste and religion indicate that scheduled tribe women and men are least aware of each of the three means of HIV/AIDS prevention and Muslim women and men are less likely to be aware of different means of HIV/AIDS prevention than women and men in other religious groups.

As is true for knowledge of HIV/AIDS, the never married population knows of each prevention method in a somewhat higher proportion than does the currently married population, and this is true for both women and men. The proportion of men who know a prevention method varies little by the number of times they slept away from home or the amount of time they spent away from home in the past 12 months. Among currently married respondents, a somewhat higher proportion of men who do not live with their spouses know each prevention method than men who live with their spouses; however, among women, the reverse is true, although the differentials are generally small.

11.1.2 Knowledge of Transmission

NFHS-3 included questions to assess the prevalence of common misconceptions about AIDS and HIV transmission. Respondents were asked whether they think it is possible for a healthy-looking person has HIV/AIDS. They were also asked whether a person can get HIV/AIDS from mosquito bites, by hugging some one who has HIV/AIDS, or by sharing food with a person who has HIV/AIDS.

Tables 11.3.1 and 11.3.2 present the percentages of women and men age 15-49 who say that a healthy looking person can have HIVAIDS, the percentages who, in response to prompted questions, correctly reject local misconceptions about HIV/AIDS transmission and prevention, and the percentages with different combinations of information about HIV/AIDS transmission and prevention, by background characteristics. Many Indian adults lack accurate knowledge about the ways in which HIV/AIDS can and cannot be transmitted. Particularly critical is the fact that only 38 percent of women and 61 percent of men know that a healthy-looking person can have (and thus transmit) HIV/AIDS. Many women and men also erroneously believe that HIV/AIDS can be transmitted by mosquito bites; only 38 percent of women and 53 percent of men reject this common misconception. Larger proportions of women and men are aware that HIV/AIDS cannot be transmitted by hugging some one who has AIDS (43 and 64 percent, respectively) and by sharing food with a person who has HIV/AIDS (42 percent and 61 percent, respectively). Only a minority of women (31 percent) and men (45 percent) reject all three misconceptions. An even smaller minority of women (23 percent) and men (37 percent) have sufficient understanding of HIV/AIDS to both reject the two most common misconceptions among the three asked about—that HIV/AIDS can be transmitted by mosquito bites and that a person can become infected with HIV/AIDS by sharing food or utensils with someone who is infected—and believe that a healthy-looking person can have HIV/AIDS.

Table 11.3.1 Comprehensive knowledge about HIV/AIDS: Women

Percentage of women age 15-49 who, in response to prompted questions, correctly reject misconceptions about HIV/AIDS transmission or prevention and who say that a healthy-looking person can have HIV/AIDS, and percentage who have a comprehensive knowledge about HIV/AIDS, by background characteristics, India, 2005-06

Background characteristic	Percentage of women who say that: HIV/AIDS cannot be transmitted by mosquito bites	HIV/AIDS cannot be transmitted by hugging someone who has AIDS	A person cannot become infected by sharing food with a person who has AIDS	HIV/AIDS cannot be transmitted by any of the specified methods	Percentage who reject all three misconceptions and know how to prevent HIV/AIDS[1]	Percentage who say that a healthy-looking person can have HIV/AIDS	Percentage who say that a healthy-looking person can have HIV/AIDS and who reject the two most common misconceptions[2]	Percentage who have a comprehensive knowledge about HIV/AIDS[3]	Number of women
Age									
15-24	43.6	49.2	47.8	36.5	24.3	42.2	27.7	19.9	47,590
15-19	43.6	48.6	47.3	36.3	22.7	41.3	27.3	18.6	24,811
20-24	43.5	49.7	48.4	36.7	26.2	43.1	28.2	21.4	22,779
25-29	39.5	45.0	43.5	32.6	23.7	39.0	24.8	19.4	20,417
30-39	34.6	39.8	38.4	27.8	19.5	34.6	20.7	15.6	33,522
40-49	30.0	34.6	33.4	23.5	15.6	31.4	17.3	12.5	22,856
Residence									
Urban	57.7	65.0	63.3	49.6	36.3	56.2	39.2	30.3	40,817
Rural	28.3	32.7	31.5	22.1	14.0	28.5	15.7	11.0	83,568
Education									
No education	12.7	15.2	14.5	8.7	4.2	14.5	5.4	3.1	50,487
<5 years complete	25.3	31.0	29.4	17.4	8.8	27.1	10.9	6.2	9,918
5-7 years complete	37.9	45.4	42.9	28.7	17.2	37.8	19.6	13.0	18,820
8-9 years complete	55.0	62.3	60.2	44.1	29.9	52.8	32.4	23.3	17,383
10-11 years complete	71.2	79.0	77.9	62.0	44.4	66.5	47.8	36.0	12,887
12 or more years complete	83.6	90.7	89.6	77.4	63.0	80.1	66.1	55.1	14,882
Regular media exposure[4]									
Yes	51.6	59.0	57.3	43.3	30.5	50.6	33.1	24.8	80,487
No	13.0	14.4	13.7	8.8	4.6	13.8	5.8	3.5	43,898
Marital status									
Never married	54.5	60.4	59.3	46.6	30.8	51.4	36.4	25.8	25,462
Ever had sex	34.3	39.7	41.9	29.6	21.7	31.7	21.0	15.9	196
Never had sex	54.6	60.5	59.4	46.7	30.9	51.5	36.5	25.9	25,266
Currently married	34.1	39.3	37.8	27.5	19.3	34.4	20.4	15.4	93,089
Married once	34.4	39.6	38.1	27.8	19.5	34.6	20.6	15.6	91,254
Married more than once	19.7	24.2	23.3	14.4	9.2	22.3	10.6	7.1	1,835
Widowed/divorced/separated/deserted	27.6	32.5	31.5	21.1	12.5	29.3	14.7	9.8	5,834
Currently residing with spouse[5]									
Yes	34.6	39.9	38.5	28.0	19.6	34.8	20.8	15.7	84,101
No	29.8	33.3	31.8	23.0	16.0	30.2	17.1	12.6	8,988
Employment (past 12 months)									
Employed	29.2	33.2	32.2	22.9	15.0	29.6	16.8	12.3	53,081
Professional	82.2	88.6	88.2	76.6	63.7	80.5	67.1	57.4	3,436
Sales worker	44.4	52.3	51.0	35.6	24.7	45.8	27.9	21.2	1,993
Service worker	40.3	48.4	46.0	32.3	21.7	42.3	24.2	17.4	3,625
Production worker	32.3	38.3	36.9	25.0	15.5	32.9	17.5	11.9	11,787
Agricultural worker	18.5	20.7	20.0	12.9	6.9	18.9	8.3	5.2	31,282
Other worker	77.0	83.5	82.2	69.6	55.5	72.9	57.7	47.1	957
Not employed	44.5	50.7	49.1	37.2	26.0	43.6	28.3	21.1	71,258

Continued…

Table 11.3.1 Comprehensive knowledge about HIV/AIDS: Women—*Continued*

Background characteristic	Percentage of women who say that: HIV/AIDS cannot be transmitted by mosquito bites	HIV/AIDS cannot be transmitted by hugging someone who has AIDS	A person cannot become infected by sharing food with a person who has AIDS	HIV/AIDS cannot be transmitted by any of the specified methods	Percentage who reject all three misconceptions and know how to prevent HIV/AIDS[1]	Percentage who say that a healthy-looking person can have HIV/AIDS	Percentage who say that a healthy-looking person can have HIV/AIDS and who reject the two most common misconceptions[2]	Percentage who have a comprehensive knowledge about HIV/AIDS[3]	Number of women
Religion									
Hindu	38.0	43.2	41.6	31.1	21.3	37.3	23.3	17.2	100,151
Muslim	32.5	36.6	36.4	25.6	16.9	33.4	19.7	14.1	16,936
Christian	54.1	62.6	62.6	46.0	31.3	56.1	36.7	26.0	3,053
Sikh	49.4	61.7	59.3	44.2	34.1	49.1	32.0	25.9	2,222
Buddhist/Neo-Buddhist	49.2	57.6	58.1	42.4	26.3	49.3	32.1	22.4	1,010
Jain	82.7	84.4	84.6	75.4	61.8	79.6	67.4	57.8	406
Other	15.3	16.6	17.6	11.2	8.1	15.7	8.7	6.9	484
Caste/tribe									
Scheduled caste	31.2	36.8	35.6	24.8	16.0	31.1	17.6	12.7	23,125
Scheduled tribe	21.3	24.4	23.0	16.3	9.9	22.5	11.9	8.1	10,119
Other backward class	35.6	40.1	39.0	28.7	18.7	34.6	20.8	14.7	48,880
Other	49.1	55.6	53.9	41.4	30.5	48.9	32.9	25.4	41,207
Don't know	23.2	29.1	28.4	16.5	9.2	24.9	11.7	7.3	649
Wealth index									
Lowest	10.7	12.3	11.2	6.9	3.4	11.2	4.4	2.5	21,718
Second	19.3	22.4	21.1	13.3	7.0	20.1	8.4	5.2	23,616
Middle	32.0	37.2	36.0	24.2	14.0	32.4	16.3	10.6	25,088
Fourth	48.9	56.6	55.3	40.4	26.9	48.0	30.0	21.4	26,106
Highest	70.2	78.0	76.3	62.6	48.7	68.1	51.3	41.4	27,856
Total	38.0	43.3	41.9	31.1	21.3	37.6	23.4	17.3	124,385

Note: Total includes women with missing information on education, employment (past 12 months), religion, and caste/tribe, who are not shown separately.
[1] Respondents who know how to prevent HIV/AIDS say that the use of a condom for every act of sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting HIV/AIDS.
[2] Two most common misconceptions in NFHS-3: HIV/AIDS can be transmitted by mosquito bites and by sharing food.
[3] Respondents with comprehensive knowledge say that the use of a condom for every act of sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting HIV/AIDS, say that a healthy-looking person can have HIV/AIDS, and reject the two most common misconceptions in NFHS-3.
[4] Exposure to radio, television, or newspapers/magazines at least once a week.
[5] Based on currently married women only.

Table 11.3.2 Comprehensive knowledge about HIV/AIDS: Men

Percentage of men age 15-49 who, in response to prompted questions, correctly reject misconceptions about HIV/AIDS transmission or prevention and who say that a healthy-looking person can have HIV/AIDS and percentage who have a comprehensive knowledge about HIV/AIDS, by background characteristics, India, 2005-06

Background characteristic	Percentage of men who say that: HIV/AIDS cannot be transmitted by mosquito bites	HIV/AIDS cannot be transmitted by hugging someone who as AIDS	A person cannot become infected by sharing food with a person who has AIDS	HIV/AIDS cannot be transmitted by any of the specified methods	Percentage who reject all three misconceptions and know how to prevent HIV/AIDS[1]	Percentage who say that a healthy-looking person can have HIV/AIDS	Percentage who say that a healthy-looking person can have HIV/AIDS and who reject the two most common misconceptions[2]	Percentage who have a comprehensive knowledge about HIV/AIDS[3]	Number of men
Age									
15-24	59.1	71.4	68.4	51.0	43.3	63.0	41.1	36.1	24,997
15-19	59.2	70.2	67.5	50.7	41.9	59.8	39.7	34.5	13,008
20-24	59.1	72.7	69.3	51.4	44.8	66.5	42.7	37.8	11,989
25-29	56.3	69.1	66.1	49.1	43.0	66.2	41.8	37.4	10,854
30-39	50.0	60.8	57.6	41.5	36.1	61.2	35.3	31.3	19,045
40-49	43.8	53.0	50.2	35.6	30.9	54.8	30.2	26.7	14,855
Residence									
Urban	67.3	80.5	77.7	60.1	53.0	75.0	51.9	46.6	25,504
Rural	44.7	54.8	51.7	36.1	30.4	53.3	28.9	25.1	44,247
Education									
No education	20.7	27.1	24.4	13.8	9.9	29.4	9.9	7.5	12,571
<5 years complete	31.0	42.0	37.7	21.7	16.1	43.4	15.9	12.5	7,109
5-7 years complete	45.8	58.1	54.1	35.5	29.1	54.6	27.2	23.1	11,523
8-9 years complete	59.2	71.3	68.6	49.1	41.7	67.6	39.7	34.7	14,398
10-11 years complete	70.5	83.9	81.0	62.6	55.4	77.1	53.0	47.7	10,380
12 or more years complete	79.9	92.5	90.3	75.2	68.8	86.7	67.6	62.2	13,754
Regular media exposure[4]									
Yes	60.0	72.9	69.9	51.9	45.1	68.7	43.6	38.7	56,057
No	23.9	28.9	25.8	15.9	12.0	30.7	11.3	9.4	13,694
Marital status									
Never married	62.2	74.5	71.8	54.5	46.6	65.8	44.7	39.3	25,307
Ever had sex	59.5	75.5	70.3	51.3	46.1	69.8	42.5	38.8	3,415
Never had sex	62.6	74.3	72.0	55.0	46.6	65.2	45.1	39.4	21,893
Currently married	47.9	58.7	55.5	39.6	34.3	59.0	33.3	29.6	43,501
Married once	48.6	59.4	56.3	40.3	35.0	59.5	33.9	30.1	41,184
Married more than once	35.4	44.7	41.4	27.4	23.4	50.6	22.6	19.9	2,317
Widowed/divorced/separated/deserted	35.7	45.0	42.4	28.4	23.9	43.7	21.2	19.0	942
Currently residing with spouse[5]									
Yes	47.7	58.4	55.2	39.4	34.1	58.7	33.1	29.3	42,136
No	54.5	67.2	63.1	46.0	42.5	67.3	40.4	37.4	1,365
Times slept away from home n the past 12 months									
None	53.0	64.2	61.7	45.6	38.0	61.2	37.7	32.4	21,619
1-2	52.3	63.4	60.4	43.4	37.4	60.9	36.4	32.3	12,568
3-4	51.3	62.5	59.3	43.2	37.4	58.7	35.4	31.5	11,447
5+	53.9	65.4	62.0	45.6	40.3	62.6	38.1	34.4	23,926
Time away in the past 12 months									
Away for more than 1 month	51.2	62.2	58.2	41.3	36.5	59.9	34.4	31.2	7,757
Away for 1 month or less	53.2	64.6	61.5	45.1	39.4	61.6	37.6	33.6	40,320
Not away	53.0	64.2	61.7	45.6	38.0	61.2	37.7	32.4	21,619

Continued…

Table 11.3.2 Comprehensive knowledge about HIV/AIDS: Men—*Continued*

Background characteristic	Percentage of men who say that: HIV/AIDS cannot be transmitted by mosquito bites	HIV/AIDS cannot be transmitted by hugging someone who as AIDS	A person cannot become infected by sharing food with a person who has AIDS	HIV/AIDS cannot be transmitted by any of the specified methods	Percentage who reject all three misconceptions and know how to prevent HIV/AIDS[1]	Percentage who say that a healthy-looking person can have HIV/AIDS	Percentage who say that a healthy-looking person can have HIV/AIDS and who reject the two most common misconceptions[2]	Percentage who have a comprehensive knowledge about HIV/AIDS[3]	Number of men
Employment (past 12 months)									
Employed	50.2	61.5	58.4	41.9	36.1	59.7	34.9	30.8	60,377
Professional	76.5	88.8	86.8	71.2	64.2	86.0	66.0	59.9	4,042
Sales worker	61.3	75.6	71.8	53.3	47.2	73.0	44.9	40.4	8,352
Service worker	59.8	73.4	69.8	51.5	44.4	67.5	42.8	37.8	3,149
Production worker	49.2	61.3	58.2	40.6	34.3	58.8	33.0	28.6	22,214
Agricultural worker	37.1	45.6	42.6	28.5	23.7	45.9	22.2	19.3	20,279
Other worker	75.5	87.9	83.8	68.0	61.7	84.3	61.3	55.9	2,341
Not employed	70.6	82.1	79.8	63.6	55.0	71.8	53.0	47.3	9,288
Religion									
Hindu	53.6	64.4	61.4	45.5	39.3	61.0	37.7	33.4	57,112
Muslim	46.1	59.7	56.5	37.6	31.8	59.1	30.4	26.6	8,747
Christian	57.4	68.7	68.9	50.6	41.0	67.3	44.8	36.9	1,567
Sikh	56.8	77.3	71.3	50.4	45.3	74.4	45.1	41.2	1,270
Buddhist/Neo-Buddhist	66.1	77.7	75.7	60.5	52.8	79.3	54.2	48.4	596
Jain	87.2	93.8	93.3	83.8	79.1	88.1	77.3	73.3	213
Other	25.3	29.3	26.2	18.3	15.9	30.8	16.2	14.2	232
Caste/tribe									
Scheduled caste	47.1	59.0	55.8	38.7	32.7	56.4	31.0	27.2	13,188
Scheduled tribe	36.7	44.8	41.3	29.4	23.6	42.9	23.6	19.9	5,725
Other backward class	54.1	64.5	61.4	45.6	39.5	60.9	37.6	33.2	27,219
Other	59.1	72.0	69.3	51.5	45.0	69.2	44.1	39.4	23,214
Don't know	35.2	47.3	46.3	26.8	22.9	44.5	20.7	17.3	177
Wealth index									
Lowest	24.8	30.4	27.5	16.8	13.0	31.9	12.0	10.1	11,031
Second	38.2	48.3	44.7	28.6	23.2	47.9	21.9	18.6	12,666
Middle	50.3	62.1	58.7	40.8	34.0	59.4	31.6	27.3	14,301
Fourth	63.6	77.4	74.4	55.6	48.2	71.6	46.5	41.0	15,493
Highest	75.6	88.9	86.7	69.8	63.0	83.4	62.7	57.0	16,260
Total age 15-49	52.9	64.2	61.2	44.8	38.6	61.3	37.3	33.0	69,751
Age 50-54	41.5	51.5	49.1	33.9	29.4	52.9	29.2	25.9	4,618
Total age 15-54	52.2	63.4	60.5	44.2	38.1	60.8	36.8	32.5	74,369

Note: Total includes men with missing information on education, times slept away from home in the past 12 months, time away in the past 12 months, employment (past 12 months), religion, and caste/tribe, who are not shown separately.

[1] Respondents who know how to prevent HIV/AIDS say that the use of a condom for every act of sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting HIV/AIDS.

[2] Two most common misconceptions in NFHS-3: HIV/AIDS can be transmitted by mosquito bites and by sharing food.

[3] Respondents with comprehensive knowledge say that the use of a condom for every act of sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting HIV/AIDS, say that a healthy-looking person can have HIV/AIDS, and reject the two most common misconceptions in NFHS-3.

[4] Exposure to radio, television, or newspapers/magazines at least once a week.

[5] Based on currently married men only.

These tables also provide an assessment of the level of comprehensive knowledge of HIV/AIDS prevention and transmission. Comprehensive knowledge is defined as: 1) knowing that both condom use and limiting sex partners to one uninfected faithful partner are HIV/AIDS prevention methods; 2) being aware that a healthy-looking person can have HIV/AIDS; and 3) rejecting the two most common misconceptions in India—that HIV/AIDS can be transmitted through mosquito bites and by sharing food. NFHS-3 results reveal that only 17 percent of women and 33 percent of men in India have comprehensive knowledge of HIV/AIDS prevention and transmission.

Tables 11.3.1 and 11.3.2 reveal considerable variation in HIV/AIDS knowledge. The proportions of women and men who reject all three most common misconceptions, who know that a healthy-looking person can have HIV/AIDS, or who have comprehensive knowledge about HIV/AIDS decrease with age. Nearly two-fifths of women (37 percent) age 15-24 have sufficient knowledge to reject all three most common transmission misconceptions, but this percentage declines with age to 24 percent among women age 40-49. In fact, correct knowledge as measured by all indicators in the table declines with age for both women and men. The proportion of women and men with correct knowledge of HIV/AIDS prevention and transmission is higher in urban than rural areas for all indicators. Education and regular media exposure have strong positive associations with all the indicators of HIV/AIDS knowledge. Among women, for example, 55 percent with at least 12 years of education have comprehensive knowledge about HIV/AIDS, compared with only 3 percent with no education. Among men, the level of comprehensive knowledge varies from 8 percent among those with no education to 62 percent among those with at least 12 years of education.

The wealth index is strongly and positively associated with a correct understanding of HIV/AIDS prevention and transmission. The proportion of women who reject all three of the most common misconceptions increases steadily with the wealth index from only 7 percent for women in the lowest wealth quintile to 63 percent for women in the highest wealth quintile. Similarly, the proportion of women having comprehensive knowledge of HIV/AIDS prevention and transmission increases from 3 percent among women in the lowest quintile to 41 percent among women in the highest quintile. The same pattern of knowledge of HIV prevention and transmission by wealth is observed among men. Nonetheless, it is notable that substantial proportions of even the most educated or those in the highest wealth quintile do not have correct knowledge of HIV/AIDS transmission.

A higher proportion of never married women and men have correct prevention and transmission knowledge than women and men who have married. Thirty-one percent of never married women and 47 percent of never married men reject all three misconceptions and know how to prevent AIDS infection, whereas the proportions are only 19 among currently married men and 34 percent among currently married men and only 13 and 24 percent, respectively, among formerly married women and men. The proportions of women having comprehensive knowledge about HIV/AIDS among the never, currently, and formerly married are 26, 15, and 10 percent, respectively. For men, the corresponding proportions among the never, currently, and formerly married are 39, 30, and 19 percent. It is worth mentioning that women and men who are currently married and have been married more than once are less likely to reject most common misconceptions and have comprehensive knowledge about HIV/AIDS than are women and men who are currently in their first marriage. Currently married women residing with their spouse are

more knowledgeable about most common misconceptions and correct means of HIV/AIDS prevention than are women not residing with their spouse, but the opposite is true for men. Employment is negatively associated with knowledge of different means of HIV/AIDS prevention and transmission for both women and men. There are, however, large differentials according to occupation groups. For example, the proportion of men with comprehensive knowledge about HIV/AIDS ranges from 19 percent among men in agricultural occupations and 29 percent among men in production/manual occupations to 60 percent among men in professional, technical or managerial occupations. Knowledge among men does not vary by the number of times slept away from home and time spent away from home in the past 12 months.

11.1.3 Knowledge of HIV/AIDS Transmission from a Mother to Her Child

Informing the population of ways in which HIV can be transmitted from a mother to her baby and that the risk of transmission can be reduced by using antiretroviral drugs are critical to reducing transmission of the virus from mothers to their babies. To obtain information on knowledge of these issues, NFHS-3 asked respondents if HIV/AIDS can be transmitted from a mother to her baby and whether there are any special medications that a doctor or a nurse can give to a woman infected with HIV/AIDS to reduce the risk of transmitting HIV/AIDS to the baby. Table 11.4 presents the percentage of women and men who know that HIV/AIDS can be transmitted from a mother to her baby and that the risk of transmission of HIV/AIDS to a baby can be reduced by the mother taking special drugs. Less than half of women age 15-49 (47 percent) and almost two-thirds of men (63 percent) in India know that HIV can be transmitted from a mother to her baby, but only one-fifth of women and men know that the risk of such transmission can be reduced with the use of certain drugs.

There are noticeable differences in knowledge about HIV/AIDS transmission from mothers to their babies among women and men by age, marital status, residence, education, regular media exposure, and wealth quintile. Knowledge of transmission from mother to child is highest among women and men who have at least 12 years of education (88 percent each for women and men), who are employed in professional occupations (88 percent and 87 percent), who are living in urban areas (67 percent and 75 percent), and who belong to the highest wealth quintile (78 percent and 82 percent). Knowledge levels are lowest among women and men who are in the lowest wealth quintile (15 and 34 percent), who are not regularly exposed to media (18 and 32 percent), who have no education (19 and 30 percent) and who belong to scheduled tribes (28 and 45 percent). Knowledge of the existence of antiretroviral drugs is low in all subgroups of the population. Even among those in professional occupations, only 46 percent of women and 38 percent of men know that an infected mother can take a drug to prevent HIV/AIDS being transmitted to her baby. The percentages are slightly lower (43 percent of women and 35 percent of men) in the highest education group. In all other subgroups of the population, these proportions are much lower. Particularly notable is the comparatively low level of knowledge of transmission from a mother to her child even among currently pregnant women. Only 40 percent of currently pregnant women know that HIV/AIDS can be transmitted from a mother to her child and only 15 percent are aware that transmission from a mother to her baby can be reduced by taking certain drugs.

Table 11.4 Knowledge of prevention of HIV transmission from a mother to her baby

Percentage of women and men who know that HIV/AIDS can be transmitted from a mother to her baby and that the risk of HIV transmission from an infected mother to her baby can be reduced by the mother taking special drugs , by background characteristics, India, 2005-06

	Women			Men		
Background characteristic	HIV/AIDS can be transmitted from a mother to her baby	HIV/AIDS can be transmitted from a mother to her baby and the risk of transmission can be reduced by the mother taking special drugs	Number of women	HIV/AIDS can be transmitted from a mother to her baby	HIV/AIDS can be transmitted from a mother to her baby and the risk of transmission can be reduced by the mother taking special drugs	Number of men
Age						
15-24	50.4	20.6	47,590	65.3	20.8	24,997
15-19	48.9	20.3	24,811	62.3	19.7	13,008
20-24	52.1	20.8	22,779	68.5	21.9	11,989
25-29	48.7	20.0	20,417	67.8	20.8	10,854
30-39	44.2	17.1	33,522	63.2	21.1	19,045
40-49	40.6	15.7	22,856	56.9	18.2	14,855
Residence						
Urban	67.0	28.4	40,817	74.6	24.6	25,504
Rural	36.7	13.8	83,568	56.8	17.9	44,247
Education						
No education	19.4	6.1	50,487	30.3	6.5	12,571
<5 years complete	38.8	13.1	9,918	47.3	12.4	7,109
5-7 years complete	50.7	18.2	18,820	56.7	15.6	11,523
8-9 years complete	65.7	26.0	17,383	69.4	20.6	14,398
10-11 years complete	79.8	34.6	12,887	80.3	27.4	10,380
12 or more years complete	88.3	43.0	14,882	88.1	35.3	13,754
Regular media exposure[1]						
Yes	62.3	26.0	80,487	71.0	23.6	56,057
No	17.9	5.2	43,898	31.8	7.0	13,694
Marital status						
Never married	60.1	25.8	25,462	68.4	22.1	25,307
Ever had sex	41.6	11.4	196	72.4	21.4	3,415
Never had sex	60.3	25.9	25,266	67.8	22.3	21,893
Currently married	43.4	17.0	93,089	60.8	19.4	43,501
Married once	43.7	17.1	91,254	61.4	19.6	41,184
Married more than once	29.3	10.9	1,835	49.8	16.2	2,317
Widowed/divorced/ separated/deserted	39.3	14.0	5,834	43.5	11.8	942
Currently pregnant						
Pregnant	40.0	15.0	6,429	na	na	na
Not pregnant or not sure	47.0	18.8	117,956	na	na	na
Currently residing with spouse[2]						
Yes	44.0	17.5	84,101	60.6	19.4	42,136
No	37.9	12.3	8,988	66.5	18.8	1,365
Times slept away from home in the past 12 months						
None	na	na	na	63.1	19.3	21,619
1-2	na	na	na	63.5	19.7	12,568
3-4	na	na	na	60.7	20.1	11,447
5+	na	na	na	64.6	21.6	23,926
Time away in the past 12 months						
Away for more than 1 month	na	na	na	63.5	20.5	7,757
Away for 1 month or less	na	na	na	63.4	20.8	40,320
Not away	na	na	na	63.1	19.3	21,619
Employment (past 12 months)						
Employed	38.3	15.1	53,081	61.5	19.4	60,377
Professional	88.4	45.9	3,436	87.3	37.5	4,042
Sales worker	58.3	22.9	1,993	71.8	22.0	8,352
Service worker	51.9	19.2	3,625	68.1	21.6	3,149
Production worker	43.9	16.4	11,787	60.5	17.7	22,214
Agricultural worker	26.4	9.5	31,282	49.5	15.2	20,279
Other worker	84.2	41.5	957	85.1	29.6	2,341
Not employed	52.9	21.3	71,258	75.0	26.0	9,288

Continued…

Table 11.4 Knowledge of prevention of HIV transmission from a mother to her baby—*Continued*

Background characteristic	Women			Men		
	HIV/AIDS can be transmitted from a mother to her baby	HIV/AIDS can be transmitted from a mother to her baby and the risk of transmission can be reduced by the mother taking special drugs	Number of women	HIV/AIDS can be transmitted from a mother to her baby	HIV/AIDS can be transmitted from a mother to her baby and the risk of transmission can be reduced by the mother taking special drugs	Number of men
Religion						
Hindu	46.4	18.9	100,151	63.4	20.6	57,112
Muslim	40.5	14.0	16,936	58.9	17.2	8,747
Christian	71.9	31.2	3,053	72.8	26.4	1,567
Sikh	62.3	19.4	2,222	75.9	16.1	1,270
Buddhist/Neo-Buddhist	58.2	26.7	1,010	73.1	25.9	596
Jain	80.7	34.4	406	85.2	38.6	213
Other	20.4	10.0	484	35.1	21.2	232
Caste/tribe						
Scheduled caste	40.5	15.8	23,125	59.7	17.7	13,188
Scheduled tribe	27.6	10.5	10,119	44.5	12.7	5,725
Other backward class	45.0	18.5	48,880	63.8	22.3	27,219
Other	57.0	22.4	41,207	69.6	21.3	23,214
Don't know	38.9	23.2	649	43.1	26.6	177
Wealth index						
Lowest	14.6	4.3	21,718	34.0	8.6	11,031
Second	27.2	8.8	23,616	50.8	15.1	12,666
Middle	43.7	16.2	25,088	64.1	20.2	14,301
Fourth	60.3	24.3	26,106	73.8	23.9	15,493
Highest	78.0	35.0	27,856	82.3	29.0	16,260
Total age 15-49	46.7	18.6	124,385	63.3	20.3	69,751
Age 50-54	na	na	na	55.9	19.6	4,618
Total age 15-54	na	na	na	62.9	20.3	74,369

Note: Total includes women/men with missing information on education, employment (past 12 months), religion, and caste/tribe and men with missing information on number of times slept away from home in the past 12 months and time away in the past 12 months, who are not shown separately.
na = Not applicable
[1] Exposure to radio, television, or newspapers/magazines at least once a week.
[2] Based on currently married respondents only.

Differences in knowledge of transmission of HIV/AIDS from a mother to her baby by religion are also substantial. Among the major religions, Muslim women and men are least likely to know about such transmission, followed by Hindu women and men. Less than one-fifth of Muslim women and men and about one-fifth of Hindu women and men are aware that infected mothers can take antiretroviral drugs to prevent transmission to their babies.

11.1.4 Knowledge of HIV/AIDS across States

Variation across states in selected HIV/AIDS awareness indicators are presented for women and men age 15-49 in Table 11.5. The percentage of women who have heard of AIDS ranges from a low of only 34 percent in Jharkhand to 99 percent in Manipur. In addition to Jharkhand, other states in which the proportion of women who have heard of AIDS is below 50 percent are Rajasthan, Bihar, Uttar Pradesh, Chhattisgarh, and Madhya Pradesh. Jharkhand is the lowest among the 29 states in knowledge of AIDS among men as well (61 percent). On the other hand, AIDS knowledge among men has become almost universal in Manipur, Kerala, Tamil Nadu, Delhi, and Mizoram, where over 95 percent of men are aware of AIDS. Less than three-quarters of men have heard of AIDS in Jharkhand, Meghalaya, Chhattisgarh, and Madhya Pradesh. Notably, knowledge of AIDS is higher among men than women in every state.

Table 11.5 HIV/AIDS-awareness indicators by state

Percentage of women and men age 15-49 who have heard of AIDS, who know that HIV/AIDS can be prevented by using condoms, who have a comprehensive knowledge about HIV/AIDS, and who know that HIV/AIDS can be transmitted from a mother to her baby, by state, India, 2005-06

State	Percentage who have heard of AIDS		Percentage who know that HIV/AIDS can be prevented by using condoms		Percentage who have a comprehensive knowledge about HIV/AIDS[1]		Percentage who know that HIV/AIDS can be transmitted from a mother to her baby	
	Women	Men	Women	Men	Women	Men	Women	Men
India	60.9	83.6	36.3	70.0	17.3	33.0	46.7	63.3
North								
Delhi	89.6	97.5	76.1	90.9	48.3	61.9	78.7	81.5
Haryana	64.1	87.2	46.0	79.2	24.7	39.0	52.7	74.2
Himachal Pradesh	82.7	93.1	61.8	86.2	30.0	53.2	68.0	80.9
Jammu & Kashmir	66.6	89.9	42.0	75.3	16.0	28.5	54.8	72.8
Punjab	73.6	91.8	53.7	81.2	23.0	35.0	60.1	74.1
Rajasthan	38.0	76.2	29.8	63.8	17.3	33.4	27.6	55.9
Uttaranchal	69.4	91.9	54.7	79.9	28.7	48.3	56.3	71.0
Central								
Chhattisgarh	45.8	72.4	28.8	63.1	15.0	38.6	30.5	54.7
Madhya Pradesh	49.7	74.4	37.8	67.1	20.3	38.9	39.2	52.5
Uttar Pradesh	45.2	78.0	30.0	69.4	15.9	29.5	33.8	54.9
East								
Bihar	38.7	75.2	22.8	62.3	11.7	24.4	28.8	56.4
Jharkhand	34.0	60.8	24.8	52.9	11.8	25.2	25.6	46.3
Orissa	66.0	78.4	33.0	64.9	11.3	24.5	41.7	57.0
West Bengal	53.7	79.0	30.4	58.9	9.8	14.6	35.4	54.6
Northeast								
Arunachal Pradesh	69.2	75.5	33.3	62.5	12.7	30.2	50.7	62.9
Assam	58.6	79.2	25.9	53.6	8.2	13.5	43.6	61.2
Manipur	98.5	99.3	79.1	92.2	44.0	60.9	90.5	90.5
Meghalaya	62.7	63.9	26.2	40.2	13.1	13.8	49.2	49.7
Mizoram	94.7	96.4	88.6	90.9	65.8	67.8	90.1	85.2
Nagaland	82.6	92.0	42.2	69.3	17.4	31.1	75.9	78.7
Sikkim	78.3	89.0	56.5	71.2	22.2	26.1	64.2	68.5
Tripura	74.4	91.3	41.7	65.8	11.8	21.2	60.1	71.6
West								
Goa	86.3	93.6	47.6	56.8	28.5	30.3	76.5	68.7
Gujarat	52.9	82.2	37.2	72.4	18.8	34.8	41.3	59.4
Maharashtra	81.6	92.5	46.9	80.4	29.5	52.5	60.9	71.1
South								
Andhra Pradesh	76.0	93.9	34.4	68.2	14.7	32.3	59.4	74.4
Karnataka	70.3	87.4	34.8	73.8	11.6	29.1	59.7	69.6
Kerala	95.1	98.5	65.2	82.4	32.7	40.8	79.3	81.1
Tamil Nadu	94.5	98.3	41.9	82.0	12.3	37.4	75.6	81.5

[1] Respondents with comprehensive knowledge say that the use of a condom for every act of sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting HIV/AIDS, say that a healthy-looking person can have HIV/AIDS, and reject the two most common misconceptions in NFHS-3, namely that HIV/AIDS can be transmitted by mosquito bites and by sharing food.

A comparison of AIDS awareness among ever-married women age 15-49 in NFHS-2 and NFHS-3 shows that there has been a rapid increase in knowledge of AIDS in the past seven years, a period when NACO has strengthened its efforts under the organized response to the HIV epidemic in India. As indicated earlier, for India as a whole, knowledge of AIDS among ever-married women age 15-49 has increased from 40 percent in NFHS-2 to 57 percent in NFHS-3 (Figure 11.1). Further, in 12 states, AIDS awareness increased between the two surveys by 20 or more percentage points (data not shown).

The proportion of women who know that HIV/AIDS can be prevented by using condoms consistently varies greatly across the country, from a low of 23 percent in Bihar to a high of 89 percent in Mizoram. In addition to Bihar, less than one in three women in Jharkhand, Assam, Meghalaya, Chhattisgarh, Rajasthan, Uttar Pradesh, and West Bengal know that consistent

condom use can prevent HIV/AIDS. Among men, the proportion who are aware of condom use as a means of HIV/AIDS prevention ranges from a low of 40 percent in Meghalaya to a high of 92 percent in Manipur, followed closely by Mizoram and Delhi (91 percent each). While there is very high condom awareness among men in these three states, there are 11 states in which more than one-third of men are not aware of condoms as a means of protection from HIV/AIDS.

The percentage of women and men who have comprehensive knowledge of HIV/AIDS is lowest in Assam (8 percent of women and 14 percent of men) and highest in Mizoram (66 percent of women and 68 percent of men). In fact, Mizoram is the only state in India where more than half of women have comprehensive knowledge of HIV/AIDS. Among men, however, comprehensive knowledge of HIV/AIDS exceeds 50 percent in five states, namely Maharashtra, Himachal Pradesh, Manipur, Delhi, and Mizoram. Across states, the percentage of women and men who know that HIV/AIDS can be transmitted from a mother to her baby is lowest in Jharkhand (26 percent of women and 46 percent of men). Other states where awareness of transmission from mother to child among women is very low are Rajasthan (28 percent), Bihar (29 percent), and Chhattisgarh (31 percent). Among men, in addition to Jharkhand, low levels of awareness about the possibility of HIV/AIDS transmission from mother to child are found in Meghalaya (50 percent), Madhya Pradesh (53 percent), Chhattisgarh, Uttar Pradesh, and West Bengal (55 percent each), and Bihar and Rajasthan (56 percent each).

11.2 Stigma Associated with AIDS and Attitudes Related to HIV/AIDS

Knowledge and beliefs about HIV/AIDS affect how people treat those they know to be living with the infection. While the intricacies of HIV/AIDS-related stigma have become better understood in recent years, stigma nevertheless remains a pervasive problem and occurs in a variety of contexts, including family, community, workplace, and health care settings (Reidpath and Chan, 2005). In NFHS-3, respondents were asked a number of questions to assess their attitudes toward HIV-infected people. Specifically, respondents were asked about their willingness to take care of a relative sick with HIV/AIDS in their own household and to buy fresh vegetables from a vegetable seller who has HIV/AIDS. They were also asked if a member of their family got infected with HIV/AIDS, whether they would want it to remain a secret or not. An additional question explored whether they thought a female teacher or a male teacher who has HIV/AIDS but is not sick should be allowed to continue teaching. Since the results for the question referring to male teachers are almost identical to those for the question referring to female teachers, results for only the latter are shown in the tables. Tables 11.6.1 and 11.6.2 show the percentages of women and men age 15-49 who express positive attitudes toward people with HIV/AIDS for each of these indicators among those who have heard of HIV/AIDS, by background characteristics.

Table 11.6.1 Accepting attitudes toward those living with HIV/AIDS: Women

Among women age 15-49 who have heard of AIDS, percentage expressing specific accepting attitudes toward people with HIV/AIDS, by background characteristics, India, 2005-06

Background characteristic	Percentage of women who: Are willing to care for a relative with HIV/AIDS in own home	Would buy fresh vegetables from a shopkeeper who has HIV/AIDS	Say that a female teacher who has HIV/AIDS but is not sick should be allowed to continue teaching	Would not want to keep secret that a family member got infected with HIV/AIDS	Percentage of women expressing accepting attitudes on all four indicators	Number of women who have heard of AIDS
Age						
15-24	77.4	65.9	78.4	64.3	37.4	31,120
15-19	78.3	66.1	79.0	64.1	37.6	15,965
20-24	76.4	65.6	77.7	64.5	37.3	15,155
25-29	75.1	61.3	74.1	63.9	34.5	12,783
30-39	72.5	55.9	70.7	64.3	30.9	19,455
40-49	70.9	51.6	67.3	62.3	27.7	12,408
Residence						
Urban	78.1	67.0	79.6	61.0	36.6	33,965
Rural	71.9	54.6	69.3	66.2	31.2	41,801
Education						
No education	65.7	41.1	56.2	62.0	21.1	15,276
<5 years complete	68.5	43.5	62.2	65.9	23.9	5,670
5-7 years complete	71.6	52.0	68.5	63.8	28.8	13,070
8-9 years complete	75.6	61.8	76.3	66.3	35.5	14,788
10-11 years complete	79.5	71.3	83.8	63.8	41.0	12,227
12 or more years complete	84.3	82.6	90.7	62.9	46.7	14,730
Regular media exposure[1]						
Yes	76.1	63.3	76.7	63.5	35.6	63,538
No	67.2	43.9	59.4	65.9	23.6	12,228
Marital status						
Never married	79.7	70.5	82.3	64.1	40.2	19,378
Ever had sex	69.7	57.2	66.4	67.6	31.9	114
Never had sex	79.8	70.6	82.4	64.1	40.3	19,264
Currently married	73.0	57.1	71.3	64.0	31.8	53,264
Married once	73.1	57.2	71.4	64.0	31.8	52,500
Married more than once	71.3	50.4	65.4	68.1	27.1	764
Widowed/divorced/separated/deserted	71.4	49.2	65.8	60.5	25.2	3,124
Currently residing with spouse[2]						
Yes	72.9	56.9	71.4	63.9	31.8	48,763
No	74.2	58.6	69.8	65.1	31.5	4,501
Employment (past 12 months)						
Employed	72.0	53.4	68.8	62.4	29.3	27,364
Professional	85.2	84.9	91.2	65.3	49.3	3,353
Sales worker	74.3	58.0	73.3	58.7	28.6	1,490
Service worker	75.2	56.9	70.2	63.9	33.5	2,529
Production worker	72.5	52.3	69.4	60.5	27.9	6,954
Agricultural worker	66.5	42.3	60.0	63.3	23.2	12,133
Other worker	80.4	76.8	88.4	57.4	38.2	903
Not employed	76.2	64.0	76.8	64.7	36.1	48,371
Religion						
Hindu	75.4	61.0	74.5	64.3	34.5	60,732
Muslim	70.1	55.4	69.9	63.2	29.5	9,344
Christian	71.7	56.7	72.0	53.0	24.1	2,583
Sikh	73.9	60.8	73.1	70.8	37.3	1,682
Buddhist/Neo-Buddhist	75.8	56.3	73.1	66.5	35.5	846
Jain	86.5	79.0	89.7	55.9	44.0	379
Other	72.3	49.9	62.7	73.2	30.2	131
Caste/tribe						
Scheduled caste	73.6	55.8	70.4	63.5	31.3	12,796
Scheduled tribe	71.4	49.5	66.7	70.7	29.4	3,901
Other backward class	75.7	59.3	73.7	59.6	31.3	28,591
Other	74.9	64.5	76.8	67.3	37.7	29,951
Don't know	54.6	44.7	58.5	58.0	19.9	328
Wealth index						
Lowest	68.8	45.6	61.6	65.7	23.7	5,189
Second	68.3	46.0	62.1	66.3	25.4	9,620
Middle	70.6	50.7	67.1	63.8	28.2	15,051
Fourth	75.1	61.2	74.7	64.0	34.6	20,267
Highest	80.3	73.2	84.1	62.6	41.2	25,640
Total	74.7	60.2	73.9	63.9	33.7	75,766

Note: Total includes women with missing information on education, employment (past 12 months), religion, and caste/tribe, who are not shown separately.

[1] Exposure to radio, television, or newspapers/magazines at least once a week.

[2] Based on currently married respondents only.

Table 11.6.2 Accepting attitudes toward those living with HIV/AIDS: Men

Among men age 15-49 who have heard of HIV/AIDS, percentage expressing specific accepting attitudes toward people with HIV/AIDS, by background characteristics, India, 2005-06

Background characteristic	Percentage of men who:				Percentage of men expressing accepting attitudes on all four indicators	Number of men who have heard of AIDS
	Are willing to care for a relative with HIV/AIDS in own home	Would buy fresh vegetables from a shopkeeper who has HIV/AIDS	Say that a female teacher who has HIV/AIDS but is not sick should be allowed to continue teaching	Would not want to keep secret that a family member got infected with HIV/AIDS		
Age						
15-24	78.9	66.9	74.8	63.0	38.2	22,005
15-19	78.7	65.8	74.2	62.3	37.3	11,244
20-24	79.2	68.1	75.4	63.7	39.1	10,761
25-29	77.9	65.6	73.4	66.1	39.3	9,519
30-39	77.0	60.8	68.7	66.8	36.2	15,629
40-49	73.6	55.2	65.1	66.2	32.7	11,128
Residence						
Urban	80.9	72.3	78.5	63.1	41.6	24,174
Rural	74.6	56.1	65.8	66.6	33.4	34,107
Education						
No education	63.8	39.0	48.2	58.8	19.0	6,433
<5 years complete	66.5	42.7	55.2	63.0	22.6	5,029
5-7 years complete	71.7	52.2	63.0	63.0	28.5	9,559
8-9 years complete	77.3	60.9	69.5	67.6	36.4	13,427
10-11 years complete	82.9	72.8	79.6	66.1	43.2	10,129
12 or more years complete	87.1	83.3	88.4	67.3	51.8	13,694
Regular media exposure[1]						
Yes	78.6	66.0	73.7	64.9	38.7	51,138
No	67.7	40.1	51.8	66.9	23.3	7,143
Marital status						
Never married	79.7	69.6	76.9	63.1	39.7	22,724
Ever had sex	77.9	67.1	74.5	63.0	37.4	3,190
Never had sex	80.0	70.0	77.3	63.1	40.1	19,534
Currently married	75.7	58.6	67.4	66.5	35.0	34,942
Married once	75.9	58.9	67.7	66.3	35.1	33,325
Married more than once	71.7	52.1	60.6	69.8	31.8	1,618
Widowed/divorced/separated/deserted	74.0	55.0	62.5	64.3	33.5	614
Currently residing with spouse[2]						
Yes	75.5	58.3	67.2	66.3	34.7	33,784
No	79.6	66.9	72.5	70.1	41.9	1,158
Employment (past 12 months)						
Employed	76.2	60.6	69.1	65.2	35.3	49,498
Professional	87.4	82.0	87.4	69.1	51.5	3,973
Sales worker	79.0	68.3	74.6	67.3	40.9	7,810
Service worker	78.8	64.1	71.1	67.5	38.7	2,856
Production worker	75.7	59.6	68.0	62.9	33.2	18,402
Agricultural worker	70.4	48.7	59.8	65.4	28.4	14,149
Other worker	82.7	74.7	81.3	65.2	44.5	2,309
Not employed	83.4	75.4	82.4	64.8	45.0	8,711
Religion						
Hindu	77.7	63.5	71.6	65.2	37.3	47,647
Muslim	72.8	56.7	66.4	64.7	31.9	7,192
Christian	79.1	61.4	72.9	54.1	29.2	1,375
Sikh	78.5	72.6	70.9	73.8	46.3	1,177
Buddhist/Neo-Buddhist	82.3	66.7	74.5	74.7	48.6	557
Jain	85.9	80.1	88.1	74.2	55.7	213
Other	64.3	45.1	56.0	64.5	31.0	109
Caste/tribe						
Scheduled caste	76.1	60.3	68.6	65.1	35.5	10,651
Scheduled tribe	72.7	51.3	63.4	69.3	32.2	3,656
Other backward class	77.9	63.4	71.8	59.8	34.4	22,878
Other	78.0	65.7	72.8	70.3	41.1	20,794
Don't know	59.6	45.9	71.1	59.0	18.1	136
Wealth index						
Lowest	68.9	42.7	54.1	66.1	24.4	5,836
Second	70.4	49.6	60.5	66.2	29.1	9,467
Middle	74.0	55.8	65.3	63.4	31.5	12,435
Fourth	79.4	67.9	75.1	64.3	39.3	14,584
Highest	84.8	78.8	84.3	66.3	47.8	15,960
Total age 15-49	77.2	62.8	71.1	65.1	36.8	58,281
Age 50-54	73.0	55.3	66.4	67.4	33.8	3,375
Total age 15-54	77.0	62.4	70.8	65.3	36.6	61,656

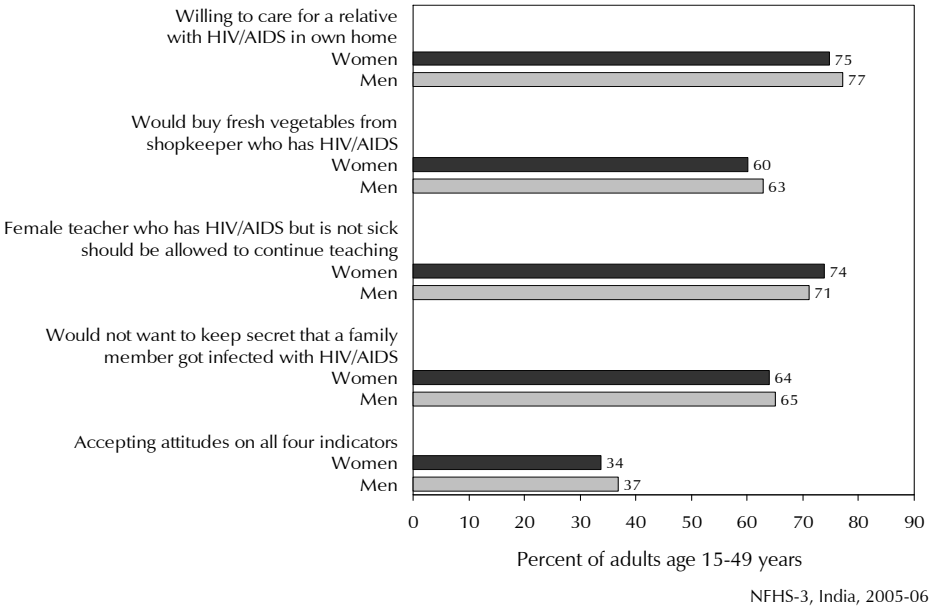
Note: Total includes men with missing information on education, employment (past 12 months), religion, and caste/tribe, who are not shown separately.

[1] Exposure to radio, television, or newspapers/magazines at least once a week.

[2] Based on currently married respondents only.

Both women and men tend to express more positive attitudes in response to the questions concerning willingness to care for a family member with HIV/AIDS (75 percent and 77 percent, respectively) and a female teacher with HIV/AIDS who is not sick (74 percent and 71 percent) than to the questions about buying fresh vegetables from a shopkeeper with HIV/AIDS (60 percent and 63 percent). Relatively low proportions of women (64 percent) and men (65 percent) say that they would not want to keep secret that a family member was infected with HIV/AIDS. The percentage expressing accepting attitudes on all four indicators is low, 34 percent among women and 37 percent among men (Figure 11.2).

Figure 11.2 Accepting Attitudes toward Persons Living with HIV/AIDS



NFHS-3, India, 2005-06

Clear differentials in stigma exist by background characteristics; however, they are not as large as the differentials in knowledge of AIDS. Younger ages, urban residence, higher education, regular media exposure, never married status, and higher wealth quintiles are all related to more accepting attitudes toward those who have HIV/AIDS among both women and men for each of the four indicators. However, the two-thirds of respondents who reported they would not want the HIV/AIDS status of a family member to remain a secret does not vary greatly by background characteristics. In fact, a slightly higher percentage of rural women and men and those with no regular media exposure say that they would not want to keep it a secret if a family member had HIV/AIDS. Married women and men who are not living with their spouse have a slightly higher percentage with a positive attitude toward people living with HIV/AIDS. Women and men not employed in the 12 months preceding the survey and those employed as professionals are more likely to have a positive attitude on all four indicators. Jains and those not belonging to a scheduled caste, scheduled tribe, or other backward class have slightly higher percentages with accepting attitudes on each of the indicators. The percentage of women and men expressing accepting attitudes on all four indicators by and large reflects a similar pattern by background characteristics of respondents as the pattern on each of the four indicators individually.

Table 11.7 Accepting attitudes toward those living with HIV/AIDS by state

Among women and men age 15-49 who have heard of AIDS, percentage expressing specific accepting attitudes toward people with HIV/AIDS, by state, India, 2005-06

State	Percentage of women who:					Percentage of men who:				
	Are willing to care for a relative with HIV/AIDS in own home	Would buy fresh vegetables from a shopkeeper who has HIV/AIDS	Say that a female teacher who has HIV/AIDS but is not sick should be allowed to continue teaching	Would not want to keep secret that a family member got infected with HIV/AIDS	Percentage of women expressing accepting attitudes on all four indicators	Are willing to care for a relative with HIV/AIDS in own home	Would buy fresh vegetables from a shopkeeper who has HIV/AIDS	Say that a female teacher who has HIV/AIDS but is not sick should be allowed to continue teaching	Would not want to keep secret that a family member got infected with HIV/AIDS	Percentage of men expressing accepting attitudes on all four indicators
India	74.7	60.2	73.9	63.9	33.7	77.2	62.8	71.1	65.1	36.8
North										
Delhi	87.2	83.2	87.1	66.8	50.3	89.3	90.1	89.2	62.0	53.1
Haryana	75.3	67.2	76.8	82.6	47.0	87.8	66.8	71.7	76.3	45.8
Himachal Pradesh	82.9	73.7	88.3	68.8	45.7	87.0	78.3	87.0	80.2	56.0
Jammu & Kashmir	64.7	47.5	57.9	66.2	27.6	69.6	54.6	62.8	84.1	41.0
Punjab	69.9	58.8	71.7	68.9	35.2	78.5	71.2	72.3	74.1	45.5
Rajasthan	79.4	72.9	80.7	61.1	39.8	82.8	58.4	66.5	57.6	37.0
Uttaranchal	80.8	75.9	82.9	66.4	46.1	88.6	79.6	86.5	63.3	53.7
Central										
Chhattisgarh	87.2	75.5	88.9	84.5	58.5	97.7	77.9	89.9	73.7	59.2
Madhya Pradesh	83.3	72.8	83.3	69.3	45.3	80.1	71.1	76.3	68.1	45.7
Uttar Pradesh	79.4	69.4	78.0	64.9	39.7	81.2	64.9	69.3	68.0	40.7
East										
Bihar	92.0	72.6	76.2	65.0	40.0	88.9	65.7	74.4	71.3	44.7
Jharkhand	90.0	69.9	83.2	75.4	49.8	89.0	61.0	75.2	74.0	40.8
Orissa	82.0	62.7	73.1	93.4	52.5	84.4	63.7	69.0	90.2	51.2
West Bengal	66.5	56.6	66.3	76.0	33.3	56.5	48.4	56.6	76.0	27.3
Northeast										
Arunachal Pradesh	72.2	45.3	58.0	78.7	29.0	72.0	59.6	67.6	64.1	36.2
Assam	65.5	53.7	68.1	87.9	29.5	65.8	45.1	59.7	88.4	26.1
Manipur	79.0	72.0	73.6	90.7	56.1	89.9	81.9	84.2	90.3	69.9
Meghalaya	52.8	25.3	38.9	67.3	8.2	68.2	36.0	48.7	63.7	20.5
Mizoram	76.3	64.9	64.4	54.1	29.0	82.5	73.2	64.3	54.1	28.4
Nagaland	62.6	36.1	46.9	75.5	17.2	68.1	48.9	57.2	80.9	28.1
Sikkim	66.2	66.1	67.7	67.2	32.7	61.7	73.3	68.6	75.8	33.4
Tripura	59.5	53.0	59.4	78.5	30.2	66.3	56.9	57.9	78.9	35.9
West										
Goa	73.3	61.9	76.8	48.2	25.8	66.3	62.5	70.2	58.9	30.1
Gujarat	87.2	57.9	75.2	61.2	32.6	78.8	58.2	65.5	74.3	36.5
Maharashtra	78.1	57.2	76.3	71.0	36.9	83.0	67.9	75.4	76.6	48.7
South										
Andhra Pradesh	55.4	45.5	64.9	43.3	16.2	61.2	52.2	68.0	35.1	15.6
Karnataka	64.8	52.7	74.6	62.0	29.2	69.3	61.0	79.7	57.9	28.5
Kerala	61.8	58.1	76.8	61.6	28.6	78.0	66.2	82.8	52.8	32.9
Tamil Nadu	78.5	52.1	67.1	30.1	12.2	79.2	67.3	68.5	24.7	13.8

Information on the proportion of women and men with accepting attitudes toward people with HIV/AIDS by state is presented in Table 11.7. The proportion of women who are willing to care for a family member infected with HIV/AIDS is highest in Bihar (92 percent) and lowest in Meghalaya (53 percent). The corresponding proportions among men are 98 percent in Chhattisgarh and 57 percent in West Bengal. The lowest proportions of women and men with an accepting attitude on buying vegetables from an HIV/AIDS infected shopkeeper (25 percent among women and 36 percent among men) and allowing a female teacher infected with HIV/AIDS to continue teaching (39 percent among women and 49 percent among men) occur in Meghalaya. The proportion of women and men who say that they would not want to keep secret that a family member is infected with HIV/AIDS is lowest in Tamil Nadu (30 percent among women and 25 percent among men). The percentage of women having accepting attitudes toward HIV/AIDS infected persons on all four indicators is lowest in Meghalaya (8 percent). Other states having a very low acceptance by women are Tamil Nadu (12 percent), Andhra Pradesh (16 percent), and Nagaland (17 percent). Notably each of these three states is a high HIV prevalence state. These three states show a relatively low percentage of men with accepting attitudes on all four indicators as well, from 14 percent in Tamil Nadu to 16 percent in Andhra Pradesh and 28 percent in Nagaland. Other states with very low proportions of men having accepting attitudes on all four indicators are Assam (26 percent) and West Bengal (27 percent).

11.3 Attitudes Toward Negotiating Safer Sex

Comprehensive knowledge about HIV transmission and ways to prevent it are basic requisites for prevention, but translating knowledge into behaviour depends on a number of individual, social, and contextual factors. One of the important determinants of practicing safer sex is control over one's own sexuality. Having comprehensive knowledge of HIV/AIDS prevention may be of little use if people feel powerless to negotiate safer sex practices with their partners. In an effort to assess the ability of women to negotiate safer sex with a husband who has a sexually transmitted infection (STI), both female and male respondents were asked whether a wife is justified in refusing to have sex with her husband when she knows he has a sexually transmitted infection. In addition, male respondents were asked whether a woman who knows her husband has a sexually transmitted infection is justified in asking her husband to use a condom. Table 11.8 shows the percentages of respondents age 15-49 who say 'yes' to these questions. Most women (78 percent) and men (82 percent) believe that, if a wife knows her husband has an STI, she is justified in refusing to have sex with him. Most men (83 percent) also agree that a woman is justified in asking her STI-infected husband to wear a condom. Considering the two actions together, the majority of adult men in India (89 percent) say that a woman can refuse to have sex or ask her husband to use a condom if she knows that he has an STI.

The majority of respondents in all groups support a woman's right to negotiate safer sex. However, there are differences by background characteristics in the percentages of respondents holding this opinion. Women and men age 15-19 are slightly less likely than older women and men to say that a woman can refuse to have sex if her husband is infected with an STI. Women and men living in urban areas, those with higher education, those working as professionals or in 'other' occupations, those who are unmarried and have ever had sex, those who are currently married, Jains and Sikhs, and those belonging to the highest wealth quintile are somewhat more

Table 11.8 Attitudes toward negotiating sex with husband

Percentage of women and men age 15-49 who believe that, if a husband has a sexually transmitted disease, his wife is justified in refusing to have sexual intercourse with him or (for men) asking that they use a condom, by background characteristics, India, 2005-06

	Women		Men			
Background characteristic	Wife is justified in refusing to have sex	Number of women	Wife is justified in refusing to have sex	Wife is justified in asking that they use a condom	Wife is justified in refusing sex or asking that they use a condom	Number of men
Age						
15-24	74.5	47,590	79.3	82.5	87.2	24,997
15-19	70.1	24,811	75.3	77.9	83.1	13,008
20-24	79.2	22,779	83.6	87.6	91.6	11,989
25-29	80.5	20,417	84.3	87.4	92.2	10,854
30-39	80.3	33,522	83.8	84.3	90.0	19,045
40-49	78.9	22,856	80.4	79.7	87.2	14,855
Residence						
Urban	80.9	40,817	86.3	90.5	93.3	25,504
Rural	76.4	83,568	78.8	78.9	86.1	44,247
Education						
No education	76.5	50,487	68.5	63.0	75.1	12,571
<5 years complete	73.2	9,918	74.2	73.5	82.2	7,109
5-7 years complete	76.6	18,820	79.8	81.1	86.9	11,523
8-9 years complete	78.3	17,383	83.9	87.0	91.6	14,398
10-11 years complete	79.6	12,887	87.5	92.6	94.7	10,380
12 or more years complete	84.9	14,882	91.7	97.2	98.4	13,754
Regular media exposure[1]						
Yes	78.9	80,487	84.4	87.9	91.8	56,057
No	75.9	43,898	69.7	63.8	76.1	13,694
Marital status						
Never married	69.2	25,462	79.2	83.1	87.5	25,307
Ever had sex	79.9	196	85.5	90.9	94.2	3,415
Never had sex	69.1	25,266	78.2	81.9	86.5	21,893
Currently married	80.3	93,089	83.0	83.4	89.5	43,501
Married once	80.4	91,254	83.2	83.8	89.7	41,184
Married more than once	78.0	1,835	79.4	77.2	85.6	2,317
Widowed/divorced/ separated/deserted	76.2	5,834	77.8	74.1	84.4	942
Times slept away from home in the past 12 months						
None	na	na	77.8	79.9	85.7	21,619
1-2	na	na	81.3	82.6	89.0	12,568
3-4	na	na	83.2	84.3	90.0	11,447
5+	na	na	84.2	85.8	90.6	23,926
Time away in the past 12 months						
Away for more than 1 month	na	na	82.2	84.1	90.0	7,757
Away for 1 month or less	na	na	83.4	84.8	90.1	40,320
Not away	na	na	77.8	79.9	85.7	21,619
Employment (past 12 months)						
Employed	77.4	53,081	81.8	83.0	88.8	60,377
Professional	86.1	3,436	91.3	95.8	97.6	4,042
Sales worker	76.9	1,993	87.1	91.0	94.7	8,352
Service worker	78.8	3,625	85.5	88.0	92.6	3,149
Production worker	75.0	11,787	81.8	82.9	88.5	22,214
Agricultural worker	76.9	31,282	76.1	74.9	83.3	20,279
Other worker	84.6	957	90.6	95.0	97.2	2,341
Not employed	78.2	71,258	80.2	84.7	88.3	9,288
Religion						
Hindu	78.5	100,151	81.9	83.1	88.8	57,112
Muslim	73.2	16,936	78.2	82.5	87.4	8,747
Christian	76.4	3,053	79.6	80.9	87.3	1,567
Sikh	84.9	2,222	93.3	93.9	95.6	1,270
Buddhist/Neo-Buddhist	70.2	1,010	83.2	90.0	93.3	596
Jain	92.1	406	92.4	98.1	98.4	213
Other	78.7	484	66.9	55.0	70.1	232
Caste/tribe						
Scheduled caste	77.5	23,125	78.6	81.1	87.0	13,188
Scheduled tribe	72.8	10,119	70.6	68.1	77.6	5,725
Other backward class	78.9	48,880	84.4	84.2	90.1	27,219
Other	78.1	41,207	82.6	87.0	90.9	23,214
Don't know	74.1	649	75.2	80.2	84.3	177

Continued…

Table 11.8 Attitudes toward negotiating sex with husband—*Continued*

Background characteristic	Women		Men			
	Wife is justified in refusing to have sex	Number of women	Wife is justified in refusing to have sex	Wife is justified in asking that they use a condom	Wife is justified in refusing sex or asking that they use a condom	Number of men
Wealth index						
Lowest	73.5	21,718	69.5	64.7	75.8	11,031
Second	75.6	23,616	77.1	76.3	84.4	12,666
Middle	76.3	25,088	81.0	83.6	89.0	14,301
Fourth	78.6	26,106	85.0	89.8	93.1	15,493
Highest	83.7	27,856	90.4	94.4	96.5	16,260
Total age 15-49	77.8	124,385	81.5	83.2	88.7	69,751
Age 50-54	na	na	81.3	78.0	86.9	4,618
Total age 15-54	na	na	81.5	82.9	88.6	74,369

Note: Total includes women/men with missing information on education, employment (past 12 months), religion, and caste/tribe and men with missing information on number of times slept away from home in the past 12 months and time away in the past 12 months, who are not shown separately.
na = Not applicable
[1] Exposure to radio, television, or newspapers/magazines at least once a week.

likely to agree with a woman's right to negotiate safer sex if her husband has an STI. Several of these differentials are greater for men than for women, particularly with regard to education and wealth. Men who have been away from home in the previous 12 months have a slightly higher proportion who support a woman's right to negotiate safer sex either by refusing to have sex or by asking to use a condom than men who have not been away from home. Notably, differentials according to education and the wealth index in the proportions of men who agree with a wife's right to ask her husband to use a condom tend to be larger than differentials in the proportion of men who agree with a wife's right to refuse sex to her husband.

Attitudes toward a woman's right to negotiate sex with her husband are likely to be influenced by a number of social, cultural, and traditional norms and values prevailing in both traditional and transitional societies. In view of the cultural diversity in the different regions of the country, variations in the accepting attitudes of women's sexual rights may provide an extremely important input for micro-planning and area-specific interventions for ensuring safe sexual practices. Table 11.9 shows the percentages of women and men age 15-49 who agree with a woman's right to negotiate safe sex with her husband by state. While more than three-fourths of women in India (78 percent) have the opinion that a wife is justified in refusing to have sexual intercourse with her husband if he has a sexually transmitted infection, there is tremendous variation across states. The proportion of women who agree with a woman's right to negotiate safe sex is lowest in Orissa (56 percent), followed by Tripura (58 percent) and Meghalaya (65 percent), and is highest in Sikkim (95 percent). Among men, the percentage saying that a woman is justified in refusing sex is lowest in Tripura (57 percent), followed by Meghalaya (60 percent). The proportion of men agreeing that women are justified in asking that a condom be used if the husband has a sexually transmitted infection ranges from 60 percent in Meghalaya to 96 percent in Delhi, Manipur, and Mizoram.

Men's agreement with the right of women to negotiate safe sex, either by refusing sex or by asking to use a condom, portrays an extremely conducive environment for ensuring safe sexual practices among women and men. In 15 out of 29 states in India, more than 90 percent of men have accepting attitudes toward a woman's right to negotiate safe sex in the context of her husband having an STI. In all the remaining states, except Meghalaya and Orissa, the percentage of men accepting a woman's right to negotiate safe sex with her husband is between 80 and 90 percent. In Meghalaya and Orissa, more than one in three men do not agree with the right of women to negotiate safe sex with their husbands.

Table 11.9 Attitudes toward negotiating sex with husband by state

Percentage of women and men age 15-49 who believe that, if a husband has a sexually transmitted disease, his wife is justified in refusing to have sexual intercourse with him or (for men) asking that they use a condom, by state, India, 2005-06

	Women	Men		
State	Wife is justified in refusing to have sex	Wife is justified in refusing to have sex	Wife is justified in asking that they use a condom	Wife is justified in refusing sex or asking that they use a condom
India	77.8	81.5	83.2	88.7
North				
Delhi	82.5	95.9	96.3	97.8
Haryana	87.6	87.4	87.5	90.1
Himachal Pradesh	89.4	88.0	90.5	94.3
Jammu & Kashmir	73.9	81.0	84.9	91.1
Punjab	85.0	91.6	92.1	95.4
Rajasthan	89.1	79.3	79.7	85.0
Uttaranchal	87.8	91.2	88.3	94.0
Central				
Chhattisgarh	86.5	85.4	79.8	89.3
Madhya Pradesh	89.7	86.7	87.5	91.5
Uttar Pradesh	80.2	88.1	86.1	91.8
East				
Bihar	86.3	82.6	78.9	87.4
Jharkhand	87.1	85.5	77.2	87.3
Orissa	56.3	65.3	67.0	71.5
West Bengal	73.1	65.9	76.9	82.9
Northeast				
Arunachal Pradesh	79.4	82.9	87.0	93.8
Assam	75.3	81.7	76.7	87.5
Manipur	87.2	89.2	95.5	97.6
Meghalaya	64.9	60.0	59.5	68.8
Mizoram	87.2	92.2	95.8	97.6
Nagaland	87.0	86.7	88.9	93.1
Sikkim	94.9	88.5	86.3	93.6
Tripura	57.8	56.5	78.5	84.3
West				
Goa	80.8	62.3	76.9	85.0
Gujarat	76.7	76.9	80.5	87.0
Maharashtra	70.5	76.7	86.8	89.9
South				
Andhra Pradesh	69.9	88.2	86.0	92.9
Karnataka	78.4	82.7	83.7	89.6
Kerala	71.1	83.6	86.6	91.9
Tamil Nadu	71.3	82.0	84.3	87.0

11.4 HIGHER-RISK SEX

Given that most HIV infections in India are contracted through heterosexual contact, information on sexual behaviour is important in designing and monitoring intervention programmes to control the spread of the virus. In the context of HIV/AIDS prevention, limiting the number of sexual partners and having protected sex are crucial for combating the epidemic.

NFHS-3 included questions on respondents' sexual partners during the 12 months preceding the survey. Information was collected for the last two sexual partners during the previous 12 months for women and the last three sexual partners during the previous 12 months for men. Information on the use of condoms at the last as well as previous acts of sexual intercourse with each of these partners during the previous 12 months was collected from both women and men. Respondents were also asked to identify what their relationship was with each sexual partner and the duration of the sexual relationship. All women and men who ever had sex were asked how many sexual partners they had during their lifetime. Men were also asked whether they paid for sex at any time in the 12 months preceding the survey. A note of caution is in order here. Given the sensitivity of questions on sexual behaviour, there is a potential for reporting bias of an unknown extent; hence, the results in this section should be interpreted with caution.

11.4.1 Multiple Sexual Partners and Higher-Risk Sex

Tables 11.10.1 and 11.10.2 present five important indicators used to analyze higher-risk sexual behaviour for women and men. These indicators are based on information collected from women and men who have had sexual intercourse in the 12-month period before the survey, as well as from women and men who have ever had sex. The first three indicators in the tables assess the prevalence of multiple partners and of higher-risk sexual intercourse among women and men who reported having intercourse during the 12 months prior to the survey. Higher-risk sex is sexual intercourse with someone who is neither a spouse nor a cohabiting partner. The fourth indicator relates to condom use during the last act of higher-risk sexual intercourse. The fifth indicator, measured among all women and men who have ever had sex, presents the mean number of sexual partners that they have had during their lifetime, providing an assessment of lifetime exposure to one of the elements of higher-risk sex—multiple partners.

Among women and men age 15-49 who had sex in the 12 months preceding the survey, only 1 in every 1,000 women (0.1 percent) and 2 in every 100 men (2 percent) report having had two or more sexual partners in the previous 12 months. While reported prevalence of multiple sex partners is very low in India, the proportion of women and men who had higher-risk sexual intercourse (i.e., sexual intercourse with someone other than a spouse or cohabiting partner) in the previous 12 months is somewhat higher (1 in every 500 women and 5 in every 100 men).

The differentials presented in Tables 11.10.1 and 11.10.2 suggest that multiple partners and higher-risk sex is more common in a limited number of population subgroups, particularly among women. The reported prevalence of multiple sex partners and of higher-risk sexual intercourse among women who reported having sexual intercourse during the 12-month period prior to the survey are considerably higher among never-married women (4 percent have had more than one partner and 51 percent have had higher-risk sex[1]) and widowed/divorced/separated/deserted women (1 percent have had more than one partner and 12 percent have had higher-risk sex). Similarly, among men age 15-49 who reported sexual intercourse in the past 12 months, the proportion who reported multiple partners among never married men is 18 percent and the proportion who had higher-risk sex is 94 percent. The corresponding proportions for widowed/divorced/separated/deserted men are 7 percent and 34 percent. In addition, subgroups of men with a higher proportion having higher-risk sexual intercourse in the previous 12 months than their counterparts are: men age 15-19 (63 percent), those not employed in the past 12 months (37 percent), those who spent more than one month at a time away from their usual place of residence (10 percent), those who slept away from home five or more times in the past 12 months (7 percent), those having regular media exposure (6 percent), and sales and production workers (6 percent). Some differences are also observed by religion and caste/tribe, with high risk being more common among Sikh and Buddhist/Neo-Buddhist men than among men of other religions and slightly more common among men from scheduled castes than men in other castes or tribes. Similar differentials are found in terms of men having multiple partners; in almost all cases, however, the percentages with multiple partners are lower.

[1] For this calculation, women and men who are married, but whose *gauna* has not been performed, are designated as never married. These respondents are not considered to have higher-risk sex if they had sex only with their spouse.

Table 11.10.1 Multiple sexual partners and higher-risk sexual intercourse in the past 12 months: Women

Among women age 15-49 who had sexual intercourse in the past 12 months, percentage who had intercourse with two or more partners in the past 12 months and percentage who had higher-risk sexual intercourse in the past 12 months, and among those having higher-risk sexual intercourse in the past 12 months, percentage reporting that a condom was used at last higher-risk intercourse, and the mean number of sexual partners in lifetime for women who ever had sexual intercourse, by background characteristics, India, 2005-06

	Women who had sexual intercourse in the past 12 months				Women who had higher-risk intercourse in the past 12 months		Women who ever had sexual intercourse	
Background characteristic	Percentage who had two or more partners in the past 12 months	Percentage who had higher-risk intercourse in the past 12 months[1]	Percentage who had two or more partners and higher-risk intercourse in the past 12 months[1]	Number of women	Percentage who reported using a condom at last higher-risk intercourse[1]	Number of women	Mean number of sexual partners in lifetime	Number of women
Age								
15-24	0.1	0.4	0.1	23,106	22.2	85	1.02	24,029
15-19	0.2	0.7	0.1	6,649	20.0	48	1.01	6,880
20-24	0.1	0.2	0.1	16,457	25.1	37	1.02	17,150
25-29	0.1	0.1	0.1	18,111	(25.4)	20	1.02	19,158
30-39	0.1	0.2	0.1	30,040	5.3	56	1.02	32,895
40-49	0.1	0.1	0.1	17,873	*	26	1.02	22,605
Residence								
Urban	0.1	0.2	0.1	27,434	24.9	53	1.02	30,404
Rural	0.1	0.2	0.1	61,696	11.7	135	1.02	68,284
Education								
No education	0.1	0.2	0.1	41,833	10.1	86	1.03	47,108
<5 years complete	0.1	0.3	0.1	7,361	*	19	1.02	8,424
5-7 years complete	0.1	0.2	0.0	13,490	(5.7)	33	1.02	14,829
8-9 years complete	0.1	0.3	0.1	10,377	27.7	35	1.01	11,212
10-11 years complete	0.0	0.0	0.0	7,389	*	3	1.01	7,947
12 or more years complete	0.0	0.1	0.0	8,676	(66.1)	12	1.00	9,162
Regular media exposure[2]								
Yes	0.1	0.2	0.1	54,378	16.5	123	1.02	59,835
No	0.1	0.2	0.1	34,753	13.5	65	1.03	38,853
Marital status								
Never married[3]	4.2	51.1	4.2	123	27.3	63	1.11	191
Currently married	0.1	0.1	0.1	88,510	14.3	64	1.02	92,757
Married once	0.1	0.1	0.1	86,794	14.9	62	1.01	90,930
Married more than once	0.3	0.2	0.1	1,717	*	3	1.60	1,827
Widowed/divorced/separated/ deserted	1.1	12.1	1.1	497	(4.3)		1.05	5,740
Currently residing with spouse[4]								
Yes	0.1	0.1	0.1	80,708	15.4	59	1.02	83,836
No	0.1	0.1	0.1	7,802	*	6	1.02	8,920
Employment (past 12 months)								
Employed	0.1	0.4	0.1	38,034	11.0	133	1.03	43,694
Professional	0.0	0.2	0.0	2,035	*	5	1.01	2,286
Sales worker	0.1	0.1	0.1	1,379	*	2	1.02	1,685
Service worker	0.2	1.0	0.2	2,361	*	24	1.07	3,105
Production worker	0.1	0.4	0.1	7,556	(10.5)	31	1.03	8,892
Agricultural worker	0.1	0.3	0.1	24,186	(6.9)	67	1.02	27,093
Other worker	0.6	0.9	0.6	517	*	5	1.02	633
Not employed	0.1	0.1	0.0	51,062	26.3	54	1.02	54,955
Religion								
Hindu	0.1	0.2	0.1	72,574	15.5	159	1.02	80,304
Muslim	0.0	0.1	0.0	11,755	*	7	1.02	12,970
Christian	0.1	0.5	0.1	1,943	(21.8)	9	1.04	2,227
Sikh	0.1	0.3	0.1	1,529	*	4	1.02	1,654
Buddhist/Neo-Buddhist	0.0	0.3	0.0	652	*	2	1.04	763
Jain	0.5	0.5	0.5	272	*	1	1.01	287
Other	0.0	1.3	0.0	313	*	4	1.07	380
Caste/tribe								
Scheduled caste	0.2	0.4	0.2	16,721	(8.8)	62	1.03	18,689
Scheduled tribe	0.1	0.4	0.1	7,325	12.3	32	1.04	8,218
Other backward class	0.1	0.2	0.0	35,425	(20.9)	57	1.02	39,183
Other	0.0	0.1	0.0	28,954	(21.0)	37	1.01	31,754
Don't know	0.0	0.0	0.0	438	a	0	1.01	529

Continued…

Table 11.10.1 Multiple sexual partners and higher-risk sexual intercourse in the past 12 months: Women—*Continued*

Background characteristic	Women who had sexual intercourse in the past 12 months: Percentage who had two or more partners in the past 12 months	Women who had sexual intercourse in the past 12 months: Percentage who had higher-risk intercourse in the past 12 months[1]	Women who had sexual intercourse in the past 12 months: Percentage who had two or more partners and higher-risk intercourse in the past 12 months[1]	Women who had sexual intercourse in the past 12 months: Number of women	Women who had higher-risk intercourse in the past 12 months: Percentage who reported using a condom at last higher-risk intercourse[1]	Women who had higher-risk intercourse in the past 12 months: Number of women	Women who ever had sexual intercourse: Mean number of sexual partners in lifetime	Women who ever had sexual intercourse: Number of women
Wealth index								
Lowest	0.1	0.3	0.1	16,713	(5.2)	49	1.04	18,705
Second	0.1	0.2	0.1	17,740	(6.7)	41	1.02	19,715
Middle	0.1	0.2	0.1	17,845	(16.2)	41	1.02	19,955
Fourth	0.1	0.2	0.1	18,201	17.4	32	1.02	20,033
Highest	0.0	0.1	0.0	18,632	(48.3)	23	1.01	20,281
Total	0.1	0.2	0.1	89,130	15.4	187	1.02	98,687

Note: Total includes women with missing information on education, employment (past 12 months), religion, and caste/tribe, who are not shown separately.
a = No cases
( ) Based on 25-49 unweighted cases.
* Percentage not shown; based on fewer than 25 unweighted cases.
[1] Sexual intercourse with a partner who was neither a spouse nor who lived with the respondent.
[2] Exposure to radio, television, or newspapers/magazines at least once a week.
[3] Includes women who are married, but whose *gauna* has not been performed. If women who are married, but whose *gauna* has not been performed, report having sex with their husband, the sex is not considered higher risk.
[4] Based on currently married women only.

It is worth mentioning that because many respondents age 15-24 are likely to be never married, it is expected that almost by definition higher-risk sex would be more prevalent in this group than among older women and men. Further, in view of the cultural constraints on sexuality in India, and the earlier age at marriage among women than men, it is not unexpected to have a substantial gender differential in premarital sexual activity in this age group. For example, among men age 15-24 who had sexual intercourse during the 12-month period preceding the survey, 7 percent reported multiple sex partners and 26 percent reported higher-risk sex, compared with 0.1 and 0.4 percent of women in the same age group. This large gender differential is also apparent for the entire never married population that reports ever having had sex.

Consistent condom use is an important tool in the fight to curtail the spread of HIV/AIDS. While effective protection would require condom use at every act of sexual intercourse, the most important time to use condoms is for sexual intercourse considered to be "higher risk", i.e., sex with someone who is neither a spouse nor a partner with whom one is in a cohabiting relationship. Tables 11.10.1 and 11.10.2 show that, among women who had higher-risk sex during the 12-month period prior to the survey, 15 percent reported that a condom was used the last time they had higher-risk intercourse. Men who engaged in higher-risk sex during the year before the survey were more than twice as likely as women to report condom use at higher-risk sex (38 percent). The number of respondents reporting higher-risk sex is frequently quite small, particularly among women, making it difficult to assess differences in the prevalence of condom use across subgroups. However, the results suggest that condom use during higher-risk sex is more common among never married women and men, those in urban areas, those having regular media exposure, those who have completed at least eight years of schooling, and

Table 11.10.2 Multiple sexual partners and higher-risk sexual intercourse in the past 12 months: Men

Among men age 15-49 who had sexual intercourse in the past 12 months, percentage who had intercourse with two or more partners in the past 12 months and percentage who had higher-risk sexual intercourse in the past 12 months, and among those having higher-risk sexual intercourse in the past 12 months, percentage reporting that a condom was used at last higher-risk intercourse, and the mean number of sexual partners in lifetime for men who ever had sexual intercourse, by background characteristics, India, 2005-06

	Men who had sexual intercourse in the past 12 months				Men who had higher-risk sexual intercourse in the past 12 months		Men who have ever had sexual intercourse	
Background characteristic	Percentage who had two or more partners in the past 12 months	Percentage who had higher-risk intercourse in the past 12 months[1]	Percentage who had two or more partners and higher-risk intercourse in the past 12 months[1]	Number of men	Percentage who reported using a condom at last higher-risk intercourse[1]	Number of men	Mean number of sexual partners in lifetime	Number of men
Age								
15-24	7.0	26.0	6.9	5,532	36.5	1,439	1.79	6,719
15-19	14.8	63.0	14.8	1,019	31.3	641	1.89	1,459
20-24	5.3	17.7	5.2	4,513	40.7	798	1.76	5,260
25-29	2.2	5.7	2.2	7,737	46.4	438	1.54	8,224
30-39	1.3	2.0	1.1	17,511	35.0	352	1.45	18,092
40-49	0.8	0.9	0.6	13,463	30.0	124	1.37	14,602
Residence								
Urban	1.8	5.5	1.6	14,843	52.9	821	1.50	15,886
Rural	2.1	5.2	2.0	29,399	29.7	1,532	1.48	31,750
Education								
No education	1.6	3.3	1.4	10,145	20.9	340	1.46	10,962
<5 years complete	2.4	4.2	2.1	5,284	27.5	220	1.46	5,718
5-7 years complete	2.5	6.1	2.3	7,645	33.2	464	1.62	8,216
8-9 years complete	2.4	7.3	2.2	7,862	41.1	573	1.49	8,550
10-11 years complete	1.9	6.7	1.7	5,334	43.7	357	1.48	5,723
12 or more years complete	1.7	5.0	1.6	7,964	53.0	400	1.41	8,457
Regular media exposure[2]								
Yes	2.2	6.0	2.0	33,878	40.2	2,046	1.52	36,433
No	1.5	3.0	1.3	10,364	21.3	308	1.38	11,204
Marital status								
Never married[3]	17.7	94.4	17.7	1,819	40.7	1,716	2.49	3,401
Currently married	1.3	1.4	1.1	42,263	31.1	583	1.41	43,319
Married once	1.2	1.4	1.1	40,005	32.0	551	1.36	41,004
Married more than once	4.1	1.4	1.2	2,258	(15.6)	32	2.26	2,315
Widowed/divorced/separated/ deserted	6.9	33.8	5.9	161	(17.7)	54	1.63	916
Currently residing with spouse[4]								
Yes	1.3	1.3	1.1	41,063	30.2	543	1.41	41,963
No	2.3	3.3	2.1	1,200	(43.7)	40	1.44	1,356
Times slept away from home in the past 12 months								
None	1.0	3.4	0.9	12,633	44.7	425	1.35	13,733
1-2	1.8	5.1	1.7	7,503	42.0	382	1.41	8,146
3-4	1.9	5.2	1.7	7,396	31.0	388	1.49	7,934
5+	2.9	6.9	2.7	16,566	36.1	1,138	1.62	17,673
Time away in the past 12 months								
Away for more than 1 month	3.8	9.7	3.7	4,763	31.5	464	1.82	5,266
Away for 1 month or less	2.2	5.5	2.0	26,810	37.7	1,462	1.49	28,599
Not away	1.0	3.4	0.9	12,633	44.7	425	1.35	13,733
Employment (past 12 months)								
Employed	1.9	4.8	1.7	43,431	37.3	2,070	1.48	46,477
Professional	1.1	3.3	1.1	2,860	55.2	96	1.35	3,007
Sales worker	3.0	6.4	2.7	5,749	38.3	367	1.52	6,070
Service worker	1.6	4.1	1.4	2,168	53.5	88	1.43	2,357
Production worker	2.3	5.9	2.2	15,576	38.6	912	1.56	16,728
Agricultural worker	1.4	3.5	1.1	15,363	27.2	537	1.43	16,514
Other worker	1.4	4.1	1.4	1,715	46.4	71	1.40	1,801
Not employed	7.1	36.5	7.1	770	41.9	281	1.74	1,115

Continued…

Table 11.10.2 Multiple sexual partners and higher-risk sexual intercourse in the past 12 months: Men—*Continued*

Background characteristic	Men who had sexual intercourse in the past 12 months: Percentage who had two or more partners in the past 12 months	Men who had sexual intercourse in the past 12 months: Percentage who had higher-risk intercourse in the past 12 months[1]	Men who had sexual intercourse in the past 12 months: Percentage who had two or more partners and higher-risk intercourse in the past 12 months[1]	Men who had sexual intercourse in the past 12 months: Number of men	Men who had higher-risk sexual intercourse in the past 12 months: Percentage who reported using a condom at last higher-risk intercourse[1]	Men who had higher-risk sexual intercourse in the past 12 months: Number of men	Men who have ever had sexual intercourse: Mean number of sexual partners in lifetime	Men who have ever had sexual intercourse: Number of men
Religion								
Hindu	2.0	5.2	1.8	36,389	35.7	1,891	1.47	39,275
Muslim	2.1	4.9	1.8	5,417	44.5	267	1.47	5,736
Christian	1.2	4.6	1.2	953	47.6	44	1.81	1,033
Sikh	3.6	12.9	3.4	827	46.2	107	1.90	882
Buddhist/Neo-Buddhist	5.4	10.6	5.0	354	63.8	38	1.45	396
Jain	2.2	4.2	2.2	134	*	6	1.26	137
Other	0.6	1.3	0.6	160	*	2	1.41	169
Caste/tribe								
Scheduled caste	2.6	6.8	2.4	8,563	34.8	580	1.54	9,363
Scheduled tribe	1.9	5.5	1.5	4,025	23.3	221	1.54	4,398
Other backward class	2.0	4.6	1.9	17,291	32.4	801	1.48	18,585
Other	1.8	5.2	1.6	14,119	50.4	739	1.45	15,021
Don't know	2.1	3.0	2.1	112	*	3	1.33	116
Wealth index								
Lowest	1.9	4.9	1.8	7,965	18.1	393	1.44	8,688
Second	2.6	5.4	2.2	8,564	29.1	461	1.50	9,308
Middle	2.1	5.4	2.0	9,096	31.2	493	1.54	9,773
Fourth	1.9	5.5	1.7	9,236	42.7	512	1.51	9,962
Highest	1.6	5.3	1.6	9,381	62.9	495	1.45	9,906
Total age 15-49	2.0	5.3	1.8	44,242	37.8	2,353	1.49	47,637
Age 50-54	0.4	0.8	0.2	3,811	(7.0)	32	1.39	4,537
Total age 15-54	1.9	5.0	1.7	48,053	37.4	2,385	1.48	52,174

Note: Total includes men with missing information on education, number of times slept away from home in the past 12 months, time away in the past 12 months, employment (past 12 months), religion, and caste/tribe, who are not shown separately.
[1] Sexual intercourse with a partner who was neither a spouse nor who lived with the respondent.
[2] Exposure to radio, television, or newspapers/magazines at least once a week.
[3] Includes men who are married, but whose *gauna* has not been performed. If men who are married, but whose *gauna* has not been performed, report having sex with their wife, the sex is not considered higher risk.
[4] Based on currently married men only.

those in the highest wealth quintile. In addition, men working as professionals or service workers and men not living with their spouse are more likely to have used a condom during higher-risk intercourse.

Tables 11.10.1 and 11.10.2 show that men who have ever had sex report an average of 1.49 lifetime sexual partners and women who have ever had sex report an average of only 1.02 lifetime sexual partners. The mean number of sexual partners for men who ever had sex is highest among never married men (2.5) and men who have been married more than once (2.3), men age 15-19 (1.9) and 20-24 (1.8), Sikhs (1.9), Christians (1.8), and men who spent more than a month at a time away from home in the last 12 months (1.8).

The proportion of women and men reporting multiple sexual partners and higher-risk sexual intercourse in the past 12 months among those who had sex in the past 12 months is presented in Table 11.11 by state. Although the percentage of women having higher-risk sexual intercourse is very low, there is some variation across states. States where the proportion of women having higher-risk sex is at least twice the national average include most of the northeastern states (Tripura, Mizoram, Nagaland, Arunachal Pradesh, and Meghalaya), Goa,

Gujarat, Punjab, and Andhra Pradesh. However, the percentage does not exceed 2 percent of women in any state. Higher-risk sexual intercourse for men is more prevalent in the northeastern states (13 percent in Nagaland, 12 percent in Arunachal Pradesh and Sikkim, 11 percent in Mizoram, and 8 percent in Meghalaya). Other states having a relatively high proportion of men reporting higher-risk intercourse in the 12 months preceding the survey are Punjab (12 percent), and Delhi, Uttar Pradesh, Madhya Pradesh (8 percent each).

Table 11.11 Multiple sexual partners and higher-risk sexual intercourse in the past 12 months by state

Among women and men age 15-49 who had sexual intercourse in the past 12 months, percentage who had intercourse with more than one partner and percentage who had higher-risk sexual intercourse in the past 12 months, by state, India, 2005-06

State	Women			Men		
	Percentage who had two or more partners in the past 12 months	Percentage who had higher-risk intercourse in the past 12 months[1]	Percentage who had two or more partners and higher-risk intercourse in the past 12 months[1]	Percentage who had two or more partners in the past 12 months	Percentage who had higher-risk intercourse in the past 12 months[1]	Percentage who had two or more partners and higher-risk intercourse in the past 12 months[1]
India	0.1	0.2	0.1	2.0	5.3	1.8
North						
Delhi	0.0	0.1	0.0	1.7	8.4	1.6
Haryana	0.1	0.2	0.0	1.6	5.8	1.4
Himachal Pradesh	0.1	0.1	0.0	1.4	3.2	0.9
Jammu & Kashmir	0.0	0.0	0.0	1.6	5.4	1.6
Punjab	0.2	0.4	0.2	4.6	11.8	4.4
Rajasthan	0.1	0.1	0.1	2.1	4.0	1.7
Uttaranchal	0.1	0.1	0.1	2.3	6.3	2.1
Central						
Chhattisgarh	0.2	0.3	0.2	0.9	3.4	0.8
Madhya Pradesh	0.0	0.1	0.0	3.5	7.5	3.4
Uttar Pradesh	0.0	0.1	0.0	2.4	8.1	2.2
East						
Bihar	0.3	0.3	0.2	2.6	4.3	2.5
Jharkhand	0.0	0.3	0.0	2.3	3.8	2.1
Orissa	0.0	0.2	0.0	1.1	3.4	1.0
West Bengal	0.1	0.3	0.1	0.9	3.3	0.8
Northeast						
Arunachal Pradesh	0.0	0.5	0.0	5.1	12.0	5.1
Assam	0.0	0.0	0.0	1.3	3.8	1.0
Manipur	0.0	0.3	0.0	0.5	2.8	0.4
Meghalaya	0.0	0.4	0.0	1.3	7.6	1.3
Mizoram	0.0	1.6	0.0	1.3	10.7	1.1
Nagaland	0.1	1.4	0.1	2.2	12.5	2.1
Sikkim	0.0	0.1	0.0	2.1	12.0	2.1
Tripura	1.0	1.7	0.9	1.5	6.1	1.5
West						
Goa	0.0	0.5	0.0	0.8	3.0	0.8
Gujarat	0.0	0.5	0.0	2.2	5.3	2.2
Maharashtra	0.0	0.1	0.0	1.5	5.0	1.3
South						
Andhra Pradesh	0.1	0.4	0.1	2.8	5.8	2.4
Karnataka	0.0	0.0	0.0	1.3	2.7	0.9
Kerala	0.0	0.1	0.0	1.4	3.7	1.4
Tamil Nadu	0.1	0.2	0.1	1.1	2.4	0.9

[1] Sexual intercourse with a partner who was neither a spouse nor who lived with the respondent.

11.4.2 Paid Sex

In recent years there has been growing evidence that heterosexual intercourse is the main mode of STI/HIV transmission in India, and commercial sex workers are believed to be the main source of infections. Of course, with the changing face of commercial sex, monetary exchange for sex may be possible even outside the well designated boundaries of brothels. Payment for sex

has particular importance irrespective of the context, location, and type of partner (Pelto, 1999). Thus, paid sex is considered a special category of higher-risk sex. Male respondents in NFHS-3 were asked to identify the nature of their relationship with their last three partners in the 12 months prior to the survey. If none of these partners was identified to be a sex worker, men were asked directly whether they had paid money in exchange for sex in the 12 months prior to the survey.

Table 11.12 shows the percentage of men age 15-49 who reported having paid for sexual intercourse in the previous 12 months, and among them, the percentage reporting that a condom was used the last time they paid for sex. Less than 1 percent of men reported engaging in paid sex in the 12 months preceding the survey. Less than 2 percent of men in any subgroup shown in the table paid for sex in the past year. The highest percentages of men reporting that they had engaged in paid sex are observed among Sikhs (1.8 percent), Buddhists/Neo-Buddhists (1.5 percent), men who were away from home for more than one month at a time in the past 12 months (1.4 percent), men currently not living with their a spouse (1.2 percent), men age 20-24 (1.2 percent), men who are divorced, separated, widowed, or deserted (1.2 percent), men age 20-24 years, production workers (1.1 percent), and men who have never been married (1.0 percent). Overall, three-fifths of men (62 percent) who reported having engaged in paid sex in the 12 months preceding the survey used a condom the last time they paid for sex. Condom use during paid sex is particularly high for men with 10 or more years of education and men in the highest wealth quintile.

Table 11.12 Payment for sexual intercourse and condom use at last paid sexual intercourse: Men

Percentage of men age 15-49 reporting payment for sexual intercourse in the past 12 months, and among them, percentage reporting that a condom was used the last time they paid for sexual intercourse, by background characteristics, India, 2005-06

Background characteristic	Payment for sexual intercourse in the past 12 months		Condom use at last paid sexual intercourse	
	Percentage who paid for sexual intercourse	Number of men	Percentage reporting condom use	Number of men who paid for sexual intercourse in the past 12 months
Age				
15-24	0.9	24,997	71.2	221
15-19	0.6	13,008	70.4	74
20-24	1.2	11,989	71.6	147
25-29	0.7	10,854	66.7	75
30-39	0.6	19,045	44.1	106
40-49	0.3	14,855	(54.1)	48
Residence				
Urban	0.8	25,504	72.7	192
Rural	0.6	44,247	54.4	258
Education				
No education	0.7	12,571	39.2	88
<5 years complete	0.9	7,109	47.0	61
5-7 years complete	0.9	11,523	60.7	99
8-9 years complete	0.7	14,398	71.8	95
10-11 years complete	0.5	10,380	83.7	53
12 or more years complete	0.4	13,754	82.5	53
Regular media exposure[1]				
Yes	0.7	56,057	66.2	377
No	0.5	13,694	42.0	73

Continued…

Table 11.12 Payment for sexual intercourse and condom use at last paid sexual intercourse: Men—*Continued*

Background characteristic	Payment for sexual intercourse in the past 12 months		Condom use at last paid sexual intercourse	
	Percentage who paid for sexual intercourse	Number of men	Percentage reporting condom use	Number of men who paid for sexual intercourse in the past 12 months
Marital status				
Never married	1.0	25,307	76.4	242
Currently married	0.5	43,501	46.2	197
Divorced/separated/ widowed/deserted	1.2	942	*	11
Currently residing with spouse[2]				
Yes	0.4	42,136	43.7	181
No	1.2	1,365	*	16
Times slept away from home in the past 12 months				
None	0.4	21,619	68.9	89
1-2	0.5	12,568	71.4	69
3-4	0.5	11,447	57.6	62
5+	0.9	23,926	59.1	221
Time away in the past 12 months				
Away for more than 1 month	1.4	7,757	53.0	108
Away for 1 month or less	0.6	40,320	63.6	251
Not away	0.4	21,619	68.9	89
Employment (past 12 months)				
Employed	0.7	60,377	60.9	427
Professional	0.2	4,042	*	6
Sales worker	0.9	8,352	63.3	76
Service worker	0.7	3,149	(73.6)	21
Production worker	1.1	22,214	61.3	240
Agricultural worker	0.3	20,279	47.1	69
Other worker	0.6	2,341	*	15
Not employed	0.2	9,288	(86.7)	23
Religion				
Hindu	0.6	57,112	56.5	336
Muslim	0.8	8,747	74.0	74
Christian	0.5	1,567	*	8
Sikh	1.8	1,270	*	23
Buddhist/Neo-Buddhist	1.5	596	*	9
Jain	0.0	213	*	0
Other	0.1	232	*	0
Caste/tribe				
Scheduled caste	0.8	13,188	62.7	101
Scheduled tribe	0.4	5,725	(39.6)	26
Other backward class	0.6	27,219	57.4	153
Other	0.7	23,214	69.9	167
Don't know	0.2	177	*	0
Wealth index				
Lowest	0.6	11,031	(31.4)	61
Second	0.7	12,666	60.8	83
Middle	0.6	14,301	54.8	86
Fourth	0.8	15,493	65.0	120
Highest	0.6	16,260	85.5	99
Total age 15-49	0.6	69,751	62.2	450
Age 50-54	0.3	4,618	*	12
Total age 15-54	0.6	74,369	61.1	461

Note: Total includes men with missing information on education, number of times slept away from home in the past 12 months, time away in the past 12 months, employment (past 12 months), religion, and caste/tribe, who are not shown separately.
( ) Based on 25-49 unweighted cases.
* Percentage not shown; based on fewer than 25 unweighted cases.
[1] Exposure to radio, television, or newspapers/magazines at least once a week.
[2] Based on currently married men only.

11.5 TESTING FOR HIV

Knowledge of HIV status helps HIV-negative individuals make specific decisions to reduce their risk and increase their safe sex practices to remain disease free. For those who are HIV infected, knowledge of their status allows them to take action to protect their sexual partners, to access treatment, and to plan for the future. Testing of pregnant women is especially important so action can be taken to prevent a baby from becoming infected with HIV. In view of the importance of HIV testing in the overall planning of prevention and control, as well as care and support programmes, the Ministry of Health and Family Welfare has made considerable efforts to increase the accessibility and availability of voluntary counselling and testing centres (VCTC) across the country under NACP-II by increasing their number of VCT centres from 62 in 1997 to 873 by the end of 2005 (NACO, 2005).

To obtain information on the prevalence of HIV testing prior to the survey, all respondents in NFHS-3 were asked whether they had ever been tested for HIV. The question clearly specified that the interviewer did not wish to know the test results. Respondents who reported they had ever been tested were asked whether they received the results of their last test.

Table 11.13 presents coverage of prior HIV testing by showing the percent distribution of women and men age 15-49 by whether or not they have ever been tested for HIV, including whether or not they got the results of the test. Only 3 percent of women and 4 percent of men have ever been tested for HIV, and some who were tested did not get the result of the test. The

Table 11.13 Coverage of prior HIV testing

Percent distribution of women and men age 15-49 by whether they have been tested for HIV and by whether they received the results of the test, according to background characteristics, India, 2005-06

	Women					Men				
Background characteristic	Ever tested and received results	Ever tested, did not receive results	Never tested[1]	Total	Number of women	Ever tested and received results	Ever tested, did not receive results	Never tested[1]	Total	Number of men
Age										
15-24	2.6	0.2	97.2	100.0	47,590	1.3	0.3	98.4	100.0	24,997
15-19	0.9	0.1	99.0	100.0	24,811	0.5	0.2	99.3	100.0	13,008
20-24	4.4	0.4	95.2	100.0	22,779	2.2	0.4	97.4	100.0	11,989
25-29	5.7	0.4	93.9	100.0	20,417	4.8	0.6	94.6	100.0	10,854
30-39	3.0	0.2	96.8	100.0	33,522	5.0	0.7	94.3	100.0	19,045
40-49	1.3	0.0	98.7	100.0	22,856	3.1	0.5	96.4	100.0	14,855
Residence										
Urban	5.4	0.3	94.3	100.0	40,817	5.1	0.6	94.3	100.0	25,504
Rural	1.8	0.2	98.1	100.0	83,568	2.2	0.4	97.4	100.0	44,247
Education										
No education	0.7	0.1	99.2	100.0	50,487	0.7	0.1	99.2	100.0	12,571
<5 years complete	1.5	0.1	98.4	100.0	9,918	1.1	0.1	98.8	100.0	7,109
5-7 years complete	2.4	0.2	97.4	100.0	18,820	2.0	0.3	97.7	100.0	11,523
8-9 years complete	3.2	0.4	96.4	100.0	17,383	2.7	0.4	96.9	100.0	14,398
10-11 years complete	5.4	0.5	94.2	100.0	12,887	4.4	0.7	94.9	100.0	10,380
12 or more years complete	9.8	0.4	89.8	100.0	14,882	7.5	1.1	91.4	100.0	13,754
Regular media exposure[2]										
Yes	4.3	0.3	95.4	100.0	80,487	3.9	0.6	95.5	100.0	56,057
No	0.6	0.1	99.4	100.0	43,898	0.5	0.1	99.4	100.0	13,694

Continued…

Table 11.13 Coverage of prior HIV testing—*Continued*

Background characteristic	Women					Men				
	Ever tested and received results	Ever tested, did not receive results	Never tested[1]	Total	Number of women	Ever tested and received results	Ever tested, did not receive results	Never tested[1]	Total	Number of men
Marital status										
Never married	0.4	0.1	99.5	100.0	25,462	2.0	0.3	97.6	100.0	25,307
Ever had sex	1.2	0.0	98.8	100.0	196	4.6	0.4	94.9	100.0	3,415
Never had sex	0.4	0.1	99.5	100.0	25,266	1.6	0.3	98.1	100.0	21,893
Currently married	3.7	0.3	96.0	100.0	93,089	4.0	0.6	95.4	100.0	43,501
Widowed/divorced/separated/ deserted	1.9	0.1	98.1	100.0	5,834	2.1	0.2	97.6	100.0	942
Currently residing with spouse[3]										
Yes	3.8	0.3	95.9	100.0	84,101	4.1	0.6	95.4	100.0	42,136
No	3.0	0.2	96.8	100.0	8,988	2.3	0.8	96.9	100.0	1,365
Times slept away from home in the past 12 months										
None	na	na	na	na	na	3.3	0.4	96.2	100.0	21,619
1-2	na	na	na	na	na	3.0	0.5	96.5	100.0	12,568
3-4	na	na	na	na	na	2.9	0.5	96.6	100.0	11,447
5+	na	na	na	na	na	3.4	0.5	96.1	100.0	23,926
Time away in the past 12 months										
Away for more than 1 month	na	na	na	na	na	3.5	0.8	95.7	100.0	7,757
Away for 1 month or less	na	na	na	na	na	3.2	0.4	96.4	100.0	40,320
Not away	na	na	na	na	na	3.3	0.4	96.2	100.0	21,619
Employment (past 12 months)										
Employed	2.3	0.2	97.5	100.0	53,081	3.5	0.5	96.0	100.0	60,377
Professional	11.5	0.3	88.2	100.0	3,436	9.5	1.4	89.0	100.0	4,042
Sales worker	4.4	0.2	95.4	100.0	1,993	4.6	0.5	94.9	100.0	8,352
Service worker	3.3	0.5	96.2	100.0	3,625	7.0	1.0	92.1	100.0	3,149
Production worker	2.1	0.1	97.8	100.0	11,787	2.9	0.4	96.6	100.0	22,214
Agricultural worker	0.9	0.1	99.0	100.0	31,282	1.7	0.2	98.1	100.0	20,279
Other worker	9.5	0.2	90.2	100.0	957	6.8	1.3	91.9	100.0	2,341
Not employed	3.5	0.2	96.3	100.0	71,258	1.4	0.3	98.2	100.0	9,288
Religion										
Hindu	2.9	0.2	96.9	100.0	100,151	3.1	0.5	96.4	100.0	57,112
Muslim	2.7	0.1	97.3	100.0	16,936	2.9	0.4	96.8	100.0	8,747
Christian	8.3	0.5	91.2	100.0	3,053	7.1	1.2	91.7	100.0	1,567
Sikh	2.3	0.2	97.5	100.0	2,222	7.1	1.0	92.0	100.0	1,270
Buddhist/Neo-Buddhist	4.0	0.2	95.8	100.0	1,010	4.5	0.4	95.1	100.0	596
Jain	5.0	0.0	95.0	100.0	406	10.0	0.8	89.2	100.0	213
Other	1.2	0.1	98.7	100.0	484	2.3	0.1	97.7	100.0	232
Caste/tribe										
Scheduled caste	2.2	0.2	97.6	100.0	23,125	2.4	0.4	97.2	100.0	13,188
Scheduled tribe	1.3	0.2	98.5	100.0	10,119	1.4	0.1	98.5	100.0	5,725
Other backward class	3.2	0.3	96.5	100.0	48,880	3.1	0.5	96.4	100.0	27,219
Other	3.5	0.1	96.3	100.0	41,207	4.4	0.7	95.0	100.0	23,214
Don't know	2.6	0.0	97.4	100.0	649	3.3	0.0	96.7	100.0	177
Wealth index										
Lowest	0.5	0.0	99.5	100.0	21,718	0.4	0.1	99.5	100.0	11,031
Second	0.9	0.1	99.0	100.0	23,616	1.0	0.3	98.7	100.0	12,666
Middle	2.1	0.3	97.7	100.0	25,088	2.0	0.4	97.6	100.0	14,301
Fourth	3.7	0.3	96.0	100.0	26,106	3.9	0.5	95.7	100.0	15,493
Highest	6.8	0.3	92.9	100.0	27,856	7.4	1.0	91.6	100.0	16,260
Total age 15-49	3.0	0.2	96.8	100.0	124,385	3.3	0.5	96.3	100.0	69,751
Age 50-54	na	na	na	na	na	2.7	0.3	96.9	100.0	4,618
Total age 15-54	na	na	na	na	na	3.2	0.5	96.3	100.0	74,369

Note: Total includes women/men with missing information on education, employment (past 12 months), religion, and caste/tribe and men with missing information on number of times slept away from home in the past 12 months and time away in the past 12 months, who are not shown separately.
na = Not available
[1] Includes don't know/missing.
[2] Exposure to radio, television, or newspapers/magazines at least once a week.
[3] Based on currently married respondents only.

proportion of women and men who have been tested for HIV but who did not get the test results is very low (0.2 and 0.5 percent among women and men, respectively). Women and men who have been tested for HIV and got their results is relatively high in urban areas, among those with 12 or more years of schooling completed, those in professional and 'other' occupations, those belonging to the highest wealth quintile, and Jains.

Table 11.14 shows how the coverage of HIV/AIDS testing varies across states. The proportion of women age 15-49 who have ever been tested for HIV/AIDS and got the results ranges from only 0.2 percent in Rajasthan to 15 percent in Goa. Coverage of prior HIV/AIDS testing among men reveals a similar variation across states, with a minimum in Rajasthan, Uttar Pradesh, Assam, and Meghalaya (1 percent each) and a maximum in Goa (14 percent). States in which 5-9 percent of both women and men report having ever been tested for HIV/AIDS and getting their results are Kerala, Tamil Nadu, Manipur, Andhra Pradesh, Maharashtra, and

Table 11.14 Coverage of prior HIV testing by state

Percent distribution of women and men age 15-49 by whether they have been tested for HIV and by whether they received the results of the test, according to state, India, 2005-06

	Women				Men			
State	Ever tested and received results	Ever tested, did not receive results	Never tested[1]	Total	Ever tested and received results	Ever tested, did not receive results	Never tested[1]	Total
India	3.0	0.2	96.8	100.0	3.3	0.5	96.3	100.0
North								
Delhi	5.8	0.3	93.9	100.0	4.0	0.5	95.6	100.0
Haryana	0.8	0.1	99.1	100.0	3.3	0.7	95.9	100.0
Himachal Pradesh	2.4	0.3	97.2	100.0	4.1	1.4	94.5	100.0
Jammu & Kashmir	1.1	0.1	98.8	100.0	1.9	1.7	96.3	100.0
Punjab	2.1	0.2	97.7	100.0	6.6	1.0	92.5	100.0
Rajasthan	0.2	0.0	99.8	100.0	1.0	0.0	99.0	100.0
Uttaranchal	1.8	0.2	98.1	100.0	4.2	0.3	95.5	100.0
Central								
Chhattisgarh	0.4	0.0	99.5	100.0	1.7	0.3	98.0	100.0
Madhya Pradesh	0.4	0.1	99.5	100.0	1.6	0.3	98.1	100.0
Uttar Pradesh	0.4	0.0	99.6	100.0	1.0	0.4	98.6	100.0
East								
Bihar	0.3	0.0	99.7	100.0	1.6	0.4	98.0	100.0
Jharkhand	0.5	0.1	99.4	100.0	1.4	0.4	98.2	100.0
Orissa	0.4	0.0	99.5	100.0	1.8	0.1	98.0	100.0
West Bengal	0.6	0.0	99.4	100.0	1.2	0.3	98.5	100.0
Northeast								
Arunachal Pradesh	2.8	0.2	97.0	100.0	3.0	0.4	96.6	100.0
Assam	0.4	0.0	99.6	100.0	1.1	0.2	98.7	100.0
Manipur	7.8	0.8	91.4	100.0	8.0	0.6	91.4	100.0
Meghalaya	0.6	0.0	99.4	100.0	1.0	0.2	98.8	100.0
Mizoram	5.7	0.5	93.8	100.0	5.8	2.3	92.0	100.0
Nagaland	4.6	0.4	95.0	100.0	5.6	0.8	93.6	100.0
Sikkim	2.4	0.3	97.3	100.0	1.7	0.3	97.9	100.0
Tripura	0.2	0.1	99.7	100.0	1.3	0.2	98.5	100.0
West								
Goa	14.6	0.4	85.0	100.0	14.3	1.3	84.4	100.0
Gujarat	1.1	0.0	98.9	100.0	2.2	0.8	97.0	100.0
Maharashtra	6.8	0.4	92.8	100.0	6.5	0.6	92.9	100.0
South								
Andhra Pradesh	7.4	0.5	92.0	100.0	7.6	0.7	91.7	100.0
Karnataka	8.5	0.3	91.2	100.0	4.5	0.4	95.2	100.0
Kerala	9.3	0.4	90.3	100.0	8.6	1.3	90.1	100.0
Tamil Nadu	8.2	1.1	90.6	100.0	5.3	0.5	94.2	100.0

[1] Includes don't know/missing.

Mizoram. Of these states, all but Kerala and Mizoram are recognized as high HIV prevalence states by the National AIDS Control Organization (NACO). NACO has been implementing more intensified VCTC programmes as part of their AIDS prevention strategy in the high HIV prevalence states. Punjab is another state with a notable proportion of men who reported ever being tested for HIV/AIDS and getting the test results (7 percent). The proportions of women and men who have ever been tested for HIV but did not get the result is small in all states; however, 2 percent of men Mizoram and Jammu and Kashmir reported that they have been tested for HIV but did not get their results. The largest proportions of women who reported getting tested and not getting the test results (0.5-1.0 percent) are in Tamil Nadu, Manipur, Mizoram, and Andhra Pradesh.

11.6 Reports of Recent Sexually Transmitted Infections

Information about the incidence of sexually transmitted infections (STIs) is not only useful as a marker of unprotected sexual intercourse, but also as a co-factor for HIV transmission. In view of the importance of STIs in HIV prevention programmes, since the inception of NACP-1, NACO has been making special efforts to promote early diagnosis and treatment of STIs as part of its family health awareness campaign. NFHS-3 asked respondents who had ever had sex whether they had an STI, had a genital sore or ulcer, or had experienced any abnormal (for men) or bad smelling abnormal (for women) genital discharge in the 12 months prior to the survey. Abnormal genital discharges and genital sores or ulcers have been shown to be useful in identifying STIs, particularly in men.

Table 11.15 shows that 11 percent of women and 5 percent of men who have ever had sex had an STI or STI symptom in the 12 months preceding the survey. Women were over four times more likely to say they had an abnormal bad smelling genital discharge than to report a genital sore or ulcer in the past 12 months. The corresponding reported prevalence of abnormal genital discharge among men is only slightly higher than the reported prevalence of a genital sore or ulcer. Although the reported prevalence of any sexually transmitted disease in the 12 months preceding the survey is very low among women (1.5 percent), as well as men (0.5 percent), women are three times as likely as men to report having an STI in the previous 12 months. Note that since these results are based on self reports and not on clinical tests or examinations, the results should be interpreted with caution.

The overall reported prevalence of STIs/STI symptoms among women and men is higher for those in rural areas, those with little or no education, those not regularly exposed to media, those belonging to scheduled tribes, those in the lowest two wealth quintiles, and women who are production or agricultural workers. Among women in particular, Muslim women tend to report a higher prevalence of STIs/STI symptoms than women from other religions. For men, the number of times slept away from home and time spent away from home in the past 12 months both have a positive association with the reported prevalence of STIs/STI symptoms.

Table 11.15 Self-reported prevalence of sexually-transmitted infections (STI) and STI symptoms

Among women and men age 15-49 who have ever had sexual intercourse, percentage reporting having an STI and/or symptoms of an STI in the past 12 months, by background characteristics, India, 2005-06

Background characteristic	Percentage of women who report that in the past 12 months they had a: STI	Bad smelling, abnormal genital discharge	Genital sore or ulcer	STI/genital discharge/ sore or ulcer	Number of women who ever had sexual intercourse	Percentage of men who report that in the past 12 months they had a: STI	Abnormal genital discharge	Genital sore or ulcer	STI/genital discharge/ sore or ulcer	Number of men who ever had sexual intercourse
Age										
15-24	1.4	9.8	2.0	10.9	24,111	0.8	5.3	3.8	8.0	6,735
15-19	1.4	9.8	1.7	10.5	6,900	0.6	7.5	5.5	10.8	1,463
20-24	1.5	9.8	2.1	11.1	17,211	0.9	4.7	3.4	7.3	5,273
25-29	1.4	10.7	2.2	11.7	19,218	0.7	3.3	2.8	5.5	8,257
30-39	1.8	10.9	2.5	12.2	32,998	0.5	2.5	2.0	4.1	18,171
40-49	1.2	8.0	2.1	9.2	22,664	0.3	2.1	1.7	3.4	14,668
Residence										
Urban	1.2	7.0	1.7	8.2	30,499	0.4	2.1	1.4	3.2	15,957
Rural	1.6	11.2	2.4	12.4	68,492	0.6	3.3	2.7	5.4	31,875
Education										
No education	1.8	11.8	2.3	12.9	47,271	0.4	3.1	3.2	5.4	10,997
<5 years complete	1.2	10.8	2.9	12.1	8,448	0.6	3.2	2.7	5.3	5,746
5-7 years complete	1.3	9.0	2.2	10.1	14,875	0.5	3.1	2.5	5.0	8,243
8-9 years complete	1.1	8.5	2.3	9.8	11,234	0.7	3.4	2.2	5.1	8,579
10-11 years complete	1.3	6.9	1.9	8.2	7,975	0.4	2.6	1.9	4.0	5,764
12 or more years complete	1.3	5.3	1.5	6.6	9,183	0.4	2.1	1.1	3.1	8,491
Regular media exposure[1]										
Yes	1.3	8.3	2.0	9.5	60,025	0.5	2.8	2.0	4.4	36,594
No	1.8	12.4	2.5	13.6	38,967	0.4	3.4	3.3	5.7	11,237
Marital status										
Never married	1.3	8.4	3.6	9.5	196	0.8	7.8	4.9	10.7	3,415
Ever had sex	1.3	8.4	3.6	9.5	196	0.8	7.8	4.9	10.7	3,415
Currently married	1.5	10.1	2.2	11.3	93,046	0.5	2.5	2.1	4.2	43,490
Married once	1.5	10.0	2.2	11.2	91,212	0.5	2.4	2.0	4.0	41,172
Married more than once	1.6	13.3	3.8	15.1	1,834	0.5	3.3	4.0	6.4	2,317
Widowed/divorced/ separated/deserted	1.0	7.8	1.9	8.8	5,749	0.4	5.1	2.3	6.5	927
Currently residing with spouse[2]										
Yes	1.5	9.9	2.2	11.0	84,077	0.5	2.5	2.1	4.2	42,124
No	2.0	12.0	2.7	13.4	8,969	0.5	2.4	1.5	3.4	1,365
Times slept away from home in the past 12 months										
None	na	na	na	na	na	0.3	2.3	1.6	3.4	13,782
1-2	na	na	na	na	na	0.5	2.9	2.7	5.2	8,180
3-4	na	na	na	na	na	0.4	3.2	2.3	5.0	7,955
5+	na	na	na	na	na	0.7	3.3	2.6	5.3	17,763
Time away in the past 12 months										
Away for more than 1 month	na	na	na	na	na	0.5	4.1	3.3	6.5	5,305
Away for 1 month or less	na	na	na	na	na	0.6	3.0	2.4	5.0	28,706
Not away	na	na	na	na	na	0.3	2.3	1.6	3.4	13,782
Employment (past 12 months)										
Employed	1.6	10.5	2.4	11.7	43,817	0.5	2.9	2.3	4.6	46,669
Professional	1.8	5.4	1.3	6.7	2,291	0.5	2.1	1.2	3.1	3,023
Sales worker	1.2	7.7	2.8	9.1	1,690	0.5	2.5	1.8	4.1	6,098
Service worker	1.8	8.1	1.9	9.3	3,110	0.4	1.8	1.4	3.0	2,364
Production worker	1.5	12.1	3.1	13.4	8,909	0.5	3.1	2.3	4.9	16,778
Agricultural worker	1.6	10.9	2.3	12.1	27,181	0.5	3.1	2.8	5.3	16,600
Other worker	1.3	4.7	1.5	6.4	635	0.5	2.1	1.1	3.2	1,807
Not employed	1.5	9.5	2.1	10.6	55,136	0.5	5.2	3.7	7.1	1,117

Continued…

Table 11.15 Self-reported prevalence of sexually-transmitted infections (STI) and STI symptoms—*Continued*

Background characteristic	Percentage of women who report that in the past 12 months they had a: STI	Bad smelling, abnormal genital discharge	Genital sore or ulcer	STI/genital discharge/ sore or ulcer	Number of women who ever had sexual intercourse	Percentage of men who report that in the past 12 months they had a: STI	Abnormal genital discharge	Genital sore or ulcer	STI/genital discharge/ sore or ulcer	Number of men who ever had sexual intercourse
Religion										
Hindu	1.5	9.4	2.0	10.5	80,565	0.5	2.9	2.2	4.5	39,440
Muslim	2.1	14.2	3.6	16.0	13,007	0.6	3.7	3.2	6.3	5,756
Christian	0.5	6.2	3.1	7.9	2,229	0.5	1.8	1.3	2.6	1,039
Sikh	1.4	8.1	0.9	8.7	1,655	0.0	1.2	0.9	2.0	884
Buddhist/Neo-Buddhist	0.4	4.3	2.4	5.6	763	0.4	3.0	3.0	6.4	396
Jain	3.6	11.6	2.0	12.6	287	0.0	0.0	1.9	2.0	137
Other	0.4	8.7	2.2	9.6	380	0.0	5.5	4.5	8.4	171
Caste/tribe										
Scheduled caste	1.5	10.1	2.0	11.2	18,741	0.6	3.7	3.0	5.9	9,393
Scheduled tribe	1.7	11.4	2.5	12.5	8,236	0.7	4.0	3.3	6.1	4,408
Other backward class	1.6	9.6	2.2	10.8	39,318	0.4	2.2	1.8	3.6	18,667
Other	1.4	9.8	2.3	11.1	31,848	0.5	3.0	2.3	4.9	15,091
Don't know	0.2	3.3	1.5	4.8	532	0.0	0.7	0.0	0.7	118
Wealth index										
Lowest	1.9	13.2	2.9	14.6	18,755	0.6	3.8	3.7	6.3	8,703
Second	1.7	12.3	2.5	13.4	19,792	0.6	3.8	3.3	6.3	9,339
Middle	1.5	9.9	2.1	11.0	20,010	0.5	3.0	2.3	4.8	9,819
Fourth	1.2	8.0	1.9	9.1	20,100	0.3	2.4	1.3	3.5	10,017
Highest	1.3	6.6	1.8	7.8	20,335	0.4	1.8	1.1	2.8	9,954
Total age 15-49	1.5	9.9	2.2	11.1	98,991	0.5	2.9	2.3	4.7	47,831
Age 50-54	na	na	na	na	na	0.6	1.3	1.5	2.4	4,565
Total age 15-54	na	na	na	na	na	0.5	2.8	2.2	4.5	52,396

Note: Total includes women/men with missing information on education, employment (past 12 months), religion, and caste/tribe and men with missing information on number of times slept away from home in the past 12 months and time away in the past 12 months, who are not shown separately.
na = Not applicable
[1] Exposure to radio, television, or newspapers/magazines at least once a week.
[2] Based on currently married respondents only.

Table 11.16 shows the prevalence of self reported STIs and STI symptoms across states. The reported prevalence of STIs varies considerably across states among women as well as men. The proportion of women who directly report having an STI in the 12 months preceding the survey is highest in Madhya Pradesh (5 percent), followed by Uttar Pradesh, Bihar, and Delhi (3 percent each). Other states with reported prevalence of STIs among women of over 1.5 percent are Jharkhand, Rajasthan, and Orissa. States in which at least 1 percent of men directly report having an STI in the past 12 months are Tripura, Rajasthan, and Orissa.

The reported prevalence of STIs or STI symptoms varies substantially across states, ranging from a low of 2 percent among women in Goa to a high of 25 percent among women in Assam, closely followed by Madhya Pradesh (23 percent). In addition to Assam and Madhya Pradesh, states with a prevalence of 15 percent or higher among women are Bihar, Tripura, Rajasthan, and Uttar Pradesh. States, in addition to Goa, with a prevalence below 5 percent are Karnataka, Andhra Pradesh, Nagaland, Meghalaya, Tamil Nadu, Himachal Pradesh, and Maharashtra. Prevalence among men is highest in West Bengal (11 percent), followed by Tripura (10 percent) and Orissa (9 percent). States with prevalence among men of less than 2 percent are Karnataka, Mizoram, Tamil Nadu, Haryana, Andhra Pradesh, and Nagaland.

Table 11.16 Self-reported prevalence of sexually-transmitted infections (STI) and STI symptoms by state

Among women and men age 15-49 who ever had sexual intercourse, percentage reporting having an STI and/or symptoms of an STI in the past 12 months, by state, India, 2005-06

State	Percentage of women who report that in the past 12 months they had a:				Percentage of men who report that in the past 12 months they had a:			
	STI	Bad smelling, abnormal genital discharge	Genital sore or ulcer	STI/genital discharge/ sore or ulcer	STI	Abnormal genital discharge	Genital sore or ulcer	STI/genital discharge/ sore or ulcer
India	1.5	9.9	2.2	11.1	0.5	2.9	2.3	4.7
North								
Delhi	2.8	6.5	1.3	8.2	0.6	2.6	1.9	4.5
Haryana	1.0	8.1	0.5	8.4	0.2	1.2	0.6	1.6
Himachal Pradesh	0.1	4.1	0.3	4.3	0.1	2.6	2.6	4.6
Jammu & Kashmir	0.4	8.8	1.0	9.4	0.2	3.2	1.5	4.3
Punjab	0.6	8.7	0.6	9.1	0.0	1.5	1.7	3.0
Rajasthan	1.7	14.1	1.0	15.1	1.5	4.5	3.1	7.0
Uttaranchal	1.2	9.8	1.5	10.7	0.3	4.1	0.6	4.7
Central								
Chhattisgarh	0.3	9.6	2.1	10.4	0.5	1.4	1.5	2.7
Madhya Pradesh	4.5	21.5	3.7	23.2	0.6	3.6	2.8	6.1
Uttar Pradesh	2.9	13.6	1.4	14.6	0.4	2.5	1.9	4.1
East								
Bihar	2.8	15.0	4.1	16.9	0.4	2.7	3.0	4.7
Jharkhand	2.0	12.3	2.9	13.8	0.0	3.6	3.9	6.2
Orissa	1.6	4.4	1.7	5.2	1.5	6.6	2.8	8.7
West Bengal	0.3	12.2	2.5	13.4	0.4	6.7	6.4	11.3
Northeast								
Arunachal Pradesh	0.2	7.7	2.9	9.0	0.4	3.6	1.9	4.7
Assam	0.5	23.3	6.4	24.7	0.2	5.5	2.6	7.2
Manipur	0.8	6.8	2.5	7.8	0.8	3.4	3.6	6.7
Meghalaya	0.1	2.7	1.1	3.7	0.6	3.5	1.3	3.9
Mizoram	0.0	10.6	1.6	11.2	0.2	0.2	0.6	0.9
Nagaland	0.0	3.2	0.6	3.5	0.1	1.0	0.8	1.8
Sikkim	0.4	8.4	2.1	9.0	0.2	1.2	2.9	3.8
Tripura	0.9	13.4	5.0	15.9	1.8	7.1	3.9	9.8
West								
Goa	0.2	2.1	0.2	2.3	0.3	1.1	1.1	2.1
Gujarat	1.4	10.3	3.5	12.2	0.4	4.2	2.7	6.3
Maharashtra	1.2	3.9	1.5	4.6	0.3	1.8	1.1	2.6
South								
Andhra Pradesh	0.2	3.0	0.4	3.1	0.8	0.8	1.3	1.7
Karnataka	0.3	2.1	0.8	2.9	0.2	0.2	0.3	0.5
Kerala	0.4	6.3	6.6	10.9	0.5	2.0	1.3	3.5
Tamil Nadu	0.2	2.3	2.9	4.0	0.1	0.4	0.8	1.1

11.7 BLOOD TRANSFUSIONS AND INJECTIONS

It has been estimated that in the initial stages of the HIV epidemic in India, blood transfusions accounted for 6-8 percent of total infections. However, as a result of concerted efforts and the implementation of a blood safety programme, the share of blood transfusions in transmitting new HIV infections has been considerably reduced (NACO, 2004). Further, injection safety has become part of the government's effort to control the spread of HIV/AIDS with an emphasis on the use of new needles and syringes. Overuse of injections in a health care setting can also contribute to the transmission of blood-borne pathogens, because overuse can amplify the effect of unsafe practices such as the reuse of injection equipment.

Table 11.17 Blood transfusions and injections

Percentage of women and men age 15-49 who have ever had a blood transfusion and percentage who received at least one injection from a health worker in the 12 months preceding the survey, the average number of medical injections per person, and among those who received an injection, percentage for whom, for their last injection, the health worker took the syringe and needle from a new and unopened package or the needle was sterilized, by background characteristics, India, 2005-06

	Women						Men					
Background characteristic	Percentage who have ever had a blood transfusion	Percentage who received an injection from a health worker in the past 12 months[1]	Mean number of medical injections in the past 12 months[1]	Number of women	Last injection, syringe and needle taken from newly opened package or the needle was sterilized	Number of women who received injections from a health worker in the past 12 months	Percentage who have ever had a blood transfusion	Percentage who received an injection from a health worker in the past 12 months[1]	Mean number of medical injections in the past 12 months[1]	Number of men	Last injection, syringe and needle taken from newly opened package or the needle was sterilized	Number of men who received injections from a health worker in the past 12 months
Age												
15-19	1.4	34.5	1.4	24,811	91.1	8,556	1.9	35.9	1.4	13,008	93.5	4,675
20-24	2.6	45.1	2.0	22,779	92.5	10,264	2.6	37.1	1.6	11,989	95.6	4,448
25-29	4.3	42.0	2.2	20,417	92.2	8,566	2.8	36.0	1.7	10,854	95.0	3,904
30-39	5.7	36.7	2.3	33,522	90.7	12,301	3.3	35.0	1.8	19,045	94.4	6,657
40-49	7.0	35.9	2.6	22,856	89.1	8,199	3.7	35.2	2.2	14,855	93.4	5,231
Residence												
Urban	5.5	35.3	1.8	40,817	95.2	14,410	3.3	33.8	1.5	25,504	96.9	8,613
Rural	3.7	40.1	2.3	83,568	89.4	33,476	2.7	36.8	1.9	44,247	93.0	16,301
Education												
No education	3.7	38.2	2.3	50,487	87.3	19,264	2.6	31.2	1.9	12,571	89.5	3,927
<5 years complete	4.7	40.5	2.3	9,918	88.7	4,018	3.6	37.6	2.1	7,109	91.6	2,672
5-7 years complete	5.1	40.5	2.2	18,820	92.9	7,621	2.6	37.3	2.1	11,523	93.1	4,299
8-9 years complete	4.4	39.7	2.0	17,383	93.4	6,894	2.9	37.6	1.8	14,398	94.6	5,410
10-11 years complete	4.2	37.6	1.8	12,887	96.1	4,849	2.7	37.9	1.6	10,380	97.3	3,937
12 or more years complete	4.9	35.2	1.7	14,882	97.2	5,238	3.3	33.9	1.3	13,754	98.4	4,662
Religion												
Hindu	4.2	39.2	2.1	100,151	90.9	39,221	2.9	36.0	1.8	57,112	94.3	20,583
Muslim	4.2	35.6	2.0	16,936	91.6	6,025	2.8	32.7	1.5	8,747	94.0	2,860
Christian	4.9	33.0	1.8	3,053	95.6	1,009	3.1	34.5	1.9	1,567	96.3	540
Sikh	4.9	35.9	2.7	2,222	93.1	797	1.2	44.0	1.9	1,270	94.7	558
Buddhist/Neo-Buddhist	4.6	51.1	2.0	1,010	90.7	516	3.4	39.6	1.3	596	96.6	236
Jain	6.8	29.2	1.6	406	96.2	118	4.0	29.7	1.1	213	95.8	63
Other	1.6	30.8	1.3	484	89.0	149	1.7	30.0	1.2	232	96.0	69
Caste/tribe												
Scheduled caste	4.0	38.8	2.2	23,125	89.9	8,975	3.3	34.5	1.9	13,188	92.4	4,552
Scheduled tribe	2.7	35.1	1.4	10,119	86.4	3,552	2.6	33.6	1.6	5,725	92.2	1,922
Other backward class	4.0	43.5	2.5	48,880	91.3	21,274	2.4	38.8	2.1	27,219	94.7	10,566
Other	5.1	33.2	1.8	41,207	93.1	13,676	3.4	33.2	1.4	23,214	95.6	7,706
Don't know	4.3	46.0	2.9	649	87.4	298	5.3	60.3	3.3	177	90.5	107
Wealth index												
Lowest	2.3	37.0	1.9	21,718	85.7	8,046	2.7	31.6	1.7	11,031	88.2	3,488
Second	3.5	40.3	2.3	23,616	88.1	9,507	2.8	36.6	2.1	12,666	91.3	4,636
Middle	3.9	41.5	2.4	25,088	90.2	10,419	2.9	39.5	2.1	14,301	94.6	5,654
Fourth	5.0	40.0	2.2	26,106	94.0	10,442	3.0	36.6	1.7	15,493	96.5	5,675
Highest	6.1	34.0	1.8	27,856	96.8	9,472	3.0	33.6	1.3	16,260	98.3	5,460
Total age 15-49	4.3	38.5	2.1	124,385	91.2	47,886	2.9	35.7	1.8	69,751	94.3	24,913
Age 50-54	na	na	na	na	na	na	4.4	37.1	2.6	4,618	92.6	1,714
Total age 15-54	na	na	na	na	na	na	3.0	35.8	1.8	74,369	94.2	26,627

Note: Total includes women/men with missing information on education, religion, and caste/tribe, who are not shown separately.
na = Not applicable
[1] Injections given by a doctor, nurse, pharmacist, dentist, or other health worker.

Accordingly, in NFHS-3, all women and men were asked if they had ever received a blood transfusion and if they received any injections in the 12 months preceding the survey. If they received any injections given by a doctor, nurse, dentist, pharmacist, or any other health worker, they were asked about the number of injections they received and whether their last injection was given with a syringe from a new, unopened package or whether the needle was sterilized. Note that self-administered medical injections (e.g., insulin for diabetes) are not included as injections given by health personnel.

Table 11.17 presents data on the prevalence of blood transfusions and injections. Four percent of women and 3 percent of men have ever received a blood transfusion. Thus, although the prevalence of blood transfusions is very low, women are somewhat more likely than men to have ever had a blood transfusion. The proportion of women and men who have ever had a blood transfusion is positively associated with urban residence, age of the respondent, and (for women) wealth quintile.

Table 11.17 further shows that women are somewhat more likely than men to have received at least one injection (39 percent and 36 percent, respectively) given by health personnel in the 12 months preceding the survey. The average number of injections received from health personnel was 2.1 among women and 1.8 among men.

The percentage of respondents who received at least one injection from health personnel in the past 12 months varies little by age for men, but among women the proportion is highest at ages 20-29. These ages are prime childbearing ages, suggesting that a large number of these injections may be pregnancy related. A somewhat higher proportion of rural than urban residents received at least one injection from health personnel in the past 12 months, although the differential is greater among women than among men. The largest variation in injection prevalence is by religion. Among women, the percentage reporting they had received at least one injection from health personnel during the 12 months prior to the survey varies from 29 percent among Jains to 51 percent among Buddhist/Neo-Buddhists and 39 percent among Hindus. Among men, the proportion receiving an injection is also lowest among Jains (30 percent), but it is highest among Sikhs (44 percent). Notably, the percentage receiving at least one injection from health personnel does not show any consistent association with education or wealth quintile for either women or men.

The vast majority of respondents who received an injection from health personnel in the past 12 months report that their most recent injection was given with a needle and syringe taken from a newly opened package or given with a needle that had been sterilized (91 percent among women and 94 percent among men). Women and men living in rural areas, having little or no education, belonging to scheduled tribes, and in households in the lowest wealth quintile are the least likely to report that the injection was given using a needle and syringe from a newly unopened package or with a sterilized needle.

Table 11.18 shows the prevalence of blood transfusions and injections among women and men age 15-49 across states. The proportion of women who have ever had a blood transfusion ranges from less than 1 percent in Meghalaya to 7 percent in Gujarat and 6 percent in Delhi and Kerala. For men, the percentage ranges from 1 percent in Punjab to 9 percent in West Bengal and

Table 11.18 Blood transfusions and injections by state

Percentage of women and men age 15-49 who have ever had a blood transfusion and received at least one injection from a health worker in the 12 months preceding the survey, the average number of medical injections per person, and among those who received an injection, percentage for whom, for their last injection, the health worker took the syringe and needle from a new and unopened package or the needle was sterilized by state, India, 2005-06

	Women				Men			
State	Percentage who have ever had a blood transfusion	Percentage who received an injection from a health worker in the past 12 months[1]	Mean number of medical injections in the past 12 months[1]	Last injection, syringe and needle taken from newly opened package or the needle was sterilized	Percentage who have ever had a blood transfusion	Percentage who received an injection from a health worker in the past 12 months[1]	Mean number of medical injections in the past 12 months[1]	Last injection, syringe and needle taken from newly opened package or the needle was sterilized
India	4.3	38.5	2.1	91.2	2.9	35.7	1.8	94.3
North								
Delhi	5.6	25.1	1.4	97.8	2.0	20.0	0.8	98.0
Haryana	4.3	37.7	2.5	92.5	1.8	34.8	2.0	97.5
Himachal Pradesh	3.6	18.7	1.1	93.3	2.4	21.6	1.1	97.8
Jammu & Kashmir	4.3	31.7	2.4	97.3	1.9	30.5	1.7	98.2
Punjab	4.9	34.1	2.5	93.6	1.3	45.1	2.1	94.5
Rajasthan	3.7	33.0	1.5	92.9	2.7	32.5	1.4	96.6
Uttaranchal	4.6	26.6	1.5	88.8	2.7	23.6	1.2	91.3
Central								
Chhattisgarh	4.6	56.2	3.1	81.3	2.3	55.7	2.7	90.0
Madhya Pradesh	4.4	42.3	2.4	92.5	2.2	29.7	1.7	94.3
Uttar Pradesh	3.2	39.2	2.6	86.2	1.8	30.9	1.8	89.0
East								
Bihar	3.4	39.6	2.3	89.3	2.7	26.9	1.5	86.1
Jharkhand	4.1	34.6	2.0	89.8	1.6	23.7	0.8	93.1
Orissa	4.2	29.1	1.4	94.9	2.4	36.1	1.9	97.6
West Bengal	4.2	18.4	0.7	87.8	9.2	26.9	0.9	90.5
Northeast								
Arunachal Pradesh	3.2	20.8	1.5	94.6	5.2	21.4	2.3	95.1
Assam	4.3	24.1	0.9	92.9	2.7	27.2	1.3	96.8
Manipur	3.8	21.6	1.1	97.9	2.9	17.2	0.8	98.9
Meghalaya	0.5	12.5	0.4	95.6	4.0	12.3	0.5	100.0
Mizoram	5.0	12.2	0.8	98.6	5.9	9.3	0.6	93.1
Nagaland	3.0	25.9	1.1	98.8	5.0	20.2	0.9	99.8
Sikkim	4.1	21.3	1.0	97.6	2.7	17.5	0.6	95.1
Tripura	4.6	17.5	0.9	94.7	6.7	27.7	0.8	97.2
West								
Goa	3.5	33.9	1.2	89.8	4.9	41.9	1.1	92.9
Gujarat	6.6	34.0	1.2	89.6	2.4	27.9	1.1	94.5
Maharashtra	4.8	51.7	2.0	90.4	3.2	44.4	1.5	96.4
South								
Andhra Pradesh	4.5	39.0	2.3	98.0	1.9	43.3	2.6	98.4
Karnataka	4.2	53.5	3.3	94.1	2.0	58.3	3.1	96.7
Kerala	5.5	27.2	1.1	93.7	3.4	35.9	1.3	95.3
Tamil Nadu	4.6	59.1	4.0	93.9	2.0	47.8	3.2	96.5

[1] Injections given by a doctor, nurse, pharmacist, dentist, or other health worker.

7 percent in Tripura. The proportions of respondents who received an injection from health personnel during the 12 months preceding the survey ranges 12 percent among women and 9 percent among men in Mizoram to 59 percent among women in Tamil Nadu and 58 percent among men in Karnataka. Chhattisgarh is another state where a high proportion of both women and men (56 percent each) received an injection from health personnel during the 12 months preceding the survey. All of the northeastern states have much lower proportions of women and men reporting injections than the all-India average. The proportions of recent injections given with a needle and syringe taken from a newly opened package or a sterilized needle are fairly high across all states. However, considerable proportions of women in Chhattisgarh (19 percent) and Uttar Pradesh (14 percent) and men in Bihar (14 percent) reported that in the case of their

last injection, the needle and syringe were not taken from a newly opened package and the needle was not sterilized.

The percent distributions of women and men who received their last injection from health personnel in the 12 months preceding the survey according to the type of facility at which the injection was given are shown in Table 11.19. About two-thirds of women (64 percent) and three-fourths of men (75 percent) who received an injection in the past 12 months from health personnel received their last medical injection in a private health facility, mostly a private doctor or clinic. By contrast, the last medical injection was received in a public health facility (primarily a government/municipal hospital or a CHC/rural hospital/PHC) by only 25 percent of women and 21 percent of men. Notably, 9 percent of women and 3 percent of men received their last medical injection in their home.

Table 11.19 Source of last medical injection

Percent distribution of women and men age 15-49 who received a medical injection in the past 12 months and percentage for whom the last injection was given with a safe needle and syringe by type of facility where the last injection was received, India, 2005-06

	Received injection from health worker in past 12 months		Percentage for whom the last injection was given with a safe needle and syringe			
Facility for last medical injection	Women	Men	Women	Number of women	Men	Number of men
Public medical sector	25.4	20.9	90.9	12,158	93.1	5,218
Government/municipal hospital	10.7	9.5	92.0	5,133	93.3	2,369
Government dispensary	0.8	0.9	93.0	360	97.8	234
UHC/UHP/UFWC	0.2	0.2	94.8	90	93.1	59
CHC/Rural hospital/PHC	8.8	8.4	89.7	4,229	92.0	2,096
Sub-centre/ANM	2.7	0.9	87.5	1,291	93.5	236
Government mobile clinic	0.0	0.1	*	17	*	16
Camp	0.4	0.3	94.2	195	95.3	65
Anganwadi/ICDS centre	1.5	0.1	93.2	727	*	28
Other public medical sector	0.2	0.5	91.7	116	95.1	114
NGO or trust hospital/clinic	0.4	0.5	95.6	190	94.9	120
Private medical sector	64.2	75.4	91.9	30,759	94.9	18,774
Private hospital	21.0	16.8	95.4	10,075	97.6	4,190
Private doctor/clinic	36.1	47.1	90.6	17,306	94.4	11,728
Private paramedic	1.7	2.2	88.9	819	93.0	556
Vaidya/*hakim*/homeopath	0.2	0.2	95.5	86	*	39
Pharmacy/drugstore	1.9	4.6	92.5	886	97.3	1,145
Other private medical	3.3	4.5	85.1	1,587	88.9	1,116
Other place	9.2	2.9	89.9	4,389	90.5	726
Shop	0.2	0.1	89.4	75	*	17
At home	8.7	2.6	89.8	4,143	90.5	654
Other	0.4	0.2	90.8	171	92.4	56
Missing	0.8	0.3	52.2	390	65.7	75
Total	100.0	100.0	91.2	47,886	94.3	24,913
Number	47,886	24,913	na	na	na	na

ANM = Auxiliary nurse midwife; CHC = Community health centre; ICDS = Integrated Child Development Services; NGO = Nongovernmental organization; UHC = Urban health centre; UHP = Urban health post; UFWC = Urban family welfare centre
na = Not applicable
* Percentage not shown; based on fewer than 25 unweighted cases.

Public sector and private sector facilities as a whole do not differ substantially in terms of injection safety, although the public sector does lag slightly behind the private sector in this respect. Ninety-one percent of women and 93 percent of men who received injections from a public sector health facility say that in the case of their last injection, either the needle and syringe were taken from a newly opened package or the needle was sterilized. The corresponding proportions for women and men using a private sector medical facility are 92 percent and 95 percent. Differentials between the public sector and private sector in terms of injection safety are larger when government/municipal hospitals are compared with private hospitals. It is notable that although women are slightly more likely than men to have received an injection in the last one year, in almost all types of facilities men are slightly more likely than women to have received an injection for which the needle and syringe were taken from a newly opened package or the needle was sterilized.

11.8 HIV/AIDS-Related Knowledge and Behaviour among Youth

Knowledge of HIV/AIDS and sexual behaviour among youth age 15-24 are of particular interest because the period between sexual initiation and marriage is for many young people a time of sexual experimentation that may involve high-risk behaviours. This issue has special importance in the context of the emerging trends in new HIV cases in India that show that nearly two-fifths of new infections are reported among people below 25 years of age (NACO, 2004). Another equally important concern is the narrowing gender gap in new HIV infections, suggesting an urgent need to address the issues and concerns of youth, especially through reducing young women's vulnerability to STIs and HIV (Singh et al., 2004). This section considers a number of issues that relate to both transmission and prevention of HIV/AIDS among youth, including the extent to which youth have comprehensive knowledge of HIV/AIDS transmission and prevention modes and knowledge of a source where they can obtain condoms. Issues such as abstinence, age at sexual debut, age differences between partners, and condom use are also covered in this section.

11.8.1 Knowledge about HIV/AIDS and a Source for Condoms

Knowledge of HIV transmission and prevention is crucial in enabling young people to avoid HIV/AIDS. Young people may be at greater risk because they may have shorter relationships with more partners, or engage in other risky behaviours. Table 11.20 shows the percentage of young women and young men age 15-24 with knowledge about various aspects of HIV/AIDS and knowledge of a source of condoms by selected background characteristics. Two measures of knowledge of HIV/AIDS are shown in the table. The first is the percentage of respondents who, when asked prompted questions, say that HIV/AIDS cannot be transmitted by mosquito bites, by hugging someone who has HIV/AIDS, or by sharing food with a person who has HIV/AIDS, and who say that having just one uninfected, faithful partner and using a condom for every act of sexual intercourse can reduce the chances of getting HIV/AIDS. The second measure of knowledge, comprehensive knowledge, is defined as: 1) knowing that people can reduce their chances of getting HIV/AIDS by having sex with only one uninfected, faithful partner and by using condoms consistently; 2) knowing that a healthy-looking person can have HIV/AIDS; and 3) rejecting the two most common misconceptions, namely that HIV/AIDS can be transmitted by mosquito bites or by sharing food with a person who has HIV/AIDS. There is a

Table 11.20 Comprehensive knowledge about HIV/AIDS and a source of condoms among youth

Percentage of women and men age 15-24 with comprehensive knowledge about HIV/AIDS and percentage with knowledge of a source of condoms, by background characteristics, India, 2005-06

	Women age 15-24				Men age 15-24			
Background characteristic	Percentage who reject three misconceptions and know how to prevent HIV/AIDS[1]	Percentage with comprehensive knowledge about HIV/AIDS[2]	Percentage who know a condom source	Number of women	Percentage who reject three misconceptions and know how to prevent HIV/AIDS[1]	Percentage with comprehensive knowledge about AIDS[2]	Percentage who know a condom source[3]	Number of men
Age								
15-19	22.7	18.6	39.0	24,811	41.9	34.5	80.5	13,008
15-17	21.5	17.5	34.9	14,852	40.3	33.2	77.0	7,919
18-19	24.4	20.2	45.1	9,959	44.5	36.5	86.0	5,090
20-24	26.2	21.4	53.9	22,779	44.8	37.8	89.7	11,989
20-22	25.3	21.0	51.7	14,470	44.6	37.6	89.1	7,881
23-24	27.6	22.1	57.9	8,310	45.2	38.3	90.7	4,108
Residence								
Urban	38.8	32.9	56.6	14,931	54.5	47.1	91.3	9,435
Rural	17.7	14.0	41.3	32,660	36.5	29.4	81.0	15,561
Education								
No education	3.8	2.7	32.4	12,524	12.0	9.0	65.2	2,440
<5 years complete	6.0	4.1	31.9	3,422	15.3	10.7	72.8	1,896
5-7 years complete	14.4	10.7	40.8	8,412	28.5	21.7	79.0	4,422
8-9 years complete	28.5	22.5	49.1	9,597	43.2	34.9	85.6	6,778
10-11 years complete	42.7	35.0	54.6	6,912	58.1	49.5	91.6	4,828
12 or more years complete	59.6	52.5	72.8	6,721	70.1	62.2	97.9	4,624
Regular media exposure[4]								
Yes	32.4	26.7	51.2	33,016	47.4	39.7	88.1	21,575
No	6.1	4.7	34.6	14,574	17.2	13.0	64.7	3,422
Marital status								
Never married	30.2	25.3	42.4	23,588	45.6	38.2	84.5	20,721
Ever had sex	21.3	14.3	52.9	176	44.7	36.8	94.2	2,470
Never had sex	30.2	25.3	42.3	23,412	45.7	38.4	83.1	18,251
Ever married	18.6	14.7	49.8	24,003	32.3	25.9	87.1	4,276
Currently residing with spouse[5]								
Yes	19.5	15.4	49.9	20,235	31.8	25.4	86.9	3,905
No	14.8	11.9	51.6	3,273	39.9	35.4	88.0	300
Times slept away from home in the past 12 months								
None	na	na	na	na	42.2	34.8	80.2	7,847
1-2	na	na	na	na	41.9	36.2	84.5	4,913
3-4	na	na	na	na	43.1	35.2	86.3	4,289
5+	na	na	na	na	45.3	37.6	89.0	7,891
Time away in the past 12 months								
Away for more than 1 month	na	na	na	na	41.0	34.2	85.8	3,388
Away for 1 month or less	na	na	na	na	44.5	37.3	87.4	13,741
Not away	na	na	na	na	42.2	34.8	80.2	7,847
Employment (past 12 months)								
Employed	16.7	13.4	37.9	16,134	37.0	30.3	84.1	16,512
Professional	56.5	51.8	76.3	972	57.8	53.0	95.8	727
Sales worker	29.9	24.7	51.1	421	46.0	39.2	91.7	2,341
Service worker	26.5	21.5	48.0	713	40.6	32.1	85.6	902
Production worker	17.2	13.1	37.9	4,215	36.1	29.0	85.1	6,956
Agricultural worker	10.0	7.5	31.9	9,551	28.6	22.2	76.3	5,102
Other worker	60.2	50.4	66.9	262	59.3	52.1	94.4	483
Not employed	28.2	23.3	50.4	31,451	55.5	47.4	86.6	8,445
Religion								
Hindu	24.9	20.3	47.0	37,705	44.4	36.9	85.4	20,239
Muslim	18.3	15.4	42.4	7,307	35.0	28.3	82.9	3,398
Christian	31.5	26.3	40.9	1,043	42.5	37.0	76.5	503
Sikh	40.7	31.5	52.1	789	48.7	45.5	90.1	494
Buddhist/Neo-Buddhist	30.1	23.9	41.6	380	58.5	57.1	91.6	217
Jain	55.8	53.6	72.3	133	77.4	71.5	100.0	64
Other	9.6	8.5	23.8	197	18.0	14.9	37.0	76
Caste/tribe								
Scheduled caste	20.0	15.9	43.6	9,171	39.7	31.9	84.9	4,903
Scheduled tribe	13.1	10.6	32.4	4,014	30.4	24.9	72.1	1,960
Other backward class	22.5	18.0	45.3	18,921	44.9	36.9	86.3	9,773
Other	32.6	27.6	52.7	15,116	46.8	40.4	86.6	8,221
Don't know	10.9	7.2	35.1	194	32.0	30.5	76.0	52

Continued…

Table 11.20 Comprehensive knowledge about HIV/AIDS and a source of condoms among youth—*Continued*

Background characteristic	Women age 15-24				Men age 15-24			
	Percentage who reject three misconceptions and know how to prevent HIV/AIDS[1]	Percentage with comprehensive knowledge about HIV/AIDS[2]	Percentage who know a condom source	Number of women	Percentage who reject three misconceptions and know how to prevent HIV/AIDS[1]	Percentage with comprehensive knowledge about AIDS[2]	Percentage who know a condom source[3]	Number of men
Wealth index								
Lowest	5.3	3.8	30.6	8,175	20.1	14.7	69.2	3,460
Second	9.7	7.1	37.3	9,284	29.8	23.6	78.6	4,577
Middle	19.3	14.7	41.0	10,131	40.0	31.8	85.2	5,407
Fourth	32.1	26.1	52.1	10,241	52.1	43.5	90.7	5,808
Highest	51.4	44.5	66.7	9,759	62.2	55.3	93.3	5,743
Total	24.3	19.9	46.1	47,590	43.3	36.1	84.9	24,997

Note: Total includes women/men with missing information on education, employment (past 12 months), religion, and caste/tribe and men with missing information on number of times slept away from home in the past 12 months and time away in the past 12 months, who are not shown separately.
na = Not applicable
[1] Respondents who, when asked prompted questions, say that HIV/AIDS cannot be transmitted by mosquito bites, by hugging someone who has HIV/AIDS, and by sharing food with a person who has HIV/AIDS, and who say that use of a condom for every act of sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting HIV/AIDS.
[2] Respondents with comprehensive knowledge say that use of a condom for every act of sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting HIV/AIDS, say that a healthy-looking person can have HIV/AIDS, and reject the two most common misconceptions in NFHS-3 about HIV/AIDS transmission or prevention.
[3] Men who used a condom in the 12 months preceding the survey are assumed to know a condom source.
[4] Exposure to radio, television, or newspapers/magazines at least once a week.
[5] Based on currently married respondents only.

considerable knowledge gender gap among youth in India. While one in four women rejects the three transmission misconceptions and knows ways to prevent HIV/AIDS, more than two in five men have this kind of knowledge. Even fewer (20 percent of women and 36 percent of men) have a comprehensive knowledge of HIV/AIDS.

The level of comprehensive knowledge about HIV/AIDS does not vary greatly by age, although there is a slight increase with increasing age. Comprehensive knowledge of HIV/AIDS increases from 18 percent among women age 15-17 years to 22 percent among women age 23-24 years. The proportions of men with comprehensive knowledge of HIV/AIDS in the corresponding age groups are 33 and 38 percent, respectively. By marital status, comprehensive knowledge is much higher among respondents who have never been married than among those who have ever been married. As expected, comprehensive HIV/AIDS knowledge is much more common among urban than rural youth.

Comprehensive knowledge of HIV/AIDS is strongly associated with education, wealth quintiles, and exposure to media among both young women and men. Young women who have 12 or more years of education are more than 19 times as likely as those with no schooling to have comprehensive knowledge of HIV/AIDS, while men with 12 or more years of education are seven times as likely as those with no education to have comprehensive knowledge of HIV/AIDS. Forty-five percent of young women and 55 percent of young men in the highest wealth quintile have comprehensive knowledge of HIV/AIDS, compared with 4 percent of women and 15 percent of men in the lowest wealth quintile. Young women living in urban areas are more than twice as likely as their rural counterparts to have comprehensive knowledge of HIV/AIDS. While the urban-rural differential in comprehensive knowledge is somewhat narrower among men, it is still substantial (47 percent in urban areas and 29 percent in rural areas). Muslim and scheduled tribe youth are less likely to have comprehensive knowledge of HIV/AIDS than youth of other major religions and castes/tribes. Variations in the proportion of

youth who reject three misconceptions and know how to prevent HIV/AIDS reveal similar patterns by background characteristics.

In view of the important role condoms play in combating the transmission of HIV, respondents were asked whether they know where condoms can be obtained. As shown in Table 11.20, young men are much more likely than young women to know where to obtain a condom (85 and 46 percent, respectively). Note that in this table and other tables on youth, men who said they used a condom the last time they had sex with one or more of their sexual partners in the past 12 months were assumed to know where condoms can be obtained.

Among young women, knowledge of a condom source increases sharply with age, from 35 percent among women age 15-17 to 58 percent among women age 23-24. On the other hand, knowledge of a condom source among young men is fairly high at all ages, ranging from 77 percent among men age 15-17 to 91 percent among men age 23-24. Consistent with the patterns observed for knowledge, youth who are better educated, live in wealthier households, have regular media exposure, and live in urban areas are more likely than other youth to know a source of condoms. Youth from scheduled tribes are less likely to know a source of condoms than youth in other caste/tribe categories. Christians are somewhat less likely than youth of most other religions to know a condom source. Young men who slept away from home at any time in the 12 months preceding the survey are somewhat better informed about a source of condoms than other youth.

Table 11.21 shows the percentage of young women and young men age 15-24 with knowledge about HIV/AIDS and knowledge of a source of condoms by states. Comprehensive knowledge of HIV/AIDS among young women varies considerably across states, from 9 percent in Assam to 66 percent in Mizoram. Among young men, comprehensive knowledge is lowest in Meghalaya (13 percent) and highest in Mizoram (64 percent). Young men and young women have relatively low comprehensive knowledge of HIV/AIDS in all the states in the East Region and all states in the Northeast Region except Manipur, Mizoram, and (for women) Sikkim. Additionally, knowledge is particularly low among women in Karnataka and Tamil Nadu and among men in Jammu and Kashmir. While knowledge of a source of condoms among youth is much higher than comprehensive knowledge of HIV/AIDS, there is considerable variation across states and by sex. Only 21 percent of women in Jammu and Kashmir and 60 percent of men in Meghalaya know of a source for condoms, while 74 percent of women and 95 percent of men in Delhi know of a source. In addition to Jammu and Kashmir, less than one-third of women are aware of a source of condoms in Andhra Pradesh, Jharkhand, Tamil Nadu, Karnataka, and Meghalaya. Three of these states with low knowledge among women have been designated as high HIV prevalence states. Therefore, programmes and activities to reduce young women's vulnerability to STIs/HIV in these states should give priority, among other things, to improving the knowledge of a source of condoms.

Table 11.21 Comprehensive knowledge about HIV/AIDS and of a source of condoms among youth by state

Percentage of women and men age 15-24 with comprehensive knowledge about HIV/AIDS and percentage with knowledge of a source of condoms, by state, India, 2005-06

State	Women age 15-24			Men age 15-24		
	Percentage who reject three misconceptions and know how to prevent HIV/AIDS[1]	Percentage with comprehensive knowledge about HIV/AIDS[2]	Percentage who know a condom source	Percentage who reject three misconceptions and know how to prevent HIV/AIDS[1]	Percentage with comprehensive knowledge about HIV/AIDS[2]	Percentage who know a condom source[3]
India	24.3	19.9	46.1	43.3	36.1	84.9
North						
Delhi	60.6	48.5	74.0	63.5	56.8	95.1
Haryana	34.7	30.4	52.6	50.1	42.0	85.4
Himachal Pradesh	50.3	38.8	34.4	72.9	61.3	88.2
Jammu & Kashmir	22.4	18.3	20.8	29.6	27.7	76.6
Punjab	36.8	28.6	47.5	41.6	37.1	86.6
Rajasthan	25.2	21.2	54.5	43.1	35.5	86.7
Uttaranchal	40.3	33.4	49.9	56.4	48.6	91.3
Central						
Chhattisgarh	23.3	18.5	41.9	47.4	40.7	81.1
Madhya Pradesh	30.4	27.6	63.4	53.0	46.0	91.9
Uttar Pradesh	22.7	19.2	52.9	43.8	34.1	90.9
East						
Bihar	16.1	14.1	60.0	31.4	26.7	77.1
Jharkhand	15.7	14.0	30.2	34.0	29.7	62.3
Orissa	18.2	12.6	46.7	34.2	28.4	83.8
West Bengal	15.5	10.2	43.1	21.0	14.6	79.5
Northeast						
Arunachal Pradesh	18.7	15.8	49.4	32.1	27.8	73.0
Assam	9.4	8.7	42.4	13.3	14.4	72.6
Manipur	49.6	43.8	51.6	63.8	56.1	84.5
Meghalaya	11.0	11.8	32.1	16.3	13.1	60.4
Mizoram	66.0	65.9	60.4	62.0	63.8	74.2
Nagaland	20.8	18.1	42.7	34.5	32.1	75.3
Sikkim	28.2	25.5	53.4	26.5	25.6	77.8
Tripura	18.3	14.0	43.6	35.8	25.8	73.6
West						
Goa	35.0	31.4	54.5	38.9	37.7	83.7
Gujarat	25.5	20.3	57.1	46.1	36.7	90.5
Maharashtra	37.9	32.9	43.2	59.8	55.7	86.7
South						
Andhra Pradesh	21.5	19.6	25.6	44.8	36.6	85.6
Karnataka	20.5	12.3	31.4	45.7	32.6	79.8
Kerala	38.9	31.9	35.0	47.9	35.1	75.4
Tamil Nadu	20.5	14.1	31.0	47.8	41.2	90.1

[1] Respondents who, when asked prompted questions, say that HIV/AIDS cannot be transmitted by mosquito bites, by hugging someone who has HIV/AIDS, and by sharing food with a person who has HIV/AIDS, and who say that use of a condom for every act of sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting HIV/AIDS.
[2] Respondents with comprehensive knowledge say that use of a condom for every act of sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting HIV/AIDS, say that a healthy-looking person can have HIV/AIDS, and reject the two most common misconceptions in NFHS-3 about HIV/AIDS transmission or prevention.
[3] Men who used a condom in the 12 months preceding the survey are assumed to know a condom source.

11.8.2 Age at First Sex and Condom Use at First Sex

In NFHS-3, women and men were asked their age at the time they first had sexual intercourse and whether or not a condom was used the first time. Table 11.22 shows the proportion of women and men age 15-24 who have ever had sexual intercourse and the proportion who had their first sex before age 15, and the proportion of women and men age 18-24 who had their first sex before age 18. Fifty-one percent of women and 27 percent of men age 15-24 have ever had sex. Ten percent of young women and 2 percent of young men had their first sexual intercourse by age 15, and among those age 18-24, 40 percent of women and 12 percent of men had sex for the first time before reaching age 18. Since the vast majority of sexual initiation in India is within marriage, the large differences by sex in age at sexual initiation are largely a reflection of the much earlier age at first marriage among women than men.

Table 11.22 Age at first sexual intercourse among youth

Percentage of women and of men age 15-24 who ever had sexual intercourse and who had sexual intercourse before age 15 and percentage of women and of men age 18-24 who had sexual intercourse before age 18, by background characteristics, India, 2005-06

	Women					Men				
	Age 15-24			Age 18-24		Age 15-24			Age 18-24	
Background characteristic	Percentage who have ever had sexual intercourse	Percentage who had sexual intercourse before age 15	Number of women age 15-24	Percentage who had sexual intercourse before age 18	Number of women age 18-24	Percentage who have ever had sexual intercourse	Percentage who had sexual intercourse before age 15	Number of men age 15-24	Percentage who had sexual intercourse before age 18	Number of men age 18-24
Age										
15-19	27.8	8.0	24,811	na	na	11.2	2.7	13,008	na	na
15-17	15.6	6.7	14,852	na	na	7.1	3.0	7,919	na	na
18-19	45.9	9.8	9,959	34.5	9,959	17.7	2.3	5,090	12.3	5,090
20-24	75.6	12.5	22,779	43.0	22,779	44.0	1.8	11,989	11.2	11,989
20-22	70.2	11.8	14,470	42.0	14,470	38.7	2.0	7,881	12.0	7,881
23-24	84.9	13.7	8,310	44.7	8,310	54.1	1.4	4,108	9.6	4,108
Residence										
Urban	38.2	4.5	14,931	24.3	10,535	18.9	1.0	9,435	6.4	6,701
Rural	56.4	12.7	32,660	48.1	22,203	31.8	3.0	15,561	14.8	10,378
Education										
No education	76.8	23.3	12,524	67.4	9,642	48.4	4.3	2,440	22.9	1,949
<5 years complete	59.8	15.4	3,422	55.4	2,240	37.9	2.6	1,896	16.5	1,371
5-7 years complete	54.9	11.1	8,412	48.1	5,354	33.8	2.9	4,422	14.1	2,867
8-9 years complete	38.7	3.3	9,597	32.1	5,461	24.6	2.8	6,778	13.3	3,786
10-11 years complete	32.3	1.3	6,912	22.2	3,876	16.5	1.4	4,828	7.0	2,743
12 or more years complete	28.0	0.5	6,721	4.9	6,165	18.9	0.7	4,624	4.5	4,356
Regular media exposure[1]										
Yes	42.8	6.4	33,016	30.6	22,435	25.1	2.1	21,575	10.3	14,748
No	68.4	18.5	14,574	61.7	10,303	38.4	3.1	3,422	19.2	2,331
Age at marriage										
Ever married[2]										
<15 years	94.2	67.1	7,103	92.4	5,563	81.5	29.0	501	67.1	399
15-17 years	97.1	0.3	10,260	89.4	8,976	92.4	3.8	1,092	72.8	1,005
18+ years	98.7	0.0	7,446	0.5	7,446	96.8	1.6	3,076	7.6	3,076
Never married	0.5	0.1	22,781	0.3	10,753	11.5	1.6	20,327	5.9	12,598
Times slept away from home in the past 12 months										
None	na	na	na	na	na	17.7	1.4	7,847	6.7	5,007
1-2	na	na	na	na	na	24.0	1.8	4,913	10.4	3,221
3-4	na	na	na	na	na	30.4	3.0	4,289	13.3	2,951
5+	na	na	na	na	na	36.0	3.0	7,891	15.4	5,855
Time away in the past 12 months										
Away for more than 1 month	na	na	na	na	na	39.2	3.8	3,388	17.2	2,640
Away for 1 month or less	na	na	na	na	na	29.2	2.4	13,741	12.5	9,415
Not away	na	na	na	na	na	17.7	1.4	7,847	6.7	5,007

Continued…

Table 11.22 Age at first sexual intercourse among youth—*Continued*

Background characteristic	Women					Men				
	Age 15-24			Age 18-24		Age 15-24			Age 18-24	
	Percentage who have ever had sexual intercourse	Percentage who had sexual intercourse before age 15	Number of women age 15-24	Percentage who had sexual intercourse before age 18	Number of women age 18-24	Percentage who have ever had sexual intercourse	Percentage who had sexual intercourse before age 15	Number of men age 15-24	Percentage who had sexual intercourse before age 18	Number of men age 18-24
Employment (past 12 months)										
Employed	49.1	13.4	16,134	45.4	11,241	37.0	2.7	16,512	13.4	13,324
Professional	21.4	2.5	972	8.1	871	23.7	0.2	727	4.7	682
Sales worker	39.9	6.7	421	31.7	335	32.0	2.2	2,341	10.5	1,931
Service worker	37.8	10.3	713	33.0	502	32.7	2.1	902	10.7	732
Production worker	38.6	9.0	4,215	33.8	2,886	37.6	2.4	6,956	13.5	5,601
Agricultural worker	58.7	17.4	9,551	58.8	6,409	41.9	3.8	5,102	17.4	3,934
Other worker	16.8	1.8	262	7.7	238	27.8	1.8	483	7.3	444
Not employed	51.5	8.4	31,451	37.8	21,493	7.4	1.5	8,445	4.8	3,730
Religion										
Hindu	51.9	10.5	37,705	41.6	26,104	27.8	2.5	20,239	11.8	13,888
Muslim	49.2	10.3	7,307	40.6	4,863	23.2	1.7	3,398	10.8	2,255
Christian	33.6	3.7	1,043	20.3	717	18.1	0.2	503	5.1	344
Sikh	33.1	1.9	789	14.9	549	28.9	1.5	494	14.4	339
Buddhist/Neo-Buddhist	42.5	7.1	380	36.6	251	25.0	0.0	217	8.4	155
Jain	18.9	1.6	133	2.4	89	17.1	4.2	64	6.4	42
Other	54.6	8.7	197	45.6	137	36.0	3.3	76	10.5	49
Caste/tribe										
Scheduled caste	55.2	13.2	9,171	47.7	6,266	33.8	3.3	4,903	15.1	3,364
Scheduled tribe	57.1	14.4	4,014	50.1	2,768	40.3	3.7	1,960	19.0	1,358
Other backward class	52.7	10.6	18,921	43.6	12,872	26.6	2.3	9,773	12.3	6,694
Other	43.7	6.5	15,116	29.7	10,580	20.1	1.4	8,221	6.7	5,559
Don't know	48.9	10.4	194	33.6	128	10.4	0.0	52	(4.2)	37
Wealth index										
Lowest	65.3	19.8	8,175	63.5	5,531	39.4	4.9	3,460	22.8	2,200
Second	60.6	15.9	9,284	57.1	6,173	36.2	3.3	4,577	16.0	3,078
Middle	52.7	10.3	10,131	44.8	6,860	28.6	2.3	5,407	12.9	3,720
Fourth	45.9	5.3	10,241	30.1	7,186	23.0	1.5	5,808	8.4	4,140
Highest	31.8	1.5	9,759	13.7	6,989	14.6	0.7	5,743	3.7	3,940
Total	50.7	10.1	47,590	40.4	32,739	26.9	2.3	24,997	11.5	17,078

Note: Total includes women/men with missing information on education, employment (past 12 months), religion, and caste/tribe and men with missing information on number of times slept away from home in the past 12 months and time away in the past 12 months, who are not shown separately.
na = Not available
( ) Based on 25-49 unweighted cases.
[1] Exposure to radio, television, or newspapers/magazines at least once a week.
[2] Includes women who are married, but whose *gauna* has not been performed.

The proportion of young women reporting that they had sex before age 15 is markedly lower among those under age 18 (7 percent) than among older women (14 percent among women age 23-24). The proportion of women who had sex by age 15 is also lower in the younger cohorts than the older cohorts. This likely reflects the effect of rising age at marriage; only a very small proportion of never married young women report that they ever had sex (0.5 percent). For men, there are large differentials by age in the proportion who ever had sex, but the differentials are quite small for the indicators on the age at first sex, at least in part because the proportions initiating sexual activity at an early age are not large among young men.

Other differentials in age at first sex for young women and men reflect the influence of factors associated with delayed marriage, e.g., young women and men in urban areas are much less likely to have had sex by age 15 or by age 18 than young women and men in rural areas. Education, exposure to media, and wealth quintiles also display a negative association with all three indicators. A considerably lower proportion of young Jain and Sikh women (2 percent each) and young Christian women (4 percent) had their first sexual intercourse before age 15 than Hindu (11 percent) and Muslim (10 percent) young women. Among young men, however,

Sikhs are more likely than men of other religions to have had sex before age 18. Young women and men not belonging to scheduled tribes, scheduled castes, or other backward classes are much less likely than other women to have had sex before age 15 and age 18. The number of times slept away from home and the amount of time away from home in the past 12 months both have a clear positive association with the proportion of men who have had sex before age 15 and age 18.

Table 11.23 shows condom use at first sexual intercourse among youth who have ever had sex. Only 3 percent of young women and 15 percent of young men who have ever had sex used condoms the first time they had sexual intercourse. Never-married women and men were much more likely than ever-married youth to have used a condom. Higher educational attainment, a higher wealth quintile, and urban residence are related to a greater likelihood that a condom was used the first time a youth and, particularly, a young man, had sex. Number of times slept away from home and time away from home in the 12 months preceding the survey do not show any association with condom use at first sexual intercourse. As expected knowledge of a condom source is positively associated with condom use at first sex.

Table 11.23 Condom use at first sexual intercourse among youth

Among women and men age 15-24 who have ever had sexual intercourse, percentage who used a condom the first time they had sexual intercourse, by background characteristics, India, 2005-06

Background characteristic	Women age 15-24		Men age 15-24	
	Percentage who used a condom at first sexual intercourse	Number of women who have ever had sexual intercourse	Percentage who used a condom at first sexual intercourse	Number of men who have ever had sexual intercourse
Age				
15-19	3.0	6,900	18.5	1,463
15-17	3.6	2,324	18.3	560
18-19	2.7	4,576	18.6	902
20-24	2.6	17,211	14.1	5,273
20-22	2.5	10,154	15.3	3,050
23-24	2.9	7,056	12.4	2,223
Residence				
Urban	4.1	5,702	25.5	1,787
Rural	2.3	18,408	11.3	4,948
Education				
No education	1.4	9,622	6.5	1,180
<5 years complete	1.9	2,047	9.5	720
5-7 years complete	2.4	4,619	13.5	1,496
8-9 years complete	3.7	3,712	16.6	1,667
10-11 years complete	4.9	2,230	20.2	795
12 or more years complete	6.8	1,881	26.1	873
Regular media exposure[1]				
Yes	3.6	14,144	17.1	5,421
No	1.5	9,966	6.4	1,314
Age at marriage				
Ever married[2]				
<15 years	1.5	6,692	5.6	408
15-17 years	2.5	9,959	4.8	1,010
18+ years	3.9	7,349	8.3	2,979
Never married	21.3	111	29.6	2,338
Times slept away from home in the past 12 months				
None	na	na	15.0	1,389
1-2	na	na	19.0	1,179
3-4	na	na	15.1	1,302
5+	na	na	13.4	2,837

Continued…

Table 11.23 Condom use at first sexual intercourse among youth—*Continued*

Background characteristic	Women age 15-24		Men age 15-24	
	Percentage who used a condom at first sexual intercourse	Number of women who have ever had sexual intercourse	Percentage who used a condom at first sexual intercourse	Number of men who have ever had sexual intercourse
Time away in the past 12 months				
Away for more than 1 month	na	na	15.7	1,327
Away for 1 month or less	na	na	14.8	4,012
Not away	na	na	15.0	1,389
Employment (past 12 months)				
Employed	2.4	7,922	14.1	6,104
Professional	8.9	208	32.7	172
Sales worker	1.8	168	22.0	750
Service worker	2.9	269	20.4	295
Production worker	3.1	1,625	14.1	2,617
Agricultural worker	1.9	5,606	8.3	2,135
Other worker	5.8	44	21.5	135
Not employed	2.9	16,188	24.7	627
Religion				
Hindu	2.7	19,583	14.1	5,621
Muslim	2.6	3,598	17.7	787
Christian	3.2	351	24.4	91
Sikh	4.2	261	25.5	143
Buddhist/Neo-Buddhist	2.2	162	37.7	54
Jain	(22.0)	25	*	11
Other	3.1	107	4.4	27
Caste/tribe				
Scheduled caste	2.7	5,060	14.4	1,659
Scheduled tribe	1.3	2,294	8.5	790
Other backward class	2.3	9,968	11.9	2,598
Other	4.0	6,600	23.5	1,655
Don't know	1.4	95	*	5
Wealth index				
Lowest	1.5	5,341	7.0	1,363
Second	1.6	5,630	9.6	1,656
Middle	2.3	5,336	13.8	1,546
Fourth	3.8	4,699	20.2	1,333
Highest	6.3	3,105	33.0	837
Knows condom source[3]				
Yes	4.3	12,045	16.5	6,041
No	1.2	12,058	1.1	678
Total	2.8	24,111	15.0	6,735

Note: Total includes women/men with missing information on education, employment (past 12 months), religion, caste/tribe, and knowledge of a condom source and men with missing information on number of times slept away from home in the past 12 months and time away in the past 12 months, who are not shown separately.
na = Not available
( ) Based on 25-49 unweighted cases.
* Percentage not shown; based on fewer than 25 unweighted cases.
[1] Exposure to radio, television, or newspapers/magazines at least once a week.
[2] Includes women who are married, but whose *gauna* has not been performed.
[3] Men who used a condom in the 12 months preceding the survey are assumed to know a condom source.

11.8.3 Recent Sexual Activity among Unmarried Youth

Table 11.24 presents data on the percentage of never married women and men age 15-24 who have not engaged in sex, the percentage who had sex in the 12 months preceding the survey, and the percentage that used condoms the most recent time they had sex. The great majority of never married young women (99 percent) and men (88 percent) reported that they had never had sex, and, as a result, the proportions reporting recent sexual activity in the 12-month period

Table 11.24 Sexual intercourse and condom use among never married youth

Among never married women and men age 15-24, percentage who have never had sexual intercourse, percentage who had sexual intercourse in the 12 months preceding the survey, and, among those who had sexual intercourse in the 12 months preceding the survey, percentage who used a condom at the last sexual intercourse, by background characteristics, India, 2005-06

	Never married women					Never married men				
Background characteristic	Percentage who have never had sexual intercourse	Percentage who had sexual intercourse in the past 12 months	Number of women	Percentage who used condom at last sexual intercourse	Number who had sex in the past 12 months	Percentage who have never had sexual intercourse	Percentage who had sexual intercourse in the past 12 months	Number of men	Percentage who used condom at last sexual intercourse	Number who had sex in the past 12 months
Age										
15-19	99.4	0.4	17,969	18.1	73	91.4	5.1	12,635	31.3	650
15-17	99.5	0.3	12,564	(20.7)	43	93.7	3.7	7,849	28.7	293
18-19	99.2	0.6	5,405	(14.4)	30	87.5	7.5	4,786	33.3	358
20-24	98.7	0.8	5,618	16.8	46	83.0	8.9	8,086	41.2	720
20-22	98.8	0.8	4,356	(16.8)	34	82.8	9.2	5,828	40.0	534
23-24	98.5	0.9	1,263	*	12	83.2	8.2	2,258	44.7	186
Residence										
Urban	99.6	0.3	9,253	36.1	24	90.0	5.6	8,501	52.9	478
Rural	99.0	0.7	14,335	12.9	95	86.8	7.3	12,220	27.7	893
Education										
No education	98.4	1.1	2,917	(14.0)	33	83.1	9.0	1,517	26.9	136
<5 years complete	98.8	1.0	1,385	*	13	85.5	8.0	1,372	26.4	110
5-7 years complete	98.7	0.7	3,831	(13.0)	26	84.9	8.3	3,441	28.9	285
8-9 years complete	99.4	0.4	5,906	(26.6)	22	88.4	6.6	5,777	35.4	379
10-11 years complete	99.6	0.2	4,694	*	11	90.7	5.5	4,448	42.0	244
12 or more years complete	99.7	0.3	4,852	(48.1)	14	90.2	5.2	4,160	53.5	215
Regular media exposure[1]										
Yes	99.4	0.4	18,952	19.5	81	88.0	6.7	18,346	38.1	1,233
No	98.7	0.8	4,636	(13.6)	38	88.7	5.8	2,375	22.6	138
Times slept away from home in the past 12 months										
None	na	na	na	na	na	93.1	3.7	6,931	48.7	257
1-2	na	na	na	na	na	88.8	5.8	4,206	41.9	244
3-4	na	na	na	na	na	86.3	7.2	3,453	31.6	250
5+	na	na	na	na	na	83.0	10.0	6,087	31.4	607
Time away in the past 12 months										
Away for more than 1 month	na	na	na	na	na	79.7	10.9	2,587	28.1	281
Away for 1 month or less	na	na	na	na	na	86.9	7.4	11,188	35.5	831
Not away	na	na	na	na	na	93.1	3.7	6,931	48.7	257
Employment (past 12 months)										
Employed	98.7	0.8	8,299	14.8	65	83.9	9.0	12,387	35.5	1,118
Professional	99.7	0.3	766	*	2	87.6	6.5	633	(51.1)	41
Sales worker	99.8	0.2	254	*	0	83.1	10.2	1,914	41.7	195
Service worker	99.9	0.0	442	*	0	83.8	7.6	725	43.1	55
Production worker	99.1	0.4	2,610	*	10	83.4	9.2	5,201	37.0	479
Agricultural worker	98.0	1.3	4,008	(5.1)	50	84.2	8.7	3,513	24.5	307
Other worker	99.3	0.6	219	*	1	87.0	9.9	401	(43.4)	40
Not employed	99.6	0.4	15,284	21.0	54	94.2	3.0	8,296	41.5	250
Religion										
Hindu	99.2	0.6	18,201	18.1	102	87.9	6.6	16,619	34.4	1,104
Muslim	99.7	0.1	3,716	*	3	90.0	5.3	2,899	42.4	153
Christian	97.7	1.0	707	19.2	7	89.5	6.0	460	47.4	28
Sikh	99.5	0.5	530	*	3	82.4	12.8	426	(49.7)	54
Buddhist/Neo-Buddhist	99.9	0.0	216	a	0	81.7	12.5	199	(59.0)	25
Jain	100.0	0.0	108	a	0	86.9	8.8	61	*	5
Other	92.8	4.2	96	*	4	96.7	1.5	51	*	1
Caste/tribe										
Scheduled caste	99.0	0.7	4,129	*	28	83.6	9.4	3,877	33.7	364
Scheduled tribe	97.3	1.7	1,760	6.9	31	82.8	9.9	1,411	25.8	140
Other backward class	99.3	0.4	8,986	(23.8)	39	89.2	5.7	8,041	28.9	458
Other	99.7	0.2	8,532	(32.7)	21	90.3	5.5	7,269	51.7	399
Don't know	100.0	0.0	99	a	0	95.3	3.1	49	*	2

Continued…

Table 11.24 Sexual intercourse and condom use among never married youth—*Continued*

Background characteristic	Never married women					Never married men				
	Percentage who have never had sexual intercourse	Percentage who had sexual intercourse in the past 12 months	Number of women	Percentage who used condom at last sexual intercourse	Number who had sex in the past 12 months	Percentage who have never had sexual intercourse	Percentage who had sexual intercourse in the past 12 months	Number of men	Percentage who used condom at last sexual intercourse	Number who had sex in the past 12 months
Wealth index										
Lowest	98.3	0.9	2,850	*	26	85.0	8.8	2,465	18.9	218
Second	98.8	0.8	3,686	(6.2)	30	84.5	8.2	3,450	25.2	284
Middle	99.2	0.6	4,820	(18.0)	27	87.2	6.9	4,427	29.1	305
Fourth	99.5	0.4	5,563	(16.7)	20	89.3	5.8	5,008	46.3	289
Highest	99.7	0.2	6,668	(51.2)	16	91.3	5.1	5,371	59.9	276
Total	99.3	0.5	23,588	17.6	119	88.1	6.6	20,721	36.5	1,371

Note: Total includes women/men with missing information on education, employment (past 12 months), religion, and caste/tribe and men with missing information on number of times slept away from home in the past 12 months and time away in the past 12 months, who are not shown separately.
a = No cases
na = Not available
( ) Based on 25-49 unweighted cases.
* Percentage not shown; based on fewer than 25 unweighted cases.
[1] Exposure to radio, television, or newspapers/magazines at least once a week.

before the survey are low (0.5 percent among women and 7 percent among men). Nearly two-fifths of never married young men reporting recent sexual activity used a condom the last time they had sex (37 percent), compared with less than one-fifth of young women (18 percent).

With such a small percentage of never married women reporting sexual intercourse, it is difficult to draw firm conclusions about patterns by background characteristics for young women. Among young never married men, the prevalence of sex generally increases with age, and is marginally higher among rural than urban youth. The proportion of men who ever had sex tends to decrease with increasing education and wealth, and it is higher among employed young men (16 percent) than those not employed (6 percent). By caste/tribe, the proportion of never married women and men who have ever had sex is slightly higher among youth belonging to scheduled tribes (3 percent among women and 17 percent among men) than among other youth. Never married young men who slept away from home five or more times or who spent more than one month at a time away from their place of usual residence in the 12 months preceding the survey are more likely to have had sex than others.

The highest percentages of young never married men who used a condom during their most recent act of sex is found for urban residents, those with 12 or more years of education, with regular exposure to media, who were not employed in the past 12 months, who are in the highest wealth quintiles, and who do not belong to a scheduled caste, scheduled tribe, or other backward class. The number of times slept away from home and time spent away from home both have a negative association with the use of condom during the most recent sexual intercourse.

11.8.4 Higher-Risk Sex

The most common mode of transmission of HIV in India is through unprotected sex with an infected person. To prevent HIV/AIDS transmission, it is important that young people practice safe sex through the widely advocated ABC method (abstinence, being faithful to one uninfected partner, and condom use). Table 11.25 presents data on the percentage of young women and men who had sex in the 12 months preceding the survey who engaged in higher-risk sexual intercourse (had sex with a non-marital, non-cohabiting partner), and the prevalence of condom use during higher-risk sex. Among sexually active youth age 15-24, less than half a percent of women and 26 percent of men engaged in higher-risk sexual activity in the previous 12 months. One-fifth of these women (22 percent) and nearly two-fifths of these men (37 percent) reported condom use the last time they had higher-risk sex.

Table 11.25 Higher-risk sexual intercourse among youth and condom use at last higher-risk intercourse in the past 12 months

Among women and men age 15-24 who had sexual intercourse in the past 12 months, percentage who had higher-risk sexual intercourse in the past 12 months, and among those having higher-risk intercourse in the past 12 months, percentage reporting that a condom was used at last higher-risk intercourse, by background characteristics, India, 2005-06

	Women age 15-24				Men age 15-24			
	Women who had sexual intercourse in the past 12 months		Women who had higher-risk intercourse in the past 12 months[1]		Men who had sexual intercourse in the past 12 months		Men who had higher-risk intercourse in the past 12 months[1]	
Background characteristic	Percentage who had higher-risk intercourse in the past 12 months	Number of women	Percentage who reported using a condom at last higher-risk intercourse[1]	Number of women who had higher-risk intercourse[1]	Percentage who had higher-risk intercourse in the past 12 months	Number of men	Percentage who reported using a condom at last higher-risk intercourse[1]	Number of men who had higher-risk intercourse[1]
Age								
15-19	0.7	6,649	20.0	48	63.0	1,019	31.3	641
15-17	1.3	2,204	(17.9)	30	79.3	360	28.9	286
18-19	0.4	4,445	(23.2)	19	54.0	658	33.2	355
20-24	0.2	16,457	25.1	37	17.7	4,513	40.7	798
20-22	0.3	9,686	(25.8)	32	22.1	2,536	39.6	561
23-24	0.1	6,770	*	5	12.0	1,977	43.3	236
Residence								
Urban	0.4	5,510	36.5	21	34.5	1,386	53.1	479
Rural	0.4	17,596	17.4	64	23.2	4,145	28.2	960
Education								
No education	0.2	9,182	*	23	15.7	1,031	23.2	162
<5 years complete	0.5	1,959	*	9	21.0	615	29.8	129
5-7 years complete	0.4	4,413	*	18	24.2	1,241	31.9	300
8-9 years complete	0.7	3,575	(32.1)	24	28.4	1,344	35.2	382
10-11 years complete	0.1	2,143	*	2	39.5	623	42.0	246
12 or more years complete	0.5	1,832	*	9	32.5	674	52.6	219
Regular media exposure[2]								
Yes	0.4	13,586	24.8	53	29.1	4,382	38.5	1,276
No	0.3	9,520	(17.8)	32	14.2	1,150	20.7	163
Marital status								
Never married[3]	50.3	119	24.5	60	94.3	1,371	38.0	1,292
Currently married	0.1	22,877	*	17	3.4	4,132	23.6	139
Divorced/separated/ widowed/deserted	7.8	110	*	9	(27.7)	29	*	8
Times slept away from home in the past 12 months								
None	na	na	na	na	21.8	1,151	46.9	251
1-2	na	na	na	na	26.6	929	43.2	247
3-4	na	na	na	na	25.2	1,063	30.2	267
5+	na	na	na	na	28.0	2,363	32.8	662
Time away in the past 12 months								
Away for more than 1 month	na	na	na	na	28.9	1,065	30.4	308
Away for 1 month or less	na	na	na	na	26.5	3,309	35.5	878
Not away	na	na	na	na	21.8	1,151	46.9	251

Continued…

Table 11.25 Higher-risk sexual intercourse among youth and condom use at last higher-risk intercourse in the past 12 months—*Continued*

Background characteristic	Women age 15-24				Men age 15-24			
	Women who had sexual intercourse in the past 12 months		Women who had higher-risk intercourse in the past 12 months[1]		Men who had sexual intercourse in the past 12 months		Men who had higher-risk intercourse in the past 12 months[1]	
	Percentage who had higher-risk intercourse in the past 12 months	Number of women	Percentage who reported using a condom at last higher-risk intercourse[1]	Number of women who had higher-risk intercourse[1]	Percentage who had higher-risk intercourse in the past 12 months	Number of men	Percentage who reported using a condom at last higher-risk intercourse[1]	Number of men who had higher-risk intercourse[1]
Employment (past 12 months)								
Employed	0.6	7,466	15.3	48	23.0	5,132	35.8	1,180
Professional	1.7	204	*	3	30.3	135	(53.3)	41
Sales worker	0.3	156	*	0	35.2	616	39.2	217
Service worker	0.1	249	*	0	24.5	225	54.1	55
Production worker	0.5	1,493	*	8	23.5	2,188	36.8	513
Agricultural worker	0.7	5,325	(7.4)	35	16.6	1,852	25.0	308
Other worker	3.5	41	*	1	39.8	116	(44.0)	46
Not employed	0.2	15,638	31.1	37	64.8	395	39.9	256
Religion								
Hindu	0.4	18,810	23.0	71	25.0	4,622	34.2	1,158
Muslim	0.0	3,426	*	0	25.9	639	42.7	166
Christian	2.4	327	16.4	8	39.7	70	53.8	28
Sikh	1.0	257	*	3	47.7	122	(47.9)	58
Buddhist/Neo-Buddhist	0.0	146	a	0	55.3	43	(63.0)	24
Jain	0.0	25	a	0	*	8	*	5
Other	3.0	92	*	3	2.9	26	*	1
Caste/tribe								
Scheduled caste	0.6	4,870	*	27	28.0	1,338	34.6	374
Scheduled tribe	1.0	2,157	9.9	21	21.2	679	25.7	144
Other backward class	0.2	9,526	*	21	23.3	2,147	30.2	500
Other	0.2	6,370	*	15	30.7	1,341	49.7	411
Don't know	0.0	92	*	0	*	5	*	2
Wealth index								
Lowest	0.6	5,078	*	30	21.7	1,190	19.7	258
Second	0.3	5,394	*	18	21.8	1,377	25.2	300
Middle	0.3	5,105	(23.0)	14	25.0	1,253	32.6	313
Fourth	0.3	4,544	(36.7)	15	27.9	1,065	44.7	297
Highest	0.3	2,986	*	9	42.0	647	60.4	272
Total	0.4	23,106	22.2	85	26.0	5,532	36.5	1,439

Note: Total includes women/men with missing information on education, employment (past 12 months), religion, and caste/tribe, and men with missing information on number of times slept away from home in the past 12 months and time away in the past 12 months, who are not shown separately.
a = No cases
na = Not available
( ) Based on 25-49 unweighted cases.
* Percentage not shown; based on fewer than 25 unweighted cases.
[1] Sexual intercourse with a partner who was neither a spouse nor who lived with the respondent.
[2] Exposure to radio, television, or newspapers/magazines at least once a week.
[3] Includes women/men who are married, but whose *gauna* has not been performed. If women/men who are married, but whose *gauna* has not been performed, report having sex with their husband, the sex is not considered higher risk.

The proportion of sexually active young women reporting higher-risk sexual activity in the past 12 months is too small to draw meaningful inferences by background characteristics. Nonetheless, it is not unexpected that among young women who have had sex, higher-risk sex declines with age and is much higher among never married women than currently married women. This is because the share of those who are married and thus are having sex with a marital partner (defined as not high risk) increases with age. Note that the high proportion of the never married who are categorized as not having higher-risk sex are those who are in the category 'married but *gauna* not performed' and report recent sexual activity with their husband. In most other tables, these women are categorized as not married because they are not cohabiting with their spouse.

As in the case of women, the share of higher-risk sexual activity in all sexual activity engaged in by male youth declines with age. For men, urban residence, regular media exposure, time spent away from home, and wealth quintile are all strongly and positively associated with youth having higher-risk sex. However, the proportion of men having higher-risk sex first increases with education from 16 percent among men with no education to 40 percent among those who have 10-11 years of completed education but then declines to 33 percent among those with higher education. Buddhist/Neo-Buddhist, Sikh, and Christian youth are more likely than Hindu or Muslim youth to report higher-risk sexual behaviour.

Among sexually active young men who engaged in higher-risk sex during the 12 months preceding the survey, those who are older (age 20-24), never married, living in urban areas, have completed 12 or more years of education, have regular media exposure, have not slept away from home in the past 12 months, are in the highest wealth quintile, and do not belong to scheduled castes, scheduled tribes, or other backward classes are more likely to have used a condom during their last higher-risk intercourse than their counterparts.

11.8.5 Age-Mixing in Sexual Relationships

In many societies, young women have sexual relationships with men who are considerably older than themselves. Sexual relations with a significantly older partner may be consensual or may be forced or coerced. A culture of silence surrounding sexuality may result in young women not registering any formal or informal complaint when forced by a man to have sex. Recent studies (Kishor and Johnson, 2006; Watts and Zimmerman, 2002) have highlighted the dynamics of sexual violence, which includes lack of young women's control over their own sexuality. In most cases of sexual violence against young women, the male perpetrators are older than the women, be they a family friend, a relative, or a stranger. Sex between young women and men who are significantly older than the women is theorized to be one of the contributing factors to the spread of HIV and other STIs, under the assumption that older men have been exposed to the risk of HIV and other STIs longer than have the younger women they have sex with, whether it is forced or consensual sex. Accordingly, NFHS-3 asked all women age 15-24 who had sex in the 12 months prior to the survey to identify the age of their last sexual partner and, if they had more than one partner, the age of their next-to-last sexual partner. Women who could not state the exact age of their sexual partner were asked to estimate whether or not the partner was 10 or more years older than them.

Overall, NFHS-3 found that 11 percent of women age 15-19 who had higher-risk sexual intercourse in the 12 months preceding the survey report having sex with a man who was 10 or more years older than themselves. However, the total number of young women age 15-19 who engaged in higher-risk sex in the 12-month period prior to the survey is too few to assess meaningful associations in age mixing by background characteristics. Accordingly, these data are not shown.

11.8.6 HIV Testing

One of the major challenges of the HIV prevention programme in India is the ignorance and denial of HIV risk, especially among youth. More than two-fifths of youth in India believe that they are not vulnerable to HIV although there is growing evidence of increased risky sexual

behaviour among youth (NACO, 2004). In addition, young people, particularly unmarried youth, often face barriers in accessing reproductive health services, particularly services relating to sexual health. As a result, youth are less likely to have their HIV status tested despite the increasing number of VCT centres across the country. To obtain information on the prevalence of HIV testing, all respondents in NFHS-3 were asked whether they had ever been tested for HIV/AIDS. While asking this question, it was clearly specified that the interviewer did not have any intention to know the test results. Respondents who said that they had been tested were asked whether they got the results of their last test.

Table 11.26 Recent HIV tests among youth

Among women and men age 15-24 who have had sexual intercourse in the past 12 months, percentage who have had an HIV test in the past 12 months and received the results of the test, by background characteristics, India, 2005-06

Background characteristic	Women		Men	
	Percentage who have been tested for HIV in the past 12 months and received results	Number of women	Percentage who have been tested for HIV in the past 12 months and received results	Number of men
Age				
15-19	2.0	6,649	0.6	1,019
15-17	1.3	2,204	0.2	360
18-19	2.4	4,445	0.8	658
20-24	2.8	16,457	1.3	4,513
20-22	2.6	9,686	0.9	2,536
23-24	3.0	6,770	1.8	1,977
Residence				
Urban	5.3	5,510	1.9	1,386
Rural	1.7	17,596	1.0	4,145
Education				
No education	0.7	9,182	0.1	1,031
<5 years complete	1.3	1,959	0.2	615
5-7 years complete	1.8	4,413	1.1	1,241
8-9 years complete	3.2	3,575	0.9	1,344
10-11 years complete	6.5	2,143	3.5	623
12 or more years complete	9.5	1,832	2.5	674
Regular media exposure[1]				
Yes	4.0	13,586	1.5	4,382
No	0.5	9,520	0.1	1,150
Marital status				
Never married	0.2	119	0.9	1,371
Currently married	2.6	22,877	1.3	4,132
Divorced/separated/widowed/ deserted	0.1	110	(0.1)	29
Times slept away from home in the past 12 months				
None	na	na	1.7	1,151
1-2	na	na	1.4	929
3-4	na	na	1.0	1,063
5+	na	na	1.0	2,363
Time away in the past 12 months				
Away for more than 1 month	na	na	1.3	1,065
Away for 1 month or less	na	na	1.0	3,309
Not away	na	na	1.7	1,151
Employment (past 12 months)				
Employed	1.5	7,466	1.2	5,132
Professional	9.0	204	1.7	135
Sales worker	5.4	156	2.3	616
Service worker	1.9	249	3.1	225
Production worker	1.6	1,493	1.0	2,188
Agricultural worker	1.0	5,325	0.8	1,852
Other worker	13.2	41	1.1	116
Not employed	3.1	15,638	1.4	395

Continued…

Table 11.26 Recent HIV tests among youth—*Continued*

Background characteristic	Women		Men	
	Percentage who have been tested for HIV in the past 12 months and received results	Number of women	Percentage who have been tested for HIV in the past 12 months and received results	Number of men
Religion				
Hindu	2.5	18,810	1.1	4,622
Muslim	2.6	3,426	0.8	639
Christian	6.8	327	2.6	70
Sikh	1.3	257	4.9	122
Buddhist/Neo-Buddhist	5.8	146	1.9	43
Jain	(9.5)	25	*	8
Other	1.5	92	0.4	26
Caste/tribe				
Scheduled caste	2.1	4,870	0.9	1,338
Scheduled tribe	1.2	2,157	0.5	679
Other backward class	3.0	9,526	1.1	2,147
Other	2.7	6,370	2.1	1,341
Don't know	2.9	92	*	5
Wealth index				
Lowest	0.3	5,078	0.5	1,190
Second	1.0	5,394	0.4	1,377
Middle	2.7	5,105	0.9	1,253
Fourth	3.9	4,544	1.7	1,065
Highest	6.9	2,986	3.8	647
Total	2.6	23,106	1.2	5,532

Note: Total includes women/men with missing information on education, employment (past 12 months), religion, and caste/tribe and men with missing information on number of times slept away from home in the past 12 months and time away in the past 12 months, who are not shown separately.
na = Not applicable
( ) Based on 25-49 unweighted cases.
* Percentage not shown; based on fewer than 25 unweighted cases.
[1] Exposure to radio, television, or newspapers/magazines at least once a week.

Table 11.26 shows the percentage of youth who have had sex in the past 12 months who were tested for HIV/AIDS in the past 12 months and got the result of the most recent test. Sexually active young women are more likely than sexually active young men to have been tested for HIV/AIDS and received their results, although the percentages are very low for both groups (3 percent for women and 1 percent for men). Given the generally low level of testing, differences across groups should be interpreted with caution. Nonetheless, for both women and men the proportions that were tested and got the results increase with age, education, and wealth quintiles. The proportions are also higher among urban than rural residents, among those regularly exposed to media, and among Christians. Notably, young Sikh men have a higher proportion (5 percent) than young men of other religions who have been tested for HIV/AIDS in the past 12 months and received their result.

11.9 Attitudes toward Family Life Education in Schools

Empowering youth with age-appropriate knowledge about the development of the body, sexuality, modes of transmission and prevention of sexually transmitted infections, and the means of maintaining a healthy and safe sexual life is important for the health and welfare of future generations, but is also a key to fighting the spread of HIV/AIDS. Accordingly, working with NGOs, NACO is implementing a School AIDS Education Programme in which HIV/AIDS education, integrated within a broader framework of building family life skills, is provided to students in standards 9-11 and through extracurricular activities.

Given the importance of these efforts, questions that assess the acceptability of providing information in schools on HIV/AIDS and related family-life topics were included for the first time in NFHS-3. NFHS-3 asked all respondents whether they thought that boys and girls in school should be taught about the following topics: moral values, changes in the bodies of boys and girls at puberty (including menstruation), sex and sexual behaviour, contraception, HIV/AIDS, and condom use to avoid sexually transmitted diseases. For each of these topics respondents were first asked whether they believe the topic should be taught in school, and if they said yes, they were asked the age at which the topic should first be taught. Women and men were asked these questions separately for boys and girls. The findings are shown in Table 11.27. The data provide evidence of widespread approval among both women and men age 15-49 of teaching several of these topics in school, including HIV/AIDS. It is hoped that this nationally representative information, the first of its kind, will reinforce and help to guide programmes such as the School AIDS Education Programme.

Table 11.27 shows that almost all women (98 percent) and men (99 percent) say that girls and boys should be taught about moral values in school, and the majority say that such teaching should begin when the children are young (less than 10 years old). The next most commonly approved topics are HIV/AIDS and changes at puberty in the bodies of girls and boys. Approval of teaching about changes at puberty is greatest among both women and men for teaching girls about girls' bodies and boys about boys' bodies. Seventy-six percent of women and 77 percent of men say that girls should be taught about changes in girls' bodies and 68 percent of women and 82 percent of men say that boys should be taught about changes in boys' bodies. The proportion who say that girls should be taught about changes in boys' bodies and boys should be taught about changes in girls' bodies is much smaller, but still substantial. Overall, 54 percent of women and 69 percent of men say that girls should be taught about changes in boys' bodies and 41 percent of women and 64 percent of men say that boys should be taught about changes in girls' bodies. Notably, more men than women approve of teaching these topics to children, including teaching boys about girls' bodies and girls about boys' bodies. Among those who approve of this topic being taught in school, the highest proportion say that it should be first taught to girls and boys when they are 13-15 years of age.

HIV/AIDS is another topic which the majority of women and men agree should be taught in school: almost two out of three women (63 percent) and more than four out of five men (81-82 percent) say that this topic should be taught to both boys and girls. However, women who agree are most likely to say that the topic should be first taught to children when they are at least 16 years old (42-43 percent) and somewhat less likely to say that it should be first taught to children age 13-15 years old. Men by contrast are slightly more likely to say that it should be first taught to children when they are 13-15 years old than when children are 16 years or older. Topics related to HIV/AIDS are sex and sexual behaviour and condom use to avoid sexually transmitted diseases. Even for the teaching of these topics, although the approval is somewhat lower than for the other topics, it is fairly substantial. More than two in five women approve of both topics being taught in school and approval is even higher among men, at 62 percent for teaching about sexual behaviour and 68-70 percent for teaching about condoms. For these topics too, the favoured age at introduction of the topic is 16 years or older. However, among both men and women, a significant proportion also feels that they can be taught at ages 13-15.

Table 11.27 Attitudes toward family life education in school

Percentage of women and men age 15-49 who agree that specific topics on family life education should be taught in school to girls and to boys, and percent distribution of those who agree that a specific topic should be taught in school by the age at which they believe that the topic should first be taught in school, according to background characteristics, India, 2005-06

Topics	Percentage who say that the topic should be taught in school to girls	Number of respondents	Age topic should be first taught in school to girls						Number who say that topic should be taught in school to girls	Percentage who say that the topic should be taught in school to boys	Number of respondents	Age topic should be first taught in school to boys						Number who say that topic should be taught in school to boys
			<10 years	10-12 years	13-15 years	16 years or older	Don't know/ missing	Total				<10 years	10-12 years	13-15 years	16 years or older	Don't know/ missing	Total	
WOMEN																		
Moral values	97.9	124,385	78.9	14.9	4.2	1.1	0.9	100.0	121,788	98.0	124,385	79.5	14.1	4.1	1.1	1.1	100.0	121,898
Changes in boys' bodies at puberty	53.9	124,385	6.7	36.7	41.1	13.3	2.1	100.0	67,076	67.8	124,385	7.2	34.1	41.6	14.1	3.0	100.0	84,309
Changes in girls' bodies at puberty including menstruation	76.1	124,385	2.9	37.0	50.2	8.8	1.1	100.0	94,672	41.1	124,385	2.4	23.6	49.7	21.4	2.9	100.0	51,128
Sex and sexual behaviour	46.4	124,385	1.2	10.3	40.7	45.2	2.6	100.0	57,694	42.9	124,385	1.4	9.4	37.5	48.6	3.1	100.0	53,330
Contraception	48.5	124,385	0.9	6.7	33.7	56.2	2.5	100.0	60,380	42.0	124,385	0.9	6.1	30.2	59.6	3.3	100.0	52,194
HIV/AIDS	63.4	124,385	2.4	13.1	37.8	43.1	3.6	100.0	78,916	63.1	124,385	2.7	12.9	36.2	44.1	4.1	100.0	78,491
Condom use to avoid sexually transmitted diseases	43.6	124,385	0.9	5.7	28.4	60.9	4.1	100.0	54,175	42.8	124,385	1.0	5.3	25.6	63.4	4.7	100.0	53,268
MEN																		
Moral values	99.0	69,751	76.8	15.7	5.8	1.3	0.5	100.0	69,030	99.2	69,751	77.9	15.1	5.2	1.3	0.4	100.0	69,172
Changes in boys' bodies at puberty	68.9	69,751	7.1	30.4	43.8	17.6	1.0	100.0	48,030	81.7	69,751	9.3	29.6	43.1	16.8	1.1	100.0	56,954
Changes in girls' bodies at puberty including menstruation	77.1	69,751	2.7	26.4	52.0	18.0	0.9	100.0	53,743	63.9	69,751	3.0	19.8	49.4	26.4	1.4	100.0	44,577
Sex and sexual behaviour	62.1	69,751	1.5	12.3	41.7	43.2	1.3	100.0	43,306	62.4	69,751	1.8	11.2	38.9	46.7	1.4	100.0	43,556
Contraception	65.4	69,751	1.4	10.3	38.8	48.3	1.2	100.0	45,617	63.7	69,751	1.5	9.0	35.7	52.4	1.4	100.0	44,407
HIV/AIDS	80.5	69,751	5.1	18.5	39.8	35.3	1.4	100.0	56,154	81.6	69,751	5.5	18.4	38.4	36.2	1.4	100.0	56,910
Condom use to avoid sexually transmitted diseases	67.7	69,751	1.6	9.8	35.1	51.9	1.5	100.0	47,235	69.8	69,751	1.6	9.2	33.9	53.8	1.5	100.0	48,669

Finally, contraception is an important aspect of family life education. Learning about contraception can help women and men achieve their desired family size. About half of women approve of teaching girls about contraception and somewhat less approve of teaching boys (42 percent) about contraception. A majority of those who agree say that the topic of contraception should be first taught when children are at least 16 years old. By contrast, about two-thirds of men say that contraception should be a topic taught in school. However, as is the case for women, most men who approve of teaching about contraception in school say that it should be taught when children are 16 years or older.

Tables 11.28.1 and 11.28.2 present women's and men's approval of teaching different family life education topics to girls and boys in school by state. The tables show almost universal approval among both women and men in all states for teaching moral values in school to boys and girls. Approval for teaching girls about changes in girls' bodies at puberty and for teaching boys about changes in boys' bodies at puberty is also considerable in most states. For teaching girls about their bodies, approval among women ranges from 70-95 percent in 24 of 29 states and falls below 50 percent only in Assam (42 percent). Similarly, approval among men ranges from 70-95 percent in 23 of 29 states, and does not fall below 50 percent in any state. Among men, approval for teaching this topic to girls is also lowest in Assam (54 percent). Similarly, for teaching boys about their bodies, the majority of women (more than 70 percent in 16 states) and the majority of men (more than 70 percent in 23 states) approve in almost all states. Assam and West Bengal are the only two states where the majority of women do not approve of teaching boys about changes in boys' bodies at puberty. Notably, the percentage approving of teaching boys about changes in their bodies is higher among men than women in all states except Nagaland, Sikkim, and Goa.

In all states, approval among men and women is lower for teaching boys about changes in girls' bodies and teaching girls about changes in boys' bodies. Nonetheless, even for these topics in most states the majority of women and men approve of the topics being taught to the opposite sex. Specifically, at least two-thirds of men approve of teaching girls about changes in boys' bodies in 18 of the 29 states and of teaching boys about changes in girls' bodies in 12 states. Most women do not approve of teaching girls about changes in boys' bodies in four states in the North Region (Rajasthan, Himachal Pradesh, Uttaranchal, and Punjab) and in Uttar Pradesh, Orissa, West Bengal, Assam, and Tamil Nadu. Most women do not approve of teaching boys about changes in girls' bodies at puberty in 15 states. By contrast, a majority of men approve of teaching both girls and boys about changes in the other sex's bodies at puberty in all states except Assam, Tamil Nadu, Orissa, and West Bengal. Even in states where approval among men is below 50 percent, it is never below 40 percent.

Approval of teaching HIV/AIDS in school to boys and girls is high in most states. Among women, at least two-thirds approve of teaching the topic of HIV/AIDS to girls in 16 states and to boys in 16 states. Bihar, West Bengal, Assam, and Rajasthan are the only states where less than half of women approve of teaching this topic to girls and boys in school. Among men, approval for teaching girls and boys about HIV/AIDS is 70 percent or higher in 24 states. The only states where the percentage is below 70 for both boys and girls are Jharkhand, Orissa, West Bengal, Assam, and Meghalaya. Even in these states, however, about two-thirds of men approve.

Table 11.28.1 Family life education in school by state: Women's attitudes

Percentage of women age 15-49 who say that specified topics on family life education should be taught to girls and to boys in school according to topic, by state, India, 2005-06

State	Percentage of women who say that topic should be taught in school to girls							Percentage of women who say that topic should be taught in school to boys						
	Moral values	Changes in boys' bodies at puberty	Changes in girls' bodies at puberty including menstruation	Sex and sexual behaviour	Contra-ception	HIV/AIDS	Condom use to avoid sexually transmitted diseases	Moral values	Changes in boys' bodies at puberty	Changes in girls' bodies at puberty including menstruation	Sex and sexual behaviour	Contra-ception	HIV/AIDS	Condom use to avoid sexually transmitted diseases
India	97.9	53.9	76.1	46.4	48.5	63.4	43.6	98.0	67.8	41.1	42.9	42.0	63.1	42.8
North														
Delhi	99.5	79.9	95.4	78.0	76.8	86.6	80.5	99.6	90.2	62.5	74.3	72.0	86.4	78.2
Haryana	98.6	57.0	80.7	45.4	44.9	64.2	45.9	99.2	70.7	43.7	44.0	42.5	63.5	46.6
Himachal Pradesh	99.0	45.1	87.4	46.1	45.9	77.1	50.3	99.2	73.6	35.7	40.4	34.8	76.9	50.6
Jammu & Kashmir	98.8	55.1	84.6	49.5	55.1	71.6	49.5	99.1	75.3	42.8	43.6	47.4	71.1	48.2
Punjab	98.9	48.7	80.6	38.2	37.7	67.0	38.4	98.8	63.1	33.4	36.7	34.8	67.5	40.5
Rajasthan	98.9	41.7	72.0	35.5	42.2	49.6	35.4	99.0	59.8	31.1	33.8	37.4	49.8	35.0
Uttaranchal	98.6	45.6	76.2	47.7	48.3	64.2	49.4	98.5	68.4	28.5	36.9	33.5	62.5	44.9
Central														
Chhattisgarh	98.6	51.6	77.6	42.3	47.2	53.3	40.0	98.6	59.4	36.3	36.3	36.9	52.9	38.9
Madhya Pradesh	99.2	63.2	87.2	61.3	65.4	65.8	60.8	99.1	75.8	53.2	57.2	60.5	65.7	60.6
Uttar Pradesh	98.6	45.5	76.0	47.6	52.5	63.9	44.7	98.7	67.3	30.0	43.8	45.9	63.4	43.7
East														
Bihar	97.5	58.7	75.6	50.5	49.6	41.7	40.9	97.8	68.8	48.3	45.4	42.8	41.5	40.5
Jharkhand	99.0	58.0	87.7	59.8	62.6	77.3	64.5	98.6	76.1	46.1	59.1	56.0	77.6	64.5
Orissa	94.7	43.8	56.5	37.1	43.6	59.7	32.7	94.9	53.6	36.2	34.8	37.7	59.6	32.0
West Bengal	97.5	37.5	51.4	31.8	30.7	43.3	31.4	97.5	47.2	26.3	28.0	27.0	42.4	30.4
Northeast														
Arunachal Pradesh	99.6	73.3	91.7	52.5	62.6	81.4	63.1	99.6	85.1	63.3	49.6	54.3	81.4	64.0
Assam	98.2	32.9	41.7	21.0	18.7	46.9	15.5	98.2	39.9	23.0	18.4	15.0	46.3	14.2
Manipur	98.5	65.9	80.6	46.0	49.7	92.4	50.2	98.6	80.0	47.5	43.4	44.9	92.1	49.9
Meghalaya	94.7	60.9	65.0	52.1	48.7	62.3	46.9	94.9	66.6	53.9	51.5	47.1	62.5	47.0
Mizoram	99.4	60.9	92.2	72.3	53.2	93.2	63.6	99.4	89.2	55.5	72.0	37.4	93.5	68.2
Nagaland	98.6	56.1	76.1	52.8	50.6	81.0	47.6	98.7	69.2	53.1	52.7	45.4	81.1	48.3
Sikkim	99.3	62.4	86.2	59.2	65.5	82.5	60.5	99.4	79.0	53.9	56.7	58.3	82.1	58.9
Tripura	98.9	52.5	67.6	39.5	41.7	62.8	35.2	98.8	64.4	30.5	36.5	35.7	62.4	35.1
West														
Goa	96.5	73.1	86.5	66.6	63.1	81.8	66.2	96.5	82.0	61.7	62.8	57.0	81.7	65.1
Gujarat	99.3	77.7	85.8	67.2	66.7	69.2	64.0	99.4	82.7	62.6	64.1	60.8	68.5	62.5
Maharashtra	96.1	60.6	80.9	46.4	48.6	75.8	46.6	96.4	71.6	43.3	43.5	40.9	75.7	45.6
South														
Andhra Pradesh	95.9	60.7	78.6	41.4	39.9	66.0	39.2	95.8	76.3	50.0	38.5	36.3	65.3	38.0
Karnataka	97.8	67.7	85.3	48.7	51.3	72.7	45.2	97.8	76.3	53.4	43.8	41.0	72.0	43.4
Kerala	98.0	68.9	89.6	60.5	54.5	85.7	54.9	98.0	85.9	54.9	54.7	41.8	86.0	51.7
Tamil Nadu	99.6	44.7	83.1	42.3	51.9	76.4	29.9	99.6	63.8	35.5	39.8	39.8	76.3	32.1

Table 11.28.2 Family life education in school by state: Men's attitudes

Percentage of men age 15-49 who say that specified topics on family life education should be taught to girls and to boys in school according to topic, by state, India, 2005-06

State	Percentage of men who say that topic should be taught in school to girls							Percentage of men who say that topic should be taught in school to boys						
	Moral values	Changes in boys' bodies at puberty	Changes in girls' bodies at puberty including menstruation	Sex and sexual behaviour	Contra-ception	HIV/AIDS	Condom use to avoid sexually transmitted diseases	Moral values	Changes in boys' bodies at puberty	Changes in girls' bodies at puberty including menstruation	Sex and sexual behaviour	Contra-ception	HIV/AIDS	Condom use to avoid sexually transmitted diseases
India	99.0	68.9	77.1	62.1	65.4	80.5	67.7	99.2	81.7	63.9	62.4	63.7	81.6	69.8
North														
Delhi	99.4	84.0	92.9	84.1	86.9	94.3	89.9	99.4	94.4	83.0	85.0	85.6	94.7	90.8
Haryana	98.4	71.4	74.3	61.2	64.8	82.5	70.6	98.4	82.8	61.9	63.0	64.5	83.6	71.9
Himachal Pradesh	99.7	61.5	73.9	69.2	72.8	92.7	71.7	99.5	78.5	59.1	69.1	69.1	92.0	74.4
Jammu & Kashmir	100.0	54.8	72.1	51.3	60.3	83.5	53.7	99.9	81.6	52.2	53.9	62.1	86.5	70.7
Punjab	99.0	79.7	79.6	70.3	75.3	87.3	80.8	99.3	85.8	70.2	72.5	75.5	87.5	83.4
Rajasthan	99.9	58.3	74.6	52.4	59.4	74.0	62.2	99.8	74.3	53.6	52.9	58.7	76.6	65.6
Uttaranchal	99.8	85.6	87.9	76.7	78.9	90.5	81.1	99.9	93.0	75.0	77.5	79.0	91.8	83.0
Central														
Chhattisgarh	99.2	59.1	67.1	57.4	61.5	70.5	61.6	99.5	78.5	59.4	61.7	60.6	72.9	64.1
Madhya Pradesh	98.4	73.8	84.2	68.0	70.9	81.5	77.2	98.5	85.6	72.1	69.0	70.3	82.9	80.7
Uttar Pradesh	99.6	71.8	81.0	67.1	71.2	81.4	72.5	99.7	88.5	68.1	68.5	71.5	83.1	74.9
East														
Bihar	99.5	74.3	80.8	61.0	61.0	77.0	65.6	100.0	89.9	67.4	60.4	58.9	78.1	67.0
Jharkhand	99.5	77.0	74.8	52.4	53.1	63.5	55.1	99.6	82.8	65.1	54.6	52.5	65.7	57.0
Orissa	98.5	52.3	56.1	45.8	46.9	64.1	49.3	99.0	62.1	45.3	44.6	44.5	64.8	51.0
West Bengal	95.7	54.9	63.9	44.0	46.9	62.8	48.4	96.0	66.5	44.7	41.8	41.9	63.0	47.8
Northeast														
Arunachal Pradesh	97.7	74.6	86.1	65.3	72.9	83.1	60.9	97.6	86.3	70.0	65.5	72.2	83.7	62.7
Assam	99.4	48.8	54.0	31.9	30.5	62.7	29.5	99.6	61.2	46.8	32.3	28.5	63.5	30.3
Manipur	97.9	75.1	83.2	68.1	68.6	95.3	77.6	98.0	85.6	70.6	67.9	67.1	95.6	78.3
Meghalaya	95.9	65.6	66.5	55.9	53.5	68.8	55.1	96.0	68.2	62.4	55.0	53.0	69.1	54.8
Mizoram	100.0	63.5	90.4	70.0	56.6	95.9	69.9	100.0	91.9	60.1	69.8	46.5	96.4	80.5
Nagaland	97.3	53.2	66.6	53.6	53.9	86.3	56.4	97.3	64.8	51.0	53.0	51.6	86.5	56.6
Sikkim	99.8	69.5	75.1	74.3	77.2	92.7	79.8	99.8	75.6	65.1	73.6	73.5	93.0	82.3
Tripura	99.4	67.2	76.5	52.7	60.1	83.1	62.4	99.4	77.2	53.6	49.8	54.3	84.1	62.6
West														
Goa	97.3	69.9	72.5	69.0	66.7	85.3	73.5	97.5	73.6	68.6	69.3	65.6	86.1	73.8
Gujarat	99.4	84.0	85.5	76.4	80.1	86.1	83.3	99.8	87.7	80.6	75.4	79.3	87.3	83.3
Maharashtra	99.0	75.1	77.2	67.0	68.7	87.0	70.5	99.4	85.7	65.5	66.5	66.7	87.7	72.2
South														
Andhra Pradesh	99.3	72.0	81.2	64.2	67.3	89.0	70.7	99.4	82.0	71.0	64.5	64.2	89.5	73.8
Karnataka	99.3	84.0	88.8	74.0	77.4	91.3	82.2	99.4	90.9	82.1	74.6	76.1	91.6	82.3
Kerala	99.2	69.5	85.0	71.6	69.0	92.2	73.2	99.4	90.1	66.1	69.7	62.3	93.4	73.7
Tamil Nadu	99.8	43.9	71.2	58.3	69.7	86.8	64.7	100.0	69.2	44.1	60.4	66.0	88.3	70.3

Approval of teaching of sex and sexual behaviour in school and condom use to prevent sexually transmitted diseases are relatively low in several states, particularly among women. Nonetheless, a majority of women approve of teaching the topic of sex and sexual behaviour to girls in 13 states and to boys in 10 states. A majority of women approve of teaching about condom use to prevent sexually transmitted diseases to girls in 11 states and to boys in 10 states. A majority of men approve of teaching sex and sexual behaviour, as well as condom use for prevention of sexually transmitted diseases, to girls and boys in almost all states. The only states where most men do not agree are Orissa, Assam, and West Bengal.

Finally, the approval among women of the teaching of contraception in school is relatively low in a large number of states, particularly for teaching the topic to boys. Overall, the majority of women agree that the topic should be taught in school to girls in 14 states but to boys in only seven states. Approval of teaching this topic to girls and boys is lowest in Assam (19 percent and 15 percent, respectively). Approval among men about teaching contraception in school is quite high, however. The majority of men approve of teaching girls about contraception in school in 26 states and teaching boys about contraception in 25 states. Again, men in Assam, Orissa, and West Bengal have lower levels of approval.

HIV PREVALENCE 12

NFHS-3 is the first national survey in India to include HIV testing. Previously, national HIV prevalence estimates were derived primarily from sentinel surveillance among pregnant women attending government antenatal clinics. Because these surveillance estimates are not based on a representative sample of adults in India, it was decided that general population estimates of HIV in India could be greatly improved if HIV testing was included in NFHS-3. NFHS-3 was designed to provide a national estimate of HIV in the household population of women age 15-49 and men age 15-54, as well as separate HIV estimates for each of the six highest HIV prevalence states (Andhra Pradesh, Karnataka, Maharashtra, Manipur, Nagaland, and Tamil Nadu). The National AIDS Control Organization also requested that HIV data be collected in the survey to reliably estimate HIV in one low HIV prevalence state, and Uttar Pradesh was selected for this purpose.

Because of the low level of HIV prevalence in India (less than 1 percent of the adult population according to the official estimate at the time that NFHS-3 was being planned), very large samples would be required to obtain reliable estimates of HIV in individual states. Therefore, it was decided to design the sample to provide state-level HIV prevalence estimates only for the seven states mentioned above. To ensure that the state-level HIV estimates were reasonably precise, those seven states were oversampled. All women age 15-49 and all men age 15-54 living in all sample households in those states were eligible for the HIV testing component of NFHS-3. In the remaining 22 states, HIV testing was conducted in only a subsample of about six households per enumeration area, and all women age 15-49 and all men age 15-54 in those sample households were eligible for HIV testing. Sample sizes in those 22 states were large enough to contribute to a reliable estimate of national HIV prevalence. In all, more than 100,000 HIV tests were conducted throughout India in NFHS-3.

HIV testing in NFHS-3 was carefully designed and implemented based on sound scientific principles and substantial field experience in incorporating HIV testing in national household surveys. Respondents who consented to participate in the HIV testing provided blood drops from a finger stick that were collected on special filter paper cards and dried overnight. The dried blood spot samples were delivered to SRL Ranbaxy collection centres from where they were shipped by courier to the SRL Ranbaxy laboratory in Mumbai, where the HIV tests were conducted. External quality control for the HIV testing was conducted on more than 5,000 NFHS-3 blood samples by the National AIDS Control Organization in Pune. The Indian Council for Medical Research established an expert group to further evaluate the testing conducted at Ranbaxy and to assess the blood collection component of the fieldwork. Chapter 1 describes in more detail the planning, sample design, training, blood collection procedures, and testing protocols for the blood collection and HIV testing component of the survey.

This chapter presents NFHS-3 information on the coverage of HIV testing among eligible women and men, the prevalence of HIV, and variations in HIV in key subgroups of the population. The last section of the chapter analyzes the effect of nonresponse on HIV rates. The

understanding of the distribution of HIV within the population and the analysis of social, biological, and behavioural factors associated with HIV infection offer new insights about the HIV epidemic in India that may lead to more precisely targeted messages and interventions. However, caution is suggested in interpreting the differentials in HIV prevalence for categories with small sample sizes.

Previous HIV Prevalence Estimates for India and Revised Estimates Released in 2007

Although information from the ANC surveillance system has been very useful for assessing HIV levels for the population tested, and especially for monitoring trends in HIV prevalence, the inclusion of HIV testing in NFHS-3 offers the opportunity to better understand the magnitude and patterns of HIV infection in the general reproductive age population in India. In fact, the NFHS-3 HIV prevalence estimates have already provided important information for HIV/AIDS programmes in India. The NFHS-3 estimates are also being used to calibrate the annual sentinel surveillance data.

While the rate of HIV infection in pregnant women has been shown to be a reasonable proxy for the level in the combined male and female adult population in a number of settings (WHO and UNAIDS, 2000), there are several well recognized limitations in estimating the HIV rate in the general adult population from data derived exclusively from pregnant women attending selected antenatal clinics. First, the ANC data do not provide any information on HIV prevalence in non-pregnant women. They also do not provide any information on HIV prevalence for pregnant women who either do not attend a clinic for pregnancy care or who receive antenatal care at facilities not represented in the surveillance system. Pregnant women are also more at risk for HIV infection than women who may be avoiding both HIV and pregnancy through the use of condoms. Women who are less sexually active and are therefore less likely to become pregnant or be exposed to the HIV virus are also underrepresented in the surveillance data. There are additional biases in HIV estimates based on the ANC surveillance data because HIV infection reduces fertility and because knowledge of HIV status may influence fertility choices. Finally, the HIV rate among pregnant women is not a good proxy for male HIV rates. Moreover, although there were 391 ANC surveillance sites in 2005 (NACO, 2006) and 628 in 2006, these sites are not completely representative of India as a whole or even individual states. These sites have been supplemented by a large number of sites frequented by high-risk groups, such as patients visiting STI clinics, injecting drug users, and men who have sex with men. The system of surveillance sites, including surveillance sites for high-risk groups, has continued to expand and the total number of sites now exceeds 1,100.

The HIV Sentinel Surveillance Report for 2005 (NACO, 2006) estimated that India had 5.2 million adults age 15-49 living with HIV in 2005. More than half (57 percent) of the adults living with HIV were rural and 38 percent were women. The same report estimated the overall adult HIV prevalence in India to be 0.91 percent. HIV prevalence was greater than 1 percent in 95 districts, including 9 districts in low HIV prevalence states. The states with the highest HIV prevalence in the ANC population in 2005 were Andhra Pradesh (2.00 percent), Nagaland (1.63 percent), and Karnataka, Maharashtra, and Manipur (1.25 percent each).

In 2006, UNAIDS estimated that at the end of 2005, there were 3.4-9.4 million people in India living with HIV, with a best estimate of 5.7 million people (UNAIDS 2006). Out of this number, UNAIDS estimated that 5.6 million were adults, of whom 1.6 million were women age 15 and over. Although UNAIDS has estimated that India has a larger number of persons living with HIV than any other country in the world, their estimate of HIV prevalence for adults age 15-49 years (0.9 percent, with a range of 0.5-1.5 percent) is much lower than that in many other countries. Africa remains the global epicentre of the AIDS pandemic.

In 2007, NACO undertook an exercise, in consultation with Indian and international experts in HIV estimation, to revise the HIV official estimates based on the NFHS-3 household-based estimates of HIV in the population age 15-49 years, estimates of HIV from the expanded sentinel surveillance system, and related information about HIV in high-risk groups that do not live in households. The revised HIV estimate of 2.47 million persons in India living with HIV (equivalent to 0.36 percent of the adult population) was released by NACO in July, 2007. This national estimate reflects the availability of improved data rather than a substantial decrease in actual HIV prevalence in India. The new estimate is less than half the official HIV estimate for the previous year, and it moves India down to third place in the list of countries with the largest number of persons living with HIV.

12.1 Coverage of HIV Testing in NFHS-3

Tables 12.1.1-12.1.3 show the coverage rates for HIV testing among eligible women and men and the reasons that some respondents could not be tested for each state. Blood collection for HIV testing was not conducted in Nagaland due to local opposition, so Nagaland has not been included in any of the tables in this chapter. In the remaining states, HIV tests were conducted for 85 percent of the 62,182 eligible women and 78 percent of the 64,175 eligible men in India. For both sexes combined, coverage was 82 percent. These response rates are similar to the response rates for HIV testing in Demographic and Health Surveys in other countries. In NFHS-3, 6 percent of women and 14 percent of men did not complete individual interviews, so they were not eligible for blood tests. In addition, 6 percent of women and 5 percent of men who completed individual interviews refused to provide blood for HIV testing. Only a small number of interviewed women (1 percent) and interviewed men (2 percent) were not at home at the time of the blood collection.

Table 12.1.1 Coverage of HIV testing by state: Women

Percent distribution of women age 15-49 eligible for HIV testing by testing status, according to state (unweighted), India, 2005-06

State	Testing status					Total	Number
	Blood tested	Refused to provide blood	Absent at the time of blood collection	Other/ missing	Not inter-viewed		
India	85.0	6.1	1.1	1.4	6.4	100.0	62,182
North							
Delhi	61.5	19.9	5.6	5.9	7.1	100.0	733
Haryana	91.3	3.4	0.0	0.2	5.1	100.0	527
Himachal Pradesh	88.0	5.5	0.3	1.7	4.5	100.0	599
Jammu & Kashmir	79.4	4.6	0.6	3.1	12.3	100.0	699
Punjab	88.9	3.8	0.6	0.4	6.4	100.0	720
Rajasthan	95.9	1.5	0.3	0.0	2.3	100.0	661
Uttaranchal	87.8	3.7	0.2	0.7	7.7	100.0	575
Central							
Chhattisgarh	96.7	1.5	0.0	0.3	1.5	100.0	600
Madhya Pradesh	98.7	0.6	0.1	0.0	0.6	100.0	1,127
Uttar Pradesh	83.3	8.5	1.5	0.6	6.1	100.0	12,969
East							
Bihar	88.2	6.4	0.5	2.5	2.5	100.0	642
Jharkhand	83.3	7.0	1.1	3.2	5.4	100.0	558
Orissa	91.8	2.9	0.2	2.2	2.9	100.0	825
West Bengal	86.7	6.9	0.2	0.3	5.8	100.0	1,269
Northeast							
Arunachal Pradesh	95.0	0.9	0.0	1.2	2.8	100.0	321
Assam	86.1	5.9	1.3	1.7	5.0	100.0	700
Manipur	90.6	2.1	1.6	0.4	5.3	100.0	4,766
Meghalaya	54.3	27.9	0.2	6.0	11.5	100.0	416
Mizoram	95.2	2.6	0.0	0.6	1.7	100.0	352
Sikkim	86.2	7.3	0.0	1.2	5.3	100.0	412
Tripura	92.6	0.5	0.0	3.0	3.8	100.0	366
West							
Goa	83.0	4.0	0.1	2.9	9.9	100.0	695
Gujarat	90.1	3.9	0.6	0.8	4.7	100.0	644
Maharashtra	77.7	8.6	1.2	2.0	10.5	100.0	10,097
South							
Andhra Pradesh	85.2	6.0	1.7	0.5	6.5	100.0	7,627
Karnataka	82.4	5.6	0.9	3.3	7.7	100.0	6,512
Kerala	93.6	2.3	0.3	0.3	3.6	100.0	703
Tamil Nadu	93.4	2.5	0.2	1.4	2.4	100.0	6,067

Note: Table excludes Nagaland.

Table 12.1.2 Coverage of HIV testing by state: Men

Percent distribution of men age 15-54 eligible for HIV testing by testing status, according to state (unweighted), India, 2005-06

State	Testing status					Total	Number
	Blood tested	Refused to provide blood	Absent at the time of blood collection	Other/ missing	Not inter-viewed		
India	78.1	4.6	2.1	1.7	13.5	100.0	64,175
North							
Delhi	50.1	12.6	7.0	5.6	24.7	100.0	881
Haryana	83.6	1.2	0.5	0.3	14.3	100.0	574
Himachal Pradesh	82.0	3.9	0.9	1.9	11.3	100.0	533
Jammu & Kashmir	70.6	2.7	0.4	2.8	23.4	100.0	705
Punjab	81.0	1.8	0.5	0.5	16.2	100.0	838
Rajasthan	93.9	0.5	0.2	0.3	5.1	100.0	644
Uttaranchal	77.8	3.2	2.0	0.7	16.3	100.0	558
Central							
Chhattisgarh	95.2	0.8	0.0	0.3	3.7	100.0	649
Madhya Pradesh	97.6	0.2	0.4	0.2	1.5	100.0	1,256
Uttar Pradesh	78.7	4.9	2.5	0.8	13.1	100.0	13,182
East							
Bihar	87.9	2.8	0.5	1.8	6.9	100.0	564
Jharkhand	75.5	4.8	2.8	2.9	14.0	100.0	580
Orissa	87.2	3.0	0.9	2.5	6.4	100.0	768
West Bengal	81.4	6.6	0.3	1.0	10.8	100.0	1,341
Northeast							
Arunachal Pradesh	94.9	0.5	0.0	1.1	3.5	100.0	370
Assam	75.5	3.8	2.7	4.4	13.6	100.0	742
Manipur	82.3	1.7	3.9	0.6	11.6	100.0	4,468
Meghalaya	41.5	27.1	1.2	6.7	23.5	100.0	417
Mizoram	95.4	2.4	0.0	0.3	1.8	100.0	327
Sikkim	80.6	8.1	0.0	2.4	8.8	100.0	454
Tripura	86.9	1.1	0.0	2.7	9.4	100.0	374
West							
Goa	74.1	1.1	1.7	3.6	19.4	100.0	715
Gujarat	82.0	3.6	0.4	0.6	13.4	100.0	673
Maharashtra	67.6	6.1	2.2	2.1	22.1	100.0	11,379
South							
Andhra Pradesh	80.7	5.0	3.3	0.4	10.6	100.0	7,973
Karnataka	71.7	5.8	1.8	4.1	16.6	100.0	6,630
Kerala	88.8	3.0	0.3	0.0	7.9	100.0	624
Tamil Nadu	89.6	2.7	0.9	2.5	4.4	100.0	5,956

Note: Table excludes Nagaland.

Table 12.1.3 shows that more than 90 percent of eligible women age 15-49 and men age 15-54 had their blood tested for HIV in 7 states, with coverage levels exceeding 95 percent in Madhya Pradesh, Chhattisgarh, and Mizoram. Coverage levels exceeded 80 percent in 21 of the 28 states. The lowest levels of coverage were in Meghalaya (48 percent), Delhi (55 percent), and Maharashtra (72 percent). HIV testing rates were higher for women than for men in every state except Mizoram, where 95 percent of both women and men had their blood tested for HIV. Refusal rates were generally low, except in Meghalaya and Delhi.

Table 12.1.3 Coverage of HIV testing by state: Women and men

Percent distribution of women age 15-49 and men 15-54 eligible for HIV testing by testing status, according to state (unweighted), India, 2005-06

State	Testing status					Total	Number
	Blood tested	Refused to provide blood	Absent at the time of blood collection	Other/ missing	Not inter-viewed		
India	81.5	5.3	1.6	1.5	10.0	100.0	126,357
North							
Delhi	55.3	15.9	6.4	5.7	16.7	100.0	1,614
Haryana	87.3	2.3	0.3	0.3	9.9	100.0	1,101
Himachal Pradesh	85.2	4.8	0.6	1.8	7.7	100.0	1,132
Jammu & Kashmir	75.0	3.6	0.5	3.0	17.9	100.0	1,404
Punjab	84.7	2.7	0.5	0.4	11.7	100.0	1,558
Rajasthan	94.9	1.0	0.2	0.2	3.7	100.0	1,305
Uttaranchal	82.9	3.4	1.1	0.7	11.9	100.0	1,133
Central							
Chhattisgarh	95.9	1.1	0.0	0.3	2.6	100.0	1,249
Madhya Pradesh	98.1	0.4	0.3	0.1	1.1	100.0	2,383
Uttar Pradesh	81.0	6.7	2.0	0.7	9.6	100.0	26,151
East							
Bihar	88.1	4.7	0.5	2.2	4.6	100.0	1,206
Jharkhand	79.3	5.9	1.9	3.1	9.8	100.0	1,138
Orissa	89.6	3.0	0.6	2.3	4.6	100.0	1,593
West Bengal	83.9	6.7	0.3	0.7	8.4	100.0	2,610
Northeast							
Arunachal Pradesh	94.9	0.7	0.0	1.2	3.2	100.0	691
Assam	80.7	4.8	2.0	3.1	9.4	100.0	1,442
Manipur	86.6	1.9	2.7	0.5	8.3	100.0	9,234
Meghalaya	47.9	27.5	0.7	6.4	17.5	100.0	833
Mizoram	95.3	2.5	0.0	0.4	1.8	100.0	679
Sikkim	83.3	7.7	0.0	1.8	7.2	100.0	866
Tripura	89.7	0.8	0.0	2.8	6.6	100.0	740
West							
Goa	78.5	2.6	0.9	3.3	14.8	100.0	1,410
Gujarat	86.0	3.7	0.5	0.7	9.1	100.0	1,317
Maharashtra	72.3	7.3	1.7	2.0	16.6	100.0	21,476
South							
Andhra Pradesh	82.9	5.5	2.5	0.5	8.6	100.0	15,600
Karnataka	77.0	5.7	1.4	3.7	12.2	100.0	13,142
Kerala	91.3	2.6	0.3	0.2	5.6	100.0	1,327
Tamil Nadu	91.5	2.6	0.6	1.9	3.4	100.0	12,023

Note: Table excludes Nagaland.

Tables 12.2.1 and 12.2.2 show coverage rates for HIV testing by age group, residence, education, and household wealth. Coverage of HIV testing varies very little with age, but coverage is considerably lower in urban areas than in rural areas for both women and men. Coverage rates are somewhat lower for women and men with a high level of education and those in households in the highest wealth quintile, but otherwise differentials are quite small. Additional tables related to coverage of HIV testing are shown in the Chapter 12 Appendix at the end of this chapter.

Table 12.2.1 Coverage of HIV testing by background characteristics: Women

Percent distribution of women age 15-49 eligible for HIV testing by testing status, according to background characteristics (unweighted), India, 2005-06

	Testing status						
	Blood tested	Refused to provide blood	Absent at the time of blood collection	Other/ missing	Not inter-viewed	Total	Number
Age							
15-19	85.0	6.5	1.3	1.3	5.9	100.0	11,883
20-24	83.9	6.5	1.1	1.6	6.9	100.0	11,432
25-29	84.5	6.2	1.1	1.5	6.7	100.0	10,431
30-34	86.5	5.3	1.1	1.4	5.6	100.0	8,923
35-39	85.8	5.7	1.0	1.2	6.3	100.0	8,055
40-44	85.2	6.4	1.1	1.4	6.0	100.0	6,551
45-49	84.0	6.0	0.9	1.4	7.7	100.0	4,907
Residence							
Urban	80.8	8.0	1.5	1.8	7.9	100.0	31,842
Rural	89.4	4.2	0.7	1.0	4.8	100.0	30,340
Education							
No education	84.6	6.3	1.1	1.3	6.6	100.0	19,793
<5 years complete	88.6	4.1	0.8	1.5	5.0	100.0	4,468
5-7 years complete	87.5	4.9	0.9	1.4	5.3	100.0	9,243
8-9 years complete	88.3	4.8	1.0	1.1	4.8	100.0	9,605
10-11 years complete	84.9	6.0	1.1	1.4	6.6	100.0	7,869
12 or more years complete	79.5	8.7	1.4	1.7	8.6	100.0	11,187
Wealth index							
Lowest	86.1	5.6	1.1	1.4	5.8	100.0	6,146
Second	88.1	5.2	0.9	1.0	4.8	100.0	8,704
Middle	88.8	4.4	0.8	1.1	4.9	100.0	12,409
Fourth	87.0	4.8	1.1	1.4	5.7	100.0	15,466
Highest	79.2	8.8	1.4	1.8	8.8	100.0	19,457
Total	85.0	6.1	1.1	1.4	6.4	100.0	62,182

Note: Table excludes Nagaland. Total includes women with missing information on education, who are not shown separately.

Table 12.2.2 Coverage of HIV testing by background characteristics: Men

Percent distribution of men age 15-54 eligible for HIV testing by testing status, according to background characteristics (unweighted), India, 2005-06

	Testing status						
	Blood tested	Refused to provide blood	Absent at the time of blood collection	Other/ missing	Not inter-viewed	Total	Number
Age							
15-19	80.6	4.8	2.1	1.6	10.9	100.0	10,799
20-24	78.7	4.6	2.4	1.7	12.6	100.0	10,743
25-29	76.6	4.7	2.4	1.5	14.9	100.0	9,663
30-34	77.1	5.0	2.1	1.9	13.9	100.0	8,614
35-39	77.6	4.1	2.0	1.8	14.6	100.0	7,937
40-44	77.4	4.5	2.0	1.8	14.3	100.0	6,748
45-49	78.0	4.6	1.7	1.7	14.0	100.0	5,719
50-54	77.0	4.5	2.0	1.7	14.8	100.0	3,952
Residence							
Urban	73.2	5.9	2.7	2.0	16.3	100.0	35,178
Rural	84.0	3.0	1.5	1.3	10.2	100.0	28,997
Education							
No education	75.1	5.2	2.1	1.6	16.0	100.0	9,431
<5 years complete	82.9	3.8	2.0	1.6	9.6	100.0	5,457
5-7 years complete	80.7	3.9	1.9	1.9	11.6	100.0	9,808
8-9 years complete	81.2	3.4	1.8	1.6	11.9	100.0	13,179
10-11 years complete	77.7	4.5	2.3	1.6	13.8	100.0	10,533
12 or more years complete	74.1	6.0	2.4	1.7	15.7	100.0	15,725
Wealth index							
Lowest	81.4	3.9	1.9	1.7	11.2	100.0	5,771
Second	82.3	3.3	1.8	1.6	11.0	100.0	8,492
Middle	82.9	3.4	1.6	1.5	10.5	100.0	12,530
Fourth	78.5	4.3	2.2	1.8	13.3	100.0	16,767
Highest	72.1	6.3	2.6	1.8	17.2	100.0	20,615
Total	78.1	4.6	2.1	1.7	13.5	100.0	64,175

Note: Table excludes Nagaland. Total includes men with missing information on education, who are not shown separately.

12.2 HIV PREVALENCE

Results from NFHS-3 indicate that 0.28 percent of adults age 15-49 are infected with HIV (Table 12.3). This translates into 1.707 million HIV positive persons age 15-49 in India at the midpoint of the NFHS-3 survey period in April, 2006. The HIV prevalence rate is 0.22 percent for women and 0.36 percent for men age 15-49. The confidence intervals for the above estimates are 0.23-0.33 for adults, 0.17-0.27 for women, and 0.28-0.43 for men. The female-to-male infection ratio of 0.61 is consistent with NACO's estimated 2005 female-to-male ratio of 0.62 for adults living with HIV (NACO, 2006). The NFHS-3 female-to-male ratio is somewhat higher in urban areas (0.71) than in rural areas (0.56).

Table 12.3 HIV prevalence by age and residence

Percentage HIV positive among women and men age 15-49 who were tested, by age and residence, India, 2005-06

	Women		Men		Total	
Age	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
URBAN						
15-19	0.08	3,275	0.00	3,032	0.04	6,307
20-24	0.24	3,107	0.23	2,992	0.23	6,099
25-29	0.18	2,902	0.60	2,592	0.38	5,494
30-34	0.84	2,545	0.82	2,268	0.83	4,813
35-39	0.34	2,369	0.53	2,202	0.43	4,571
40-44	0.20	1,849	0.46	1,872	0.33	3,721
45-49	0.11	1,429	0.44	1,544	0.28	2,973
Total age 15-49	0.29	17,475	0.41	16,502	0.35	33,978
Age 50-54	na	na	0.33	1,079	na	na
Total age 15-54	na	na	0.41	17,581	na	na
RURAL						
15-19	0.06	7,429	0.01	5,631	0.04	13,060
20-24	0.13	6,466	0.16	4,833	0.14	11,299
25-29	0.33	5,952	0.34	4,628	0.33	10,580
30-34	0.26	5,184	0.55	4,397	0.39	9,581
35-39	0.17	4,458	0.53	3,986	0.34	8,445
40-44	0.18	3,634	0.38	3,529	0.28	7,163
45-49	0.20	2,733	0.50	3,000	0.36	5,734
Total age 15-49	0.18	35,856	0.32	30,004	0.25	65,861
Age 50-54	na	na	0.35	2,029	na	na
Total age 15-54	na	na	0.33	32,033	na	na
TOTAL						
15-19	0.07	10,704	0.01	8,663	0.04	19,366
20-24	0.17	9,573	0.19	7,825	0.18	17,398
25-29	0.28	8,854	0.43	7,220	0.35	16,074
30-34	0.45	7,729	0.64	6,665	0.54	14,394
35-39	0.23	6,828	0.53	6,188	0.37	13,016
40-44	0.19	5,483	0.41	5,401	0.30	10,884
45-49	0.17	4,162	0.48	4,544	0.33	8,707
Total age 15-49	0.22	53,332	0.36	46,506	0.28	99,838
Age 50-54	na	na	0.34	3,108	na	na
Total age 15-54	na	na	0.35	49,614	na	na

Note: Table excludes Nagaland.
na = Not applicable

The HIV prevalence rate is 40 percent higher in urban areas than in rural areas (61 percent higher in urban areas than in rural areas for women and 28 percent higher for men). HIV prevalence rates are higher for men than for women in every age group except age 15-19, where the rates are very low overall. Women and men have similar age patterns, with HIV prevalence

increasing with age up through age 30-34 and generally decreasing with age thereafter. At age 30-34, 0.45 percent of women and 0.64 percent of men are HIV positive.

12.2.1 HIV Prevalence by Background Characteristics

Table 12.4 shows that HIV prevalence rates are low for all groups, so the differentials are generally small. By education, the HIV prevalence rate for men is highest for those who have no education. For both women and men, HIV prevalence is lowest for those with 10 or more years of education. Religious differentials are also small, and they need to be interpreted with caution because of the small number of cases in some religious groups. HIV prevalence is highest for Buddhists/Neo-Buddhists and Christians. Jains and Muslims exhibit the lowest HIV prevalence overall. Differentials by caste/tribe are quite small. There is no evidence that HIV prevalence is related to poverty in India. In fact, women and men in households in the next-to-highest wealth quintile are most likely to be infected with HIV.

Table 12.4 HIV prevalence by background characteristics

Percentage HIV positive among women and men age 15-49 who were tested, by background characteristics, India, 2005-06

	Women		Men		Total	
Background characteristic	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Education						
No education	0.27	21,203	0.50	8,238	0.33	29,441
<5 years complete	0.49	4,394	0.36	4,977	0.42	9,371
5-7 years complete	0.20	8,330	0.47	7,782	0.33	16,112
8-9 years complete	0.11	7,615	0.40	9,658	0.27	17,273
10-11 years complete	0.14	5,372	0.23	6,992	0.19	12,365
12 or more years complete	0.07	6,415	0.16	8,845	0.12	15,260
Religion						
Hindu	0.25	42,826	0.37	38,183	0.30	81,009
Muslim	0.06	7,285	0.21	5,626	0.13	12,912
Christian	0.30	1,362	0.56	1,061	0.41	2,423
Sikh	0.00	1,000	0.45	920	0.22	1,920
Buddhist/Neo-Buddhist	0.25	429	0.65	387	0.44	816
Jain	0.00	177	0.00	157	0.00	334
Other	0.26	188	0.15	163	0.21	351
Caste/tribe						
Scheduled caste	0.23	9,982	0.34	8,779	0.28	18,760
Scheduled tribe	0.12	4,231	0.39	3,997	0.25	8,228
Other backward class	0.24	21,044	0.36	18,227	0.30	39,271
Other	0.18	17,590	0.34	15,230	0.25	32,820
Don't know	0.63	263	0.00	109	0.44	371
Wealth index						
Lowest	0.18	9,075	0.39	7,496	0.27	16,571
Second	0.20	10,164	0.31	8,647	0.25	18,811
Middle	0.24	11,040	0.31	9,728	0.28	20,767
Fourth	0.34	11,176	0.52	10,165	0.43	21,342
Highest	0.12	11,877	0.24	10,470	0.18	22,348
Total	0.22	53,332	0.36	46,506	0.28	99,838

Note: Table excludes Nagaland. Total includes women and men with missing information on education, religion, and caste/tribe, who are not shown separately.

12.2.2 HIV Prevalence by Demographic Characteristics

Table 12.5 presents the relationships between HIV prevalence and a number of other socio-demographic characteristics. As expected, marital status is closely related to HIV prevalence. HIV prevalence is very low for women and men who have never been married. The

highest rates of HIV prevalence are for women and men who are divorced, separated, or deserted and for women who are widowed, although the precision of the estimates for these groups is low due to the small number of cases. It is not unusual, however, to see relatively high HIV prevalence among widows because in some cases their husbands have probably died from AIDS-related causes.

Table 12.5 HIV prevalence by demographic characteristics

Percentage HIV positive among women and men age 15-49 who were tested, by demographic characteristics, India, 2005-06

	Women		Men		Total	
Demographic characteristic	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Marital status						
Never married	0.03	10,844	0.16	16,650	0.11	27,494
Ever had sex	0.00	83	0.37	2,217	0.36	2,300
Never had sex	0.03	10,760	0.13	14,433	0.09	25,194
Currently married	0.19	39,901	0.45	29,181	0.30	69,082
Widowed	1.51	1,751	0.13	359	1.27	2,110
Divorced/separated/deserted	1.14	836	1.91	317	1.35	1,153
Times slept away from home in past 12 months						
None	na	na	0.44	14,455	na	na
1-2	na	na	0.22	8,247	na	na
3-4	na	na	0.41	7,678	na	na
5 or more	na	na	0.33	15,996	na	na
Time away in past 12 months						
Away for more than 1 month	na	na	0.44	5,097	na	na
Away only for less than 1 month	na	na	0.30	26,843	na	na
Not away	na	na	0.43	14,537	na	na
Male circumcision						
Circumcised	na	na	0.22	5,818	na	na
Not circumcised	na	na	0.37	40,037	na	na
Currently pregnant						
Pregnant	0.11	2,833	na	na	na	na
Not pregnant or not sure	0.22	50,499	na	na	na	na
ANC for last birth in the past 3 years						
ANC in a government health facility	0.07	5,121	na	na	na	na
ANC, but not in a government health facility	0.19	4,354	na	na	na	na
No ANC	0.07	2,763	na	na	na	na
No birth in past 3 years	0.25	41,081	na	na	na	na
Total age 15-49	0.22	53,332	0.36	46,506	0.28	99,838

Note: Table excludes Nagaland. Totals include men with missing information on times slept away from home, time away, and male circumcision, who are not shown separately.
ANC = Antenatal care
na = Not applicable

Men who are away from home frequently or for long periods of time are generally thought to be more exposed to the risk of HIV infection because they may be more likely to adopt high-risk sexual behaviour when they are away from home. In NFHS-3, men were asked how many times they traveled away from their home community and whether they had been away from their home community for more than one month at a time in the past 12 months. Table 12.5 shows that, contrary to expectations, the men with the highest HIV prevalence are those that have not slept away from their home community at all in the past year. There is also no clear relationship between the time spent away in the past 12 months and HIV prevalence, since men who have been away for more than one month at a time have the same HIV prevalence rate as men who have not been away at all.

Women who were pregnant at the time of the survey were less likely to be HIV positive than women who were not pregnant. One possible explanation for this pattern is that women with HIV are less fecund or if they know they are HIV positive, they may avoid having sexual intercourse or avoid becoming pregnant.

Women with a birth in the five years before the survey were asked if they received any antenatal care (ANC) during their pregnancy and, if yes, where they received ANC. Table 12.5 focuses on more recent births (births in the past three years). The highest level of HIV is seen among women who did not have a birth in the three years before the survey. HIV prevalence is lowest among women who received ANC in a government health facility and for those who did not receive any antenatal care during pregnancy. The HIV prevalence rate is about average for women who received ANC, but not in a government health facility. Among women who used government facilities for antenatal care, HIV prevalence is higher for women who went to government/municipal hospitals (0.11 percent) than for women who accessed other types of government health facilities (0.04 percent) [data not shown]. All HIV prevalence estimates in NFHS-3 are based on the weighted number of women and men, where the weights are calculated based on the sample design and differential non-response for HIV testing. However, because the official government estimates based on ANC surveillance data are not fully weighted, we also examined the relationship between HIV prevalence and ANC in NFHS-3 without using weights (data not shown). In the unweighted analysis, the HIV prevalence rate for women who received ANC for a recent birth in government hospitals is slightly higher than the prevalence rate for all other women.

Male circumcision is considered to be a protective factor for HIV infection, in part because of physiological differences that increase the susceptibility to HIV infection among uncircumcised men. Three recent randomized trial studies in Uganda, Kenya, and South Africa have provided evidence that uncircumcised men are more susceptible to HIV infection than circumcised men (Roehr, 2007; Bailey et al., 2007; Gray et al., 2007). NFHS-3 obtained information on male circumcision status, and these results can be used to examine the relationship between male circumcision and HIV prevalence. As indicated by Table 12.5, 13 percent of men who were tested for HIV are circumcised (the same as the percentage of all men interviewed in NFHS-3). Overall, 0.37 percent of men who are uncircumcised are HIV infected, compared with 0.22 percent of those who are circumcised. However, without conducting a multivariate analysis, it is difficult to definitively establish the effect of circumcision on the susceptibility to HIV infection since in India the practice of circumcision is so highly related to religious practices.

12.2.3 HIV Prevalence by Sexual Behaviour

Table 12.6 examines the prevalence of HIV infection by sexual behaviour indicators among respondents who have ever had sexual intercourse and were tested for HIV in NFHS-3. In reviewing these results, it is important to remember that responses about sexual behaviour may be subject to considerable reporting bias.

Table 12.6 HIV prevalence by sexual behaviour

Percentage HIV positive among women and men age 15-49 who ever had sex and were tested for HIV, by sexual behaviour, India, 2005-06

Sexual behaviour	Women		Men		Total	
	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Age at first sexual intercourse						
<16	0.28	14,487	0.29	2,306	0.28	16,793
16-17	0.27	11,010	0.51	3,736	0.33	14,746
18-19	0.24	8,235	0.40	5,671	0.31	13,906
20 or more	0.24	8,778	0.48	20,322	0.41	29,100
Higher-risk intercourse[1] in past 12 months						
Had higher-risk intercourse	2.23	79	0.33	1,628	0.42	1,707
Had intercourse, not higher risk	0.21	38,176	0.44	28,007	0.31	66,184
No intercourse in past 12 months	0.72	4,256	0.75	2,405	0.73	6,661
Number of sexual partners in past 12 months						
0	0.72	4,256	0.75	2,405	0.73	6,661
1	0.21	38,233	0.43	28,975	0.30	67,208
2	*	16	0.68	510	0.66	526
3 or more	*	6	0.78	144	1.51	149
Number of higher-risk partners[2] in past 12 months						
0	0.26	42,433	0.46	30,412	0.34	72,845
1	0.87	72	0.29	1,242	0.32	1,314
2	*	6	0.61	296	0.97	302
3 or more	nc	0	0.00	91	0.00	91
Condom use						
Ever used a condom	0.17	6,117	0.37	9,790	0.29	15,907
Never used a condom	0.28	36,343	0.50	22,213	0.36	58,555
Condom use at last sexual intercourse in past 12 months						
Used condom	0.07	2,333	0.36	2,742	0.22	5,075
Did not use condom	0.22	35,916	0.44	26,883	0.31	62,799
No sexual intercourse in past 12 months	0.72	4,256	0.75	2,405	0.73	6,661
Condom use at last higher-risk intercourse[1] in past 12 months						
Used condom	*	16	0.61	641	0.59	657
Did not use condom	2.83	62	0.16	988	0.31	1,050
No higher-risk intercourse/no intercourse in past 12 months	0.26	42,433	0.46	30,412	0.34	72,845
Number of lifetime partners						
1	0.25	41,649	0.39	25,670	0.30	67,319
2	0.98	712	0.60	3,681	0.66	4,393
3-4	(3.15)	20	0.84	1,610	0.87	1,630
5-9	*	4	1.15	626	1.14	630
10 or more	*	5	0.37	315	0.71	321
Paid for sex[3] in past 12 months						
Yes	na	na	0.96	343	na	na
Used condom	na	na	1.31	208	na	na
Did not use condom	na	na	0.42	135	na	na
No paid sexual intercourse/no sexual intercourse in past 12 months	na	na	0.45	31,697	na	na
Total age 15-49	0.26	42,511	0.46	32,040	0.35	74,552
Age 50-54	na	na	0.32	3,075	na	na
Men age 15-54	na	na	0.45	35,115	na	na

Note: Table excludes Nagaland. Total includes women and men with missing information on age at first sexual intercourse, number of sexual partners in past 12 months, condom use (ever and in the past 12 months), and number of lifetime partners, who are not shown separately.
( ) Based on 25-49 unweighted cases.
* Percentage not shown; based on fewer than 25 unweighted cases.
[1] Sexual intercourse with a partner who was not a spouse and who did not live with the respondent.
[2] A partner who was not a spouse and who did not live with the respondent, among the last two partners for women and the last three partners for men in the past 12 months.
[3] Includes men who report having a prostitute as at least one of their last three sexual partners in the past 12 months.
na = Not applicable; nc=Not calculated because there are no cases

HIV prevalence at age 15-49 among those who have ever had sex is 0.26 percent for women and 0.46 percent for men. HIV prevalence is not strongly related to the age at first sexual intercourse for women, but men who first had sex before age 16 have lower HIV prevalence than those who first had sex at older ages. For women, HIV prevalence is high (2.23 percent) for the small number of women who report higher-risk sexual behaviour in the past 12 months (that is, sex with a man who was not their husband and who did not live with them). Men who have had two or more sexual partners in the past 12 months have a much higher HIV prevalence (0.70 percent) than men with only one sexual partner (0.43 percent). For both women and men, HIV prevalence is quite high for those who ever had sex but have not had sex in the past 12 months. For women, this pattern is likely to be due to the high HIV prevalence rate for widows and women who have been divorced, separated, or deserted. Similarly, the male HIV prevalence rate for those with no sexual partners in the past 12 months is inflated by the high prevalence rate for men who are divorced, separated, or deserted. It is expected that the number of higher-risk sexual partners would be particularly strongly related to HIV prevalence. Women with one higher-risk sexual partner in the past 12 months and men with two higher-risk sexual partners have a relatively high HIV prevalence rate.

When used properly, condoms are an effective way of preventing the transmission of HIV and other STIs. Although this would suggest that HIV rates should be lower among condom users, there are a number of factors that may influence the direction of the relationship. For example, condom use rates may be higher among individuals who are infected if they are seeking to protect an uninfected partner. Also, reported condom use cannot be assumed to be 'correct condom use.' Thus, it is not surprising that the association between condom use and HIV infection levels is not uniform in Table 12.6. Among women, condom use (ever and the last time they had sex) is associated with lower levels of HIV infection. The same pattern is seen for men in the case of ever use of condoms and condom use at last sexual intercourse, but men who used a condom the last time they had higher-risk sexual intercourse have a higher HIV prevalence rate (0.61 percent) than those who did not use a condom (0.16 percent).

The number of lifetime sexual partners is an important indicator of the risk of HIV infection. For women, HIV prevalence increases from 0.25 percent for those who have had one lifetime sexual partner to 0.98 percent for those with two partners, and further to 3.15 percent for the small number of women with 3-4 lifetime partners. HIV prevalence also increases rapidly with the number of lifetime sexual partners for men, from 0.39 percent for men with one partner to 1.15 percent for those with 5-9 partners, before declining to 0.37 percent for small number of men with 10 or more partners.

Men who paid for sex at least once in the past 12 months are much more likely to be HIV positive (0.96 percent) than those who did not pay for sex (0.45 percent). However, among those who paid for sex, only those who used a condom the last time they paid for sex had a higher HIV prevalence, perhaps because those who knew they were HIV positive were more likely to use a condom.

12.2.4 HIV Prevalence by Other Characteristics Related to HIV Risk

Table 12.7 presents the variation in HIV prevalence by sexually transmitted infections (STIs) in the past 12 months and HIV testing prior to NFHS-3 among women and men who have

ever had sex. Women with an STI or symptoms of an STI have a slightly higher HIV prevalence rate (0.29) than other women (0.26 percent). However, contrary to expectation, men with a recent STI or STI symptoms have a lower HIV prevalence than other men.

Table 12.7 HIV prevalence by other characteristics

Percentage HIV positive among women and men age 15-49 who have ever had sex and were tested for HIV in NFHS-3, by whether they had an STI or STI symptom in the 12 months preceding the survey and by testing for HIV prior to NFHS-3, India, 2005-06

	Women		Men		Total	
Characteristic	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Sexually transmitted infection in past 12 months						
Had STI or STI symptoms	0.29	4,889	0.38	1,547	0.31	6,436
No STI, no STI symptoms	0.26	37,444	0.46	30,246	0.35	67,690
Prior HIV testing						
Ever tested	0.49	1,627	1.71	1,458	1.06	3,085
Received results	0.52	1,504	1.63	1,264	1.03	2,768
Did not receive results	0.04	123	2.24	194	1.39	317
Never tested	0.25	40,884	0.40	30,581	0.32	71,466
Total 15-49	0.26	42,511	0.46	32,040	0.35	74,552

Note: Table excludes Nagaland. Total includes women and men with missing information on STIs and men with missing information on prior HIV testing, who are not shown separately.
STI = Sexually transmitted infection

Men who were tested for HIV prior to NFHS-3 are more than four times as likely to be HIV positive as men who were never tested for HIV (1.71 percent, compared with 0.40 percent). HIV prevalence is even higher (2.24 percent) for the small number of men who were tested for HIV but did not receive the results of the test. Women who were tested for HIV prior to NFHS-3 are almost twice as likely to be HIV positive as those who were not previously tested. Among those who were ever tested for HIV prior to NFHS-3, 92 percent of women and 87 percent of men actually received the result of their last test. Despite the strong association between HIV testing and an individual's HIV status, most individuals who were found to be HIV positive in NFHS-3 had never been tested for HIV prior to the survey (Table 12.8). Only 7 percent of HIV-positive women and 12.8 percent of HIV-positive men were ever tested for HIV prior to NFHS-3. Only 3 percent of women and men who are HIV negative were ever tested.

Table 12.8 Prior HIV testing by current HIV status

Percent distribution of women and men age 15-49 who were tested for HIV in NFHS-3 by whether they were tested prior to NFHS-3 and received their test result, according to whether they were found to be HIV positive or negative in NFHS-3, India, 2005-06

	Women		Men		Total	
HIV testing prior to NFHS-3	HIV positive	HIV negative	HIV positive	HIV negative	HIV positive	HIV negative
Previously tested, received result of last test	6.8	2.9	12.8	3.1	10.3	3.0
Previously tested, did not receive result of last test	0.0	0.2	2.6	0.5	1.6	0.4
Not previously tested	93.2	96.9	84.6	96.4	88.1	96.6
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	115	53,216	165	46,341	281	99,558

Note: Table excludes Nagaland.

12.3 HIV PREVALENCE BY STATE

Table 12.9 shows the NFHS-3 estimates of HIV prevalence for each of six states (Andhra Pradesh, Karnataka, Maharashtra, Manipur, Tamil Nadu, and Uttar Pradesh) and groups of states. Among the six states for which HIV prevalence estimates can be calculated, the highest prevalence is in Manipur (1.13 percent). In Manipur, 0.76 percent of women and 1.59 percent of men age 15-49 are HIV positive. The second highest HIV prevalence rates are found in Andhra Pradesh (0.75 percent for women, 1.22 percent for men, and 0.97 percent overall). These states are followed by Karnataka (0.69 percent) and Maharashtra (0.62 percent). The HIV prevalence rate in Tamil Nadu is only slightly higher than the national average, although the rate for women is much higher than the national average and the rate for men is somewhat lower than the national average. The lower rate for Tamil Nadu is also consistent with the decreasing level of HIV prevalence that has been found in the ANC surveillance estimates for Tamil Nadu in recent years (NACO, 2006). In Andhra Pradesh, Karnataka, and Maharashtra, the ratio of female to male HIV prevalence is almost identical (0.61-0.64). The ratio drops to 0.48 in Manipur. Tamil Nadu is the only high prevalence state in which HIV prevalence is higher for women than for men. HIV prevalence for the five high HIV prevalence states combined is 0.67 percent (0.55 percent for women and 0.82 percent for men). For the remaining 23 states (excluding Nagaland), HIV prevalence is only 0.12 percent (0.08 percent for women and 0.16 percent for men).

Table 12.9 HIV prevalence by state

Percentage HIV positive among women and men age 15-49 (and men age 15-54) who were tested, by state, India, 2005-06

	Women	Men	Women and men	Men age 15-54
State	Percentage HIV positive	Percentage HIV positive	Percentage HIV positive	Percentage HIV positive
Andhra Pradesh	0.75	1.22	0.97	1.20
Karnataka	0.54	0.85	0.69	0.82
Maharashtra	0.48	0.77	0.62	0.75
Manipur	0.76	1.59	1.13	1.51
Tamil Nadu	0.39	0.27	0.34	0.27
Total for five high HIV prevalence states	0.55	0.82	0.67	0.80
Uttar Pradesh	0.05	0.10	0.07	0.10
Total for five high HIV prevalence states and Uttar Pradesh	0.38	0.57	0.47	0.57
All other states[1]				
Not including Uttar Pradesh	0.09	0.18	0.13	0.18
Including Uttar Pradesh	0.08	0.16	0.12	0.17

[1] Except Nagaland.

HIV is rare in Uttar Pradesh, where only 0.07 percent of adults age 15-49 are HIV positive. The HIV prevalence rate for women in Uttar Pradesh is half the HIV prevalence rate for men. For the five high HIV prevalence states and Uttar Pradesh combined, 0.47 percent of women and men are HIV positive.

12.4 HIV PREVALENCE AMONG COUPLES

All women age 15-49 and men age 15-54 in households selected for the NFHS-3 HIV sample were eligible for HIV testing. For over 27,000 married couples, both the husband and the

wife agreed to be tested for HIV in NFHS-3. Results shown in Table 12.10 indicate that both partners were HIV negative for 99.50 percent of couples and both partners were HIV positive for 0.11 percent of couples. The remaining 0.39 percent of couples had discordant HIV results, that is, one partner was infected and the other was not infected. For 82 percent of these discordant couples, the husband was HIV positive and the wife was HIV negative. The variation in the level of couple HIV infection by background characteristics generally conforms to the patterns observed with respect to the variation in individual seroprevalence rates. In addition, there are notable differences in HIV prevalence according to the relative ages of the marital partners. HIV positivity for both partners is highest when the man is 15 or more years older than his wife. Discordant cases are highest when the man is 10-14 years older than his wife. HIV prevalence overall is lowest when the woman is older than her husband.

Table 12.10 HIV prevalence among couples

Percent distribution of couples in the same household, both of whom were tested for HIV by HIV status, according to background characteristics, India, 2005-06

Background characteristic	Both HIV positive	Man HIV positive, woman HIV negative	Woman HIV positive, man HIV negative	Both HIV negative	Total	Number
Woman's age						
15-19	0.00	0.13	0.09	99.78	100.0	1,749
20-29	0.15	0.36	0.02	99.47	100.0	10,544
30-39	0.10	0.34	0.11	99.44	100.0	10,118
40-49	0.07	0.26	0.08	99.59	100.0	5,360
Man's age						
15-19	0.00	0.00	0.00	100.00	100.0	167
20-29	0.06	0.31	0.04	99.59	100.0	6,134
30-39	0.13	0.37	0.09	99.40	100.0	10,470
40-49	0.15	0.26	0.03	99.56	100.0	8,612
50-54	0.00	0.32	0.17	99.50	100.0	2,389
Age difference between partners						
Woman older	0.02	0.19	0.00	99.79	100.0	1,420
Same age/man older by <5 years	0.11	0.29	0.08	99.51	100.0	10,666
Man older by 5-9 years	0.10	0.34	0.06	99.51	100.0	11,420
Man older by 10-14 years	0.13	0.40	0.10	99.37	100.0	3,597
Man older by 15 years or more	0.26	0.19	0.00	99.54	100.0	669
Residence						
Urban	0.08	0.40	0.13	99.39	100.0	8,722
Rural	0.12	0.28	0.04	99.56	100.0	19,049
Woman's education						
No education	0.11	0.35	0.06	99.48	100.0	12,822
<5 years complete	0.29	0.34	0.18	99.19	100.0	2,486
5-7 years complete	0.08	0.43	0.00	99.49	100.0	4,280
8-9 years complete	0.10	0.25	0.08	99.57	100.0	3,273
10-11 years complete	0.05	0.21	0.18	99.57	100.0	2,141
12 or more years complete	0.03	0.14	0.04	99.79	100.0	2,770
Man's education						
No education	0.17	0.35	0.14	99.34	100.0	6,609
<5 years complete	0.09	0.23	0.06	99.62	100.0	3,683
5-7 years complete	0.16	0.49	0.04	99.32	100.0	4,865
8-9 years complete	0.11	0.41	0.04	99.44	100.0	4,649
10-11 years complete	0.01	0.29	0.04	99.66	100.0	3,297
12 or more years complete	0.05	0.09	0.07	99.79	100.0	4,661
Religion						
Hindu	0.12	0.31	0.08	99.49	100.0	22,899
Muslim	0.02	0.30	0.03	99.65	100.0	3,228
Christian	0.03	0.53	0.09	99.36	100.0	698
Sikh	0.00	0.93	0.00	99.07	100.0	495
Buddhist/Neo-Buddhist	0.03	0.09	0.21	99.67	100.0	208
Jain	0.00	0.00	0.00	100.00	100.0	109
Other	0.45	0.09	0.00	99.46	100.0	109

Continued…

Table 12.10 HIV prevalence among couples—*Continued*

Background characteristic	Both HIV positive	Man HIV positive, woman HIV negative	Woman HIV positive, man HIV negative	Both HIV negative	Total	Number
Caste/tribe						
Scheduled caste	0.10	0.38	0.06	99.46	100.0	5,268
Scheduled tribe	0.05	0.33	0.00	99.62	100.0	2,556
Other backward class	0.11	0.26	0.06	99.56	100.0	11,042
Other	0.08	0.35	0.11	99.46	100.0	8,664
Don't know	0.47	0.55	0.00	98.98	100.0	122
Wealth index						
Lowest	0.08	0.36	0.02	99.54	100.0	5,138
Second	0.15	0.15	0.06	99.64	100.0	5,464
Middle	0.07	0.45	0.07	99.41	100.0	5,798
Fourth	0.18	0.40	0.11	99.30	100.0	5,570
Highest	0.06	0.22	0.09	99.63	100.0	5,801
Total	0.11	0.32	0.07	99.50	100.0	27,771

Note: Table excludes Nagaland. Total includes women and men with missing information on education, religion, and caste/tribe, who are not shown separately.

A similar pattern of discordance is seen for the high HIV prevalence states in Table 12.11. In each of these states, when there is discordance, the man is much more likely than the woman to be HIV positive. In the five high HIV prevalence states combined, men are almost six times as likely to be HIV positive as women when the couple has discordant results. About 1 percent of all married couples in Manipur, Karnataka, and Andhra Pradesh have discordant HIV results. Manipur has the highest percentage of couples in which both marital partners are HIV positive (0.62 percent) and the highest percentage in which at least one of the marital partners is HIV positive (1.61 percent).

Table 12.11 HIV prevalence among couples by state

Percent distribution of couples in the same household, both of whom were tested for HIV by HIV status, according to state, India, 2005-06

State	Both HIV positive	Man HIV positive, woman HIV negative	Woman HIV positive, man HIV negative	Both HIV negative	Total
Andhra Pradesh	0.38	0.83	0.13	98.66	100.0
Karnataka	0.34	0.82	0.15	98.69	100.0
Maharashtra	0.32	0.58	0.11	98.99	100.0
Manipur	0.62	0.89	0.10	98.39	100.0
Tamil Nadu	0.14	0.29	0.04	99.53	100.0
Total for five high HIV prevalence states	0.31	0.64	0.11	98.95	100.0
Uttar Pradesh	0.00	0.10	0.05	99.85	100.0
Total for five high HIV prevalence states and Uttar Pradesh	0.21	0.47	0.09	99.23	100.0
All other states[1]					
Not including Uttar Pradesh	0.03	0.20	0.05	99.72	100.0
Including Uttar Pradesh	0.02	0.18	0.05	99.74	100.0

[1] Except Nagaland.

12.5 HIV PREVALENCE AMONG YOUNG PEOPLE

Tables 12.12-12.14 provide information on HIV prevalence among persons 15-24 years old. As indicated earlier, HIV prevalence is lower among young persons (age 15-24) than among persons in any other age group. Very few women or men age 15-17 are HIV positive and HIV

prevalence remains low at age 18-19. Among youth, HIV prevalence is highest for women age 20-22 and for men age 23-24. For young women and young men, HIV prevalence is higher in urban areas than in rural areas. The HIV prevalence rate is highest (1.9 percent) among the small number of young women who are divorced, separated, or widowed. Even among women and men who never had sex, there are a few HIV positive cases.

Table 12.12 HIV prevalence among young people by background characteristics

Percentage HIV positive among women and men age 15-24 who were tested for HIV, by background characteristics, India, 2005-06

	Women		Men		Total	
Background characteristic	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Age						
15-19	0.07	10,704	0.01	8,663	0.04	19,366
15-17	0.03	6,354	0.00	5,293	0.02	11,647
18-19	0.12	4,350	0.02	3,369	0.07	7,719
20-24	0.17	9,573	0.19	7,825	0.18	17,398
20-22	0.21	5,964	0.17	5,129	0.19	11,093
23-24	0.10	3,609	0.21	2,696	0.15	6,305
Residence						
Urban	0.16	6,382	0.11	6,024	0.14	12,406
Rural	0.09	13,895	0.08	10,464	0.09	24,358
Marital status						
Never married	0.02	9,993	0.08	13,624	0.06	23,616
Ever had sex	0.00	70	0.17	1,611	0.16	1,681
Never had sex	0.02	9,923	0.07	12,013	0.05	21,936
Currently married	0.17	10,068	0.15	2,809	0.16	12,877
Widowed/divorced/ separated/deserted	1.91	216	0.00	55	1.53	270
Total	0.11	20,276	0.09	16,488	0.10	36,764

Note: Table excludes Nagaland.

In NFHS-3, women age 15-24 who ever had sex were asked for the age of their first sexual partner. Young women whose first sexual partner was 10 or more years older than them are almost twice as likely to be HIV positive as other women (Table 12.13). Information on the number and type of sexual partners in the past 12 months shows that young women and men who have ever had sex, but have not had sex in the past 12 months, have much higher HIV prevalence than average. HIV prevalence is also high for young men who have had two or more sexual partners in the past 12 months, particularly if they have had two or more higher-risk sexual partners. HIV prevalence is more than six times as high among young men who have had five or more lifetime partners as among men with 1-2 lifetime partners. Young men who use condoms (ever, at first sex, and at last sex in the past 12 months) have an elevated prevalence of HIV, but the same is not true for women.

Table 12.13 HIV prevalence among young people by sexual behaviour

Percentage HIV positive among women and men age 15-24 who have ever had sex and were tested for HIV, by sexual behaviour, India, 2005-06

	Women		Men		Total	
Sexual behaviour	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Relative age of first sexual partner						
10 or more years older	0.32	1,547	na	na	na	na
<10 years older/same age/ younger/Don't know	0.18	7,366	na	na	na	na
Higher-risk intercourse[1] in past 12 months						
Had higher-risk intercourse	(0.00)	28	0.11	985	0.11	1,014
Had intercourse, not higher risk	0.20	9,858	0.11	2,714	0.18	12,572
No intercourse in past 12 months	0.34	440	0.36	762	0.35	1,202
Number of sexual partners in past 12 months						
0	0.34	440	0.36	762	0.35	1,202
1	0.19	9,880	0.09	3,389	0.17	13,269
2 or more	*	7	0.37	304	0.36	310
Number of higher-risk partners[2] in past 12 months						
0	0.20	10,298	0.17	3,476	0.19	13,774
1	(0.00)	28	0.00	719	0.00	748
2 or more	nc	0	0.42	266	0.42	266
Number of lifetime partners						
1	0.20	10,184	0.13	3,235	0.19	13,419
2	0.00	112	0.00	647	0.00	760
3-4	*	4	0.33	344	0.33	348
5-9	*	1	0.82	137	0.81	138
10 or more	*	1	0.52	83	0.52	84
Condom use						
Ever used a condom	0.21	1,404	0.22	1,455	0.21	2,859
Never used a condom	0.20	8,915	0.13	3,004	0.18	11,919
Condom use at first sex						
Used condom	0.00	250	0.51	668	0.37	918
Did not use condom	0.20	9,628	0.09	3,782	0.17	13,410
Don't know/don't remember	0.42	150	na	na	0.42	150
Condom use at last sex in past 12 months						
Used condom	0.01	563	0.29	541	0.14	1,103
Did not use condom	0.21	9,323	0.08	3,158	0.17	12,480
No sexual intercourse in past 12 months	0.34	440	0.36	762	0.35	1,202
Total (ever had sex)	0.20	10,326	0.15	4,462	0.19	14,788
Total (had sex in past 12 months)	0.19	9,887	0.11	3,700	0.17	13,586

Note: Table excludes Nagaland. Totals include women and men with missing information on relative age of first sexual partner, number of sexual partners in past 12 months, number of lifetime partners, and condom use (ever, at first sex, and at last sexual intercourse in past 12 months).
na = Not applicable
( ) Based on 25-49 unweighted cases.
* Percentage not shown; based on fewer than 25 unweighted cases.
[1] Sexual intercourse with a partner who was not a spouse and who did not live with the respondent.
[2] A partner who was not a spouse and who did not live with the respondent, among the last two partners for women and the last three partners for men in the past 12 months.

Table 12.14 shows state-level estimates of HIV prevalence for women and men age 15-24 for the five high HIV prevalence states, Uttar Pradesh, and the rest of the states (except Nagaland). For the five high HIV prevalence states combined, HIV prevalence rates are much lower for women and men age 15-24 than for older women (cf. Table 12.9). At age 15-24, HIV prevalence is about the same for women and men in the five high HIV prevalence states combined, but HIV prevalence is higher for men than for women in Andhra Pradesh and

Table 12.14 HIV prevalence among young people by state

Percentage HIV positive among women and men age 15-24 who were tested, by state, India, 2005-06

State	Percentage HIV positive		
	Women	Men	Women and men
Andhra Pradesh	0.29	0.48	0.37
Karnataka	0.33	0.14	0.25
Maharashtra	0.18	0.31	0.24
Manipur	0.39	0.38	0.39
Tamil Nadu	0.24	0.00	0.13
Total for five high HIV prevalence states	0.25	0.27	0.26
Uttar Pradesh	0.03	0.00	0.02
Total for five high HIV prevalence states and Uttar Pradesh	0.17	0.17	0.17
All other states[1]			
Not including Uttar Pradesh	0.07	0.03	0.05
Including Uttar Pradesh	0.06	0.02	0.04

[1] Except Nagaland.

Maharashtra, lower for men than for women in Karnataka and Tamil Nadu, and about the same in Manipur. For youth, the highest levels of HIV prevalence among the five high HIV prevalence states are found in Manipur and Karnataka for women and in Andhra Pradesh and Manipur for men.

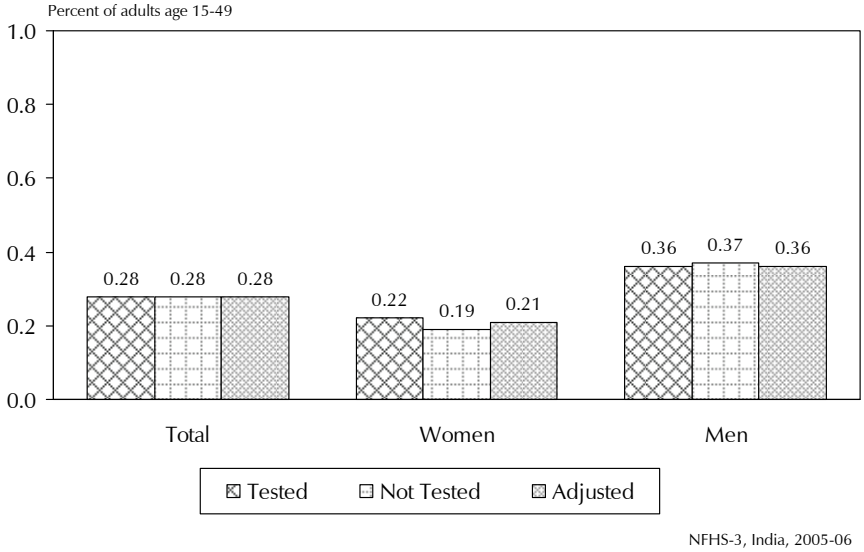
12.6 NONRESPONSE ANALYSIS

As seen earlier in this chapter, not all eligible NFHS-3 respondents participated in the HIV testing component of the survey. The potential for bias associated with this non-participation is a concern since respondents who refused to be tested or were absent at the time of testing may have different characteristics or behaviour from those who consented to provide a blood sample for HIV testing. To address this concern, it has become standard procedure in large-scale household surveys with an HIV testing component to conduct an analysis of those who are eligible to be tested but could not be tested in order to examine potential biases. The calculation uses information from the survey itself on the known characteristics of the non-tested population to predict their HIV prevalence, based on a multivariate analysis of HIV prevalence for women and men who were tested for HIV.

Figure 12.1 summarizes the results of the nonresponse analysis that was conducted for NFHS-3. The figure shows the observed HIV prevalence rates for women, men, and the total sample, the predicted prevalence rates for the non-tested group, and the rates for women, men, and the total sample following an adjustment for nonresponse. Overall, the adjustment for nonresponse does not change the HIV prevalence at age 15-49 at all for the total population and for men. The predicted HIV prevalence for non-tested women age 15-49 (0.19 percent) is slightly lower than the actual prevalence (0.22 percent), but the adjusted prevalence for women is almost identical to the prevalence for women who were tested for HIV in NFHS-3. It is important to recognize that the adjustments only partially address the nonresponse bias. The estimates can only be adjusted to the extent that the socio-demographic and behavioural characteristics included in the analysis are correlated with the risk of HIV infection. In fact, most of the characteristics included in the multivariate analysis are statistically significantly related to

HIV prevalence. The overall conclusion of the nonresponse analysis is that non-participation in the blood collection for HIV in NFHS-3 makes virtually no difference to the NFHS-3 HIV prevalence estimates for the household-based population of women and men in India.

Figure 12.1 Observed and Adjusted HIV Prevalence Rates for NFHS-3



NFHS-3, India, 2005-06

CHAPTER 12 APPENDIX

Chapter 12 Appendix Table 1 Coverage of HIV testing by social and demographic characteristics: Women

Percent distribution of interviewed women age 15-49 by HIV testing status, according to social and demographic characteristics (unweighted), India, 2005-06

Characteristic	Testing status				Total	Number
	Blood tested	Refused to provide blood	Absent at the time of blood collection	Other/ missing		
Marital status						
Never married	89.5	7.3	1.5	1.7	100.0	14,141
Ever had sex	95.6	4.4	0.0	0.0	100.0	91
Never had sex	89.5	7.3	1.5	1.7	100.0	14,050
Currently married	91.2	6.3	1.1	1.4	100.0	41,151
Widowed	91.1	6.0	1.5	1.4	100.0	1,942
Divorced/separated/deserted	90.8	6.1	1.0	2.0	100.0	979
Ever had sexual intercourse						
Yes	91.2	6.3	1.1	1.4	100.0	44,105
No	89.5	7.3	1.5	1.7	100.0	14,095
Currently pregnant						
Pregnant	90.2	7.1	1.3	1.4	100.0	2,695
Not pregnant or not sure	90.8	6.5	1.2	1.5	100.0	55,518
Religion						
Hindu	91.6	5.8	1.1	1.5	100.0	44,049
Muslim	85.9	10.7	1.8	1.7	100.0	8,351
Christian	91.2	6.7	0.9	1.3	100.0	3,184
Sikh	93.7	5.0	1.0	0.3	100.0	599
Buddhist/Neo-Buddhist	93.7	4.6	0.8	0.9	100.0	996
Jain	81.2	14.0	1.6	3.2	100.0	308
Other	92.4	5.1	1.1	1.4	100.0	662
Caste/tribe						
Scheduled caste	92.1	5.5	1.2	1.3	100.0	10,135
Scheduled tribe	92.0	5.8	0.7	1.5	100.0	4,499
Other backward class	91.8	5.6	1.1	1.5	100.0	22,755
Other	88.8	8.3	1.4	1.6	100.0	20,267
Don't know	88.6	6.1	0.7	4.7	100.0	429
Total	90.8	6.5	1.2	1.5	100.0	58,213

Note: Table excludes Nagaland. Total includes women with missing information on ever had sexual intercourse, religion, and caste/tribe, who are not shown separately.

Chapter 12 Appendix Table 2 Coverage of HIV testing by social and demographic characteristics: Men

Percent distribution of interviewed men 15-54 by HIV testing status, according to social and demographic characteristics (unweighted), India, 2005-06

Characteristic	Testing status				Total	Number
	Blood tested	Refused to provide blood	Absent at the time of blood collection	Other/ missing		
Marital status						
Never married	89.4	5.7	2.8	2.1	100.0	21,122
Ever had sex	90.9	4.8	2.5	1.8	100.0	2,624
Never had sex	89.2	5.8	2.9	2.1	100.0	18,498
Currently married	90.8	5.1	2.2	1.9	100.0	33,624
Widowed	91.4	5.7	2.6	0.3	100.0	385
Divorced/separated/deserted	91.6	5.1	0.8	2.4	100.0	371
Ever had sexual intercourse						
Yes	90.8	5.1	2.2	1.9	100.0	36,964
No	89.2	5.8	2.9	2.1	100.0	18,514
Male circumcision						
Circumcised	85.6	8.4	3.8	2.3	100.0	7,745
Not circumcised	91.0	4.8	2.2	1.9	100.0	46,867
Times slept away from home in past 12 months						
None	89.1	6.1	2.8	2.1	100.0	21,786
1-2	90.8	5.1	2.2	1.9	100.0	9,538
3-4	91.3	4.8	2.1	1.8	100.0	7,870
5 or more	91.1	4.7	2.4	1.9	100.0	16,161
Time away in past 12 months						
Away for more than 1 month	92.0	4.4	2.1	1.4	100.0	5,180
Away only for less than 1 month	90.9	4.9	2.3	2.0	100.0	28,395
Not away	89.1	6.1	2.8	2.1	100.0	21,874
Religion						
Hindu	91.0	4.7	2.3	2.0	100.0	42,757
Muslim	85.0	8.8	3.9	2.3	100.0	7,401
Christian	91.2	5.5	1.6	1.7	100.0	2,757
Sikh	94.1	4.1	1.0	0.7	100.0	580
Buddhist/Neo-Buddhist	92.6	5.2	0.9	1.3	100.0	970
Jain	84.9	9.6	3.3	2.2	100.0	272
Other	89.7	5.2	4.0	1.2	100.0	757
Caste/tribe						
Scheduled caste	91.8	4.1	2.3	1.7	100.0	9,896
Scheduled tribe	91.6	5.0	1.5	1.9	100.0	4,350
Other backward class	91.1	4.6	2.1	2.1	100.0	22,130
Other	88.2	6.8	3.1	1.9	100.0	18,726
Don't know	86.8	4.1	1.8	7.3	100.0	219
Total	90.3	5.3	2.5	2.0	100.0	55,502

Note: Table excludes Nagaland. Total includes men with missing information on ever had sexual intercourse, times slept away from home in past 12 months, time away in past 12 months, male circumcision, religion, and caste/tribe, who are not shown separately.

Chapter 12 Appendix Table 3 Coverage of HIV testing by sexual behaviour characteristics: Women

Percent distribution of interviewed women who ever had sexual intercourse by HIV testing status, according to sexual behaviour (unweighted), India, 2005-06

	Testing status					
Sexual behaviour	Blood tested	Refused to provide blood	Absent at the time of blood collection	Other/ missing	Total	Number
Age at first sexual intercourse						
<16	91.6	6.0	1.1	1.4	100.0	12,396
16-17	91.7	5.9	1.0	1.4	100.0	10,339
18-19	91.6	5.9	0.9	1.5	100.0	9,126
20 or more	90.1	7.3	1.2	1.4	100.0	12,243
Higher-risk intercourse[1] in past 12 months						
Had higher-risk intercourse	94.1	5.9	0.0	0.0	100.0	68
Had intercourse, not higher risk	91.2	6.3	1.1	1.4	100.0	39,241
No intercourse in past 12 months	90.9	6.1	1.2	1.8	100.0	4,796
Number of sexual partners in past 12 months						
0	90.9	6.1	1.2	1.8	100.0	4,796
1	91.2	6.3	1.1	1.4	100.0	39,290
2	*	*	*	*	*	15
3 or more	*	*	*	*	*	2
Number of higher-risk partners[2] in past 12 months						
0	91.2	6.3	1.1	1.4	100.0	44,037
1	93.8	6.2	0.0	0.0	100.0	65
2	*	*	*	*	*	3
Condom use						
Ever used a condom	90.5	7.1	1.2	1.1	100.0	6,900
Never used a condom	91.3	6.1	1.0	1.5	100.0	37,113
Condom use at last sexual intercourse in past 12 months						
Used condom	88.4	8.9	1.4	1.2	100.0	2,691
Did not use condom	91.5	6.1	1.0	1.4	100.0	36,610
No sexual intercourse in past 12 months	90.9	6.1	1.2	1.8	100.0	4,796
Number of lifetime partners						
1	91.2	6.3	1.1	1.4	100.0	43,272
2	92.3	5.4	0.8	1.5	100.0	649
3-4	(96.3)	(3.7)	(0.0)	(0.0)	(100.0)	27
5-9	*	*	*	*	*	5
10 or more	*	*	*	*	*	6
Prior HIV testing status						
Ever tested, received result	89.6	7.7	1.4	1.3	100.0	3,115
Ever tested, did not receive result	94.6	3.7	0.4	1.2	100.0	241
Never tested	91.3	6.2	1.1	1.4	100.0	40,748
Condom use at last higher-risk intercourse[1] in past 12 months						
Used condom	*	*	*	*	*	10
Did not use condom	94.8	5.2	0.0	0.0	100.0	58
No higher-risk intercourse/ no intercourse in past 12 months	91.2	6.3	1.1	1.4	100.0	44,037
Condom use at first sex[3]						
Used condom	88.1	8.8	1.8	1.3	100.0	226
Did not use condom	91.1	6.5	1.0	1.4	100.0	8,566
Don't know/don't remember	91.2	5.0	1.9	1.9	100.0	159
Total	91.2	6.3	1.1	1.4	100.0	44,105

Note: Table excludes Nagaland. Total includes women with missing information on age at first sexual intercourse, number of sexual partners in past 12 months, condom use (ever, at last sexual intercourse in past 12 months, and at first sex), number of lifetime partners, and prior HIV testing status, who are not shown separately.
( ) Based on 25-49 unweighted cases.
* Percentage not shown; based on fewer than 25 unweighted cases.
[1] Sexual intercourse with a partner who was not a spouse and who did not live with the respondent.
[2] A partner who was not a spouse and who did not live with the respondent, among the last two partners in the past 12 months.
[3] Includes only women age 15-24.

Chapter 12 Appendix Table 4 Coverage of HIV testing by sexual behaviour characteristics: Men

Percent distribution of interviewed men who ever had sexual intercourse by HIV testing status, according to sexual behaviour (unweighted), India, 2005-06

Sexual behaviour	Testing status: Blood tested	Refused to provide blood	Absent at the time of blood collection	Other/ missing	Total	Number
Age at first sexual intercourse						
<16	93.4	4.0	1.9	0.8	100.0	1,915
16-17	92.4	4.1	2.1	1.4	100.0	3,170
18-19	92.1	4.4	2.0	1.6	100.0	5,650
20 or more	90.1	5.4	2.4	2.1	100.0	26,223
Higher-risk intercourse[1] in past 12 months						
Had higher-risk intercourse	91.9	4.4	2.2	1.4	100.0	1,738
Had intercourse, not higher risk	90.8	5.1	2.3	1.9	100.0	32,065
No intercourse in past 12 months	90.4	5.3	2.1	2.2	100.0	3,161
Number of sexual partners in past 12 months						
0	90.4	5.3	2.1	2.2	100.0	3,161
1	90.8	5.1	2.3	1.9	100.0	33,184
2	94.1	3.3	1.6	1.0	100.0	512
3+	91.2	2.0	3.9	2.9	100.0	102
Number of higher-risk partners[2] in past 12 months						
0	90.7	5.1	2.3	1.9	100.0	35,226
1	91.7	4.6	2.2	1.5	100.0	1,402
2	94.3	3.8	1.1	0.8	100.0	264
3 or more	88.9	2.8	5.6	2.8	100.0	72
Condom use						
Ever used a condom	91.0	5.0	2.4	1.6	100.0	11,577
Never used a condom	90.7	5.1	2.2	2.0	100.0	25,346
Condom use at last sexual intercourse in past 12 months						
Used condom	89.9	6.0	2.5	1.7	100.0	3,391
Did not use condom	90.9	5.0	2.2	1.9	100.0	30,390
No sexual intercourse in past 12 months	90.4	5.3	2.1	2.2	100.0	3,161
Paid for sexual intercourse in past 12 months						
Paid for sex	91.6	4.9	3.0	0.5	100.0	367
Used condom	90.6	4.7	3.8	0.9	100.0	234
Did not use condom	93.2	5.3	1.5	0.0	100.0	133
No paid sexual intercourse/ no sexual intercourse in past 12 months	90.8	5.1	2.2	1.9	100.0	36,597
Number of lifetime partners						
1	90.3	5.4	2.3	2.0	100.0	29,984
2	92.9	3.7	2.0	1.4	100.0	3,834
3-4	93.3	3.6	1.8	1.2	100.0	1,756
5-9	94.2	2.5	1.6	1.6	100.0	747
10 or more	94.5	3.6	1.2	0.7	100.0	421
Prior HIV testing status						
Ever tested, received result	88.3	6.8	2.4	2.5	100.0	2,163
Ever tested, did not receive result	94.0	3.6	1.2	1.2	100.0	249
Never tested	90.9	5.0	2.2	1.8	100.0	34,547
Condom use at last higher-risk intercourse[1] in past 12 months						
Used condom	90.9	4.8	2.6	1.7	100.0	771
Did not use condom	92.8	4.1	1.9	1.2	100.0	967
No higher-risk intercourse/ no intercourse in past 12 months	90.7	5.1	2.3	1.9	100.0	35,226
Condom use at first sex[3]						
Used condom	90.9	5.1	2.2	1.8	100.0	768
Did not use condom	92.2	4.5	2.1	1.3	100.0	3,358
Total	90.8	5.1	2.2	1.9	100.0	36,964

Note: Table excludes Nagaland. Total includes men with missing information on age at first sexual intercourse, number of sexual partners in past 12 months, whether paid for sex in past 12 months, condom use (ever, at first sex, and at last sex in past 12 months), number of lifetime partners, and prior HIV testing, who are not shown separately.

[1] Sexual intercourse with a partner who was not a spouse and who did not live with the respondent.

[2] A partner who was not a spouse and who did not live with the respondent, among the last three partners in the past 12 months.

[3] Includes only men age 15-24.

MORBIDITY AND HEALTH CARE 13

The health status of a population is reflected in the levels of morbidity and the treatment seeking behaviours of its members. NFHS has included questions to ascertain morbidity from common causes since NFHS-1. This chapter presents findings on some common infectious and communicable diseases, health treatment behaviour, risk factors associated with tobacco and alcohol use, and coverage of health insurance. Prevalence estimates of tuberculosis (TB), diabetes, and goitre/thyroid problems are presented. In its National Health Policy (NHP), the Government of India (GOI) has committed to eradicating infectious illnesses and reducing the mortality associated with such illness (MOHFW, 2002). One of the goals of the NHP 2002 is a 50 percent reduction of deaths from TB, malaria, and other vector and water borne diseases by the year 2010.

13.1 TUBERCULOSIS (TB)

Tuberculosis has re-emerged as a major public health problem in many parts of the world, often as a concomitant illness to HIV/AIDS. Tuberculosis, once known as the 'White Plague', is contagious and spreads through droplets that can travel through the air when a person with the infection coughs, talks, or sneezes. Today, TB is a leading cause of death among people who are HIV-positive. Worldwide, an estimated one-third of the nearly 40 million people living with HIV/AIDS are co-infected with TB. In most developing countries, TB would continue to be a serious health threat even in the absence of HIV/AIDS due to the public health challenges posed by poverty, high illiteracy, and poor sanitation. The GOI has stated that 'In 2005, a total of 97 percent population was covered under the Revised National Tuberculosis Programme.' The government allocated Rs. 680 crores for the National Tuberculosis Control Programme (NTCP) in the 10th Plan (DGHS and WHO, 2005).

13.1.1 Prevalence of Tuberculosis (TB)

Respondents to the household interview were asked 'Does any usual resident of your household suffer from tuberculosis?' For each household member identified as suffering from TB, the respondent was asked: 'Has (name of person suffering from tuberculosis) received medical treatment for the tuberculosis?' Tables 13.1.1 and 13.1.2 present the prevalence of TB as estimated from both responses: the number of persons per 100,000 usual household residents suffering from tuberculosis and the number of persons per 100,000 usual household residents suffering from medically treated TB. The vast majority of people who were reported to be suffering from TB were also reported to have been medically treated for the illness (94 percent).

Those who have been medically treated for TB number 418 per 100,000 persons. The prevalence of TB may be underestimated to the extent that the household respondent is unaware that he/she or another household member has TB. On the other hand, the prevalence of TB may be overestimated if cases that are not tuberculosis are incorrectly reported as TB. To reduce the effects of overestimating prevalence based on reports of the household respondent, this discussion will focus on persons who have been reported to be medically treated for tuberculosis, which is likely to be a more accurate indication of TB.

The number of persons suffering from TB that have been medically treated differs greatly by sex, residence, and age. Overall, the risk of TB is much higher for men (526/100,000) than women (309/100,000), and much higher for rural residents (469/100,000) than urban residents (307/100,000). TB prevalence increases with increasing age. Persons age 60 and above (998/100,000) are much more likely than other age groups to be suffering from tuberculosis. Prevalence in the oldest age group is about twice as high as prevalence in the population age 15-59 (519/100,000) and about nine times as high as prevalence among children below age 15 (110/100,000). Both sex and age differentials are more pronounced in rural areas than they are in urban areas.

Table 13.1.1 Prevalence of tuberculosis

Number of persons per 100,000 usual household residents suffering from any tuberculosis and medically treated tuberculosis by age and sex, according to residence, India, 2005-06

Age and sex	Number of persons per 100,000 suffering from: Tuberculosis[1]	Medically treated tuberculosis	Number of usual residents
URBAN			
Age			
< 15	98	98	47,784
15-59	367	354	101,937
60+	768	727	12,405
Sex			
Women	247	246	78,138
Men	385	364	83,995
Total	319	307	162,133
RURAL			
Age			
< 15	115	114	132,938
15-59	653	605	194,540
60+	1,180	1,102	32,394
Sex			
Women	371	337	181,372
Men	634	602	178,522
Total	502	469	359,894
TOTAL			
Age			
< 15	110	110	180,721
15-59	555	519	296,477
60+	1,066	998	44,799
Sex			
Women	334	309	259,510
Men	554	526	262,517
Total	445	418	522,027

Note: Total includes usual residents with missing information on age, who are not shown separately.
[1] Includes medically treated tuberculosis.

13.1.2 Prevalence of Tuberculosis by Type of Housing and Fuel

Use of solid fuels (wood, animal dung, crop residues/grasses, coal, and charcoal) expose people to high levels of toxic air pollutants, which have been linked with serious health consequences. NFHS-3 found that 71 percent of India's households use solid fuels for their cooking and that 91 percent of rural households do so.

After studying the effects of smoke from solid fuel combustion, Mishra concluded that 'There is growing evidence that exposure to indoor smoke can cause serious respiratory and other adverse health effects, but the quantity and quality of scientific literature vary considerably by type of health outcome. There is compelling evidence linking indoor smoke to acute respiratory infections in children and chronic obstructive pulmonary disease (COPD) or chronic bronchitis in women' (Mishra, 2004:2). Based on data from NFHS-1, Mishra et al.

(1999) found that the prevalence of active tuberculosis in India could be reduced by 51 percent if everyone were to use cleaner fuels.

Table 13.1.2 presents the prevalence of TB by household crowding (the number of persons per room used for sleeping) and the type of cooking fuel, the place for cooking, and the type of fire or stove among households using solid fuel. There is a great deal of variation in prevalence of TB according to the type of cooking fuel the household uses, ranging from a low of 217 per 100,000 usual residents among households using electricity, liquid petroleum gas, natural gas, or biogas, to a high of 924 per 100,000 among households using straw, shrubs, or grass for cooking. High TB prevalence is also seen among households using agricultural crop residue (703/100,000) or other fuels not specified in the table (755/100,000).

Table 13.1.2 Prevalence of tuberculosis by type of housing and fuel/cooking arrangements

Number of persons per 100,000 usual household residents suffering from any tuberculosis and medically treated tuberculosis by type of housing and fuel/cooking arrangements, India, 2005-06

Housing and cooking fuel arrangements	Number of persons per 100,000 suffering from: Tuberculosis[1]	Medically treated tuberculosis	Number of usual residents
Persons per room used for sleeping			
<3	484	456	423,196
3-4	282	259	84,196
5-6	218	218	11,494
7 or more	388	388	3,141
Cooking fuel			
Electricity or gas[2]	220	217	124,028
Kerosene	564	550	13,511
Coal/lignite/charcoal	472	436	12,001
Wood	463	430	257,123
Straw/shrubs/grass	1,012	924	28,038
Agricultural crop residue	703	703	20,872
Dung cakes	440	416	65,681
Other	755	755	640
Place for cooking			
In the house, separate room	303	294	224,520
In the house, no separate room	562	518	160,729
In a separate building	467	423	44,393
Outdoors	573	543	91,479
Other	1,223	1,223	533
Type of fire/stove among households using solid fuels[3]			
Stove with a chimney	0	0	118
Open fire/*chullah* under a chimney	295	278	32,641
Stove without a chimney	428	428	617
Open fire/*chullah* not under a chimney	533	497	350,132
Other	1,516	1,516	175
Total	445	418	522,027

Note: Total includes usual residents with missing information on cooking fuel, place for cooking, and type of fire/stove among households using solid fuels, who are not shown separately.
[1] Includes medically treated tuberculosis.
[2] Includes LPG, natural gas, and biogas.
[3] Includes coal, lignite, charcoal, wood, straw/shrubs/grass, agricultural crop waste, and dung cakes.

NFHS-3 found a higher TB prevalence in households cooking in the house without having a special room for cooking (518/100,000), compared with households that cook in a

separate room of the house (294/100,000), but TB prevalence among households cooking indoors is lower than among households cooking outdoors (543) or in other places not specified in the table (1,223). The higher prevalence among households cooking outdoors may be related to outdoor cooking being more likely than indoor cooking to be done with solid fuels. Table 13.1.2 also shows prevalence levels according to the type of fire or stove used among households burning solid fuels. Cooking arrangements that utilize a chimney divert harmful particulates in the smoke away from members of the household. NFHS-3 found much lower levels of TB among households utilizing a chimney than among households not utilizing a chimney when burning solid fuels. Among households using solid fuels, the small number of households utilizing a stove with a chimney report that no one in the household has tuberculosis. Households cooking on an open fire or *chullah* but utilizing a chimney exhibit the second lowest prevalence of TB (278/100,000). Households burning solid fuels without using a chimney exhibit higher prevalence (497/100,000), while the minority of households using some other arrangement not specified have the highest prevalence (1,516/100,000).

Levels of crowding are not sufficient to explain differentials in prevalence of TB as those households with the highest TB levels are the households with the lowest number of persons per sleeping room.

13.1.3 Prevalence of Tuberculosis by State

Table 13.2 shows the number of persons suffering from any TB and medically treated TB according to state. The number of persons suffering from medically treated TB ranges from a low of 96 per 100,000 persons in Jammu and Kashmir to a high of 1,096 per 100,000 persons in Arunachal Pradesh. Between these two extreme levels, there are states at all levels of prevalence. In addition to Arunachal Pradesh, two other states exhibit levels above 700 per 100,000: Manipur (804) and Bihar (735). Seven states exhibit prevalence between 500 and 700 per 100,000: Gujarat (525), Tripura (545), West Bengal (577), Sikkim (583), Nagaland (585), Jharkhand (598), and Assam (605). In addition to Jammu and Kashmir, three other states exhibit levels below 200 per 100,000: Karnataka (136), Goa (166), and Himachal Pradesh (171).

The prevalence of TB by state indicates geographical clustering of the disease. All states in the East Region (with the exception of Orissa) and the Northeast Region exhibit prevalence levels above the national average of 418 per 100,000. All states in the North exhibit prevalence levels well below the national average. The three large states in Central India exhibit middle levels of prevalence: Chhattisgarh (280), Madhya Pradesh (331), and Uttar Pradesh (425). The states in the South Region show a mixed prevalence of TB: low in Karnataka (136) and Kerala (268), and higher in Andhra Pradesh (409) and Tamil Nadu (483).

Table 13.2 Morbidity by state

Number of persons per 100,000 usual household residents suffering from any tuberculosis and medically treated tuberculosis by state, India, 2005-06

State	Number of persons per 100,000 suffering from: Tuberculosis[1]	Medically treated tuberculosis
India	445	418
North		
Delhi	240	231
Haryana	340	324
Himachal Pradesh	182	171
Jammu & Kashmir	104	96
Punjab	201	201
Rajasthan	371	359
Uttaranchal	345	329
Central		
Chhattisgarh	310	280
Madhya Pradesh	353	331
Uttar Pradesh	450	425
East		
Bihar	797	735
Jharkhand	659	598
Orissa	418	371
West Bengal	605	577
Northeast		
Arunachal Pradesh	1,111	1,096
Assam	654	605
Manipur	818	804
Meghalaya	593	446
Mizoram	528	461
Nagaland	633	585
Sikkim	613	583
Tripura	647	545
West		
Goa	166	166
Gujarat	538	525
Maharashtra	321	311
South		
Andhra Pradesh	449	409
Karnataka	141	136
Kerala	275	268
Tamil Nadu	508	483

[1] Includes medically treated tuberculosis.

13.1.4 Knowledge and Attitude toward Tuberculosis

Despite being a curable disease, TB is still a stigmatizing illness, due mainly to people's ignorance of its aetiology and transmission. Tables 13.3.1 and 13.3.2 show that 85 percent of women and 92 percent of men age 15-49 have heard of TB. Knowledge of TB is common, but not universal. The percentage of women who have heard of TB increases steadily with increases in education and the wealth index, from three-quarters of women in the lowest education and wealth categories to over 90 percent in the highest education and wealth categories. The same pattern by education and the wealth index exists for men. Differentials by education and wealth status are greater than the urban-rural differentials shown in Figure 13.1.

Table 13.3.1 Knowledge and attitude toward tuberculosis: Women

Percentage of women age 15-49 who have heard of tuberculosis (TB), and among women who have heard of TB, percentage with specific knowledge and beliefs, according to background characteristics, India, 2005-06

Background characteristic	Percentage who have heard of TB	Number of women	Among women who have heard of TB, percentage who: Report that TB is spread through the air by coughing or sneezing	Have misconceptions about transmission of TB	Believe that TB can be cured	Would want a family member's TB kept secret from the neighbours	Number of women who have heard of TB
Age							
15-19	85.2	24,811	47.9	49.3	77.1	17.4	21,151
20-34	85.8	60,852	50.6	51.1	78.7	16.7	52,223
35-49	84.5	38,722	50.8	53.1	79.6	16.2	32,727
Residence							
Urban	92.2	40,817	61.6	52.0	84.9	17.4	37,636
Rural	81.9	83,568	43.8	51.0	75.2	16.3	68,465
Education							
No education	75.8	50,487	36.4	50.1	70.3	16.5	38,283
<5 years complete	83.3	9,918	40.1	47.6	72.5	16.0	8,264
5-7 years complete	86.7	18,820	47.3	49.9	78.3	18.0	16,309
8-9 years complete	93.5	17,383	55.5	50.3	82.5	17.1	16,256
10-11 years complete	95.7	12,887	64.6	53.3	87.3	17.1	12,329
12 or more years complete	98.5	14,882	76.6	57.7	92.6	15.1	14,653
Religion							
Hindu	84.7	100,151	50.1	51.9	78.7	16.7	84,851
Muslim	88.0	16,936	47.7	51.4	77.2	16.4	14,904
Christian	87.1	3,053	64.3	42.7	79.8	19.3	2,660
Sikh	88.3	2,222	44.5	41.7	85.0	13.6	1,961
Buddhist/Neo-Buddhist	87.6	1,010	63.2	40.0	78.0	16.4	885
Jain	94.6	406	73.2	60.3	91.1	16.0	384
Other	71.1	484	34.9	45.7	73.6	12.6	344
Caste/tribe							
Scheduled caste	84.9	23,125	44.7	50.5	76.4	17.9	19,636
Scheduled tribe	68.7	10,119	40.2	45.1	71.4	13.7	6,954
Other backward class	84.6	48,880	49.4	51.1	76.9	18.9	41,367
Other	90.7	41,207	55.9	53.3	83.2	14.2	37,391
Don't know	68.3	649	37.0	49.3	67.3	18.3	443
Wealth index							
Lowest	73.7	21,718	33.6	48.2	68.3	14.2	15,999
Second	80.6	23,616	38.4	49.9	72.1	16.7	19,038
Middle	82.6	25,088	44.5	50.1	74.3	18.1	20,734
Fourth	90.4	26,106	55.0	51.1	82.2	17.5	23,605
Highest	95.9	27,856	68.4	55.3	89.7	16.3	26,725
Total	85.3	124,385	50.1	51.3	78.6	16.7	106,101

Note: Total includes women with missing information on education, religion, and caste/tribe, who are not shown separately.

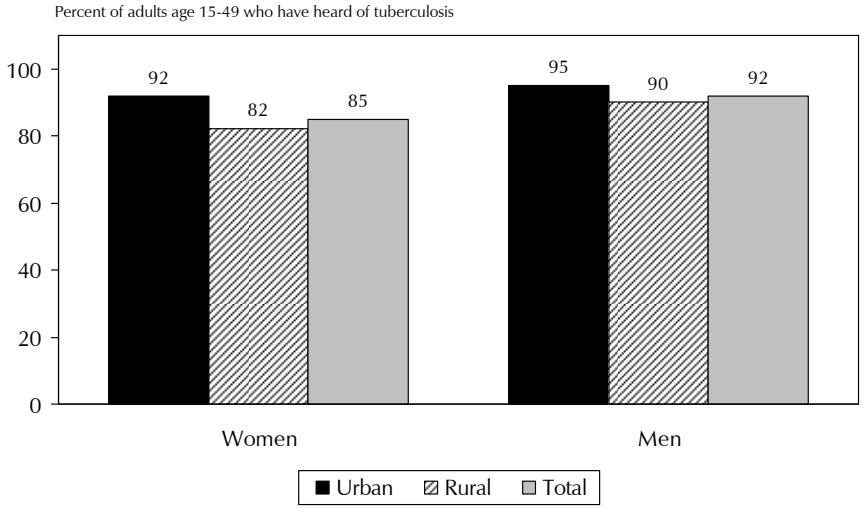
Table 13.3.2 Knowledge and attitude toward tuberculosis: Men

Percentage of men age 15-49 who have heard of tuberculosis (TB), and among men who have heard of TB, percentage with specific knowledge and beliefs, according to background characteristics, India, 2005-06

Background characteristic	Percentage who have heard of TB	Number of men	Among men who have heard of TB, percentage who: Report that TB is spread through the air by coughing or sneezing	Have misconceptions about transmission of TB	Believe that TB can be cured	Would want a family member's TB kept secret from the neighbours	Number of men who have heard of TB
Age							
15-19	89.9	13,008	50.6	45.3	82.7	18.4	11,689
20-34	92.6	32,586	55.4	50.9	86.3	16.6	30,162
35-49	91.8	24,157	57.0	55.5	86.6	15.6	22,172
Residence							
Urban	95.4	25,504	63.6	51.1	89.3	15.6	24,331
Rural	89.7	44,247	49.9	51.7	83.6	17.2	39,694
Education							
No education	81.6	12,571	37.1	48.9	75.2	20.4	10,258
<5 years complete	85.9	7,109	42.4	46.6	78.3	18.1	6,104
5-7 years complete	90.3	11,523	48.5	48.9	82.8	17.6	10,402
8-9 years complete	94.9	14,398	55.3	51.8	86.8	16.0	13,671
10-11 years complete	96.3	10,380	62.2	50.9	90.0	15.4	9,993
12 or more years complete	98.7	13,754	74.0	57.8	95.2	13.7	13,580
Religion							
Hindu	91.6	57,112	55.6	51.9	86.1	16.9	52,334
Muslim	93.7	8,747	50.7	51.6	83.9	15.8	8,198
Christian	86.9	1,567	63.6	40.0	80.8	19.8	1,363
Sikh	92.3	1,270	48.3	41.1	88.2	11.7	1,172
Buddhist/Neo-Buddhist	95.3	596	65.2	51.5	89.5	7.7	568
Jain	99.4	213	76.0	63.4	92.0	11.5	212
Other	72.2	232	32.7	55.8	79.3	9.9	167
Caste/tribe							
Scheduled caste	91.6	13,188	51.3	51.7	85.1	17.9	12,084
Scheduled tribe	83.0	5,725	44.3	50.5	76.9	17.0	4,749
Other backward class	91.7	27,219	56.4	52.6	85.8	19.7	24,952
Other	94.4	23,214	58.3	50.4	88.0	12.2	21,915
Don't know	68.5	177	51.0	50.0	72.5	23.0	121
Wealth index							
Lowest	84.6	11,031	38.0	52.1	77.0	18.6	9,330
Second	89.1	12,666	44.9	53.1	81.6	17.7	11,281
Middle	90.2	14,301	53.4	51.7	84.3	18.7	12,904
Fourth	94.4	15,493	59.6	49.0	88.2	16.4	14,620
Highest	97.7	16,260	69.6	52.0	92.7	13.0	15,889
Total age 15-49	91.8	69,751	55.1	51.5	85.7	16.6	64,024
Age 50-54	91.0	4,618	59.4	53.9	87.0	14.2	4,205
Total age 15-54	91.7	74,369	55.4	51.6	85.8	16.4	68,229

Note: Total includes men with missing information on education, religion, and caste/tribe, who are not shown separately.

Figure 13.1 Knowledge of Tuberculosis by Sex and Residence



Only about half the population that has heard of TB knows that it is spread through the air by coughing or sneezing. Fifty percent of women and 55 percent of men who have heard of TB mentioned coughing or sneezing as a mode of transmission for TB. Not surprisingly, knowledge of transmission varies greatly by education. Among those who have heard about TB, only 36 percent of women and 37 percent of men with no education know that TB is spread through the air by coughing or sneezing, compared with three-quarters of women and men with 12 or more years of schooling. Knowledge of transmission rises equally steadily and dramatically with increases in the wealth index among both women and men.

While correct knowledge of transmission varies by population subgroups, misconceptions occur across all subgroups shown in the tables. About half the population that has heard of TB has some misconceptions regarding its transmission. One in every six women and men report they would want the TB positive status of a family member to remain a secret. This level of secrecy is generally seen across all population subgroups. There is no decrease in stigma with increasing education or wealth. Interestingly, there is less stigma attached to tuberculosis than to HIV/AIDS. More than one-third of women and men would want it to remain a secret if a family member was HIV positive (see Chapter 11). Seventy-nine percent of women and 86 percent of men who have heard of TB know that it can be cured.

13.1.5 Knowledge and Attitude toward Tuberculosis by State

Tables 13.4.1 and 13.4.2 present levels of knowledge and stigma toward TB by state. The percentage of women who have heard of TB is somewhat lower among women than it is among men in most, but not all, states. The percentage of women who have heard of TB ranges from a low of 65 percent in Karnataka and Andhra Pradesh to a high of 98 percent in Delhi. Awareness among women is over 90 percent in 11 states. Awareness levels among

men range from a low of 77 percent in Karnataka and Andhra Pradesh to a high of 99 percent in Delhi. All states in the North Region and the Northeast Region (except Meghalaya) have levels above 90 percent among men. Awareness among men is over 90 percent in 22 states.

Table 13.4.1 Knowledge and attitude toward tuberculosis by state: Women

Percentage of women age 15-49 who have heard of tuberculosis (TB), and among women who have heard of TB, percentage with specific knowledge and beliefs, according to state, India, 2005-06

State	Percentage who have heard of TB	Among women who have heard of TB, percentage who:			
		Report that TB is spread through the air by coughing or sneezing	Have mis-conceptions about transmission of TB	Believe that TB can be cured	Would want a family member's TB kept secret from the neighbours
India	85.3	50.1	51.3	78.6	16.7
North					
Delhi	98.0	76.2	78.4	95.5	15.4
Haryana	85.8	46.1	38.3	81.9	6.1
Himachal Pradesh	85.7	45.6	52.3	89.4	20.8
Jammu & Kashmir	86.1	44.6	49.4	67.9	18.9
Punjab	87.5	42.6	41.1	84.6	14.0
Rajasthan	82.8	44.7	64.5	75.7	16.7
Uttaranchal	86.3	51.7	43.7	87.1	15.2
Central					
Chhattisgarh	75.2	40.4	33.6	84.5	7.3
Madhya Pradesh	86.0	54.4	68.5	82.6	13.0
Uttar Pradesh	93.4	48.0	58.2	80.0	20.3
East					
Bihar	96.9	47.2	73.6	81.5	13.6
Jharkhand	77.2	36.8	51.4	85.6	12.1
Orissa	80.1	40.4	32.1	77.5	1.8
West Bengal	90.4	37.6	57.3	80.6	10.4
Northeast					
Arunachal Pradesh	88.7	44.9	52.9	74.4	9.8
Assam	92.2	35.0	44.5	74.0	2.2
Manipur	96.7	71.1	44.2	89.8	5.7
Meghalaya	88.4	47.1	63.6	78.0	6.0
Mizoram	94.9	78.6	21.7	96.0	8.0
Nagaland	87.4	59.4	49.8	81.5	7.5
Sikkim	91.8	71.5	70.2	87.1	11.6
Tripura	92.9	28.2	46.0	73.3	11.9
West					
Goa	91.4	56.9	17.4	76.0	22.8
Gujarat	84.6	55.3	60.7	78.9	25.6
Maharashtra	85.6	67.0	37.0	80.0	13.6
South					
Andhra Pradesh	65.4	53.5	44.8	73.3	29.9
Karnataka	64.7	50.4	50.3	72.7	19.9
Kerala	93.5	73.9	35.0	78.6	11.5
Tamil Nadu	88.7	52.7	19.8	63.4	35.9

Table 13.4.2 Knowledge and attitude toward tuberculosis by state: Men

Percentage of men age 15-49 who have heard of tuberculosis (TB), and among men who have heard of TB, percentage with specific knowledge and beliefs, according to state, India, 2005-06

State	Percentage who have heard of TB	Among men who have heard of TB, percentage who: Report that TB is spread through the air by coughing or sneezing	Have misconceptions about transmission of TB	Believe that TB can be cured	Would want a family member's TB kept secret from the neighbours
India	91.8	55.1	51.5	85.7	16.6
North					
Delhi	99.2	79.4	69.0	97.3	8.0
Haryana	92.0	58.2	39.4	90.2	13.9
Himachal Pradesh	93.2	64.5	55.1	93.9	9.8
Jammu & Kashmir	91.0	40.3	49.3	79.7	9.8
Punjab	92.3	47.4	38.9	88.9	12.2
Rajasthan	93.7	66.8	78.4	84.3	26.5
Uttaranchal	96.7	62.0	50.4	92.7	8.9
Central					
Chhattisgarh	89.3	38.3	45.0	86.0	12.8
Madhya Pradesh	95.6	50.2	75.9	85.4	18.1
Uttar Pradesh	96.9	54.8	60.4	89.0	16.6
East					
Bihar	96.1	42.4	58.5	93.1	17.2
Jharkhand	87.1	29.5	64.4	92.1	8.9
Orissa	89.1	53.6	24.8	88.5	4.8
West Bengal	95.9	43.8	57.2	85.4	10.0
Northeast					
Arunachal Pradesh	90.6	52.4	56.5	87.9	11.0
Assam	95.6	42.2	44.9	79.4	3.0
Manipur	98.0	77.2	37.2	91.7	4.1
Meghalaya	77.9	44.2	53.5	81.3	13.5
Mizoram	94.2	80.7	30.4	97.5	4.7
Nagaland	93.9	65.3	47.3	85.1	4.9
Sikkim	94.8	73.8	73.7	91.5	7.5
Tripura	96.0	39.5	40.3	83.9	13.1
West					
Goa	88.8	46.8	25.3	81.5	23.9
Gujarat	93.7	58.0	49.2	87.4	13.3
Maharashtra	92.2	67.7	38.7	87.0	8.0
South					
Andhra Pradesh	77.1	53.4	38.9	77.5	33.1
Karnataka	76.9	57.2	52.8	79.3	19.6
Kerala	95.6	63.8	26.8	77.6	11.4
Tamil Nadu	92.4	72.9	28.2	75.9	45.7

Despite having heard of TB, women and men in many states do not know how TB is spread. The proportion of women and men who report that TB is spread through the air by coughing or sneezing varies widely across states. The percentage of women who have heard of TB that have knowledge about how it is spread ranges from 28 percent in Tripura to 79 percent in Mizoram. Other states with high proportions of women who are knowledgeable about the spread of TB (among those who have heard of TB) are Delhi (76 percent), Kerala (74 percent), Sikkim (72 percent), and Manipur (71 percent). There are 15 states in which fewer than 50 percent of women who have heard of TB know how it is spread, including all states in the East Region.

The percentage of men who have heard of TB who have knowledge about how it is spread ranges from 30 percent in Jharkhand to 81 percent in Mizoram. States with low

percentages in each region are Jammu and Kashmir in the North Region (40 percent), Chhattisgarh in the Central Region (38 percent), Jharkhand in the East Region (30 percent), Tripura in the Northeast Region (40 percent), Goa in the West Region (47 percent), and Andhra Pradesh in the South Region (53 percent).

The percentage of the population that has misconceptions about TB varies as greatly across states as does the proportion of the population that has correct knowledge of transmission of the illness. The percentage of women who have heard of TB who have misconceptions about its transmission ranges from 17 percent in Goa to 78 percent in Delhi. The percent of men who have heard of TB who have misconceptions about its transmission ranges from 25 percent in Goa and Orissa to 78 percent in Rajasthan. In nearly all states, over three-quarters of women and men who have heard of TB believe it can be cured.

Even states with a high level of literacy and those that are economically advanced have a sizable percentage of their populations that would not like to disclose the status of a family member with TB to their neighbours. More than one in five women who have heard of TB would not want to divulge that a family member has TB in Tamil Nadu (36 percent), Andhra Pradesh (30 percent), Gujarat (26 percent), Goa (23 percent), and Himachal Pradesh (21 percent). States with low percentages of women with this attitude are Assam and Orissa (2 percent each), and Manipur, Meghalaya, and Haryana (6 percent each). States in the Northeast and East Regions exhibit lower proportions of women who would want to keep it a secret if a family member had TB status.

Nearly half of men (46 percent) who have heard of TB would not like to disclose the status of a family member with TB to their neighbours in Tamil Nadu. Other states with high proportions of men with such negative attitudes are Andhra Pradesh (33 percent), Rajasthan (27 percent), Goa (24 percent), and Karnataka (20 percent). States in the Northeast and East Regions exhibit lower proportions of men who would want to keep secret from neighbours a family member's TB status than men in other states.

13.2 HEALTH PROBLEMS

All women and men interviewed with the Individual Questionnaire were asked whether they have diabetes, asthma, or goitre or any other thyroid disorder. Table 13.5 shows the number of women and men age 15-49 per 100,000 who have diabetes, asthma, or goitre or any other thyroid disorders by background characteristics. The overall prevalence of diabetes, asthma, and goitre is substantial for women, and the prevalence of diabetes and asthma is substantial for men.

Diabetes

Diabetes is a non-communicable disease, commonly known as 'sugar' illness. A person has diabetes when the body fails to produce or properly use insulin to convert sugar, starch, etc., into energy. As shown in Table 13.5, diabetes affects all ages although the number with this illness climbs drastically with age. Over 2 percent of women and men age 35-49 have diabetes. By age 50-54, over 5 percent of men have diabetes. Diabetes is much

more prevalent in urban areas (1,374 per 100,000 among women and 1,383 per 100,000 among men) than in rural areas (641 per 100,000 among women and 860 per 100,000 among men).

The prevalence of diabetes among those in the highest wealth quintile is far greater than the prevalence among those in the lowest wealth quintile. Among women, the number of persons with diabetes increases from 371 per 100,000 in the lowest wealth quintile to 1,503 per 100,000 in the highest wealth quintile. Among men, the prevalence increases from 705 per 100,000 to 1,957 per 100,000. While the prevalence of diabetes generally increases with increasing wealth quintile, there is no clear pattern by education.

Table 13.5 Health problems

Number of women and men age 15-49 per 100,000 who reported that they have diabetes, asthma, or goitre or any other thyroid disorders by background characteristics, India, 2005-06

	Number of women per 100,000				Number of men per 100,000			
Background characteristic	Diabetes	Asthma	Goitre or other thyroid disorder	Number of women	Diabetes	Asthma	Goitre or other thyroid disorder	Number of men
Age								
15-19	191	841	441	24,811	101	941	216	13,008
20-34	403	1,349	794	60,852	442	1,116	346	32,586
35-49	2,075	2,787	1,517	38,722	2,385	2,685	524	24,157
Residence								
Urban	1,374	1,648	1,339	40,817	1,383	1,329	369	25,504
Rural	641	1,719	758	83,568	860	1,799	392	44,247
Education								
No education	690	1,914	646	50,487	1,172	2,440	390	12,571
<5 years complete	1,358	2,283	833	9,918	1,111	2,640	268	7,109
5-7 years complete	1,050	1,682	858	18,820	713	1,529	434	11,523
8-9 years complete	929	1,391	1,037	17,383	817	1,580	357	14,398
10-11 years complete	958	1,373	1,188	12,887	1,033	975	445	10,380
12 or more years complete	878	1,217	1,856	14,882	1,454	984	378	13,754
Marital status								
Never married	149	968	661	25,462	247	1,013	300	25,307
Currently married	1,045	1,823	1,036	93,089	1,514	1,899	431	43,501
Widowed/divorced/ separated/deserted	1,470	2,840	812	5,834	1,288	5,537	433	942
Religion								
Hindu	824	1,631	877	100,151	1,020	1,544	381	57,112
Muslim	1,037	2,024	1,090	16,936	1,237	2,218	481	8,747
Christian	1,849	2,188	2,437	3,053	1,238	2,027	321	1,567
Sikh	963	1,089	727	2,222	1,318	955	120	1,270
Buddhist/Neo-Buddhist	684	2,191	551	1,010	683	1,334	77	596
Jain	1,600	1,033	2,529	406	1,025	2,252	44	213
Other	462	2,681	2,297	484	97	881	260	232
Caste/tribe								
Scheduled caste	798	1,494	754	23,125	991	1,688	348	13,188
Scheduled tribe	349	1,749	753	10,119	477	1,973	567	5,725
Other backward class	774	1,498	819	48,880	955	1,276	328	27,219
Other	1,189	2,035	1,240	41,207	1,336	1,919	424	23,214
Don't know	950	1,219	1,675	649	1,307	3,551	871	177
Wealth index								
Lowest	371	1,723	529	21,718	705	2,416	384	11,031
Second	657	1,853	677	23,616	801	1,754	268	12,666
Middle	651	1,638	679	25,088	566	1,427	479	14,301
Fourth	1,068	1,647	958	26,106	1,001	1,543	315	15,493
Highest	1,503	1,639	1,739	27,856	1,957	1,248	454	16,260
Total age 15-49	881	1,696	949	124,385	1,051	1,627	383	69,751
Age 50-54	na	na	na	na	5,641	4,858	669	4,618
Total age 15-54	na	na	na	na	1,336	1,827	401	74,369

Note: Total includes women/men with missing information on education, religion, and caste/tribe, who are not shown separately.
na = Not applicable

Prevalence of illness by marital status is confounded by the effects of age, as illness tends to be lower among younger respondents. Those who are never married (who are on average younger) exhibit lower prevalence levels of illness and those who are formerly married (who are on average older) tend to exhibit higher levels of illness.

Asthma

Asthma, also known as reactive airway disease, is a chronic respiratory disease that affects the lungs. Asthma is often mistaken for TB due to the similarity of symptoms. The number of persons who have asthma is over 1,600 per 100,000 among both women and men. Asthma is much more common in women and men than TB, diabetes, or goitre/other thyroid disorders. The number of women with asthma climbs steadily with age, from 841 per 100,000 women age 15-19 to 2,787 per 100,000 women age 35-49. Men exhibit a similar progression of asthma by age; men age 35-49 are three times more likely to have asthma than are men age 15-19 (2,685 versus 941 per 100,000).

The number of people with asthma is high in both urban and rural areas, but it is somewhat higher in rural areas (1,719 per 100,000 for women and 1,799 per 100,000 for men). The highest levels of asthma are seen among less educated persons. Prevalence is highest among those with less than five years of schooling (2,283 among women and 2,640 among men), and among those with no education (1,914 among women and 2,440 among men).

As with diabetes, prevalence of illness by marital status is confounded by the effects of age, as asthma prevalence tends to be lower among younger respondents. Those who have never been married (who are on average younger) exhibit lower prevalence levels of illness and those who are formerly married (who are on average older) exhibit higher levels of illness.

Asthma prevails across all the wealth strata with prevalence levels above 1,200 per 100,000 among all wealth quintiles. However, for men asthma is more prevalent in the lower wealth quintiles than among the higher wealth quintiles. Men from the lowest wealth quintile show a substantially higher prevalence of asthma (2,416 per 100,000) than any other group.

Goitre or other thyroid disorders

Goitre is usually caused by an iodine deficiency and it leads to an enlargement of the thyroid gland. In many cases, there are no symptoms apart from the appearance of a swelling in the neck. NFHS-3 included testing of household salt for iodine content (see Chapter 10). In NFHS-3, women age 15-49 and men age 15-54 were asked whether they have goitre or any other thyroid disorder. As shown in Table 13.5, the prevalence of goitre is 2.5 times higher among women than men (949 per 100,000 women compared to 383 per 100,000 men). The number with goitre or other thyroid disorders increases with age, especially among women. In general, women exhibit greater differentials in prevalence of goitre across background characteristics than do men. While men do not exhibit a large urban-rural differential, prevalence of goitre is almost twice as high among urban women as it is among rural women.

Men exhibit no clear pattern of prevalence of thyroid disorders by education, but women exhibit increasing prevalence with increasing education. More educated women (12 or more years of completed education) are nearly three times as likely to have a thyroid disorder as women with no education.

Differentials in prevalence are especially large by religion, especially among women. The lowest prevalence level is seen among Buddhist/Neo-Buddhist women (551 per 100,000), while Jain and Christian women have prevalence levels more than four times higher. Jain men, on the other hand, exhibit the lowest levels of thyroid disorders of any religious group (44 per 100,000), followed by Buddhist/Neo-Buddhist men (77 per 100,000). Scheduled caste women, scheduled tribe women, and women belonging to other backward classes exhibit lower prevalence than other women, while among men the lowest prevalence by caste is for men belonging to other backward classes and scheduled castes.

The prevalence of goitre and other thyroid diseases increases with increasing wealth quintiles for women. The prevalence is highest for women in the highest wealth quintile (1,739 per 100,000), more than three times higher than among women in the lowest wealth quintile (529 per 100,000). Men exhibit no particular pattern in the prevalence of goitre or other thyroid disorders by the wealth index.

13.2.1 Health Problems by State

Table 13.6 presents the distribution of women and men who have diabetes, asthma, or goitre/other thyroid disorders by state.

Table 13.6 Health problems by state

Number of women and men age 15-49 per 100,000 who reported that they have diabetes, asthma, or goitre or any other thyroid disorders by state, India, 2005-06

State	Number of women per 100,000			Number of men per 100,000		
	Diabetes	Asthma	Goitre or other thyroid disorder	Diabetes	Asthma	Goitre or other thyroid disorder
India	881	1,696	949	1,051	1,627	383
North						
Delhi	1,692	547	1,481	1,229	736	133
Haryana	1,169	1,552	388	608	1,266	739
Himachal Pradesh	1,048	384	678	344	527	304
Jammu & Kashmir	540	897	237	278	816	0
Punjab	849	945	601	802	802	241
Rajasthan	282	1,565	376	362	1,739	246
Uttaranchal	825	537	257	965	972	215
Central						
Chhattisgarh	659	746	563	932	858	358
Madhya Pradesh	558	1,283	599	555	1,102	424
Uttar Pradesh	383	1,089	517	456	1,225	138
East						
Bihar	1,024	1,696	853	940	981	273
Jharkhand	652	1,291	858	629	407	74
Orissa	556	2,533	362	1,179	1,592	122
West Bengal	1,641	3,304	1,626	2,323	4,365	667
Northeast						
Arunachal Pradesh	537	2,037	2,037	606	2,072	567
Assam	402	1,411	760	601	1,105	1,371
Manipur	1,006	1,400	2,623	1,059	1,106	1,389
Meghalaya	910	1,618	864	641	746	179
Mizoram	1,189	3,563	1,857	315	2,351	315
Nagaland	577	1,414	629	1,217	2,464	725
Sikkim	1,160	5,150	1,574	1,698	2,769	1,191
Tripura	1,656	5,924	2,439	2,392	5,086	552
West						
Goa	1,921	1,836	841	3,016	1,588	584
Gujarat	968	1,530	484	524	1,844	72
Maharashtra	479	1,714	590	906	1,855	201
South						
Andhra Pradesh	838	2,151	1,155	2,116	2,189	829
Karnataka	681	1,259	798	973	691	285
Kerala	2,549	4,037	5,744	3,078	2,984	1,888
Tamil Nadu	2,188	1,126	1,568	1,351	687	170

Diabetes

The number of women who have diabetes ranges from 282 per 100,000 women in Rajasthan to 2,549 per 100,000 women in Kerala. In five other states (Tamil Nadu, Goa, Tripura, West Bengal, and Delhi) the number with diabetes is relatively high (above 1,500 per 100,000 women). None of the states in the Central Region have prevalence levels above 1,000 per 100,000 women. Rajasthan, Uttar Pradesh, Assam, and Maharashtra all have diabetes prevalence levels below 500 per 100,000 women.

Four of the six states with the highest levels of diabetes among men (above 1,500 per 100,000 men) are also states which exhibit some of the highest levels among women, although prevalence of diabetes among men exceeds that of women in each of the four states: Kerala (3,078 per 100,000), Goa (3,016 per 100,000), Tripura (2,392 per 100,000), and West Bengal (2,323 per 100,000). Andhra Pradesh (2,116 per 100,000) and Sikkim (1,698 per 100,000) are the other two states with prevalence levels exceeding 1,500 among men. Only five states have diabetes prevalence levels below 500 per 100,000 men, namely Jammu and Kashmir (278 per 100,000), Mizoram (315 per 100,000), Himachal Pradesh (344 per 100,000), Rajasthan (362 per 100,000), and Uttar Pradesh (456 per 100,000). The latter two states (Rajasthan and Uttar Pradesh) have the lowest prevalence levels among women as well.

Asthma

Prevalence of asthma ranges from 384 per 100,000 in Himachal Pradesh to 5,924 per 100,000 in Tripura among women and from 407 per 100,000 in Jharkhand to 5,086 in Tripura among men. The number of women with asthma exceeds 1,000 per 100,000 in 23 states and is exceptionally high (above 3,000 per 100,000) in five states: West Bengal (3,304), Mizoram (3,563), Kerala (4,037), Sikkim (5,150), and Tripura with the highest prevalence. Prevalence exceeds 1,000 per 100,000 men in 18 states and is exceptionally high (above 3,000 per 100,000) in two states: West Bengal (4,365) and Tripura. The lowest prevalence levels (below 1,000 per 100,000) are seen among women in Himachal Pradesh (384), Uttaranchal (537), Delhi (547), Chhattisgarh (746), Jammu and Kashmir (897), and Punjab (945). Prevalence levels fall below 1,000 per 100,000 men in 11 states. Overall, the Northeast Region stands out as the region exhibiting the highest prevalence levels of asthma.

Goitre or other thyroid disorders

The number of persons who report goitre or other thyroid disorders varies widely across states, especially among women, and shows some tendency toward geographic clustering. Prevalence of goitre or other thyroid disorders is lowest in Jammu and Kashmir among both women and men (237 per 100,000 women and nil among men) and highest in Kerala among both women and men (5,744 per 100,000 women and 1,888 per 100,000 men). Prevalence of thyroid disorders exceeds 1,000 per 100,000 among women in 10 states and in men in four states. In addition to Kerala, reporting of goitre or other thyroid disorders is highest (above 2,000 per 100,000 women) in Manipur, Tripura, and Arunachal Pradesh, and above 1,000 per 100,000 men in Manipur, Assam, and Sikkim. The Northeast Region exhibits the highest prevalence levels of goitre or other thyroid disorders, followed by the South Region.

13.3 USE OF TOBACCO

Tobacco use is associated with a wide range of major diseases, including several types of cancers and heart and lung diseases. Studies have shown that in addition to sharing the same health risks as men, women who use tobacco also experience difficulty in becoming pregnant, are at an increased risk of infertility, pregnancy complications, premature births, low-birth-weight infants, stillbirths, and infant deaths (USDHHS, 2004).

While cigarettes are the dominant form of tobacco use in much of the world, oral use of smokeless tobacco (chewing or applying to the teeth or gums) and smoking of *bidis* are the dominant forms of tobacco consumption in India. While the 50th round of the National Sample Survey (NSSO, 1998) and NFHS-2 collected data on tobacco use from households respondents who reported on tobacco use by all household members, NFHS-3 collected data on tobacco use directly by asking respondents to report on their own tobacco use. Four specific questions on current use of tobacco (smoke and non-smoke variants) were asked of all women and men who were interviewed with the Individual Questionnaire.

Table 13.7 Tobacco use by women and men

Percentage of women and men age 15-49 and men age 15-54 by their use of tobacco, and percent distribution of those who smoke cigarettes or *bidis*, by number of cigarettes/*bidis* smoked in the 24 hours preceding the survey, India, 2005-06

	Women			Men			
Tobacco use	Urban	Rural	Total 15-49	Urban	Rural	Total 15-49	Total 15-54
Use of tobacco							
Smokes cigarettes or *bidis*	0.5	1.8	1.4	28.7	35.0	32.7	33.4
Smokes cigars or pipe	0.0	0.2	0.2	0.4	0.8	0.6	0.7
Chews *paan masala*, *gutkha*, or other tobacco	5.5	9.8	8.4	31.1	39.6	36.5	36.3
Uses snuff	0.5	0.9	0.8	0.3	0.9	0.7	0.7
Other	0.3	0.9	0.7	0.3	1.3	0.9	1.0
Does not use tobacco	93.3	87.1	89.1	50.1	38.9	43.0	42.4
Number of respondents	40,817	83,568	124,385	25,504	44,247	69,751	74,369
Number of cigarettes/*bidis* smoked in the past 24 hours							
0	5.0	1.4	1.9	8.2	9.6	9.1	8.8
1-4	40.6	46.5	45.8	35.2	29.2	31.2	30.1
5-9	26.4	23.5	23.9	18.3	16.1	16.8	16.9
10 or more	24.0	25.8	25.6	38.1	45.0	42.8	44.0
Missing	3.9	2.7	2.8	0.2	0.1	0.2	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of cigarette/*bidi* smokers	196	1,510	1,707	7,322	15,478	22,800	24,875

Tobacco use is much more prevalent among men than among women (Table 13.7). More than half of men use one or more forms of tobacco, compared with only 11 percent of women. One-third of men age 15-49 smoke cigarettes or *bidis*. *Paan masala*, *gutkha*, or other chewed tobaccos are consumed by 37 percent of men age 15-49. While only 1 percent of women age 15-49 smoke cigarettes or *bidis*, 8 percent chew *paan masala*, *gutkha*, or other tobacco products.

Tobacco use is more prevalent in rural areas than in urban areas among both men and women. Thirty-five percent of rural men age 15-49 smoke cigarettes or *bidis*, compared with 29 percent of urban men. About four in every 10 rural men age 15-49 chew tobacco, while three in every 10 urban men do so. Rural women are also more likely than urban women to smoke or chew tobacco. Two percent of rural women smoke cigarettes or *bidis*, while less than 1 percent of urban women smoke. Ten percent of rural women and 6 percent of urban women chew tobacco. Figure 13.2 illustrates overall levels of tobacco use by rural-urban residence.

Figure 13.2 Tobacco Use by Sex and Residence

Note: Tobacco use includes smoking cigarettes, *bidis*, cigars, or pipes, or chewing *paan masala*, *gutkha*, or other tobacco.

NFHS-3, India, 2005-06

Respondents who smoke were asked how many cigarettes or *bidis* they smoked in the 24 hours preceding the survey. Four in 10 male smokers reported they smoked 10 or more cigarettes/*bidis* in the previous 24 hours (38 percent of urban men who smoke and 45 percent of rural men who smoke). One-quarter of female smokers reported they smoked 10 or more cigarettes/*bidis* (26 percent of rural smokers and 24 percent of urban smokers).

13.3.1 Use of Tobacco by Background Characteristics

As shown in Table 13.8, use of tobacco is fairly common in India, particularly for men, and there are subgroups of the population among whom use of tobacco is particularly common. More than three-quarters of men with no education use tobacco. Tobacco use shows a clear and continual decrease with increasing levels of education, among both men and women. Yet 4 in 10 men with the highest education level use tobacco. There is an equally clear and continual decrease in tobacco use with increasing wealth quintiles. Four in 10 men in the highest wealth quintile use tobacco, while 7 in 10 men in the lowest wealth quintile do so. Twenty-two percent of women in the lowest wealth quintile use tobacco.

By religion, tobacco use is lowest among Sikhs and Jains (less than 1 percent of Sikh and Jain women, one-third of Jain men, and one-fifth of Sikh men use tobacco). Women and men from scheduled tribes are more likely to use tobacco than those from other castes or tribes. The use of tobacco by pregnant and breastfeeding women is about equal to the use of tobacco by women who are neither pregnant nor breastfeeding, indicating that women who use tobacco may be unaware of the negative reproductive consequences of tobacco use.

Table 13.8: Use of tobacco by background characteristics

Percentage of women and men age 15-49 who use any kind of tobacco and percentage who smoke cigarettes or *bidis*, and among those who smoke cigarettes or *bidis*, percentage who smoked at least one cigarette or *bidi* in the 24 hours preceding the survey by background characteristics, India, 2005-06

	Women					Men				
Background characteristic	Percentage who use any kind of tobacco	Percentage who smoke cigarettes or *bidis*	Number of women	Percentage who smoked at least one cigarette/*bidi* in the past 24 hours	Number of women who smoke cigarettes/ *bidis*	Percentage who use any kind of tobacco	Percentage who smoke cigarettes or *bidis*	Number of men	Percentage who smoked at least one cigarette/*bidi* in the past 24 hours	Number of men who smoke cigarettes/ *bidis*
Age										
15-19	3.5	0.1	24,811	80.5	26	28.6	12.3	13,008	80.6	1,594
20-34	9.1	0.9	60,852	92.7	542	59.3	32.6	32,586	88.4	10,625
35-49	18.3	2.9	38,722	96.9	1,139	69.0	43.8	24,157	94.4	10,582
Residence										
Urban	6.7	0.5	40,817	91.0	196	49.9	28.7	25,504	91.5	7,322
Rural	12.9	1.8	83,568	95.9	1,510	61.0	35.0	44,247	90.3	15,478
Maternity status										
Pregnant	8.5	1.0	6,429	85.5	62	na	na	na	na	na
Breastfeeding (not pregnant)	10.8	1.5	23,375	94.0	351	na	na	na	na	na
Neither	11.0	1.4	94,581	96.1	1,294	na	na	na	na	na
Education										
No education	18.1	3.0	50,487	96.2	1,528	77.5	50.1	12,571	94.9	6,294
<5 years complete	14.5	0.9	9,918	95.4	85	72.7	44.0	7,109	92.0	3,125
5-7 years complete	8.2	0.3	18,820	89.7	56	64.3	37.7	11,523	91.4	4,342
8-9 years complete	4.9	0.1	17,383	73.5	22	55.0	28.5	14,398	88.5	4,107
10-11 years complete	2.1	0.0	12,887	(72.2)	4	40.8	20.8	10,380	86.5	2,155
12 or more years complete	1.4	0.1	14,882	53.2	11	38.2	20.1	13,754	84.6	2,771
Religion										
Hindu	10.9	1.4	100,151	95.7	1,380	57.5	32.8	57,112	90.3	18,748
Muslim	11.2	1.6	16,936	94.1	277	60.5	36.2	8,747	92.8	3,166
Christian	11.4	1.2	3,053	93.8	36	49.4	32.9	1,567	93.2	515
Sikh	0.1	0.0	2,222	*	0	20.8	9.4	1,270	88.0	120
Buddhist/Neo-Buddhist	16.7	0.6	1,010	97.4	6	56.4	24.3	596	85.4	145
Jain	0.7	0.0	406	*	0	33.9	15.3	213	(82.1)	33
Other	29.8	1.5	484	(75.5)	7	66.1	31.2	232	87.2	72
Caste/tribe										
Scheduled caste	13.7	2.3	23,125	95.9	528	63.8	38.9	13,188	92.8	5,134
Scheduled tribe	26.3	2.1	10,119	95.2	214	71.2	36.7	5,725	89.4	2,102
Other backward class	8.2	1.2	48,880	95.9	611	54.5	31.3	27,219	89.9	8,506
Other	8.4	0.8	41,207	93.9	341	52.4	29.8	23,214	90.4	6,922
Don't know	9.6	0.5	649	*	3	51.8	37.4	177	98.8	66
Wealth index										
Lowest	21.6	3.3	21,718	96.1	709	74.0	42.9	11,031	91.5	4,736
Second	14.9	2.1	23,616	96.3	496	68.3	39.5	12,666	91.7	5,001
Middle	10.3	1.2	25,088	96.3	306	60.0	35.1	14,301	90.9	5,023
Fourth	6.7	0.5	26,106	89.7	139	52.0	29.1	15,493	91.1	4,512
Highest	3.3	0.2	27,856	85.4	58	38.6	21.7	16,260	87.1	3,529
Total age 15-49	10.8	1.4	124,385	95.3	1,707	57.0	32.7	69,751	90.7	22,800
Age 50-54	na	na	na	na	na	66.9	44.9	4,618	94.3	2,075
Total age 15-54	na	na	na	na	na	57.6	33.4	74,369	91.0	24,875

Note: Total includes women and men with missing information on education, religion, and caste/tribe, who are not shown separately.
na = Not applicable
( ) Based on 25-49 unweighted cases.
* Percentage not shown; based on fewer than 25 unweighted cases.

13.4 USE OF ALCOHOL

A national survey found that the prevalence of current use of alcohol ranged from a low of 7 percent in Gujarat (officially under prohibition) to a high of 75 percent in Arunachal Pradesh and that alcohol use among women exceeded 5 percent only in the northeastern states (Srivastava et al., 2004).

Tables 13.9.1 and 13.9.2 present alcohol use among women and men by selected background characteristics. Only 2 percent of women drink alcohol. Drinking is more

common among women from scheduled tribes (14 percent) than among women from any other caste or tribe. The percent of women who drink alcohol is also somewhat higher than average among women in the lowest wealth quintile (6 percent) and women with no education (4 percent). Among women who drink alcohol, 15 percent drink alcohol almost every day, 40 percent drink alcohol about once a week, and 43 percent drink alcohol less than once a week. Overall, drinking alcohol is clearly not a common behaviour among women, and the majority of women who drink alcohol do so once a week or less than once a week (84 percent).

Table 13.9.1 Use of alcohol: Women

Percentage of women age 15-49 who drink alcohol and percent distribution of alcohol drinkers by frequency of drinking, according to background characteristics, India, 2005-06

Background characteristic	Percentage of women who drink alcohol	Number of women	Among women who drink alcohol, frequency of drinking					
			Almost every day	About once a week	Less than once a week	Missing	Total	Number of women
Age								
15-19	1.0	24,811	6.8	39.8	51.0	2.4	100.0	236
20-34	2.1	60,852	13.6	40.7	44.5	1.2	100.0	1,252
35-49	3.2	38,722	18.1	40.2	41.0	0.8	100.0	1,245
Residence								
Urban	0.6	40,817	12.3	22.6	61.2	3.9	100.0	239
Rural	3.0	83,568	15.3	42.1	41.7	0.8	100.0	2,494
Maternity status								
Pregnant	2.3	6,429	14.8	31.0	51.6	2.6	100.0	145
Breastfeeding (not pregnant)	2.5	23,375	12.4	43.4	43.5	0.8	100.0	594
Neither	2.1	94,581	15.9	40.2	42.8	1.1	100.0	1,994
Education								
No education	4.3	50,487	17.7	42.7	38.8	0.8	100.0	2,150
<5 years complete	1.7	9,918	7.9	42.2	49.9	0.0	100.0	168
5-7 years complete	0.8	18,820	5.2	31.4	63.2	0.2	100.0	155
8-9 years complete	0.6	17,383	4.6	28.7	64.2	2.5	100.0	105
10-11 years complete	0.5	12,887	0.8	31.9	64.5	2.8	100.0	66
12 or more years complete	0.6	14,882	6.2	16.5	69.6	7.7	100.0	89
Religion								
Hindu	2.4	100,151	14.7	40.6	43.6	1.1	100.0	2,378
Muslim	0.2	16,936	(14.0)	(67.2)	(18.7)	(0.2)	100.0	39
Christian	3.9	3,053	9.8	33.4	54.5	2.3	100.0	118
Sikh	0.0	2,222	*	*	*	*	100.0	1
Buddhist/Neo-Buddhist	1.4	1,010	9.0	27.0	64.1	0.0	100.0	14
Jain	0.1	406	*	*	*	*	100.0	0
Other	37.2	484	23.9	38.7	37.4	0.0	100.0	180
Caste/tribe								
Scheduled caste	1.9	23,125	12.2	40.1	46.5	1.1	100.0	450
Scheduled tribe	14.1	10,119	17.7	43.1	38.5	0.6	100.0	1,430
Other backward class	1.2	48,880	14.4	35.2	49.0	1.4	100.0	577
Other	0.5	41,207	6.3	32.1	58.0	3.6	100.0	220
Don't know	2.0	649	*	*	*	*	100.0	13
Wealth index								
Lowest	6.2	21,718	17.2	40.7	41.5	0.6	100.0	1,352
Second	2.3	23,616	16.4	43.3	39.1	1.3	100.0	532
Middle	2.0	25,088	12.9	43.5	42.7	0.9	100.0	499
Fourth	0.8	26,106	10.4	38.1	50.8	0.7	100.0	214
Highest	0.5	27,856	4.3	18.1	71.3	6.3	100.0	137
Total	2.2	124,385	15.1	40.4	43.4	1.1	100.0	2,733

Note: Total includes women with missing information on education, religion, and caste/tribe, who are not shown separately.
( ) Based on 25-49 unweighted cases.
* Percentage not shown; based on fewer than 25 unweighted cases.

One-third of men drink alcohol, and as is true among women, men from scheduled tribes partake of alcohol in a higher proportion than do men from other castes or tribes. Half of men from scheduled tribes and 42 percent of men from scheduled castes consume alcohol. Urban and rural men are about equally likely to consume alcohol. Forty-three percent of men with no education consume alcohol, while only one-quarter of men with the highest levels of education do so. Not only does the proportion of men who consume alcohol steadily decrease with increasing education, but the proportion who drink almost every day also decreases. Among alcohol drinkers, the percentage of men who drink almost every day decreases from 14 percent among those with no education to 5 percent among men with 12 or more years of education. Alcohol consumption shows the same association with the wealth index as it does with education, with decreasing proportions of men consuming alcohol with increasing

Table 13.9.2 Use of alcohol: Men

Percentage of men age 15-49 who drink alcohol and percent distribution of alcohol drinkers by frequency of drinking, according to background characteristics, India, 2005-06

Background characteristic	Percentage of men who drink alcohol	Number of men	Among men who drink alcohol, frequency of drinking					
			Almost every day	About once a week	Less than once a week	Missing	Total	Number of men
Age								
15-19	11.0	13,008	3.4	18.3	77.9	0.4	100.0	1,425
20-34	34.9	32,586	7.0	25.4	67.3	0.2	100.0	11,375
35-49	39.1	24,157	13.2	29.5	57.1	0.2	100.0	9,450
Residence								
Urban	30.9	25,504	8.3	27.0	64.6	0.2	100.0	7,886
Rural	32.5	44,247	10.1	26.5	63.2	0.3	100.0	14,364
Education								
No education	42.8	12,571	13.9	32.5	53.4	0.2	100.0	5,385
<5 years complete	40.5	7,109	12.6	32.4	54.7	0.3	100.0	2,877
5-7 years complete	33.8	11,523	10.1	27.2	62.5	0.2	100.0	3,891
8-9 years complete	29.0	14,398	6.8	23.4	69.5	0.3	100.0	4,179
10-11 years complete	24.2	10,380	5.9	22.7	71.2	0.2	100.0	2,507
12 or more years complete	24.8	13,754	4.7	19.0	76.0	0.3	100.0	3,405
Religion								
Hindu	34.4	57,112	9.1	26.6	64.1	0.2	100.0	19,637
Muslim	10.8	8,747	9.0	23.5	66.6	0.8	100.0	947
Christian	46.3	1,567	12.4	35.2	52.4	0.0	100.0	725
Sikh	42.2	1,270	13.1	18.2	68.7	0.0	100.0	536
Buddhist/Neo-Buddhist	38.3	596	8.3	30.9	60.8	0.0	100.0	228
Jain	12.6	213	(1.1)	(6.7)	(90.1)	(2.1)	100.0	27
Other	63.7	232	29.2	40.5	30.3	0.0	100.0	147
Caste/tribe								
Scheduled caste	41.8	13,188	9.0	26.9	63.9	0.2	100.0	5,510
Scheduled tribe	49.9	5,725	15.3	38.2	46.4	0.1	100.0	2,859
Other backward class	29.8	27,219	9.1	24.1	66.5	0.4	100.0	8,124
Other	24.1	23,214	7.2	23.7	68.9	0.2	100.0	5,605
Don't know	29.4	177	18.8	51.4	29.8	0.0	100.0	52
Wealth index								
Lowest	40.7	11,031	11.7	32.2	55.7	0.3	100.0	4,494
Second	33.8	12,666	10.7	26.5	62.6	0.1	100.0	4,276
Middle	32.7	14,301	10.1	26.8	62.7	0.4	100.0	4,683
Fourth	28.9	15,493	8.1	25.4	66.3	0.2	100.0	4,484
Highest	26.5	16,260	6.3	22.3	71.2	0.2	100.0	4,313
Total age 15-49	31.9	69,751	9.4	26.7	63.7	0.2	100.0	22,251
Age 50-54	34.2	4,618	16.5	29.9	53.5	0.1	100.0	1,580
Total age 15-54	32.0	74,369	9.9	26.9	63.0	0.2	100.0	23,831

Note: Total includes men with missing information on education, religion, and caste/tribe, who are not shown separately.
( ) Based on 25-49 unweighted cases.

wealth status. Twenty-seven percent of men in the highest wealth quintile drink alcohol, while 41 percent of men with no education drink alcohol. The proportion of alcohol drinkers who drink almost every day also decreases with increasing levels of education, from 12 percent of men in the lowest wealth quintile to 6 percent of men in the highest wealth quintile. The majority of men who drink alcohol (64 percent) drink less than once a week.

By religion, the proportion of men who drink alcohol is highest among Christian men (46 percent). Alcohol use is less common, yet still substantial, among Sikh men (42 percent), Buddhist/Neo-Buddhist men (38 percent), and Hindu men (34 percent). The proportion of men who drink alcohol is lowest among Muslims (11 percent).

13.4.1 Use of Tobacco and Alcohol by State

Table 13.10 presents state-level prevalence of the use of tobacco and alcohol by women and men age 15-49. The national figure of 11 percent of women using tobacco is the result of a great deal of variation across the country, from a low of 1 percent in Punjab and Himachal Pradesh to a high of 61 percent in Mizoram. The vast majority of women who use tobacco partake of tobacco by chewing it, rather than smoking it. The proportion of women who smoke cigarettes or *bidis* exceeds 5 percent in only two states, Mizoram (16 percent) and Tripura (8 percent). Use of tobacco is more common than use of alcohol in almost every state for both women and men. The proportion of women who consume alcohol exceeds 5 percent in eight states, reaching the highest levels in Arunachal Pradesh (34 percent) and Sikkim (19 percent). None of the women in Jammu and Kashmir reported drinking alcohol, and levels are also very low (less than 0.5 percent) in Tamil Nadu, Maharashtra, and all states in the North Region. Despite very high tobacco use in Mizoram, only 1 percent of women there consume alcohol.

The national figure of nearly 6 in 10 men using tobacco is also the result of fairly wide variation across states, ranging from a low of 28 percent in Goa to a high of 83 percent in Mizoram. Cigarette/*bidi* smoking ranges from a low of 14 percent of men in Goa to a high of 74 percent in Mizoram. Consumption of alcohol among men ranges from 13 percent in Jammu and Kashmir to 61 percent in Arunachal Pradesh.

The Northeast Region exhibits high rates of tobacco use, smoking of cigarettes/*bidis*, and drinking alcohol. The percentage of women who use tobacco exceeds the national average in all northeastern states, ranging from 19 percent in Sikkim to 61 percent in Mizoram (six times the national average). Tobacco use among men also exceeds the national average in all states in the Northeast Region, ranging from 62 percent in Sikkim to 83 percent in Mizoram. One plausible reason for such high levels of tobacco use may the old social customs of serving 'tobacco water[1]', especially by women to guests and visitors. In addition

[1] Tobacco water, known locally as *tuibur*, is a nicotine rich beverage manufactured by passing tobacco smoke through water. The *tuibur* is served to guests, family members, and friends visiting their house. *Tuibur* has a water receptacle, through which smoke is drawn. The women are, therefore, expected to smoke frequently and produce sufficient quantities of the tobacco water. This practice was also common in some parts of Assam, Manipur, and Nagaland, but is no longer common among the younger generation.

Table 13.10 Use of tobacco and alcohol by state

Percentage of women and men age 15-49 who use any kind of tobacco, who smoke cigarettes or *bidis*, and who drink alcohol by state, India, 2005-06

State	Women			Men		
	Who use any kind of tobacco	Who smoke cigarettes/ *bidis*	Who drink alcohol	Who use any kind of tobacco	Who smoke cigarettes/ *bidis*	Who drink alcohol
India	10.8	1.4	2.2	57.0	32.7	31.9
North						
Delhi	3.1	1.4	0.4	40.0	26.5	33.1
Haryana	3.3	2.6	0.1	46.3	39.8	27.7
Himachal Pradesh	1.2	1.1	0.1	40.0	33.6	29.5
Jammu & Kashmir	5.3	0.7	0.0	52.7	40.2	12.5
Punjab	0.8	0.5	0.2	33.8	20.9	43.4
Rajasthan	7.8	3.3	0.2	60.4	41.8	19.1
Uttaranchal	5.4	2.7	0.2	53.3	36.3	39.1
Central						
Chhattisgarh	25.2	0.2	11.4	68.6	31.8	52.3
Madhya Pradesh	16.0	0.5	2.1	68.5	40.2	30.8
Uttar Pradesh	12.1	2.4	0.3	64.3	35.5	25.3
East						
Bihar	8.0	4.9	1.0	66.5	29.0	34.9
Jharkhand	11.6	0.6	9.9	61.7	19.4	38.9
Orissa	31.4	0.3	7.3	68.8	27.1	39.6
West Bengal	15.6	1.3	1.7	70.2	50.1	34.0
Northeast						
Arunachal Pradesh	27.2	3.1	33.6	62.6	31.4	61.1
Assam	23.2	0.6	7.5	72.4	36.4	37.8
Manipur	39.6	4.3	1.8	69.5	37.9	47.4
Meghalaya	31.9	1.9	3.8	69.2	60.0	49.2
Mizoram	60.8	16.1	0.7	83.4	73.6	42.0
Nagaland	28.1	0.3	3.5	67.9	39.3	38.5
Sikkim	18.7	5.4	19.1	61.8	33.3	45.4
Tripura	48.2	7.9	9.6	76.0	56.7	40.9
West						
Goa	4.4	0.2	2.1	27.8	13.6	40.0
Gujarat	8.4	0.6	0.8	60.2	26.1	16.0
Maharashtra	10.5	0.1	0.4	48.2	17.7	24.0
South						
Andhra Pradesh	5.2	0.5	6.8	42.8	32.5	47.2
Karnataka	4.8	0.1	1.2	44.7	27.9	28.3
Kerala	1.8	0.1	0.7	43.5	35.8	45.2
Tamil Nadu	2.8	0.0	0.1	40.1	31.2	41.5

to the northeastern states, use of tobacco is also high (60 percent or higher) among men in all states in the East and Central Regions, Gujarat in the West, and Rajasthan in the North. Less than one-quarter of men smoke cigarettes/*bidis* in only four states (Goa, Maharashtra, Jharkhand, and Punjab). Fifty percent or more of men smoke cigarettes/*bidis* in West Bengal, Tripura, Meghalaya, and Mizoram.

The reported high prevalence of tobacco use in Northeast Region is consistent with other survey findings such as the Global School Personnel Survey in NE India, 2001 (Sinha et al., 2003) and the National Household Survey of Drug and Alcohol Abuse, 2002 (Srivastava et al., 2004).

A substantial number of men reported drinking alcohol despite official prohibition in Manipur (47 percent) and Mizoram (42 percent). In only four states do less than one-quarter of men consume alcohol: Jammu and Kashmir (13 percent), Gujarat (16 percent, also under

official prohibition), Rajasthan (19 percent), and Maharashtra (24 percent). Over 40 percent of men in the South Region consume alcohol, with the exception of Karnataka (28 percent). Among states in the North Region, consumption of alcohol is most common among men in Punjab (43 percent). In the Central Region, more than half of men in Chhattisgarh (52 percent) drink alcohol, compared with 25 percent in Uttar Pradesh. In the East Region, the prevalence is almost uniform in the four states, ranging from 35 percent in Bihar to 40 percent in Orissa.

13.5 Health Insurance Coverage

Health insurance coverage in India is far from satisfactory, despite the existence of a large population living below the poverty line and/or illiterate, which lives under great health risks. Existing insurance is largely limited to a small proportion of people in the organized sector (IIPS and WHO, 2006).

NFHS-3 asked the respondent to the Household Questionnaire whether any member of the household is covered by a health scheme or health insurance. Health insurance schemes can be categorized as follows: (1) mandatory or government run schemes such as the Employee State Insurance Scheme (ESIS) or Central Government Health Scheme (CGHS), (2) schemes offered by nongovernmental organizations or community based health insurance, (3) employer-based schemes, and (4) voluntary health insurance schemes or private-for-profit schemes.

Table 13.11 shows the percentage of households in which at least one usual member is covered by a health scheme or health insurance, by type of health insurance coverage. Only 5 percent of households have at least one usual member covered by a health scheme or health insurance. Higher coverage is reported in urban households (10 percent), Jain households (24 percent), and households in the highest wealth quintile (16 percent). Less than 5 percent of scheduled caste, scheduled tribe, and other backward class households have a member with health insurance. Among households in the lowest three wealth quintiles, the proportion having a household member with health insurance does not exceed 2 percent. Survey data clearly highlight the poor health insurance coverage in the country, a situation urgently requiring remedial steps.

Respondents who reported someone in the household to be covered by a health insurance scheme were asked to identify the type of scheme or insurance. While it was possible to report more than one health insurance scheme, 98 percent of households with coverage reported only one type. Those with insurance are most likely to have privately purchased the insurance (28 percent) or to be covered under an ESIS (26 percent). The third most common form of coverage is under a CGHS (20 percent). The remaining households with insurance are either reimbursed by their employer (12 percent), covered under some other insurance with their employer (6 percent), or included in a community health insurance programme (5 percent). The type of health scheme or insurance coverage clearly indicates the predominance of mandatory schemes and employer-based schemes such as the Employee State Insurance Scheme (ESIS), Central Government Health Schemes (CGHS), insurance

Table 13.11 Health insurance coverage

Percentage of households in which at least one usual member is covered by a health scheme or health insurance, and percentage of households in which at least one usual member is covered by a health scheme or health insurance, by type of health insurance coverage, according to background characteristics, India, 2005-06

Background characteristic	Percentage of households covered by a health scheme or health insurance[1]	Number of households	Type of coverage among households in which at least one usual member is covered by a health scheme/health insurance								
			Employee state insurance scheme (ESIS)	Central government health scheme (CGHS)	Community health insurance programme	Other health insurance through employer	Medical reimbursement from employer	Other privately purchased commercial health insurance	Other	Missing	Number of households
Residence											
Urban	10.4	35,579	28.8	21.3	2.5	6.2	12.9	27.2	2.6	1.3	3,704
Rural	2.2	73,462	19.9	17.6	11.9	5.2	8.7	28.1	8.5	2.0	1,639
Religion of household head											
Hindu	5.1	88,968	26.4	20.4	5.5	5.9	11.6	27.2	4.2	1.4	4,567
Muslim	2.1	13,646	27.9	14.9	5.8	5.8	6.9	29.9	6.6	3.4	287
Christian	7.3	2,952	21.0	17.4	1.3	10.6	16.3	27.5	7.9	1.7	215
Sikh	6.5	1,710	30.4	24.5	9.9	3.6	11.0	18.7	4.4	0.6	112
Buddhist/Neo-Buddhist	6.6	931	30.9	34.9	6.6	1.0	8.8	16.4	2.3	0.0	61
Jain	23.7	370	9.8	14.1	1.9	2.0	15.0	52.0	3.7	2.1	88
Other	3.2	437	14.7	12.9	8.4	2.9	41.0	17.2	4.4	0.6	14
Caste/tribe of household head											
Scheduled caste	3.3	20,982	38.5	23.3	4.7	4.6	12.7	15.5	3.3	1.3	703
Scheduled tribe	2.6	9,189	23.1	25.9	4.7	6.5	12.2	23.5	3.6	1.0	242
Other backward class	3.8	43,216	27.8	17.1	8.3	7.0	8.9	25.8	5.7	1.8	1,638
Other	7.8	34,821	22.3	20.9	3.5	5.7	13.1	31.9	3.7	1.5	2,702
Don't know	10.9	492	(14.9)	(6.5)	(21.9)	(2.2)	(0.0)	(32.9)	(21.7)	(0.0)	54
Wealth index											
Lowest	0.1	22,497	(34.1)	(18.4)	(6.2)	(8.0)	(12.1)	(15.8)	(7.4)	(0.0)	31
Second	0.7	21,617	23.1	9.3	13.2	2.5	2.9	38.8	9.3	1.3	141
Middle	2.2	21,652	26.4	11.8	15.2	5.8	6.0	24.5	9.5	1.4	486
Fourth	5.1	21,370	34.2	15.6	8.8	5.9	8.7	22.1	5.5	1.3	1,084
Highest	16.4	21,905	23.6	23.1	2.7	6.1	13.6	29.1	3.2	1.6	3,602
Total	4.9	109,041	26.1	20.2	5.4	5.9	11.6	27.5	4.4	1.5	5,343

Note: Total includes households with missing information on religion and caste/tribe, who are not shown separately.
( ) Based on 25-49 unweighted cases.
[1] At least one usual household member is covered by a health scheme or health insurance.

through employers, and medical reimbursement from employers rather than voluntary health insurances/schemes.

Private providers of health insurance have only recently emerged as big players in the Indian health insurance market, after liberalization of the economy. While urban households are more likely to have insurance than rural households, they are equally likely for their coverage to be privately purchased. Those most likely to have obtained their coverage through private channels are Jain households (52 percent). Privately purchased commercial health insurance comprises a smaller component of coverage among scheduled castes (16 percent), scheduled tribes (24 percent), and other backward classes (26 percent) than households of 'other' castes (32 percent). Surprisingly, households in the second wealth quintile (39 percent) are more likely than households at other levels to rely on private insurance, among those households that have coverage.

The ESIS is relied upon by 29 percent of urban households that have insurance, compared with only 20 percent of rural households with insurance. Scheduled castes are more likely than any other caste or tribe to rely on ESIS (39 percent of households with insurance).

The percentage of households that rely on coverage under CGHS (20 percent) is lower than ESIS, but the distribution across background characteristics is similar to the pattern seen for ESIS. CGHS prevalence is higher among households in urban areas (21 percent, compared with 18 percent in rural areas), among Buddhist/Neo-Buddhist households (35 percent), scheduled tribe households (26 percent), and households in the highest wealth quintile (23 percent).

Community health insurance programmes (CHIP) are an emerging scheme introduced recently in some states. Overall, coverage with CHIP is reported by only 5 percent of households that have insurance. CHIP is primarily rural-based; 12 percent of rural households with insurance are covered with CHIP, compared with only 3 percent of urban households.

Health insurance coverage in the form of medical reimbursement from an employer is obtained by 12 percent of households that have insurance. Such coverage is more common in urban areas (13 percent of those with insurance) than rural areas (9 percent) and generally increases with increasing wealth quintiles.

13.6 SOURCE OF HEALTH CARE

Accessibility and availability of health care is important for ensuring a community's general health status and reflects the reach and coverage of health facilities. Respondents to the household interview were asked to identify the place where members of the household generally go when they get sick. The source of health care is categorized under three broad headings, namely (a) public medical sector, (b) private medical sector, and (c) other sources. Table 13.12 presents the distribution of households by source of health care generally used when household members get sick, according to residence and the wealth index. Nearly two-thirds of households (65 percent) generally seek health care from the private medical sector, while one-third of households seek care from the public medical sector.

The private medical sector remains the primary source of health care for the majority of households in both urban areas (70 percent) and rural areas (63 percent). The main provider of care among private providers is a private doctor or clinic. Forty-six percent of urban households and 36 percent of rural households go to a private doctor or private clinic for health care. The next most common sources of health care are public and private hospitals, each relied upon by 16 percent of households. Community health centres (CHC)/rural hospitals/Primary Health Centres (PHC) are relied upon by 15 percent of households. Private hospitals are the second most common source of health care among urban households and CHC/rural hospitals/PHC are the second most common source of health care among rural households.

Table 13.12 Source of health care

Percent distribution of households by the source of health care that household members generally use when they get sick, according to residence and the wealth index, India, 2005-06

Source	Residence		Wealth index					Total
	Urban	Rural	Lowest	Second	Middle	Fourth	Highest	
Public medical sector	29.6	36.8	39.4	37.1	39.0	33.9	22.6	34.4
Government/municipal hospital	22.6	12.1	10.5	13.4	18.3	20.1	15.6	15.5
Government dispensary	1.5	1.5	1.1	1.2	1.7	1.8	1.6	1.5
UHC/UHP/UFWC	0.4	0.2	0.2	0.2	0.4	0.3	0.3	0.3
CHC/rural hospital/PHC	4.2	20.5	24.3	20.0	16.8	10.3	4.1	15.1
Sub-centre	0.1	2.0	2.8	1.9	1.3	0.7	0.2	1.4
Anganwadi/ICDS centre	0.0	0.1	0.2	0.1	0.0	0.0	0.0	0.1
Government mobile clinic	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Other public medical sector	0.8	0.3	0.1	0.3	0.5	0.6	0.9	0.5
NGO or trust hospital/clinic	0.5	0.3	0.3	0.3	0.3	0.5	0.5	0.4
Private medical sector	69.5	62.5	59.9	62.2	60.4	65.3	76.4	64.8
Private hospital	20.5	13.8	7.0	11.2	15.9	19.5	26.6	16.0
Private doctor/clinic	45.9	36.3	36.0	37.9	35.4	40.4	47.5	39.5
Private paramedic	0.3	1.1	1.5	0.9	0.8	0.8	0.3	0.9
Vaidya/*hakim*/homeopath	0.7	0.4	0.4	0.4	0.4	0.4	0.7	0.5
Traditional healer	0.0	0.3	0.6	0.3	0.1	0.1	0.0	0.2
Pharmacy/drugstore	0.7	0.8	0.9	1.0	0.7	0.8	0.5	0.8
Dai (TBA)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other private medical sector	1.4	9.8	13.5	10.5	7.1	3.3	0.7	7.1
Other source	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Shop	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Home treatment	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1
Other	0.2	0.2	0.2	0.1	0.2	0.2	0.3	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of households	35,579	73,462	22,497	21,617	21,652	21,370	21,905	109,041

UHC = Urban health centre; UHP = Urban health post; UFWC = Urban family welfare centre; CHC = Community health centre; PHC = Primary Health Centre; ICDS = Integrated Child Development Services; NGO = Nongovernmental organization; TBA = Traditional birth attendant

Households in the lowest three wealth quintiles rely on the public and private medical sector in about equal proportions. It is among the fourth and particularly the highest wealth quintiles that reliance on the public sector declines and reliance on the private sector increases. Thirty-nine percent of households in the lowest wealth quintile rely on the public medical sector, compared with 23 percent of households in the highest wealth quintile. However, private doctors and private clinics are the most commonly used provider of health care among households in all wealth quintiles. Use of private hospitals increases with increasing wealth quintiles, whereas use of CHC/rural hospitals/PHC decreases with increasing wealth quintiles. Overall, the private medical sector dominates health care delivery in the country, and use of private doctors and private clinics is the primary source of health care among rich and poor alike.

13.6.1 Reasons for Not Using Government Facilities by State

It was shown in Table 13.12 that two-thirds of India's households generally rely on private sector sources for health care, but reliance on the private sector varies greatly across states. Table 13.13 shows the percentage of households that do not generally use government health facilities. The percentage of households that do not generally use government health facilities ranges from a very low 8 percent in Sikkim to an overwhelming 93 percent in Bihar. The distribution of states can be divided into three parts. Over two-thirds of households do not generally use government facilities in 11 states. Between one-third and two-thirds of

households do not generally use government facilities in 10 states. Less than one-third of households do not rely on government facilities for health care in eight states (Rajasthan in the North Region, Orissa in the East Region, and six states in the Northeast Region).

Table 13.13 Reasons for not using government health facilities by state

Percentage of households whose members do not generally use a government health facility when they are sick, and among households whose members do not generally use a government health facility when they are sick, percentage giving specific reasons for not utilizing a government health facility, according to state, India, 2005-06

State	Percentage of households that do not generally use government health facilities	Reasons for not generally using government health facilities among households that do not generally use government health facilities					
		No nearby facility	Facility timing not convenient	Health personnel often absent	Waiting time too long	Poor quality of care	Other reason
India	65.6	46.8	13.1	9.2	24.8	57.7	3.9
North							
Delhi	70.7	37.2	18.4	2.3	57.4	36.3	1.8
Haryana	72.3	42.1	12.9	7.4	25.2	54.9	5.2
Himachal Pradesh	17.3	34.1	11.9	5.6	31.3	43.1	5.0
Jammu & Kashmir	37.1	33.2	9.3	5.9	22.4	55.3	7.3
Punjab	80.8	42.2	18.1	8.8	22.7	52.3	7.9
Rajasthan	29.8	35.3	9.1	6.7	17.2	62.9	2.1
Uttaranchal	55.6	49.2	14.7	14.4	37.4	64.1	2.6
Central							
Chhattisgarh	63.7	56.4	9.2	6.3	19.0	41.3	9.1
Madhya Pradesh	62.6	50.8	10.0	7.7	26.4	62.9	1.6
Uttar Pradesh	84.7	53.5	4.6	7.4	20.4	65.1	2.5
East							
Bihar	93.3	44.9	8.4	21.4	14.2	83.7	2.1
Jharkhand	77.7	55.3	8.5	9.7	6.5	56.4	7.5
Orissa	24.0	61.0	6.9	7.7	9.7	38.9	5.6
West Bengal	71.2	54.3	14.8	4.3	35.2	41.4	4.7
Northeast							
Arunachal Pradesh	17.5	50.1	24.4	7.0	18.3	36.7	6.5
Assam	34.8	48.9	6.6	6.1	11.2	39.4	7.3
Manipur	21.0	29.8	20.2	11.2	19.4	46.4	10.6
Meghalaya	35.2	33.4	17.2	14.1	21.7	33.3	8.6
Mizoram	9.4	26.4	7.2	2.2	23.2	42.5	8.6
Nagaland	47.9	54.1	14.7	8.3	14.6	29.8	8.3
Sikkim	8.2	8.4	22.0	4.7	50.7	47.7	5.5
Tripura	20.1	29.4	20.4	6.6	23.8	47.1	9.0
West							
Goa	70.4	41.8	14.4	4.4	27.8	29.4	11.2
Gujarat	72.5	45.0	16.0	6.9	31.6	42.6	5.8
Maharashtra	70.3	37.5	16.1	5.3	30.1	56.4	2.9
South							
Andhra Pradesh	74.3	49.2	18.1	12.8	23.4	63.3	3.2
Karnataka	64.0	45.1	25.1	14.3	31.8	50.8	5.2
Kerala	50.0	47.7	20.5	14.5	25.8	34.2	9.8
Tamil Nadu	47.0	28.3	23.0	3.0	32.3	55.4	3.4

In all households that generally do not seek health care from government sources when household members fall sick, the household respondent was asked why household members do not generally use government health facilities when they are sick. The most commonly reported reason for not using government facilities is the poor quality of care, reported by 58 percent of households that do not generally use government facilities. The second most commonly reported reason is that no government facility is nearby, reported by 47 percent of households. The third most commonly reported reason, reported by one-quarter of households, is that waiting times at government facilities are too long. It seems clear that

private providers compete with government providers and are perceived by many to provide better quality services.

Five of the eight states in which at least two-thirds of households use government facilities are in the Northeast Region. One plausible reason for the high dependence on government health facilities in the Northeast is because the availability of private providers is very low. Private health care providers that are available tend to be concentrated in bigger urban centres such as state capitals and district headquarters. Low availability of private facilities is primarily due to the geography of the region, which has difficult terrain and scattered settlements in the rural areas. Therefore, for private providers it may not be commercially viable to operate health facilities in the Northeast Region. Among the minority of households that do not rely on government facilities in those states, the most commonly reported reason is that there is no government facility nearby, the most commonly reported reason in four of the eight northeastern states. Poor quality of care is the most commonly reported reason in three of the eight states.

In the North Region, the percentage of households that do not generally use government health facilities ranges from 17 percent in Himachal Pradesh to 81 percent in Punjab. Non-use of government services is also very high in Haryana (72 percent) and Delhi (71 percent). The main reason cited for non-use in six of the seven states in the North Region is poor quality of care, a reason cited by over half the households that do not rely on government facilities in five states. The second most commonly cited reason is that there is no nearby facility. Households in Delhi are much more likely than households in neighbouring states in the North Region to report that their reason for not using government facilities is that the waiting time is too long, reported by over half of households that rely on private health care sources.

States in the Central Region also show high levels of non-use of government facilities, as high as 85 percent in Uttar Pradesh. The main reason for not using government facilities (cited by about two-thirds of households in two out of three states in the Central Region) is poor quality of care. In Chhattisgarh the primary reason is the lack of a nearby facility. Three of the four states in the East Region are among the highest in the percentage of households not using government health facilities, led by Bihar (93 percent). Only in Orissa is there heavy use of government facilities, with three-quarters of households relying on government facilities. The two main reasons cited for not using government services are poor quality of care and the lack of a nearby facility.

Non-use of government health facilities is equally high across the states in the West Region, where 7 in 10 households do not use government facilities. The most commonly cited reason for non-use given in two out of three states is the lack of a nearby facility. Among states in the South Region, the percentage of households not using government facilities ranges from 47 percent in Tamil Nadu to 74 percent in Andhra Pradesh. The most commonly cited reason for non-use in three of the four states is poor quality of care. In those states, nearly half the households that do not use government health facilities report that there is no nearby facility. Long waiting times and inconvenient facility times are two other important reasons that households do not use government health facilities.

13.7 RECENT VISITS TO A HEALTH FACILITY

The provision of high quality health care can have a positive influence on utilization, which in turn can improve the quality of life. Women and men who visited a health facility for themselves or their children in the three months preceding the survey were asked about the quality of care received at the health facility most recently visited. Tables 13.14.1 and 13.14.2 present the percentage of women and men who recently visited a health facility or health camp, and their views about some key quality of care characteristics.

Over one-third (36 percent) of women visited a health facility or camp for themselves or their children in the three months preceding the survey. The percent of women who recently visited a health facility increases gradually with increases in the level of education and the wealth index.

Table 13.14.1 Recent visits to a health facility: Women

Percentage of women age 15-49 who visited a health facility or camp in the three months preceding the survey and, among women who visited a health facility or camp, median waiting time and quality of care indicators for the last visit by background characteristics, India, 2005-06

			Among women who visited a health facility or camp					
Background characteristic	Percentage who visited a health facility or camp[1]	Number of women	Median waiting time for service[2]	Percentage who said health worker was responsive to their problems and needs	Percentage who said the facility was very clean	Number of women	Percentage who said health worker respected their need for privacy[3]	Number of women for whom privacy was needed
Age								
15-19	25.8	24,811	15.8	96.0	63.1	6,380	85.8	4,270
20-34	42.2	60,852	20.7	96.1	64.0	25,634	87.5	17,188
35-49	33.3	38,722	30.0	96.1	66.6	12,870	87.5	8,866
Residence								
Urban	41.5	40,817	20.4	96.8	73.2	16,890	90.2	11,765
Rural	33.6	83,568	20.9	95.7	59.5	27,994	85.4	18,558
Education								
No education	31.1	50,487	30.0	94.7	55.7	15,668	82.8	9,720
<5 years complete	37.8	9,918	30.1	95.6	59.2	3,746	84.4	2,476
5-7 years complete	38.5	18,820	30.1	96.1	64.3	7,242	87.0	4,963
8-9 years complete	39.2	17,383	20.1	96.6	67.6	6,801	89.0	4,734
10-11 years complete	39.1	12,887	20.2	97.7	74.1	5,027	92.2	3,720
12 or more years complete	43.1	14,882	15.6	98.0	79.4	6,400	92.6	4,710
Marital status								
Never married	22.2	25,462	15.4	96.4	67.5	5,642	87.5	3,678
Currently married	40.3	93,089	20.9	96.1	64.2	37,396	87.3	25,396
Widowed/divorced/ separated/deserted	31.7	5,834	30.2	95.2	64.4	1,845	86.2	1,250
Religion								
Hindu	35.3	100,151	20.6	96.1	64.9	35,278	87.0	23,973
Muslim	41.1	16,936	30.1	95.8	61.4	6,941	85.3	4,273
Christian	36.5	3,053	30.1	97.1	73.0	1,113	95.2	921
Sikh	37.0	2,222	10.0	98.0	69.4	822	93.4	577
Buddhist/Neo-Buddhist	42.5	1,010	20.4	93.6	59.1	429	90.8	366
Jain	39.1	406	10.9	99.1	84.3	159	98.3	117
Other	22.6	484	30.2	92.2	44.5	109	82.8	73
Caste/tribe								
Scheduled caste	36.7	23,125	20.7	95.3	61.4	8,466	85.2	5,527
Scheduled tribe	27.0	10,119	20.9	94.2	51.6	2,730	85.0	1,943
Other backward class	35.3	48,880	25.4	95.7	66.2	17,209	86.6	11,826
Other	39.2	41,207	20.3	97.2	67.0	16,125	89.4	10,816
Don't know	35.2	649	30.7	96.4	59.6	229	85.5	124
Wealth index								
Lowest	28.8	21,718	30.0	93.5	48.9	6,223	78.4	3,648
Second	33.0	23,616	30.1	95.2	54.9	7,774	83.0	4,904
Middle	35.4	25,088	30.1	95.8	60.8	8,874	86.2	5,969
Fourth	39.5	26,106	20.7	96.3	68.6	10,279	88.9	7,223
Highest	42.2	27,856	15.7	98.1	78.9	11,734	92.9	8,580

Continued…

Table 13.14.1 Recent visits to a health facility: Women—*Continued*

Background characteristic	Percentage who visited a health facility or camp[1]	Number of women	Among women who visited a health facility or camp: Median waiting time for service[2]	Percentage who said health worker was responsive to their problems and needs	Percentage who said the facility was very clean	Number of women	Percentage who said health worker respected their need for privacy[3]	Number of women for whom privacy was needed
Health facility last visited								
Public sector	na	na	30.3	92.3	47.7	15,505	81.5	10,394
NGO or trust	na	na	30.2	99.2	79.5	269	92.0	181
Private sector	na	na	16.0	98.2	73.8	28,618	90.6	19,474
Other	na	na	20.2	99.0	61.6	424	79.8	214
Total	36.2	124,385	20.7	96.1	64.6	44,884	87.2	30,324

Note: Total includes women with missing information on education, religion, caste/tribe, and health facility last visited, who are not shown separately.
na = Not applicable
NGO = Nongovernmental organization
[1] For any reason for herself or her children.
[2] Median waiting time before service was received. Excludes women who did not receive the service they went for.
[3] Excludes women who said that privacy was not needed.

Overall, high levels of satisfaction are reported for quality of care received. Ninety-six percent of women reported that the health care provider was responsive to their problems and needs. More than 9 out of 10 women across all background characteristics shown in Table 13.14.1 reported that the health worker was responsive to their needs. Nearly 9 in 10 women (87 percent) reported that the health care provider respected their need for privacy if privacy was needed. At least 80 percent reported similarly across every background characteristic shown in the table. These are very high levels of reported satisfaction with health providers. However, there is some variation in meeting privacy needs of clients by education and the wealth index of the client.

Whether or not the health facility last visited was very clean receives mixed reviews. Overall, almost two-thirds (65 percent) of women reported that their last visit to a health facility was to a facility that was very clean. The percentage of women who reported that the health facility was very clean increases steadily with increasing education and increasing wealth quintiles. This may be a reflection of the type of facility women of varying education levels and varying wealth statuses visit. More than three-quarters of women in the highest education and wealth categories reported the last facility visited to have been very clean, compared with only about half of women in the lowest education and wealth quintiles. Eighty percent of women who visited an NGO or trust health facility and 74 percent of women who visited a private sector health facility reported the facility to be very clean. However, only 48 percent of women who visited a public sector health facility reported the facility to have been very clean.

Overall, the median waiting time before being offered services of 21 minutes seems reasonable. However, it is notable that median waiting times double from 15 minutes to 30 minutes between women at the highest and lowest levels of education and wealth status. Median waiting times do not vary by urban-rural residence.

Table 13.14.2 Recent visits to a health facility: Men

Percentage of men age 15-49 who visited a health facility or camp in the three months preceding the survey and, among men who visited a health facility or camp, median waiting time and quality of care indicators for the last visit by background characteristics, India, 2005-06

Background characteristic	Percentage who visited a health facility or camp[1]	Number of men	Among men who visited a health facility or camp: Median waiting time for service[2]	Percentage who said health worker was responsive to their problems and needs	Percentage who said the facility was very clean	Number of men	Percentage who said health worker respected their need for privacy[3]	Number of men for whom privacy was needed
Age								
15-19	22.0	13,008	15.5	94.8	59.0	2,840	86.6	1,535
20-34	31.7	32,586	20.6	94.7	61.0	10,296	85.3	6,162
35-49	32.0	24,157	30.1	94.9	61.2	7,715	87.0	4,808
Residence								
Urban	30.2	25,504	20.2	95.7	67.8	7,675	87.5	4,988
Rural	29.9	44,247	20.9	94.3	56.7	13,176	85.1	7,516
Education								
No education	25.7	12,571	25.3	94.5	52.7	3,226	84.3	1,832
<5 years complete	30.6	7,109	30.2	92.2	57.9	2,162	83.3	1,326
5-7 years complete	30.6	11,523	20.9	94.4	60.0	3,518	85.5	2,082
8-9 years complete	30.5	14,398	20.3	95.6	61.4	4,382	85.8	2,548
10-11 years complete	31.4	10,380	20.4	94.8	64.5	3,238	88.1	2,046
12 or more years complete	31.5	13,754	15.9	95.7	65.5	4,320	87.9	2,668
Marital status								
Never married	22.5	25,307	15.6	95.0	61.4	5,665	87.2	3,319
Currently married	34.4	43,501	25.7	94.7	60.8	14,950	85.8	9,044
Widowed/divorced/ separated/deserted	25.1	942	30.1	92.7	49.7	235	81.5	141
Religion								
Hindu	29.7	57,112	20.6	95.1	60.6	16,908	86.1	10,172
Muslim	31.5	8,747	25.7	92.8	58.4	2,755	84.9	1,636
Christian	31.6	1,567	30.2	96.0	66.8	494	93.9	395
Sikh	31.0	1,270	10.5	96.1	80.1	393	80.2	94
Buddhist/Neo-Buddhist	30.2	596	15.8	91.8	59.0	180	82.0	130
Jain	31.6	213	15.3	93.2	66.8	67	85.7	39
Other	22.2	232	15.8	95.4	54.9	51	86.4	37
Caste/tribe								
Scheduled caste	30.6	13,188	20.6	94.3	58.2	4,018	86.1	2,347
Scheduled tribe	25.2	5,725	20.9	93.8	50.8	1,438	82.8	829
Other backward class	30.4	27,219	20.9	95.1	62.2	8,243	86.5	4,948
Other	30.4	23,214	20.2	94.8	62.7	7,031	86.3	4,304
Don't know	43.9	177	30.5	99.0	59.3	78	80.3	55
Wealth index								
Lowest	26.5	11,031	25.2	92.4	48.5	2,918	79.7	1,492
Second	29.9	12,666	20.9	93.8	53.1	3,773	83.4	2,156
Middle	30.2	14,301	30.0	95.1	57.7	4,308	85.7	2,597
Fourth	30.9	15,493	20.7	94.9	65.4	4,774	87.5	3,117
Highest	31.3	16,260	15.8	96.6	71.9	5,078	89.9	3,143
Health facility last visited								
Public sector	na	na	30.2	90.2	45.5	7,366	78.7	4,348
NGO or trust	na	na	30.3	97.8	84.1	210	85.2	152
Private sector	na	na	15.9	97.3	69.0	13,145	90.2	7,936
Other	na	na	(20.4)	(98.5)	(74.7)	98	(79.2)	48
Total age 15-49	30.0	69,751	20.6	94.8	60.8	20,851	86.1	12,505
Age 50-54	31.3	4,618	30.0	93.8	62.0	1,441	85.7	915
Total age 15-54	30.1	74,369	20.7	94.7	60.9	22,291	86.1	13,419

Note: Total includes men with missing information on education, religion, caste/tribe, and health facility last visited, who are not shown separately.
na = Not applicable
NGO = Nongovernmental organization
( ) Based on 25-49 unweighted cases.
[1] For any reason for himself or his children.
[2] Median waiting time before service was received. Excludes men who did not receive the service they went for.
[3] Excludes men who said that privacy was not needed.

Overall levels of satisfaction with the quality of care are about the same among men as they are among women. Ninety-five percent of men reported that the health care provider was responsive to their needs (96 percent of women reported similarly). Nearly 9 in 10 men (86 percent) reported that the health care provider respected their need for privacy if privacy was needed (87 percent of women reported similarly). Sixty-one percent of men reported that their last visit to a health facility was to a facility that was very clean (65 percent of women reported similarly). The median waiting time before being offered services of 21 minutes is the same as that reported by women. In general, patterns by background characteristics for men are similar to what is reported by women.

13.7.1 Recent Contacts with Health Workers

Grass-roots health personnel can provide a wide array of health services. Table 13.15 presents the percentage of women who had any contact with a health worker in the three months preceding the survey by type of health worker. The term 'health worker' encompasses auxiliary nurse-midwives (ANM), lady health visitors (LHV), *anganwadi* workers (AWW), accredited social health activists (ASHA), multipurpose workers (MPW), and other community health workers.

Table 13.15 Recent contacts with health workers

Percentage of women who had any contact with a health worker in the 3 months preceding the survey by type of health worker, and among those who had contact with a health worker, percentage who met a worker at home, at an *anganwadi* centre, at a health facility or camp, or elsewhere, according to background characteristics, India, 2005-06

	Percentage of women who had any contact with a health worker in the past 3 months							Among women who met a health worker in the past 3 months, percentage who met a worker:				
Background characteristic	ANM/ LHV	AWW	ASHA	MPW	Other community health worker	Any health worker	Number of women	At home	At an *anganwadi* centre	At a health facility or camp	Elsewhere	Number of women who met a health worker
Age												
15-19	7.3	6.5	0.1	0.4	0.1	11.0	24,811	62.8	29.4	19.4	10.8	2,731
20-34	16.4	13.0	0.1	0.8	0.4	23.6	60,852	63.1	30.8	20.3	9.0	14,340
35-49	7.4	6.2	0.1	0.7	0.2	11.3	38,722	74.2	21.5	13.9	11.5	4,386
Residence												
Urban	6.8	4.1	0.0	0.7	0.3	10.0	40,817	62.7	20.1	25.2	7.3	4,083
Rural	14.2	12.3	0.1	0.7	0.2	20.8	83,568	66.0	30.8	17.4	10.3	17,374
Education												
No education	12.4	10.2	0.1	0.6	0.3	18.3	50,487	68.7	26.5	14.9	9.2	9,245
<5 years complete	13.0	11.1	0.1	1.0	0.2	19.1	9,918	62.8	33.0	20.0	10.6	1,891
5-7 years complete	12.4	10.4	0.1	0.7	0.2	18.1	18,820	62.0	32.5	20.5	9.4	3,405
8-9 years complete	12.3	10.3	0.1	0.8	0.3	18.3	17,383	63.4	31.2	20.5	9.9	3,183
10-11 years complete	10.3	8.3	0.1	0.7	0.3	14.9	12,887	65.7	28.8	22.6	10.7	1,923
12 or more years complete	8.8	5.8	0.1	0.5	0.4	12.2	14,882	60.3	24.3	28.2	10.7	1,810
Marital status												
Never married	3.4	4.2	0.1	0.3	0.1	6.5	25,462	69.5	22.7	10.8	12.2	1,650
Currently married	14.4	11.3	0.1	0.8	0.3	20.6	93,089	64.8	29.3	19.7	9.4	19,204
Widowed/divorced/ separated/ deserted	6.6	6.4	0.0	0.4	0.2	10.4	5,834	71.0	27.7	13.4	13.9	604
Religion												
Hindu	11.8	9.8	0.1	0.7	0.3	17.3	100,151	64.9	29.4	18.4	9.8	17,355
Muslim	12.8	9.0	0.0	0.4	0.3	18.3	16,936	71.7	22.7	20.1	8.0	3,095
Christian	8.6	6.8	0.1	0.6	0.2	12.6	3,053	56.6	32.5	22.7	12.0	383
Sikh	6.4	7.3	0.0	0.6	0.1	11.5	2,222	55.3	29.8	31.6	27.8	256
Buddhist/Neo-Buddhist	14.8	13.5	0.3	1.7	0.5	21.2	1,010	59.2	38.6	21.9	2.8	215
Jain	3.5	1.5	0.0	0.0	0.1	4.7	406	*	*	*	*	19
Other	13.8	16.1	0.0	0.3	0.0	21.5	484	19.8	76.5	12.7	4.0	104
Caste/tribe												
Scheduled caste	13.7	11.4	0.1	0.8	0.2	19.9	23,125	63.4	31.9	20.3	9.3	4,593
Scheduled tribe	12.5	13.5	0.1	1.2	0.3	19.8	10,119	53.6	44.5	14.3	11.0	2,006
Other backward class	12.0	9.4	0.1	0.5	0.2	17.2	48,880	67.3	27.6	17.4	9.0	8,427
Other	10.4	7.7	0.1	0.7	0.3	15.2	41,207	67.8	23.0	21.4	10.8	6,245
Don't know	14.4	15.7	0.0	0.4	0.4	21.9	649	75.1	28.5	9.7	5.1	142

Continued…

Table 13.15 Recent contacts with health workers—*Continued*

Background characteristic	Percentage of women who had any contact with a health worker in the past 3 months							Among women who met a health worker in the past 3 months, percentage who met a worker:				
	ANM/ LHV	AWW	ASHA	MPW	Other community health worker	Any health worker	Number of women	At home	At an *anganwadi* centre	At a health facility or camp	Elsewhere	Number of women who met a health worker
Wealth index												
Lowest	14.7	12.9	0.1	0.6	0.2	21.7	21,718	63.5	33.9	15.5	10.2	4,709
Second	14.6	12.5	0.1	0.7	0.2	21.1	23,616	65.4	30.9	16.8	9.7	4,985
Middle	12.8	10.7	0.1	0.7	0.2	18.5	25,088	65.1	30.5	19.2	8.9	4,645
Fourth	11.1	8.7	0.1	0.9	0.3	16.6	26,106	67.6	26.1	20.7	9.5	4,329
Highest	7.0	4.4	0.1	0.5	0.3	10.0	27,856	65.4	17.5	24.9	10.8	2,788
Total	11.8	9.6	0.1	0.7	0.3	17.3	124,385	65.3	28.8	18.9	9.7	21,457

Note: Total includes women with missing information on education, religion, and caste/tribe, who are not shown separately.
ANM = Auxiliary nurse midwife; LHV = Lady health visitor; AWW = *Anganwad*i worker; ASHA = Accredited social health activist; MPW = Multipurpose worker
* Percentage not shown; based on fewer than 25 unweighted cases.

Women are more likely to have contact with an ANM/LHV or an AWW than any other type of community health worker. Twelve percent of women had contact with an ANM/LHV and 10 percent with an *anganwadi* worker in the three months prior to the survey. Other health workers such as ASHA and MPW were seen by less than 1 percent of women.

Contact with a community health worker is twice as common for rural women (21 percent) as urban women (10 percent). It is similarly more common for women with no education or fewer than 10 years of schooling (about 18 percent) than it is for women who have had 12 or more years of schooling (12 percent). Similarly, women in lower wealth quintiles are more likely to have seen a community health worker (22 percent) than are women in the highest wealth quintile (10 percent).

Women who had recent contact with a health worker (in the three months preceding the survey) were asked to identify where the visit took place. Women who had more than one contact with a health worker or contact with more than one kind of health worker reported on all the places in which contact was made. Thus, the column percentages shown in Table 13.15 are independent of each other and do not add to 100 percent. Women have contact with community health workers mainly at home or at *anganwadi* centres. Two-thirds of women who had recent contacts with a community health worker were seen in their homes, and this is generally true for women with varying background characteristics. Approximately 3 in 10 women who recently saw a community health worker made contact with a worker at an *anganwadi* centre. Approximately one-fifth of women who had a recent contact with a community health worker made contact at a health facility or camp. Although contact with a community health worker at a health facility is rather low, it increases with increasing education and wealth quintiles.

13.7.2 Matters Discussed with Health Workers

Women who had contact with a community health worker in the three months prior to the survey were asked to identify all the topics that were discussed with the health worker. Table 13.16 presents the percentage of women who discussed each topic. By far the most commonly reported topic discussed with a community health worker is immunization.

Three specific topics top the list of matters discussed with never married women: immunization (27 percent), followed by disease prevention (24 percent) and medical treatment for themselves (20 percent). Topics such as nutrition (8 percent), family life education (7 percent), and menstrual hygiene (6 percent) were also discussed, but not with as many women. The topic most commonly discussed with women who are either pregnant or have a young child under three years of age is immunization (discussed with 70 percent of such women who saw a community health worker). The next most commonly discussed topics among women in this group are antenatal care (13 percent) and supplementary food (11 percent). Non-users of family planning are slightly less likely to have discussed family planning with a community health worker than are women who use family planning. Users and non-users of family planning generally discuss the same topics in equal measure.

Table 13.16 Matters discussed during contacts with a health worker

Among women who had at least one contact with a health worker in the 3 months preceding the survey, percentage who discussed specific topics with the worker, India, 2005-06

		Ever-married women		
		Pregnant women and women with children under age 3	Non-pregnant women[1]	
Topic discussed	Never married women		Current contracep-tive users	Current non-users
Family planning	2.2	9.0	11.3	8.1
Immunization	26.5	70.1	54.6	68.1
Antenatal care	1.1	12.5	1.4	3.7
Delivery care	0.5	4.4	1.1	3.5
Delivery preparedness	0.3	1.0	0.4	0.9
Postnatal care	0.2	2.3	1.4	2.3
Disease prevention	24.1	3.9	11.6	5.6
Medical treatment for self	20.1	6.4	13.6	9.3
Treatment for sick child	2.2	5.9	6.4	5.5
Treatment for other person	4.4	0.6	2.3	1.4
Malaria control	7.4	1.3	5.2	1.8
Supplementary food	5.1	10.7	7.6	9.9
Growth monitoring for children	2.4	7.5	7.2	7.2
Early childhood care	1.1	2.4	3.0	2.0
Pre-school education	5.3	3.8	6.8	3.9
Nutrition or health education	7.6	4.1	6.2	4.1
Family life education	7.4	1.4	3.9	1.9
Menstrual hygiene	6.3	0.2	1.3	0.8
Other	6.8	0.9	2.7	1.6
Number of women	1,650	11,680	9,641	7,871

Note: Table includes only women who had contacts with auxiliary nurse midwives (ANM), lady health visitors (LHV), *anganwadi* workers (AWW), accredited social health activists (ASHA), multipurpose workers (MPW), or other community health workers.
[1] Includes women with children under age 3.

13.7.3 Quality of Health Care Indicators by State

Use of health care services depends on the experiences and perceptions people have about the quality of care they receive. Table 13.17 presents the percentage of women who had any contact with a community health worker across all states. It also presents assessments of the quality of care provided.

While 17 percent of women had contact with a community health worker in the three months prior to the survey for the country as a whole, that percentage ranges from a low of 3 percent in Delhi to a high of 27 percent in Gujarat. With the exception of Gujarat, less than one-quarter of women had a recent contact with a community health worker. Contact with a health worker is highest in the East Region (between 15 percent in Jharkhand and 23 percent in West Bengal), the Central Region (17 percent in Madhya Pradesh and 20 percent in Uttar Pradesh), the West Region (15 percent in Goa and 27 percent in Gujarat), and most states in

Table 13.17 Quality of health care indicators by state

Quality of health care indicators by state, India, 2005-06

State	Percentage of women with any contact with a health worker[1]	Among women who met with a health worker in the previous three months, percentage who said:	
		Worker talked nicely	Worker made sure that she understood the information given[2]
India	17.3	98.0	89.4
North			
Delhi	2.9	98.2	94.4
Haryana	11.2	97.9	92.1
Himachal Pradesh	9.1	98.1	91.5
Jammu & Kashmir	4.1	97.7	83.2
Punjab	11.9	98.9	98.3
Rajasthan	11.7	97.9	88.1
Uttaranchal	18.7	96.8	82.5
Central			
Chhattisgarh	19.4	97.7	84.1
Madhya Pradesh	16.9	97.6	82.1
Uttar Pradesh	19.8	96.3	74.1
East			
Bihar	19.2	98.2	96.2
Jharkhand	14.7	94.0	76.2
Orissa	22.6	97.2	86.1
West Bengal	23.3	98.6	93.1
Northeast			
Arunachal Pradesh	9.6	97.4	88.4
Assam	8.9	98.3	91.1
Manipur	4.6	96.7	82.0
Meghalaya	7.6	98.4	96.3
Mizoram	6.2	99.1	98.0
Nagaland	4.5	95.9	89.2
Sikkim	13.2	99.5	95.2
Tripura	14.4	97.5	92.0
West			
Goa	14.5	95.7	93.1
Gujarat	27.3	98.9	92.3
Maharashtra	16.5	99.4	93.1
South			
Andhra Pradesh	9.0	98.9	96.1
Karnataka	19.9	97.8	91.6
Kerala	22.6	99.4	97.8
Tamil Nadu	15.2	99.7	95.1

[1] Contact with an auxiliary nurse midwife, lady health visitor, *anganwadi* worker, or community health worker.
[2] Excludes women who say they did not need anything explained to them.

the South Region. Overall, states in the Northeast Region have low levels of contact with community health workers, ranging from 5 percent in Nagaland and Manipur to 14 percent in Tripura.

Community health workers receive high praise with regard to the quality of client contacts. More than 9 in 10 women report that the community health worker spoke very nicely or somewhat nicely with them in all states. At least 80 percent of women in every state except Uttar Pradesh and Jharkhand reported that the community health worker made sure that they understood the information being communicated.

13.8 PROBLEMS IN ACCESSING HEALTH CARE

Many factors can prevent women from getting medical treatment for themselves. NFHS-3 asked all women about a series of potential obstacles to obtaining medical treatment or advice for themselves when they are sick and want to seek treatment or advice. The questions did not specify any particular source of care but pertained to wherever it is the woman would seek care. Women were asked for each potential obstacle whether it posed a

Table 13.18 Problems in accessing health care

Percentage of women who reported that specific problems are big problems for them in accessing medical advice or treatment for themselves when they are sick, according to background characteristics, India, 2005-06

Background characteristic	Big problem in accessing medical advice or treatment								At least one problem in accessing health care	Mean number of problems	Number of women
	Getting permission to go for treatment	Getting money for treatment	Distance to health facility	Having to take transport	Not wanting to go alone	Concern that no female provider available	Concern that no provider available	Concern that no drugs available			
Age											
15-19	9.3	16.3	24.6	22.1	12.8	21.0	23.5	22.9	47.8	1.5	24,811
20-34	6.9	17.4	25.6	23.2	11.9	18.8	22.9	23.1	46.6	1.5	60,852
35-49	4.8	17.8	25.2	22.7	10.7	16.9	22.0	22.5	45.7	1.4	38,722
Number of living children											
0	7.8	14.5	21.9	19.6	11.2	19.0	22.0	21.2	43.9	1.4	36,450
1-2	5.9	15.6	22.8	20.5	10.6	16.8	21.0	21.2	43.0	1.3	43,482
3-4	6.6	20.0	28.4	26.0	12.7	19.3	24.1	24.8	49.9	1.6	32,994
5+	6.6	24.4	36.0	33.0	14.7	23.0	27.8	28.9	59.0	1.9	11,459
Residence											
Urban	3.1	8.3	8.9	6.6	4.7	10.2	13.2	13.0	27.1	0.7	40,817
Rural	8.5	21.7	33.2	30.8	15.1	22.8	27.4	27.7	56.1	1.9	83,568
Education											
No education	9.1	25.4	35.4	32.9	16.2	23.6	28.1	28.7	58.6	2.0	50,487
<5 years complete	7.5	22.8	29.2	25.8	13.6	21.4	26.1	28.3	54.3	1.7	9,918
5-7 years complete	7.0	15.9	23.4	20.4	11.2	18.4	21.8	21.8	45.8	1.4	18,820
8-9 years complete	5.4	12.1	19.9	17.3	8.9	16.8	20.4	19.9	41.3	1.2	17,383
10-11 years complete	3.8	6.7	12.9	11.6	6.4	12.5	16.8	15.5	31.1	0.9	12,887
12 or more years complete	1.7	3.0	7.4	6.2	3.5	7.8	11.2	10.6	21.3	0.5	14,882
Marital status											
Never married	7.1	13.5	20.2	18.0	10.5	18.2	21.3	20.3	42.0	1.3	25,462
Currently married	6.7	17.7	26.4	24.0	11.9	18.7	22.9	23.3	47.5	1.5	93,089
Widowed/divorced/ separated/deserted	4.8	26.3	29.4	25.9	14.0	20.2	25.9	27.2	52.2	1.7	5,834
Religion											
Hindu	6.6	17.2	25.6	23.2	11.7	18.7	22.9	22.8	46.8	1.5	100,151
Muslim	8.5	19.4	26.8	23.4	12.7	20.4	23.4	24.9	49.3	1.6	16,936
Christian	2.3	17.0	19.5	18.4	9.0	14.4	21.8	22.8	40.9	1.3	3,053
Sikh	5.3	7.3	11.0	9.7	6.7	10.8	15.1	10.0	31.2	0.8	2,222
Buddhist/Neo-Buddhist	3.2	8.1	12.7	12.7	6.4	9.6	11.0	13.0	28.5	0.8	1,010
Jain	2.0	2.1	4.6	2.8	2.7	7.7	9.5	10.1	15.1	0.4	406
Other	6.8	32.4	52.7	51.8	26.1	38.5	52.9	49.9	78.0	3.1	484
Caste/tribe											
Scheduled caste	7.0	20.4	27.3	25.3	12.8	19.7	23.9	24.2	50.4	1.6	23,125
Scheduled tribe	9.5	31.2	44.0	42.0	20.1	28.4	35.2	35.8	67.0	2.5	10,119
Other backward class	6.9	16.4	26.0	23.6	12.2	19.7	23.2	22.8	47.4	1.5	48,880
Other	5.5	12.9	18.5	15.9	8.4	14.3	18.2	18.7	38.2	1.1	41,207
Don't know	8.6	22.6	30.5	24.7	16.1	26.9	33.9	35.6	58.6	2.0	649
Employment (past 12 months)											
Not employed	6.5	14.5	21.4	18.7	9.8	16.7	20.5	20.9	42.2	1.3	71,121
Employed for cash	6.2	20.9	27.2	25.0	12.8	19.3	23.3	23.9	48.7	1.6	35,626
Employed not for cash	8.7	21.3	36.7	35.4	17.3	25.5	30.8	28.8	60.0	2.0	17,582
Wealth index											
Lowest	10.9	34.8	47.4	45.4	21.4	30.0	35.4	36.8	71.5	2.6	21,718
Second	8.6	24.3	36.1	33.1	15.9	24.0	28.7	29.7	60.0	2.0	23,616
Middle	7.5	18.5	26.3	23.3	12.2	19.4	23.8	23.5	49.7	1.5	25,088
Fourth	5.5	10.4	16.6	13.9	8.2	14.9	18.6	18.3	38.5	1.1	26,106
Highest	2.3	3.0	5.9	4.5	3.3	8.2	10.8	9.9	20.5	0.5	27,856
Total	6.7	17.3	25.2	22.9	11.7	18.7	22.7	22.9	46.6	1.5	124,385

Note: Total includes women with missing information on education, religion, caste/tribe, and employment (past 12 months), who are not shown separately.

big problem, a small problem, or no problem at all in accessing medical advice or treatment. Table 13.18 reports that nearly half of all women (47 percent) report there to be at least one big problem for themselves in obtaining medical care.

The most commonly reported problem is distance to a health facility, reported to be a big problem by one-quarter of women. As one would expect, distance is a more common challenge among rural women than among urban women. One-third of rural women cite distance to be a big obstacle to obtaining medical care. Forty-four percent of women from scheduled tribes report distance to be a big problem.

Three other problems are each cited by nearly as many women (23 percent) as cite distance as a big problem: having to take transport, concern that there may be no provider available, and concern that there may be no drugs available.

Nineteen percent of women report concern that no female provider will be available as being a big problem. Hindu (19 percent) and Muslim (20 percent) women are equally likely to report this as a big problem. Less than 11 percent of women in any subgroup shown in the table report getting permission to go for treatment to be a big problem, although the percentage who report getting permission to be a big problem decreases with increasing education and wealth quintiles.

Every potential problem asked about becomes steadily less of an obstacle as wealth status increases. The percentage of women who have at least one big problem in accessing health care declines rapidly with increasing wealth status. Seven in 10 women in the lowest wealth quintile report at least one of the obstacles to be a big problem, and this percentage declines to 20 percent in the highest wealth quintile. Women report, on average, 1.5 obstacles as big problems to their obtaining medical care. The mean number of big problems reported decreases from 2.6 to 0.5 as wealth status increases from the lowest to the highest wealth quintile.

WOMEN'S EMPOWERMENT AND DEMOGRAPHIC AND HEALTH OUTCOMES

14

Women are the prime targets of programmes that aim at improving maternal and child health and achieving other desired demographic goals. This is not surprising since women are the ones that bear children and are typically the primary caregivers in households. An understanding of the status and empowerment of women in society and within their households is thus critical to promoting change in reproductive attitudes and behaviour, especially in patriarchal societies (Dyson and Moore, 1983; Jejeebhoy, 1995; Jeffery and Basu, 1996; Kabeer, 2001). Notably, the National Population Policy 2000, specifically identified the low status of women in India as an important barrier to the achievement of population and maternal and child welfare goals (Ministry of Health and Family Welfare, 2000).

NFHS-3 collected data on a large number of indicators of women's empowerment from both women and men. Information was collected on the magnitude of a wife's earnings relative to her husband's earnings, control over the use of one's own earnings and those of the spouse, a wife's participation in household decision making, women's control over resources, knowledge and use of micro-credit programmes, freedom of movement, and gender-role attitudes. With regard to the latter, women and men were both asked about specific circumstances under which they feel that a woman is justified in refusing to have sexual intercourse with her husband and about specific circumstances under which they feel that wife beating is justified. Men are additionally asked about specific actions a man has a right to take if his wife refuses him sex. These attitude questions are all aimed at capturing the conscientization of women and men with regard to gender equality. This chapter discusses each of these indicators of women's empowerment. Where possible, the empowerment indicators for women are compared with similar indicators for men. Note that these more direct indicators of women's empowerment collected in NFHS-3 are in addition to other common proxies of women's empowerment, including education, age at first marriage, employment, and receipt of cash earnings, which have already been discussed in earlier chapters. Freedom from domestic violence, an important dimension and enabler of women's empowerment, is discussed in the next chapter.

This chapter also defines three summary indices of women's empowerment derived from women's responses. The indices are based on the number of household decisions in which the respondent participates, her opinion on the number of circumstances for which a woman is justified in refusing to have sexual intercourse with her husband, and her opinion on the number of reasons that justify wife beating. The ranking of women on these three indices is then related to selected demographic and health outcomes, including contraceptive use and the receipt of health care services during pregnancy, at delivery, and in the postnatal period. In addition, survivorship of children is tabulated by the ranking of their mothers on the indices.

14.1 EMPLOYMENT AND CONTROL OVER INCOME

In this section the issue of women's and men's employment, which was first discussed in Chapter 3, is revisited from the perspective of women's empowerment within marriage.

Employment and control over income are compared for currently married women and currently married men to better understand the relative status of married women. Accordingly, for currently married women and men, the percentage employed at any time during the 12 months preceding the survey and the percent distribution of those employed in the 12 months preceding the survey by type of earnings they received are shown according to age in Table 14.1 and according to state in Table 14.2. Various indicators of control over own and spousal earnings are shown in Tables 14.3-14.5.

Table 14.1 Employment and cash earnings of currently married women and men

Percentage of currently married women and currently married men age 15-49 who were employed at any time in the 12 months preceding the survey and percent distribution of currently married women and men employed in the 12 months preceding the survey by type of earnings, according to age, India, 2005-06

Age	Percentage employed	Number of respondents	Percent distribution of employed respondents by type of earnings					Total	Employed respondents
			Cash only	Cash and in-kind	In-kind only	Not paid	Missing		
WOMEN									
15-19	31.4	6,726	39.1	15.9	13.6	31.4	0.0	100.0	2,111
20-24	32.5	16,782	45.6	12.4	13.3	28.6	0.0	100.0	5,448
25-29	41.0	18,540	54.1	12.5	11.5	21.9	0.0	100.0	7,603
30-34	47.9	16,459	52.1	14.0	12.0	21.9	0.0	100.0	7,890
35-39	49.8	14,492	55.0	13.6	10.2	21.1	0.1	100.0	7,220
40-44	49.4	11,605	51.3	12.6	11.1	25.0	0.0	100.0	5,734
45-49	45.3	8,484	49.2	12.7	11.5	26.5	0.1	100.0	3,844
Total	42.8	93,089	51.0	13.2	11.6	24.1	0.0	100.0	39,851
MEN									
15-19	87.6	369	60.7	23.8	6.8	8.7	0.0	100.0	323
20-24	97.6	3,836	69.7	20.5	4.2	5.5	0.1	100.0	3,743
25-29	99.0	7,508	73.1	19.4	3.1	4.4	0.1	100.0	7,431
30-34	99.3	8,736	75.0	17.8	2.9	4.3	0.0	100.0	8,677
35-39	99.3	8,866	73.8	18.5	3.4	4.3	0.0	100.0	8,800
40-44	98.9	7,740	71.4	19.1	3.9	5.6	0.1	100.0	7,658
45-49	98.6	6,447	70.5	19.9	3.4	6.2	0.0	100.0	6,353
Total	98.8	43,501	72.5	19.0	3.4	5.0	0.0	100.0	42,985

Nationally, 43 percent of currently married women age 15-49 and 99 percent of currently married men age 15-49 were employed some time in the 12 months preceding the survey. About half (51 percent) of employed currently married women earned only cash and another 13 percent received both cash and in-kind payments; thus, 64 percent of currently married women earned cash for their work. About one in four women did not receive any payment at all. By contrast, 92 percent of currently married men age 15-49 earned cash for their work (73 percent received only cash and 19 percent received cash and in-kind payments) and only 5 percent did not receive any payment. Thus, not only are currently married women less than half as likely as currently married men to be employed, but when employed, they are only 70% as likely as men to be paid only in cash and five times as likely as men to not receive any earnings at all.

Employment among currently married women increases from 31 percent in the age group 15-19 to 50 percent in the age group 35-39, and then declines slightly to 45 percent in the oldest age group. Among employed women, those age 15-19 are least likely to be employed for cash only (39 percent) and most likely to be employed in work for which they do not receive any earnings (31 percent). Women age 35-39 are not only most likely to be employed, but are also most likely to earn only cash (55 percent) and least likely to be employed in work for which they do not receive any cash earnings. Nonetheless, even in this age group, one in five women do not

receive any cash earnings. Overall, both the likelihood of employment and of receiving cash earnings do not vary much by age among currently married women age 25 years or older, but are lower for women age 15-24.

Among currently married men, there is very little variation in employment and employment for cash according to age. Employment among currently married men age 20-49 is virtually universal, with 98 to 99 percent being employed in all age groups. The only age group in which employment is somewhat lower is 15-19, an age group in which few men are married. Nonetheless, even in this age group, 88 percent of currently married men are employed. The percentage of employed men earning only cash is relatively low, at 61 percent, only in the youngest age group; in the remaining age groups 70-75 percent of men earn only cash. In no age group is the proportion of men employed with no earnings higher than 9 percent.

Employment in the past 12 months among currently married women varies greatly by state, from 21 percent in Delhi and 23 percent in Punjab to 65 percent in Manipur, 71 percent in Chhattisgarh, and 76 percent in Arunachal Pradesh (Table 14.2). Other states where at least half of currently married women are employed are Jharkhand, Rajasthan, Madhya Pradesh, Andhra Pradesh, and Gujarat. By contrast, employment among currently married men does not vary across states. In all states, 96 percent or more currently married men were employed at some time during the past 12 months.

Among the employed, the percentage who earn cash (either cash only or both cash with in-kind payment) also varies much more for women than for men across states. More than three out of four employed men earn cash in all states except Manipur, Nagaland, and Chhattisgarh. Even in Manipur, Nagaland, and Chhattisgarh, 67-75 percent earn cash—more than the national average for women. By contrast, the percentage of employed currently married women earning cash varies from a high of 95 percent in Delhi to a low of 33 percent in Himachal Pradesh. In 11 states, including Himachal Pradesh, less than half of employed women earn cash. None of these states are in the West or the South Regions. States where at least three out of four employed currently married women are earning cash include Kerala (91 percent), Tamil Nadu (90 percent), Assam (85 percent), Andhra Pradesh (84 percent), Goa (83 percent), West Bengal (83 percent), Punjab (79 percent), and Manipur (76 percent). Notably, several of the states where a high proportion of the employed are earning cash, including Delhi, are the very states in which women are least likely to be employed.

These tables show a distinct disadvantage for currently married women compared with currently married men not only in terms of the proportions employed, but also in the proportions who are paid in cash for their work. The level of disadvantage varies greatly across states.

For women, earning cash is not likely to be a sufficient condition for financial empowerment. Financial empowerment also requires control over the use of one's earnings. In addition, a married woman's ability to convert earnings into empowerment in her own household may also depend on the perceived relative importance of these earnings to the household. Accordingly, in NFHS-3, currently married women who were employed at any time in the 12 months preceding the survey were asked 'Who decides how the money you earn will be used: mainly you, mainly your husband, or you and your husband jointly?' to measure women's

Table 14.2 Employment and cash employment by state

Percentage of currently married women and currently married men age 15-49 who were employed in the 12 months preceding the survey and among those employed in the 12 months preceding the survey, percentage who were earning cash, according to state, India, 2005-06

State	Currently married women		Currently married men	
	Percentage employed in the past 12 months	Among those employed in the past 12 months, percentage earning cash	Percentage employed in the past 12 months	Among those employed in the past 12 months, percentage earning cash
India	42.8	64.2	98.8	91.5
North				
Delhi	20.8	94.7	99.5	99.5
Haryana	27.8	51.9	98.3	96.7
Himachal Pradesh	31.1	33.4	97.4	87.1
Jammu & Kashmir	36.1	35.5	99.6	84.5
Punjab	23.2	78.9	99.0	98.9
Rajasthan	56.3	48.0	98.5	95.9
Uttaranchal	45.5	33.5	98.8	82.3
Central				
Chhattisgarh	71.4	44.5	99.4	67.4
Madhya Pradesh	56.3	59.3	99.2	89.2
Uttar Pradesh	33.8	44.6	98.4	94.6
East				
Bihar	35.2	49.8	96.3	88.0
Jharkhand	57.7	47.4	99.2	87.3
Orissa	36.1	72.4	98.8	78.4
West Bengal	32.1	83.2	99.3	94.8
Northeast				
Arunachal Pradesh	76.1	37.0	97.1	75.0
Assam	27.0	85.3	97.8	92.3
Manipur	65.3	76.0	98.6	74.6
Meghalaya	42.5	48.8	98.5	85.9
Mizoram	45.2	61.7	98.2	75.8
Nagaland	48.3	41.5	97.8	69.6
Sikkim	32.2	69.3	98.8	90.0
Tripura	29.7	74.3	99.2	94.1
West				
Goa	33.1	82.6	97.7	95.3
Gujarat	51.9	60.7	99.5	80.9
Maharashtra	49.6	69.6	99.3	97.4
South				
Andhra Pradesh	53.3	83.6	99.0	99.1
Karnataka	47.0	72.0	99.6	78.7
Kerala	29.1	91.3	98.9	97.8
Tamil Nadu	48.4	89.9	99.4	98.6

relative control over the use of their earnings. Women were also asked 'Would you say that the money that you earn is more than what your husband earns, less than what he earns, or about the same?' to assess the relative magnitude of women's earnings in comparison to their husband's earnings. Currently married men who said that their wives were employed for cash were also asked these questions about their wife's earnings. Women's and men's responses to these questions are tabulated according to the respondent's background characteristics in Tables 14.3.1 and 14.3.2, respectively. It is expected that employment and earnings are more likely to empower women if women (alone or jointly with their husbands) make decisions about their own earnings and if these earnings are perceived by both wives and husbands to be significant relative to those of the husband.

As shown in Table 14.3.1, most currently married women who are employed and earn cash say that they, either alone (24 percent) or jointly with their husbands (57 percent), decide

how the money they earn will be used. One in six women do not participate in the decision of how their earnings are used. For 15 percent, the husband mainly decides how the money they earn will be used and, for another 3 percent, someone other than the husband decides. The proportion of women who themselves mainly decide the disposition of their own earnings increases with age, education, and wealth, whereas the proportion for whom the husband mainly decides, decreases with age, education, and wealth. However, even among the oldest age group, the most highly educated category of women, and women belonging to the highest wealth quintile, only 28-31 percent of women mainly decide for themselves how their earnings are to be used. Currently married employed women in urban areas are more likely to say that they themselves mainly decide how their earnings are used and much less likely to say that their husband mainly decides this, than their rural counterparts. The distribution according to decision maker about the use of women's earnings is similar for nuclear and non-nuclear households with one difference: some person other than the wife or husband is more likely to make decisions about the use of the woman's earnings in non-nuclear households (6 percent) than in nuclear households (0.6 percent).

Table 14.3.1 Control over women's cash earnings and relative magnitude of women's cash earnings: Women's reports

Percent distribution of currently married women age 15-49 who received cash earnings for employment in the 12 months preceding the survey by person who decides how cash earnings are used and by whether women earned more or less than their husband, according to background characteristics, India, 2005-06

	Person who decides how women's cash earnings are used:						Women's cash earnings compared with their husband's cash earnings:						
Background characteristic	Mainly wife	Wife and husband	Mainly husband	Other	Missing	Total	More	Less	About the same	Husband has no earnings	Don't know/ missing	Total	Number of women
Age													
15-19	17.7	42.1	20.0	18.6	1.6	100.0	7.3	79.8	6.0	1.7	5.1	100.0	1,162
20-24	19.1	52.7	18.6	8.1	1.5	100.0	6.8	79.8	8.8	0.7	3.9	100.0	3,164
25-29	22.5	57.3	16.2	2.7	1.3	100.0	8.0	79.0	8.8	1.0	3.1	100.0	5,064
30-39	25.5	58.5	13.5	1.0	1.4	100.0	10.8	72.5	11.1	2.2	3.3	100.0	10,169
40-49	28.3	57.2	12.7	0.4	1.4	100.0	12.6	66.8	12.5	4.3	3.8	100.0	6,041
Residence													
Urban	33.3	55.2	8.0	1.6	1.8	100.0	12.4	69.9	11.6	2.9	3.2	100.0	7,075
Rural	21.0	57.0	17.3	3.4	1.3	100.0	9.1	75.1	10.0	2.1	3.7	100.0	18,526
Education													
No education	22.7	54.9	18.3	2.6	1.5	100.0	9.1	73.7	10.5	2.5	4.2	100.0	14,756
<5 years complete	24.0	58.0	13.5	3.3	1.2	100.0	10.3	75.0	9.5	2.6	2.6	100.0	2,375
5-7 years complete	26.5	55.4	12.5	4.3	1.4	100.0	8.8	78.0	8.5	2.0	2.7	100.0	3,133
8-9 years complete	27.4	58.7	7.9	4.6	1.4	100.0	9.3	77.5	8.2	2.2	2.8	100.0	1,710
10-11 years complete	28.2	59.4	9.0	2.6	0.8	100.0	12.2	75.5	8.9	1.3	2.0	100.0	1,241
12 or more years complete	28.6	63.7	4.9	1.3	1.6	100.0	16.6	63.0	16.2	1.5	2.7	100.0	2,384
Number of living children													
0	23.5	50.0	14.2	10.7	1.6	100.0	7.9	76.9	8.6	2.1	4.6	100.0	2,307
1-2	24.2	56.5	14.6	3.4	1.3	100.0	10.7	74.0	10.6	1.8	2.9	100.0	10,699
3-4	24.5	57.4	15.6	1.2	1.4	100.0	9.9	73.3	10.7	2.7	3.4	100.0	9,513
5+	25.7	58.5	13.3	0.5	1.9	100.0	9.6	71.5	10.7	2.7	5.5	100.0	3,082
Household structure[1]													
Nuclear	24.4	59.0	14.5	0.6	1.4	100.0	10.3	73.6	10.6	2.3	3.2	100.0	15,570
Non-nuclear	24.4	52.6	15.1	6.4	1.4	100.0	9.7	73.8	10.2	2.3	4.1	100.0	10,031
Religion													
Hindu	23.1	56.9	15.5	3.0	1.4	100.0	9.7	73.8	10.6	2.2	3.7	100.0	21,819
Muslim	37.3	48.3	10.2	2.4	1.9	100.0	10.3	75.3	8.1	2.9	3.4	100.0	2,268
Christian	24.9	62.9	9.3	2.1	0.7	100.0	14.3	71.4	11.0	1.7	1.6	100.0	784
Sikh	30.2	59.3	8.0	1.9	0.6	100.0	9.2	72.2	11.9	3.3	3.4	100.0	230
Buddhist/Neo-Buddhist	18.6	62.5	15.1	2.1	1.7	100.0	14.8	69.4	12.1	1.8	2.0	100.0	328
Jain	(38.9)	(60.4)	(0.0)	(0.0)	(0.7)	100.0	(24.2)	(51.5)	(17.4)	(6.2)	(0.7)	100.0	23
Other	17.7	68.6	9.5	2.0	2.2	100.0	17.2	71.1	7.7	1.5	2.4	100.0	125
Caste/tribe													
Scheduled caste	25.2	56.3	14.9	2.5	1.1	100.0	9.8	76.3	9.2	2.1	2.7	100.0	6,287
Scheduled tribe	17.1	59.0	19.4	3.3	1.2	100.0	9.8	73.3	11.7	2.0	3.3	100.0	3,146
Other backward class	22.7	57.2	15.2	3.2	1.7	100.0	9.4	72.9	11.0	2.3	4.5	100.0	10,083
Other	30.6	54.4	11.1	2.4	1.5	100.0	11.4	72.8	10.0	2.6	3.1	100.0	5,800
Don't know	30.7	43.3	22.5	2.7	0.8	100.0	13.9	77.8	6.6	1.0	0.8	100.0	169

Continued…

Table 14.3.1 Control over women's cash earnings and relative magnitude of women's cash earnings: Women's reports—*Continued*

Background characteristic	Person who decides how women's cash earnings are used: Mainly wife	Wife and husband	Mainly husband	Other	Missing	Total	Women's cash earnings compared with their husband's cash earnings: More	Less	About the same	Husband has no earnings	Don't know/ missing	Total	Number of women
Wealth index													
Lowest	20.1	58.0	17.7	2.9	1.3	100.0	8.5	74.9	10.3	2.2	4.2	100.0	6,552
Second	21.4	54.9	18.6	3.4	1.7	100.0	9.6	74.6	9.5	2.1	4.1	100.0	5,891
Middle	25.1	55.6	15.5	3.0	0.8	100.0	9.8	74.9	10.0	2.4	2.9	100.0	5,523
Fourth	28.9	55.6	10.8	3.0	1.7	100.0	10.9	73.1	10.3	2.6	3.1	100.0	4,164
Highest	31.4	59.0	6.3	1.6	1.8	100.0	13.0	68.7	13.1	2.1	2.9	100.0	3,471
Total	24.4	56.5	14.8	2.9	1.4	100.0	10.0	73.7	10.4	2.3	3.6	100.0	25,601

Note: Total includes women with missing information on education, religion, and caste/tribe, who are not shown separately.
( ) Based on 25-49 unweighted cases.
[1] Nuclear households are households comprised of a married couple or a man or a woman living alone or with unmarried children (biological, adopted, or fostered) with or without unrelated individuals.

The main decision maker about the use of currently married women's earnings varies greatly by religion and caste/tribe. The husband is more likely to be the main decision maker in the case of Buddhist/Neo-Buddhist and Hindu women (15-16 percent) than for women of any other religion; and Muslim and Jain women (37-39 percent) are more likely to be the main decision makers themselves than women of any other religion. Notably, less than half of Muslim women say that they decide about the use of their earnings jointly with their husband, compared with 57-69 percent of women of any other religion. By caste/tribe, 19 percent of women belonging to the scheduled tribes say that their husbands mainly decide about the use of their earnings, compared with 11-15 percent for women in the other caste/tribe groups; and it is women in the 'other' caste/tribe category who are most likely to say that they themselves mainly decide the use of their own earnings (31 percent).

The proportion of women deciding about the use of their own earnings jointly with their husbands varies little by background characteristics. In general, 53-59 percent of women in most categories say that they jointly with their husbands are the main decision makers on the use of their earnings. The major exceptions are women age 15-19, Muslim women, and women with no children who are less likely and women who have 12 or more years of education and women belonging to religions other than the Hindu, Muslim, and Sikh religions who are more likely than the average woman to make this decision jointly with their husband.

The second vertical panel of Table 14.3.1 shows the percent distribution of currently married women who earned cash for employment in the past 12 months, according to the magnitude of their earnings relative to those of their husband. Overall, only 10 percent of the women say that their earnings are greater than their husbands' earnings and another 10 percent say that their earnings are about equal to their husbands' earnings. Thus the vast majority of women say that they earn less than their husband. The proportion of women who earn more or about the same as their husband varies between 13 and 26 percent for most groups of women with about a quarter of the older women, urban women, and women in the highest wealth quintile saying that they earn about the same or more than their husband. The most notable exception is employed women with 12 or more years of completed education, among whom one in three say that they earn at least as much as their husband.

In NFHS-3, to understand men's perspectives on women's earnings, currently married men whose wives were earning cash were also asked about the control of their wife's earnings and the relative magnitude of their wife's earnings compared with their own. Men's answers to these questions are tabulated according to men's background characteristics in Table 14.3.2.

Notably, men's reports of the decision maker for the use of their wife's earnings compare well with women's own answers on the same questions. However, men are somewhat less likely to report that their wife is the main decision maker (20 percent, compared with 24 percent for women), and somewhat more likely to say that the decisions about the use of their wife's earnings are taken jointly (63 percent, compared with 57 percent for women). The proportion saying that the husband mainly takes the decision about the use of the wife's earnings is almost the same whether women or men are asked the question (15 percent for women and 16 percent for men).

Table 14.3.2 Control over women's cash earnings and relative magnitude of women's cash earnings: Men's reports

Percent distribution of currently married men age 15-49 whose wives are employed and receive cash earnings by the person who decides how their wife's cash earnings are used and by whether their wife earned more or less than them, according to background characteristics, India, 2005-06

	Person who decides how women's cash earnings are used:					Women's cash earnings compared with their husband's cash earnings:						
Background characteristic	Mainly wife	Wife and husband	Mainly husband	Other	Total	More	Less	About the same	Husband has no earnings	Don't know/ missing	Total	Number of men
Age												
15-19	(14.3)	(74.2)	(11.5)	(0.0)	100.0	(3.2)	(60.6)	(23.1)	(13.0)	(0.0)	100.0	41
20-24	19.5	61.3	19.2	0.0	100.0	9.8	74.8	6.3	7.1	2.1	100.0	416
25-29	17.4	63.0	19.2	0.4	100.0	9.0	72.8	9.8	6.4	2.1	100.0	1,058
30-39	19.6	63.7	15.7	0.9	100.0	9.9	66.6	14.3	7.0	2.2	100.0	3,477
40-49	21.5	63.2	14.6	0.7	100.0	10.6	62.8	15.0	9.8	1.7	100.0	3,352
Residence												
Urban	27.3	61.6	10.7	0.5	100.0	13.4	68.5	13.8	2.6	1.7	100.0	2,380
Rural	17.2	64.1	17.9	0.8	100.0	8.7	65.3	13.6	10.3	2.1	100.0	5,965
Education												
No education	17.6	62.4	18.7	1.3	100.0	8.3	68.1	13.8	7.8	2.0	100.0	2,644
<5 years complete	18.2	60.6	20.3	0.9	100.0	9.1	66.9	13.0	10.0	1.1	100.0	1,451
5-7 years complete	21.4	62.9	15.5	0.1	100.0	9.6	67.8	10.9	9.6	2.2	100.0	1,395
8-9 years complete	23.8	59.9	16.1	0.2	100.0	11.4	67.7	11.0	8.2	1.6	100.0	1,039
10-11 years complete	19.4	68.1	12.0	0.4	100.0	12.8	65.0	12.7	7.2	2.3	100.0	612
12 or more years complete	23.3	69.9	6.5	0.4	100.0	12.7	59.0	20.2	5.1	3.0	100.0	1,204
Number of living children												
0	21.6	63.1	15.1	0.2	100.0	9.4	67.6	14.1	7.4	1.5	100.0	678
1-2	19.7	64.2	15.4	0.7	100.0	10.6	66.7	13.9	6.9	1.8	100.0	3,644
3-4	19.8	62.0	17.7	0.5	100.0	10.0	65.2	14.0	8.7	2.1	100.0	3,136
5+	21.5	65.1	11.7	1.7	100.0	8.1	67.2	11.0	11.1	2.6	100.0	886
Household structure[1]												
Nuclear	20.0	63.5	16.0	0.6	100.0	10.4	66.6	13.8	7.1	2.1	100.0	5,189
Non-nuclear	20.2	63.2	15.7	0.9	100.0	9.4	65.7	13.4	9.7	1.8	100.0	3,156
Religion												
Hindu	20.0	63.1	16.1	0.8	100.0	9.5	66.0	14.0	8.4	2.1	100.0	7,238
Muslim	24.1	55.9	20.0	0.0	100.0	12.2	73.9	7.1	5.3	1.6	100.0	555
Christian	15.9	75.3	8.5	0.3	100.0	15.4	58.5	14.3	9.8	2.0	100.0	306
Sikh	(14.1)	(77.7)	(8.3)	(0.0)	100.0	(11.2)	(49.5)	(37.1)	(2.1)	(0.0)	100.0	56
Buddhist/Neo-Buddhist	21.3	66.8	11.9	0.0	100.0	12.9	69.4	15.5	0.8	1.4	100.0	129
Other	14.2	82.0	3.8	0.0	100.0	16.3	70.9	4.2	8.4	0.2	100.0	46
Caste/tribe												
Scheduled caste	20.2	60.4	18.4	1.0	100.0	9.8	73.2	11.1	4.4	1.5	100.0	1,834
Scheduled tribe	14.8	69.8	14.9	0.5	100.0	6.5	59.9	16.5	16.0	1.1	100.0	1,306
Other backward class	19.6	64.9	14.5	1.0	100.0	10.5	65.6	13.2	8.3	2.4	100.0	3,127
Other	24.2	59.5	16.2	0.1	100.0	11.8	65.5	14.4	5.9	2.4	100.0	2,011
Wealth index												
Lowest	17.8	64.0	17.4	0.8	100.0	7.7	68.7	11.0	11.2	1.5	100.0	2,008
Second	18.4	61.3	19.7	0.7	100.0	8.3	68.1	12.8	8.9	1.8	100.0	1,909
Middle	18.1	62.0	18.7	1.1	100.0	9.9	66.7	13.1	8.3	2.0	100.0	1,804
Fourth	24.3	62.5	12.6	0.5	100.0	12.8	63.9	14.0	7.1	2.3	100.0	1,364
Highest	24.4	68.4	7.1	0.1	100.0	13.3	61.6	19.7	2.8	2.7	100.0	1,260
Total age 15-49	20.1	63.4	15.9	0.7	100.0	10.0	66.2	13.7	8.1	2.0	100.0	8,345
Age 50-54	20.8	62.4	16.3	0.5	100.0	10.9	59.5	16.4	10.5	2.8	100.0	924
Total age 15-54	20.1	63.3	15.9	0.7	100.0	10.1	65.6	13.9	8.3	2.1	100.0	9,269

Note: Total includes men with missing information on education and caste/tribe, Jain men, and men for whom caste/tribe is not known, who are not shown separately.
( ) Based on 25-49 unweighted cases.
[1] Nuclear households are households comprised of a married couple or a man or a woman living alone or with unmarried children (biological, adopted, or fostered) with or without unrelated individuals.

Men's responses to the question about the control of their wife's earnings do not vary linearly with several background characteristics, particularly with their age, education, number of living children, and wealth. As in the case of women, urban men are more likely than rural men to report that the wife is the main decision maker about the use of her own earnings. Muslim men, like Muslim women, were more likely than men of most other religions to say that the wife mainly takes the decision about the use of her own earnings; they were also most likely to say that they themselves mainly take the decision about the use of their wife's earnings.

When men whose wives were employed for cash were asked about the relative magnitude of their wife's earnings, 10 percent said that their wife earned more than them, 66 percent said that she earned less than them, and 14 percent said that she earned about the same. This distribution also compares quite well with the distribution based on women's responses. However, 8 percent of men who had a wife with earnings said that they themselves did not have cash earnings, while only 2 percent of women with earnings reported their spouses as not earning cash. The youngest and the oldest men are more likely than men in other age groups to have wives who earn the same or more than them; however, the youngest men are also more likely than older men to not have any cash earnings. The proportions of men who have wives who earn the same or more than them is highest for men who have 12 or more years of education, for Sikh men, and for men who belong to the 'other' caste/tribe category. The likelihood of a man's wife earning at least as much as him, increases with the wealth index; notably too, the proportion of men reporting having no cash earnings declines with the wealth index. At double the national average, men belonging to the scheduled tribes are more likely than any other category of men to report not having any cash earnings.

This direct comparison of men's and women's responses to a wife's control over her own earnings suggests that only about 20-25 percent of wives (depending on whether women or men are asked) mainly make decisions about the use of their own earnings. Further, the data suggest that among couples in which both partners have earnings, in more than one in five the woman is earning as much or more than her husband.

Since a large proportion of married women are not employed and do not earn cash, their autonomy and empowerment will depend in part on having a say in how the earnings of their husbands are used. Furthermore, research suggests that an increase in household income spent by women is associated with an increase in the share of the household budget allocated to child welfare expenditures (World Bank, 2001). Accordingly, NFHS-3 asked currently married women and currently married men who—the wife, the husband, or both husband and wife jointly—is the main decision maker with regard to the husband's earnings. Table 14.4 shows the responses of currently married women and men to this question. Overall, women are somewhat more likely than men to report that they mainly decide how their husband's income is used (7 percent of women, compared with 2 percent of men), and men are somewhat more likely than women to say that they mainly decide how their own income is used (28 percent of men, compared with 25 percent of women). The majority of both women and men say that the decision is made jointly. Women are about twice as likely as men to say that someone other than the man or the woman decides how the husband's income is to be used.

Table 14.4 Control over men's cash earnings

Percent distribution of currently married women age 15-49 whose husbands receive cash earnings and of currently married men age 15-49 who receive cash earnings, by person who decides how men's cash earnings are used, according to background characteristics, India, 2005-06

Background characteristic	Person who decides how men's cash earnings are used: Reported by currently married women: Mainly wife	Husband and wife jointly	Mainly husband	Other	Missing	Total	Number of women	Reported by currently married men: Mainly wife	Husband and wife jointly	Mainly husband	Other	Missing	Total	Number of men
Age														
15-19	3.7	43.0	27.7	25.4	0.2	100.0	6,419	0.0	55.1	27.8	17.0	0.0	100.0	273
20-24	4.2	53.9	26.6	15.1	0.1	100.0	16,351	1.3	58.4	28.2	11.9	0.2	100.0	3,375
25-29	5.5	62.2	24.8	7.3	0.2	100.0	18,300	1.5	61.4	30.6	6.1	0.4	100.0	6,870
30-39	7.5	66.5	23.1	2.8	0.1	100.0	30,511	2.1	67.0	28.2	2.0	0.6	100.0	16,165
40-49	9.0	66.0	23.8	1.1	0.1	100.0	19,568	2.9	69.8	26.4	0.4	0.5	100.0	12,668
Residence														
Urban	7.2	66.4	21.5	4.8	0.1	100.0	28,079	2.9	69.2	25.4	2.1	0.4	100.0	14,028
Rural	6.3	59.5	25.9	8.2	0.2	100.0	63,071	1.8	64.3	29.6	3.7	0.6	100.0	25,324
Education														
No education	7.6	59.4	26.4	6.4	0.2	100.0	43,011	2.4	62.4	32.7	1.8	0.6	100.0	9,193
<5 years complete	7.0	58.8	28.2	5.9	0.1	100.0	7,598	3.3	62.8	31.4	2.1	0.4	100.0	4,710
5-7 years complete	6.6	60.2	24.4	8.5	0.2	100.0	13,704	2.2	63.6	29.8	3.9	0.4	100.0	6,714
8-9 years complete	5.2	63.3	22.8	8.5	0.1	100.0	10,495	2.1	66.5	26.4	4.6	0.4	100.0	6,839
10-11 years complete	4.5	65.8	21.2	8.4	0.1	100.0	7,577	1.9	69.1	24.7	3.7	0.6	100.0	4,707
12 or more years complete	4.1	71.4	17.4	7.0	0.1	100.0	8,760	1.4	72.9	22.0	3.0	0.7	100.0	7,183
Number of living children														
0	3.7	50.3	26.8	19.1	0.2	100.0	9,743	1.4	62.0	27.6	8.7	0.3	100.0	4,428
1-2	5.6	61.3	24.9	8.2	0.1	100.0	40,143	2.2	66.0	27.6	3.6	0.5	100.0	18,222
3-4	8.0	64.3	23.6	3.9	0.1	100.0	30,571	2.3	66.8	29.0	1.4	0.6	100.0	12,572
5+	8.6	65.4	24.0	1.7	0.2	100.0	10,693	2.5	68.7	27.7	0.4	0.7	100.0	4,129
Household structure[1]														
Nuclear	7.6	67.1	23.8	1.3	0.1	100.0	47,135	2.6	69.2	27.4	0.2	0.6	100.0	20,452
Non-nuclear	5.4	55.7	25.3	13.4	0.2	100.0	44,015	1.7	62.8	28.7	6.3	0.5	100.0	18,900
Religion														
Hindu	6.3	61.9	24.3	7.3	0.2	100.0	74,223	2.2	65.8	28.2	3.3	0.5	100.0	32,250
Muslim	8.3	56.7	27.7	7.3	0.1	100.0	12,020	2.1	63.4	31.9	2.3	0.3	100.0	4,970
Christian	7.8	69.8	20.5	1.7	0.2	100.0	2,008	3.7	73.3	21.2	0.5	1.3	100.0	835
Sikh	4.9	65.0	21.0	9.1	0.1	100.0	1,533	2.2	83.6	10.0	3.9	0.2	100.0	719
Buddhist/Neo-Buddhist	6.9	71.3	19.4	2.0	0.3	100.0	669	1.5	70.1	27.0	0.9	0.5	100.0	322
Jain	2.2	74.0	16.5	7.4	0.0	100.0	275	1.8	74.7	18.1	4.4	0.9	100.0	125
Other	7.7	71.7	19.0	1.2	0.5	100.0	325	1.8	87.3	8.4	1.9	0.7	100.0	123
Caste/tribe														
Scheduled caste	6.9	62.6	24.4	5.9	0.2	100.0	17,063	2.8	63.8	30.2	2.7	0.5	100.0	7,775
Scheduled tribe	5.5	65.0	25.0	4.3	0.2	100.0	7,471	1.6	65.0	30.3	2.6	0.5	100.0	3,151
Other backward class	7.1	60.2	23.7	8.9	0.1	100.0	36,381	1.9	66.5	27.3	3.7	0.6	100.0	15,531
Other	6.0	62.2	25.2	6.5	0.1	100.0	29,494	2.2	67.3	27.1	2.9	0.5	100.0	12,671
Don't know	7.1	40.9	46.6	4.9	0.5	100.0	458	6.7	56.5	33.5	3.3	0.0	100.0	91
Wealth index														
Lowest	7.0	61.5	25.3	5.9	0.2	100.0	17,066	2.4	63.3	31.4	2.6	0.4	100.0	6,847
Second	6.8	58.7	26.6	7.7	0.2	100.0	18,066	1.9	63.1	31.0	3.5	0.5	100.0	7,412
Middle	7.2	58.5	26.3	7.8	0.1	100.0	18,256	2.5	63.3	30.4	3.1	0.6	100.0	7,999
Fourth	6.6	60.3	24.8	8.2	0.1	100.0	18,566	2.1	65.9	28.1	3.5	0.4	100.0	8,415
Highest	5.2	68.6	20.1	6.0	0.1	100.0	19,196	2.0	73.6	20.7	3.0	0.6	100.0	8,679
Total age15-49	6.6	61.6	24.6	7.1	0.2	100.0	91,150	2.2	66.1	28.1	3.1	0.5	100.0	39,352
Age 50-54	na	na	na	na	na	na	na	3.5	67.4	28.0	0.4	0.7	100.0	3,831
Total age 15-54	na	na	na	na	na	na	na	2.3	66.2	28.1	2.9	0.5	100.0	43,183

Note: Total includes women/men with missing information on education, religion, and caste/tribe, who are not shown separately.
na = Not applicable
[1] Nuclear households are households comprised of a married couple or a man or a woman living alone or with unmarried children (biological, adopted, or fostered) with or without unrelated individuals.

For both women and men, the proportion who say that the wife participates (mainly alone or jointly with the husband) in decisions about the use of her husband's earnings increases with age. For women, the increase is from 47 percent for the youngest women to 75 percent for the oldest women. For men, the corresponding increase is from 55 percent to 73 percent. Thus, the youngest men are more likely than the youngest women to say that the wife has some control over the use of the husband's income.

There is a remarkable similarity in women's and men's reports regarding any participation of the wife (mainly alone or jointly with the husband) in decision making about the use of the husband's income according to residence, education, caste/tribe, and wealth. Hindu, Muslim, Christian and Jain women and men also provide very similar answers, but significant differences exist between responses of women and men of other religions. Men with no children are much more likely than women with no children to say that the wife participates in decisions about the use of the husband's income, although the differences between men's and women's responses are small if they have children. Despite the overall similarity in the proportions of women and men reporting about women's participation in decisions about the use of husband's earnings, their reports on the wife mainly making the decision tend to be different. Women in every sub-group are more likely than men in the corresponding sub-group to say that the wife mainly takes the decision about the use of the husband's income, although this proportion remains quite small (4-9 percent) for every group of women.

Table 14.5 summarizes the information on currently married women's and men's employment and earnings control for India and by state. For India as a whole, 81 percent of currently married women with earnings say that they alone or jointly with their husbands decide on how their own earnings are used; 68 percent of all currently married women (who have husbands with cash earnings) say that they alone or with their husbands are the main decision makers about the use of their husband's earnings; and 21 percent of currently married women who have earnings and their husbands have earnings say that they earn as much or more than their husbands. The corresponding proportions reported by currently married men are the same or slightly higher.

In all states, except Andhra Pradesh and Karnataka, at least three out of four currently married women with earnings say that they alone or jointly with their husbands make decisions about the use of their own earnings, and in 10 states, including Uttar Pradesh, Punjab, Delhi and almost all of the northeastern states, this proportion is more than 90 percent. Half or more of all currently married women participate in decisions about the use of their husband's earnings in all states; however, this proportion is more than 75 percent in 11 states, including most of the northeastern states. A comparison of the proportions of women reporting participation in the use of their own earnings (if they have any) and in the use of their husband's earnings shows that both indicators are high in Arunachal Pradesh, Manipur, Mizoram, Nagaland, and Sikkim in the Northeast and in Delhi; and both are relatively low in Andhra Pradesh, Karnataka, and Rajasthan. Further, according to the reports of women with earnings, the proportion who earn about the same or more than their husbands ranges from a low of 14 percent in West Bengal and 16-18 percent in Andhra Pradesh, Madhya Pradesh, Orissa, Rajasthan, and Jammu and Kashmir to 33 percent in Assam and Arunachal Pradesh, 34 percent in Nagaland, and 47 percent in Mizoram.

A comparison of women's and men's responses shows that the proportions of men who report that their wife mainly or jointly with them decides the use of her earnings is higher compared with women in all but 11 states, namely Himachal Pradesh and Punjab in the North Region, Bihar and West Bengal in the East Region, Assam, Manipur, Mizoram, and Sikkim in

Table 14.5 Control over women's and men's cash earnings and relative magnitude of women's cash earnings by state

Percentage of currently married women and currently married men by person who decides how women's and men's cash earnings are used and by the relative magnitude of women's cash earnings, compared with their husband's cash earnings by state, India, 2005-06

State	Percentage of currently married women who report that they:			Percentage of currently married men who report that:		
	Alone or jointly with their husband decide how their own earnings are used[1]	Alone or jointly with their husband decide how their husband's earnings are used[2]	Earn more or about the same as their husband[3]	They alone or jointly with their wife decide how their wife's earnings are used[4]	Their wife alone or jointly with them decides how their own earnings are used[5]	Their wife earns more or about the same as them[6]
India	80.9	68.2	21.0	83.4	68.3	25.8
North						
Delhi	93.0	83.8	28.5	95.5	83.5	36.2
Haryana	82.3	72.1	19.5	(100.0)	83.8	(50.8)
Himachal Pradesh	86.0	79.0	22.6	82.2	83.8	(28.0)
Jammu & Kashmir	84.4	59.7	18.3	*	67.3	*
Punjab	90.7	70.2	22.0	90.6	84.1	28.1
Rajasthan	75.3	58.9	18.0	88.5	57.1	23.0
Uttaranchal	86.4	66.9	26.3	92.3	78.5	(18.2)
Central						
Chhattisgarh	84.6	77.2	25.1	91.9	85.2	21.7
Madhya Pradesh	77.1	70.6	16.4	86.7	53.4	22.5
Uttar Pradesh	90.1	71.3	21.3	92.7	76.7	22.0
East						
Bihar	84.0	63.7	18.7	(73.4)	64.2	(25.9)
Jharkhand	88.1	78.2	23.6	95.4	86.9	22.4
Orissa	82.7	68.0	17.3	86.4	59.9	18.3
West Bengal	84.5	57.0	14.0	71.1	51.0	18.8
Northeast						
Arunachal Pradesh	91.7	85.3	32.7	95.6	81.9	47.9
Assam	90.3	74.7	32.6	87.6	78.9	33.0
Manipur	95.7	91.6	25.5	73.8	84.4	18.3
Meghalaya	87.9	80.0	27.7	89.9	76.0	37.4
Mizoram	91.5	89.1	46.9	82.3	76.6	42.6
Nagaland	95.2	93.6	34.2	97.2	84.5	32.8
Sikkim	94.8	82.5	29.9	92.6	85.0	30.4
Tripura	75.3	50.3	23.7	78.8	59.1	11.9
West						
Goa	92.0	73.7	22.7	88.3	66.0	35.8
Gujarat	81.1	66.4	22.4	83.8	71.7	45.6
Maharashtra	79.6	74.5	27.9	83.4	72.9	35.1
South						
Andhra Pradesh	68.8	61.7	16.2	77.9	60.6	17.3
Karnataka	71.5	61.2	25.5	80.9	55.5	18.0
Kerala	89.7	65.2	20.9	74.4	69.4	27.1
Tamil Nadu	87.5	81.4	22.1	84.3	83.3	24.1

( ) Based on 25-49 unweighted cases.
* Percentage not shown; based on fewer than 25 unweighted cases.
[1] Women who are employed for cash.
[2] Women whose husbands earn cash.
[3] Women who earn cash and whose husbands earn cash.
[4] Men whose wives are employed for cash.
[5] Men who earn cash.
[6] Men who earn cash and whose wives earn cash.

the Northeast Region, and Goa, Kerala and Tamil Nadu in the West and South Regions. Overall, the proportions of men who say that their wife participates in decisions about the use of their earnings ranges from 51 percent in West Bengal and 53-57 percent in Rajasthan, Madhya Pradesh, and Karnataka to 87 percent in Jharkhand. In 15 states, men are more likely than women to say that their wife mainly or jointly with them makes decisions about the use of their income. Men's and women's responses differ by over 10 points in Punjab, Haryana, and

Uttaranchal where men report greater participation than women, and in Madhya Pradesh and Mizoram where women report greater participation than men.

Finally, the proportion of men who have earnings and whose wives have earnings who report that their wife earns about the same or more than them ranges from 12 percent in Tripura to 48 percent in Arunachal Pradesh and 51 percent in Haryana. While in 12 states, fairly similar proportions (within five percentage points) of men and women say that the wife's earnings are about equal or more than the husband, in several states, the differential is large (more than10 percentage points). These states include Tripura, where more women than men say that the wife earns about the same or more than the husband, and Haryana, Gujarat, Arunachal Pradesh, and Goa, where more men than women say that the wife earns about the same of more than the husband.

This discussion of employment for cash of currently married women and women's financial status and autonomy through equality in earnings and participation in decisions about own and husband's earnings, underscores both the importance of married women's employment to the household economy as well as the disadvantages faced by women. While a significant proportion of currently married women are employed, almost one in three are unable to convert such employment into financial autonomy because they do not earn cash for the work they do. Further, when married women do earn cash, they do not necessarily have a say in how their earnings are used. In addition, almost one in three women does not have a say in how their husband's earnings are used. Finally, more than a fifth of currently married women who earn cash earn about the same or more than their husbands or have husbands who have no earnings. This statistic further attests to the importance of women's earnings for the household economy.

14.2 Decision making, Access to Resources, and Freedom of Movement

The ability of women to make decisions that affect the circumstances of their own lives is an essential aspect of empowerment. In order to assess women's decision-making autonomy, NFHS-3 collected information from currently married women on their participation in four different types of decisions: their own health care, making large household purchases, making household purchases for daily household needs, and visiting their family or relatives. Women were asked who usually makes each decision: 'mainly you, mainly your husband, you and your husband jointly, or someone else?' Further, to understand men's perspectives on women's participation in household decision making, men were asked about their attitudes regarding a wife's participation in household decision making. Specifically, men were asked 'In a couple, who do you think should have the greater say in each of the following decisions: the husband, the wife, or both equally?' The decisions asked about were: making major household purchases, making purchases for daily household needs, visiting wife's family or relatives, what to do with the money the wife earns from her work, and how many children to have. The results of these questions are shown in Tables 14.6 through 14.11.

Table 14.6 shows the percent distribution of currently married women according to the person in the household who usually makes specific decisions, by decision and residence. There is no decision for which a majority of currently married women alone are the main decision makers. Of the four decisions asked about, currently married women, irrespective of urban or

rural residence, are most likely to make the decision about purchases for daily household needs mainly by themselves: however, even this decision is made mainly alone by only one-third of all currently married women. Only 27 percent of currently married women make decisions about their own health care mainly by themselves and only 11 percent make decisions about visits to their own family or relatives by themselves. Women are least likely to make decisions mainly by themselves about major household purchases. This proportion is as low as 9 percent for India as a whole. Joint decision making is most common for decisions about visits to the respondent's family or relatives, followed by decisions about major household purchases. It is least common for decisions about daily household purchases. When husbands are the main decision makers, they most often make decisions about major household purchases, followed closely by decisions about the respondent's own health. For all decisions, the likelihood that a woman will take the decision mainly by herself, as well as the likelihood that she will do so jointly with her husband, are higher in urban areas than in rural areas. In contrast, the husband or someone other than the respondent or her husband is more likely to be the main decision maker in rural areas.

Table 14.6 Women's participation in decision making

Percent distribution of currently married women by person who usually makes decisions about four kinds of issues, India, 2005-06

Decision	Mainly respondent	Respondent and husband jointly	Mainly husband	Someone else	Other	Missing	Total
URBAN							
Own health care	29.7	39.1	26.5	3.5	1.1	0.1	100.0
Major household purchases	10.4	51.5	26.8	8.7	2.5	0.1	100.0
Purchases of daily household needs	39.9	28.9	19.8	8.8	2.5	0.1	100.0
Visits to her family or relatives	12.2	57.3	22.0	6.6	1.8	0.1	100.0
RURAL							
Own health care	26.0	33.4	31.7	7.6	1.3	0.1	100.0
Major household purchases	7.6	41.2	34.6	13.5	2.9	0.1	100.0
Purchases of daily household needs	29.1	27.1	26.9	13.9	2.9	0.1	100.0
Visits to her family or relatives	10.0	46.4	28.9	12.1	2.4	0.1	100.0
TOTAL							
Own health care	27.1	35.1	30.1	6.3	1.3	0.1	100.0
Major household purchases	8.5	44.4	32.2	12.0	2.8	0.1	100.0
Purchases of daily household needs	32.4	27.7	24.7	12.3	2.8	0.1	100.0
Visits to her family or relatives	10.7	49.8	26.8	10.4	2.2	0.1	100.0

The percent distribution of currently married men age 15-49 according to their responses about who in a couple *should* have the greater say for specific decisions is shown in Table 14.7 by decision and residence. Currently married men's opinions about women's participation in decision making generally match the reality of household decision making as reported by currently married women. A comparison for the three decisions that both women and men were asked about (major household purchases, purchases for daily household needs, and visits to the wife's family or relatives) shows that among these decisions, currently married men are most likely to say that wives should have the greater say in decisions about purchases of daily household needs (37 percent, compared with 32 percent of currently married women actually reporting making such decisions mainly by themselves), and least likely to say that the wife should have the greater say in decisions about major household purchases (6 percent, compared with 9 percent of currently married women actually reporting making such decisions mainly on their own). The corresponding proportions for the third type of decision, namely visits to her family or relatives, are 12 percent for men and 11 percent as reported by women. Further, among

currently married women and men, the proportions of men saying that the husband should have a greater say are also very similar to the proportions of women reporting that their husbands mainly make these decisions. Notably, however, men are much more likely to be of the opinion that husbands and wives should jointly make these decisions than the reality about such decision making as reported by women. For example, 68 percent of currently married men say that husbands and wives *should* have an equal say in decisions about major household purchases; however, only 44 percent of currently married women report that they make these decisions jointly with their husband. Adjustments for the fact that women often report that there are persons other than the husband and wife making such decisions does not explain the differential between what men say should happen and what women report is happening with regard to joint decision making.

Table 14.7 Men's attitude toward wives' participation in decision making

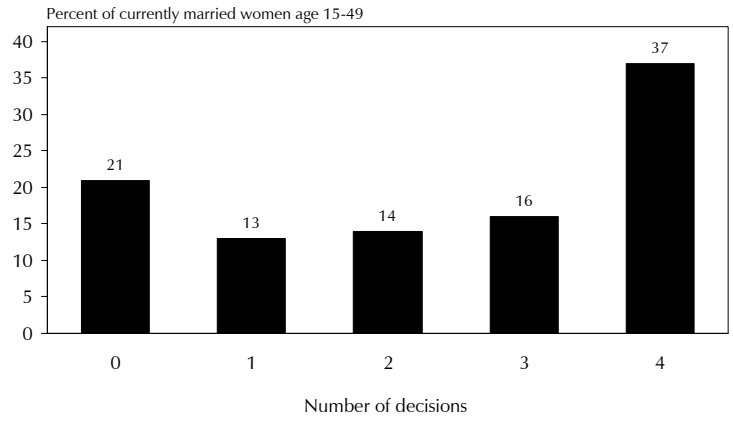
Percent distribution of currently married men 15-49 by person who they think, in a couple, should have a greater say in five specific decisions India, 2005-06

Decision	Mainly husband	Respon-dent and wife jointly	Mainly wife	Don't know/ depends	Total
	URBAN				
Major household purchases	22.5	70.0	7.1	0.5	100.0
Purchases of daily household needs	16.7	38.9	43.8	0.6	100.0
Visits to wife's family or relatives	20.4	64.6	14.3	0.6	100.0
What to do with the money wife earns	10.5	62.7	25.7	1.2	100.0
How many children to have	7.3	90.9	1.4	0.3	100.0
	RURAL				
Major household purchases	28.2	66.5	4.7	0.6	100.0
Purchases of daily household needs	25.8	40.0	33.5	0.7	100.0
Visits to wife's family or relatives	29.3	58.9	11.0	0.7	100.0
What to do with the money wife earns	16.7	64.5	17.4	1.4	100.0
How many children to have	10.5	87.4	1.5	0.6	100.0
	TOTAL				
Major household purchases	26.3	67.6	5.5	0.6	100.0
Purchases of daily household needs	22.8	39.6	36.9	0.7	100.0
Visits to wife's family or relatives	26.3	60.8	12.1	0.7	100.0
What to do with the money wife earns	14.6	63.9	20.1	1.3	100.0
How many children to have	9.5	88.5	1.5	0.5	100.0

With regard to decisions about what to do with the money the wife earns, 64 percent of currently married men say that wives should have an equal say and 20 percent say that wives should have the greater say. These proportions also compare favourably with the proportions of currently married women with earnings who report taking such decisions jointly with their husband (57 percent) and mainly by themselves (24 percent). Finally, in the case of decisions about how many children to have, the vast majority of men (89 percent) say that such decisions should be made jointly and most of the remainder say that the husband should have the greater say. Overall, 2 percent of men say that the wife should be the main decision maker regarding the number of children the couple should have.

Compared with urban men, a higher proportion of rural men say that in a couple, the husband should have the greater say in all four decisions and a lower proportion say that the wife should have the greater say for all but one of the decisions asked about. Only in the case of the decision about how many children to have, is the proportion of rural men saying that the wife should have the greater say equal to the proportion of urban men who say so, at 2 percent or less.

Figure 14.1 Number of Decisions in which Currently Married Women Participate



NFHS-3, India, 2005-06

Women may have a say in some and not in other decisions. To assess a woman's overall decision-making autonomy, the number of decisions (0-4) in which she participates (i.e., she mainly has the final say or does so jointly with her husband) are added together. The total number of decisions a woman participates in is one simple measure of her empowerment. Figure 14.1 gives the percent distribution of currently married women by the number of decisions in which they participate. Nationally, 37 percent of currently married women participate in all four decisions, 43 percent participate in some but not all of the decisions, and 21 percent do not participate in any of the four decisions.

Table 14.8 shows the percentage of currently married women who participate, alone or jointly with their husbands, in specific decisions according to background characteristics. Participation in decision making increases steadily with age and is higher in urban than in rural areas. Notably, almost half (46 percent) of the women age 15-19 do not participate in any of the four decisions, compared with 13 percent of women age 40-49. Women's participation in specific decisions does not vary greatly by their education level, although the proportion of women participating in each decision is higher for women who have 12 or more years of education, compared with women with no education. The percentage of women participating in all four decisions increases from 35 percent for women with no education to 46 percent of women with 12 or more years of education. Participation varies even less by the husband's level of education than it does by the woman's level of education.

Employment of women increases the likelihood of their participating in decision making only if they are employed for cash; in fact, women who are employed but do not earn cash are less likely than women not employed to participate in decision making. Further, the proportions of women not participating in any of the four decisions is lowest, at 15 percent, for women employed for cash, followed by 22 percent for women not employed in the past 12 months, and highest, at 26 percent, for women who were employed but did not earn cash. Among women who have children, participation in decision making varies little by the actual number of

Table 14.8 Women's participation in decision making by background characteristics

Percentage of currently married women age 15-49 who usually make specific decisions either by themselves or jointly with their husband, by background characteristics, India, 2005-06

Background characteristic	Percentage of women who usually make specific decisions alone or jointly				Percentage who participate in all four decisions	Percentage who participate in none of the four decisions	Number of women
	Own health care	Making major household purchases	Making purchases for daily household needs	Visits to her family or relatives			
Age							
15-19	40.4	25.1	29.1	33.5	15.1	46.1	6,726
20-24	52.5	39.2	44.6	47.5	25.2	31.1	16,782
25-29	62.2	50.7	58.7	58.9	34.3	20.4	18,540
30-39	67.7	60.7	68.8	67.1	42.8	14.1	30,952
40-49	69.3	63.6	71.2	71.6	46.3	12.8	20,089
Residence							
Urban	68.8	61.9	68.8	69.5	45.0	13.9	28,604
Rural	59.3	48.9	56.2	56.5	33.0	23.4	64,485
Education							
No education	59.4	51.5	59.5	57.5	34.9	22.7	43,931
<5 years complete	61.2	51.4	60.1	60.4	35.2	20.3	7,776
5-7 years complete	61.0	50.6	58.4	59.8	35.7	21.7	14,018
8-9 years complete	63.6	52.2	58.3	60.7	36.2	19.7	10,735
10-11 years complete	67.2	56.3	61.6	65.9	40.5	16.8	7,704
12 or more years complete	73.1	62.6	66.3	71.6	46.1	12.1	8,921
Husband's education							
No education	61.6	53.0	61.5	59.1	36.6	21.3	24,918
<5 years complete	61.1	52.3	60.5	60.9	35.7	20.2	8,366
5-7 years complete	62.0	52.2	60.3	59.7	36.5	20.8	14,793
8-9 years complete	59.5	50.2	56.8	58.3	33.7	21.8	14,615
10-11 years complete	62.5	51.1	58.0	60.2	36.1	21.3	13,144
12 or more years complete	66.2	57.3	62.0	65.2	40.6	17.3	17,100
Employment (past 12 months)							
Employed	63.0	55.3	63.7	62.9	38.8	19.0	39,835
Employed, for cash	67.7	61.0	69.5	68.0	44.3	15.0	25,601
Employed, not for cash	54.6	45.1	53.2	53.7	29.0	26.1	14,234
Not employed	61.7	51.1	57.4	58.7	35.1	21.6	53,225
Number of living children							
0	48.7	35.5	39.1	43.7	22.8	36.0	10,131
1-2	62.5	51.9	58.9	61.1	36.9	20.8	40,922
3-4	64.8	57.3	65.6	64.2	39.6	16.8	31,137
5+	66.4	60.2	68.2	63.1	40.6	15.1	10,898
Household structure[1]							
Nuclear	67.7	62.2	70.4	68.7	44.3	13.6	47,851
Non-nuclear	56.4	43.0	49.2	51.8	28.7	27.7	45,238
Religion							
Hindu	61.6	52.9	59.9	60.5	36.6	20.8	75,799
Muslim	61.6	49.8	57.9	55.1	33.7	22.8	12,288
Christian	75.5	69.1	75.7	79.5	55.4	9.7	2,041
Sikh	75.8	49.2	56.2	67.8	36.4	10.9	1,567
Buddhist/Neo-Buddhist	70.9	58.1	72.8	74.6	42.4	9.3	684
Jain	62.4	62.6	67.9	69.3	42.1	14.1	279
Other	69.7	67.9	76.5	74.5	46.5	6.5	333
Caste/tribe							
Scheduled caste	63.0	53.1	61.2	60.3	36.6	19.0	17,372
Scheduled tribe	59.9	54.8	62.3	62.9	37.5	20.0	7,632
Other backward class	59.7	51.5	58.5	58.5	35.4	23.0	37,198
Other	65.7	54.1	60.9	62.6	38.3	18.2	30,131
Don't know	44.2	39.1	50.0	45.1	22.9	32.2	462
Wealth index							
Lowest	58.5	51.2	58.7	55.7	34.2	23.3	17,425
Second	58.0	49.2	56.2	55.6	32.5	24.1	18,495
Middle	60.1	49.7	57.6	57.4	34.4	23.2	18,671
Fourth	63.7	52.9	60.5	61.8	37.1	19.6	18,985
Highest	70.3	61.0	66.8	71.1	44.7	12.7	19,513
Total	62.2	52.9	60.1	60.5	36.7	20.5	93,089

Note: Total includes women with missing information on education, husband's education, employment (past 12 months), religion, and caste/tribe, who are not shown separately.

[1] Nuclear households are households comprised of a married couple or a man or a woman living alone or with unmarried children (biological, adopted, or fostered) with or without unrelated individuals.

children; however, women who have no children are much less likely than women with one or more children to participate in household decision making. Non-nuclear household residence is associated with much lower participation in household decisions than nuclear residence, as is evident from the fact that women in non-nuclear households are twice as likely (28 percent) as women in nuclear households (14 percent) to not participate in any of the four decisions and women in nuclear households are one and a half times as likely as women in non-nuclear households to participate in all four decisions. Participation in decision making does not vary by caste/tribe status but does vary by religion. Participation is highest among Christian women and lowest among Muslim women, compared with women of other religions. The relationship of wealth with women's participation in decision making is not uniformly linear; nevertheless, women in the highest wealth quintile are most likely to participate in each of the decisions as well as in all four decisions.

Table 14.9 shows the percentage of currently married men age 15-49 who think that in a couple, the wife should have an equal or greater say than her husband in specific decisions, according to men's background characteristics. In general, currently married men are much more likely to say that a wife should have at least an equal say in household decision making than the reality of such decision making as reported by currently married women. For example, 73 percent of currently married men say that a wife should have at least an equal say as the husband in decisions about major household purchases, compared with only 53 percent of currently married women reporting having participated in such decisions. Overall, 50 percent of currently married men say that, in a couple, the wife should have at least an equal say in all of the five decisions men were asked about; only 4 percent say that women should not participate in any of the five decisions. Notably, the vast majority of men (84 and 90 percent) say that a wife should an equal or greater say as the husband in decisions about what to do with the money the wife earns and how many children to have.

Men's opinions about the role that wives should play in household decision making do not vary much by age, number of children, or household structure. Urban men are more likely to favour a wife's participation than rural men, as are employed men, compared with men who are not employed. The likelihood of men saying that the wife should have at least an equal say generally increases with men's education and with wealth. Sikh men are most likely (80 percent) and Muslim and Hindu men least likely (45-49 percent) to be of the opinion that women should have at least an equal say as their husbands in all five decisions. Men's opinions on wives roles in household decision making does not vary much between men who belong to the scheduled castes, scheduled tribes, or other backward classes, but the proportion of men who say that a wife should have at least an equal say in all five decisions is higher for men not belonging to any of these groups than among men who do belong to them.

Table 14.9 Men's attitude toward wives' participation in decision making

Percentage of currently married men age 15-49 who think a wife should have an equal or greater say than her husband on five specific kinds of decisions, by background characteristics, India, 2005-06

Background characteristic	Percentage of men who say that wives should have an equal or greater say than their husband on specific decisions							Number of men
	Making major household purchases	Making purchases for daily household needs	Visits to her family or relatives	What to do with the money the wife earns	How many children to have	All five decisions	None of the five decisions	
Age								
15-19	72.2	73.1	66.9	87.9	89.2	43.4	2.7	369
20-24	70.3	74.0	66.7	81.9	88.6	44.2	4.2	3,836
25-29	71.6	75.7	72.7	83.6	88.9	48.3	4.2	7,508
30-39	74.7	76.7	73.6	84.4	90.6	50.5	3.3	17,602
40-49	72.7	77.6	74.0	84.3	90.2	51.1	3.5	14,187
Residence								
Urban	77.1	82.7	78.9	88.3	92.3	57.5	2.3	14,434
Rural	71.1	73.5	69.9	81.9	88.8	45.8	4.3	29,068
Education								
No education	67.6	72.9	67.8	80.0	86.7	44.0	5.2	10,332
<5 years complete	68.6	70.3	67.5	78.1	87.8	43.0	4.9	5,336
5-7 years complete	70.8	75.7	71.4	83.2	88.9	47.3	4.0	7,456
8-9 years complete	73.6	76.2	72.6	85.1	90.5	48.1	3.3	7,520
10-11 years complete	77.0	80.6	78.1	86.7	92.4	55.3	2.5	5,115
12 or more years complete	82.7	84.2	81.8	91.6	94.9	61.8	1.4	7,735
Employment (past 12 months)								
Employed	73.1	76.5	73.0	84.0	90.0	49.7	3.6	42,966
Employed, for cash	73.0	76.8	73.1	84.2	90.0	50.0	3.7	39,352
Employed, not for cash	73.6	73.7	71.3	81.6	89.2	46.6	3.3	3,614
Not employed	73.4	76.1	68.7	85.6	92.6	43.8	1.5	505
Number of living children								
0	72.6	77.8	72.1	84.8	89.9	50.0	3.5	5,018
1-2	73.6	76.8	74.2	84.1	90.4	50.4	3.5	19,798
3-4	72.7	76.2	72.6	84.0	90.2	49.4	3.5	14,003
5+	72.7	75.0	69.3	83.2	87.9	47.1	4.3	4,682
Household structure[1]								
Nuclear	73.1	76.8	72.8	83.5	89.9	50.0	3.6	22,179
Non-nuclear	73.1	76.3	73.0	84.6	90.1	49.3	3.7	21,322
Religion								
Hindu	72.8	76.4	73.0	84.1	90.0	49.3	3.6	35,890
Muslim	71.6	73.8	66.7	80.6	88.0	45.2	4.7	5,302
Christian	76.0	81.3	81.6	87.4	92.5	56.1	2.1	936
Sikh	89.2	92.4	92.0	94.2	97.3	79.9	0.8	741
Buddhist/Neo-Buddhist	71.4	77.0	80.4	88.9	93.9	56.5	3.7	332
Jain	80.5	90.2	84.0	97.4	97.5	69.2	0.0	129
Other	86.0	83.2	84.3	88.4	92.2	62.0	1.2	164
Caste/tribe								
Scheduled caste	72.4	73.9	70.5	82.5	88.5	46.8	4.0	8,343
Scheduled tribe	69.2	73.3	73.7	82.4	88.1	47.9	4.4	3,948
Other backward class	71.7	77.9	73.3	85.5	90.8	48.5	3.1	17,202
Other	76.3	77.4	73.6	83.8	90.4	53.4	3.8	13,760
Don't know	69.6	72.1	73.2	79.6	92.0	45.2	4.3	111
Wealth index								
Lowest	69.2	69.7	66.5	80.1	87.5	42.6	4.8	7,962
Second	70.2	71.1	67.3	80.6	88.1	43.0	4.8	8,466
Middle	70.4	75.2	70.2	81.7	88.6	45.0	4.2	8,948
Fourth	74.0	78.1	75.1	85.9	90.8	51.5	3.0	9,035
Highest	81.0	87.4	84.3	91.3	94.4	64.8	1.6	9,090
Total age 15-49	73.1	76.5	72.9	84.0	90.0	49.7	3.6	43,501
Age 50-54	72.8	77.6	76.9	85.1	91.5	52.7	3.4	4,373
Total age 15-54	73.1	76.6	73.3	84.1	90.1	49.9	3.6	47,875

Note: Total includes men with missing information on education, employment (past 12 months), religion, and caste/tribe, who are not shown separately.

[1] Nuclear households are households comprised of a married couple or a man or a woman living alone or with unmarried children (biological, adopted, or fostered) with or without unrelated individuals.

Table 14.10 provides information by state on currently married women's participation in the four decisions women were asked about and currently married men's opinion with regard to a wife having an equal or greater say in the five decisions men were asked about. The proportion of currently married women who participate in all four decisions varies from a high of 77 percent in Meghalaya and 69-73 percent in Nagaland, Mizoram, and Manipur, all in the Northeast Region, to a low of 25 percent in Jammu and Kashmir, 24 percent in West Bengal, and 23 percent in Rajasthan. In fact, in all states, other than Delhi and the northeastern states except Tripura, less than half of currently married women say that they participate in all four decisions. According to decision, the proportions participating range from 44 percent in Jammu and Kashmir to 92 percent in Mizoram for decisions about own health care, from 38 percent in West

Table 14.10 Women's participation in decision making by state

Percentage of currently married women who usually make decisions on four specific kinds of decisions either by themselves or jointly with their husband, and percentage of men who say that wives should have an equal or greater say than their husband in specific kinds of decisions, by state, India, 2005-06

State	Percentage of women who usually make specific decisions alone or jointly with their husband						Percentage of men who say that wives should have the final say alone or jointly with their husband in:	
	Own health care	Making major household purchases	Making purchases for daily household needs	Visits to her family or relatives	Percentage who participate in all four decisions	Percentage who participate in none of the four decisions	All of the five decisions[1]	None of the five decisions[1]
India	62.2	52.9	60.1	60.5	36.7	20.5	49.7	3.6
North								
Delhi	74.2	67.3	75.7	74.9	52.0	10.4	74.4	1.2
Haryana	71.7	54.7	60.8	69.2	41.7	13.2	81.0	1.0
Himachal Pradesh	66.5	56.5	61.5	58.3	39.2	17.4	73.6	1.4
Jammu & Kashmir	43.5	44.9	46.9	43.4	25.2	37.3	55.6	5.2
Punjab	76.8	48.2	56.5	68.5	37.4	11.2	75.7	1.6
Rajasthan	51.9	40.5	49.2	44.0	22.8	31.4	42.8	0.4
Uttaranchal	60.8	49.4	56.4	56.0	36.0	24.6	67.3	2.1
Central								
Chhattisgarh	47.9	50.9	63.4	61.2	26.8	18.4	59.3	0.2
Madhya Pradesh	51.7	48.3	54.9	50.2	29.4	27.1	41.8	3.8
Uttar Pradesh	64.2	52.9	55.6	50.3	33.7	22.0	54.2	1.1
East								
Bihar	53.4	50.6	58.4	54.4	32.7	27.2	41.6	8.1
Jharkhand	61.2	59.8	64.7	65.5	41.8	19.5	63.5	0.7
Orissa	64.7	57.8	61.3	63.6	41.8	17.1	42.9	2.2
West Bengal	59.6	37.5	46.9	48.4	23.9	25.7	31.1	7.0
Northeast								
Arunachal Pradesh	68.7	74.1	86.7	90.4	53.5	2.7	46.0	1.1
Assam	80.0	72.0	70.0	80.9	60.9	11.6	61.1	3.0
Manipur	87.4	81.4	85.2	86.0	69.4	3.4	41.6	1.1
Meghalaya	87.5	82.5	84.1	87.3	77.3	9.3	69.8	10.5
Mizoram	91.9	79.6	86.0	89.5	70.4	2.3	44.9	4.6
Nagaland	90.7	82.1	87.2	93.7	73.1	1.4	56.7	0.4
Sikkim	79.5	76.6	78.3	83.7	58.7	5.5	75.7	0.4
Tripura	59.7	48.1	56.9	60.4	30.2	18.9	22.8	1.0
West								
Goa	67.5	67.3	74.6	84.5	47.0	7.5	62.3	1.6
Gujarat	63.2	53.3	66.2	70.4	36.6	13.1	55.5	3.0
Maharashtra	67.8	61.2	70.6	74.2	45.4	12.7	55.2	6.0
South								
Andhra Pradesh	61.8	52.7	60.4	65.5	40.4	24.3	39.8	7.8
Karnataka	53.3	50.5	56.4	55.9	35.2	26.9	54.0	2.9
Kerala	75.3	61.8	65.9	78.4	47.2	10.8	37.4	1.6
Tamil Nadu	73.2	63.3	77.8	76.7	48.8	8.2	44.7	1.5

[1] Decisions about major household purchases, purchases for daily household needs, visits to the wife's family or relatives, what to do with the money the wife earns, and how many children to have.

Bengal to 83 percent in Meghalaya for decisions about making major household purchases, from 47 percent in Jammu and Kashmir and West Bengal to 87 percent in Arunachal Pradesh and Nagaland for decisions about making purchases for daily household needs, and from 43 percent in Jammu and Kashmir to 94 percent in Nagaland for decisions about visits to her family or relatives.

In the country as a whole, 53 percent of currently married women participate in decisions about making major household purchases and 60-62 percent participate in each of the remaining three decisions. However, women's pattern of participation by decision varies greatly by state. Overall, there are 11 states where women are most likely to participate in decisions about their own health care, another 11 where they are most likely to participate in decisions about visits to their family or relatives, and seven where they are most likely to participate in decisions about making purchases for daily household needs. Women are least likely to participate in decisions about making major household purchases in the majority (24) of states, including all of the states in the East, West and Southern Regions of the country. There is no state in which women most often participate in decisions about major household purchases. Notably, in Chhattisgarh and Arunachal Pradesh, of all the decisions asked about, women are least likely to participate in decisions about their own health care.

The percentage of currently married men who say that, in a couple, a wife should have at least equal say as her husband in all five decisions is highest in Haryana (81 percent) and lowest in Tripura (23 percent). Notably, while participation of women in decision making tends to be most common in several of the northeastern states, men's approval of a wife's participation in decision making is relatively high in only two northeastern states (Sikkim and Meghalaya) as well as in the northern states of Haryana, Punjab, Delhi, Himachal Pradesh, and Uttaranchal.

To further understand women's access to financial resources, an important element of women's empowerment, NFHS-3 asked all women whether they have any money of their own that they alone can decide how to use and whether they have a bank or savings account that they themselves use. Women were also asked about their knowledge and use of micro-credit and similar programmes in the area. With regard to the latter, women were first asked 'Do you know of any programmes in this area that give loans to women to start or expand a business of their own?' If they answered 'yes' they were then asked 'Have you yourself ever taken a loan, in cash or in kind, from any of these programmes to start or expand a business?' Women's responses to all of these questions are shown in Table 14.11 by women's background characteristics. Overall, 45 percent of all women age 15-49 say that they have some money that they can use; 15 percent have a bank or savings account that they themselves use; 39 percent know of a programme that gives money to women to start or expand a business of their own; and only 4 percent of all women have ever taken a loan from such a programme.

All four of these indicators generally increase with age, are higher for women who are employed for cash than women who are not employed or not employed for cash, and are higher for formerly married women than for never marred or currently married women. Notably, 7 percent of formerly married women have ever taken a loan to start or expand a business, compared with 5 percent of currently married women and 1 percent of never married women. All four indicators are lower for women belonging to the scheduled tribes, compared with women

Table 14.11 Women's access to money and credit

Percentage of women who have access to money, who know of a microcredit programme and who have ever taken a loan from a microcredit programme by background characteristics, India, 2005-06

Background characteristic	Women's access to money		Women's knowledge and use of microcredit programmes		Number of women
	Percentage who have money that they can decide how to use	Percentage who have a bank or savings account that they themselves use	Percentage who know of a microcredit programme	Percentage who have taken a loan from a microcredit programme	
Age					
15-19	35.0	7.2	30.8	0.8	24,811
20-24	41.6	10.9	37.5	2.5	22,779
25-29	46.0	15.7	40.3	4.4	20,417
30-39	49.1	19.4	41.4	6.0	33,522
40-49	50.1	20.8	42.4	5.9	22,856
Residence					
Urban	52.1	23.9	44.2	3.2	40,817
Rural	40.9	10.7	35.8	4.4	83,568
Education					
No education	43.1	7.4	26.3	3.8	50,487
<5 years complete	37.9	10.9	43.7	6.7	9,918
5-7 years complete	41.1	12.1	40.6	4.9	18,820
8-9 years complete	41.1	15.1	44.9	3.7	17,383
10-11 years complete	48.1	22.3	50.2	3.6	12,887
12 or more years complete	59.7	40.9	57.0	2.7	14,882
Employment (past 12 months)					
Employed	50.2	16.2	40.0	6.0	53,208
Employed, for cash	54.8	19.7	45.9	7.3	35,626
Employed, not for cash	40.8	9.0	28.0	3.5	17,582
Not employed	40.4	14.2	37.6	2.5	71,121
Marital status					
Never married	38.6	12.1	37.8	1.0	25,462
Currently married	44.9	15.3	38.5	4.7	93,089
Divorced/separated/widowed/deserted	65.5	23.4	44.2	6.6	5,834
Number of living children					
0	39.8	11.9	37.4	1.5	36,450
1-2	46.2	19.7	44.9	5.6	43,482
3-4	46.8	14.5	36.6	5.4	32,994
5+	47.6	9.0	24.0	2.2	11,459
Household structure[1]					
Nuclear	44.9	15.6	40.5	4.8	64,641
Non-nuclear	44.3	14.4	36.5	3.2	59,744
Religion					
Hindu	45.2	15.4	39.2	4.4	100,151
Muslim	42.4	10.5	30.6	1.8	16,936
Christian	42.2	24.4	60.4	8.9	3,053
Sikh	31.1	16.5	40.9	1.0	2,222
Buddhist/Neo-Buddhist	44.3	17.6	42.8	1.2	1,010
Jain	60.5	39.8	45.4	1.5	406
Other	59.5	10.8	33.0	3.3	484
Caste/tribe					
Scheduled caste	43.1	11.6	38.1	4.7	23,125
Scheduled tribe	38.2	9.0	30.1	3.1	10,119
Other backward class	45.6	13.3	38.5	4.8	48,880
Other	45.8	20.5	41.0	3.0	41,207
Don't know	54.1	19.6	46.6	10.4	649
Wealth index					
Lowest	38.9	3.7	25.1	2.8	21,718
Second	40.2	7.1	33.0	4.0	23,616
Middle	41.0	10.5	39.4	5.9	25,088
Fourth	45.1	16.3	43.1	4.9	26,106
Highest	55.5	33.6	48.8	2.5	27,856
Total	44.6	15.0	38.6	4.0	124,385

Note: Total includes women with missing information on education, employment (past 12 months), religion, and caste/tribe, who are not shown separately.

[1] Nuclear households are households comprised of a married couple or a man or a woman living alone or with unmarried children (biological, adopted, or fostered) with or without unrelated individuals.

belonging to the other caste/tribe categories. The first three of these indicators are higher for women in urban than in rural areas, and tend to increase with the wealth quintile of the woman. However, the percentage of women who have ever taken a loan is slightly higher among women in rural areas than in urban areas, and has an inverted U-shaped relationship with the wealth index. Six percent of women in the middle wealth quintile have ever taken a loan, compared with 3 percent of women in the lowest and highest wealth quintiles. The indicators bear differing relationships with education, number of living children, household structure, and religion. In particular, compared with women with less or no education, the most educated women are more likely to have a bank or savings account and to know about loan programmes, but are least likely to have ever taken a loan. Also, the proportion of women who have some money of their own that they can use as they want, first declines with education from 43 percent among women with no education to 41 percent among women with 5-9 years of education and then increases to 60 percent among women with 12 or more completed years of education. Christian women (9 percent) are more likely than any other population subgroup to have ever taken a loan.

Freedom of movement outside the home is an important aspect of women's autonomy and empowerment. This is particularly true in a largely patriarchal country such as India with a long tradition of *purdah* in several states. Accordingly, NFHS-3 asked women if they were usually allowed to go to three different places—the market, the health facility, and to places outside the village or community—alone, only with someone, or not at all. The percent distribution of women by their type of access to these places according to place and residence is shown in Table 14.12.

Table 14.12 Women's freedom of movement

Percent distribution of women by whether they are allowed to go alone, only with someone else, or not at all to the specified places by residence, India, 2005-06

Place	Alone	With someone else only	Not at all	Total
URBAN				
To the market	66.2	26.8	7.0	100.0
To the health facility	60.3	36.2	3.5	100.0
To places outside the village/community	45.5	48.0	6.6	100.0
RURAL				
To the market	44.3	40.4	15.3	100.0
To the health facility	41.5	53.0	5.5	100.0
To places outside the village/community	34.0	56.6	9.4	100.0
TOTAL				
To the market	51.4	35.9	12.6	100.0
To the health facility	47.7	47.5	4.8	100.0
To places outside the village/community	37.7	53.7	8.5	100.0

Overall, only about half of all women are allowed to go to the market or to the health facility alone. Only 38 percent are allowed to travel alone to places outside the village or community. While, not all women are allowed to go to these places alone, only a minority are not allowed to go at all. Thirteen percent of women are not allowed to go to the market at all. Nine percent are not allowed to go at all to places outside the village or community and 5 percent are not allowed to go at all to the health facility (5 percent). Rural women have more restrictions

placed on their mobility than urban women. In general, urban women are about 50 percent more likely than rural women to be allowed to go alone to the market, as well as to the health facility, and 33 percent more likely to be allowed to go alone to places outside the village or community. Fifteen percent of rural women are not allowed to go at all to the market, 9 percent to places outside the village or community, and 6 percent to the health facility.

Table 14.13 shows the percentages of women who are allowed to go alone to each of the three places asked about, allowed to go alone to all three places and not allowed to go at all (neither alone nor with someone else) to any of them, by background characteristics. Overall, only 33 percent of women are allowed to go alone to all of the three places asked about and 4 percent are not allowed to go at all to any of them.

Table 14.13 Women's freedom of movement by background characteristics

Percentage of women who are allowed to go alone to specific places and percentage who are not allowed to go at all (alone or with someone else) to any of the specific places, by background characteristics, India, 2005-06

Background characteristic	Percentage allowed to go alone to: The market	The health facility	Places outside the village/ community	All three places	Percentage not allowed to go to any of the three places at all	Number of women
Age						
15-19	29.7	23.1	16.8	12.8	5.7	24,811
20-24	40.7	36.3	27.2	23.1	4.6	22,779
25-29	52.4	49.8	38.0	33.4	3.0	20,417
30-39	62.9	60.3	48.1	43.6	2.5	33,522
40-49	68.2	65.2	55.6	51.2	2.4	22,856
Residence						
Urban	66.2	60.3	45.5	42.8	2.5	40,817
Rural	44.3	41.5	34.0	28.9	4.1	83,568
Education						
No education	49.0	45.9	36.3	32.0	3.5	50,487
<5 years complete	47.2	45.9	37.3	32.1	4.1	9,918
5-7 years complete	46.4	43.2	33.8	30.0	4.4	18,820
8-9 years complete	47.9	43.3	33.7	28.9	3.7	17,383
10-11 years complete	55.0	49.2	38.5	34.1	3.4	12,887
12 or more years complete	70.2	64.3	51.9	48.1	2.6	14,882
Employment (past 12 months)						
Employed	57.1	53.0	44.4	39.8	2.9	53,208
Employed, for cash	63.2	58.9	50.0	45.4	2.5	35,626
Employed, not for cash	44.7	41.0	33.0	28.3	3.5	17,582
Not employed	47.2	43.7	32.8	28.7	4.1	71,121
Marital status						
Never married	40.7	32.3	25.0	20.3	4.7	25,462
Currently married	52.8	50.2	39.3	35.0	3.4	93,089
Widowed/divorced/ separated/deserted	76.1	73.5	68.6	65.6	2.5	5,834
Number of living children						
0	38.6	31.4	24.7	20.4	5.2	36,450
1-2	55.1	52.6	42.2	38.0	3.5	43,482
3-4	58.7	56.4	44.5	40.0	2.4	32,994
5+	57.5	55.4	42.6	38.5	2.5	11,459
Household structure[1]						
Nuclear	56.6	52.4	41.5	37.0	3.3	64,641
Non-nuclear	45.9	42.6	33.6	29.5	3.9	59,744
Religion						
Hindu	52.4	48.2	38.2	34.0	3.3	100,151
Muslim	40.5	40.1	29.9	25.5	5.5	16,936
Christian	67.0	59.9	51.2	45.5	3.6	3,053
Sikh	53.5	50.4	45.0	39.5	2.7	2,222
Buddhist/Neo-Buddhist	68.8	64.6	48.3	45.8	4.0	1,010
Jain	74.1	68.0	54.9	50.3	3.9	406
Other	67.3	59.3	55.9	49.7	1.7	484

Continued…

Table 14.13 Women's freedom of movement by background characteristics—*Continued*

Background characteristic	Percentage allowed to go alone to: The market	The health facility	Places outside the village/ community	All three places	Percentage not allowed to go to any of the three places at all	Number of women
Caste/tribe						
Scheduled caste	53.2	49.4	38.7	34.7	3.5	23,125
Scheduled tribe	49.1	42.6	34.8	30.3	3.0	10,119
Other backward class	49.5	45.1	35.5	31.5	3.6	48,880
Other	53.6	51.0	40.5	35.9	3.9	41,207
Don't know	42.2	46.1	36.6	28.5	2.6	649
Wealth index						
Lowest	41.8	39.1	29.8	25.6	4.2	21,718
Second	42.7	40.5	33.0	27.9	4.3	23,616
Middle	48.1	44.6	36.2	31.3	4.0	25,088
Fourth	53.4	49.0	38.8	34.8	3.4	26,106
Highest	67.6	61.9	48.2	44.8	2.3	27,856
Total	51.4	47.7	37.7	33.4	3.6	124,385

Note: Total includes women with missing information on education, employment (past 12 months), religion, and caste/tribe, who are not shown separately.
[1] Nuclear households are households comprised of a married couple or a man or a woman living alone or with unmarried children (biological, adopted, or fostered) with or without unrelated individuals.

Freedom of movement, as indicated by being allowed to go alone to the three types of places, increases sharply with age; however, even among women age 40-49, only 51 percent of women are allowed to go alone to all three places. Freedom of movement does not vary linearly with education, although women with 12 or more complete years of education are much more likely to be allowed to go alone to each of the three places, as well as to all three places. The greatest differential by education is seen for going to the market alone: 70 percent of women in the highest education group are allowed to go alone to the market, compared with only 49 percent of women with no education. Employment for cash is associated with greater freedom of movement, although women employed but not earning cash and women not employed in the past 12 months have similar levels of freedom of movement. Only one in five never married women can go to all of the three places alone, compared with about one in three currently married women and two in three formerly married women. In general, freedom of movement does not vary substantially by number of children among women with one or more children, but is lower for women with no children compared with women with one or more children. Nuclear residence is associated with greater freedom of movement than non-nuclear residence. Muslim women (26 percent) followed by Hindu women (34 percent) have less freedom of movement than women of other religions. There is little variation in freedom of movement by caste/tribe status, although it is noticeable that scheduled-caste women and women in the 'other' castes category tend to have similar levels of freedom of movement. Freedom of movement increases with wealth from 26 percent of women being allowed to go alone to all three destinations among women in the lowest quintile to 45 percent among women in the highest quintile.

Table 14.14 shows the percentage of women with access to money, knowledge of credit programmes, and freedom of movement and percentage who have used credit programmes by state. The proportion of women who have some money of their own that they themselves can decide how to use varies from 20 percent in Mizoram, 21 percent in Kerala, and 25-29 percent in Himachal Pradesh, Punjab, Assam, Tripura and Tamil Nadu, to 55-60 percent in Jammu and Kashmir, Goa, Gujarat, Bihar, Uttar Pradesh, Jharkhand, and Karnataka.

Table 14.14 Women's access to money and credit by state

Percentage of women who have access to money, who know of a microcredit programme, and have taken a loan from a microcredit programme by state, India, 2005-06

State	Women's access to money		Women's knowledge and use of microcredit programmes		
	Percentage who have money that they can decide how to use	Percentage who have a bank or savings account that they themselves use	Percentage who know of a microcredit programme	Percentage who have taken a loan from a microcredit programme	Percentage of women allowed to go to three specified places alone[1]
India	44.6	15.0	38.6	4.0	33.4
North					
Delhi	43.2	30.3	29.0	1.0	36.6
Haryana	35.5	12.4	36.8	0.6	40.7
Himachal Pradesh	28.8	22.2	20.2	2.2	64.0
Jammu & Kashmir	55.4	21.9	13.1	0.2	51.0
Punjab	26.5	14.6	40.8	0.9	39.0
Rajasthan	32.7	7.5	12.3	0.6	31.6
Uttaranchal	36.1	20.1	13.7	1.6	42.8
Central					
Chhattisgarh	34.3	8.1	29.1	1.3	17.8
Madhya Pradesh	36.8	8.9	30.6	1.0	25.7
Uttar Pradesh	59.9	13.2	14.1	0.4	23.4
East					
Bihar	58.6	8.2	27.0	1.0	25.2
Jharkhand	60.2	14.4	25.5	1.9	36.6
Orissa	36.2	9.8	69.4	6.9	18.7
West Bengal	37.4	14.1	41.4	2.7	32.3
Northeast					
Arunachal Pradesh	38.7	19.0	31.4	2.5	40.2
Assam	26.9	11.7	41.7	1.4	35.3
Manipur	32.0	8.0	65.1	4.2	53.5
Meghalaya	35.3	16.9	22.8	1.5	28.1
Mizoram	19.5	8.1	7.8	0.7	75.4
Nagaland	36.5	7.4	23.8	1.3	25.4
Sikkim	36.9	20.9	18.3	0.8	50.9
Tripura	26.9	18.7	38.7	2.3	36.8
West					
Goa	56.7	42.3	56.6	2.5	56.8
Gujarat	57.8	19.9	45.0	1.7	47.3
Maharashtra	40.8	20.3	35.5	2.1	40.2
South					
Andhra Pradesh	48.6	18.0	59.6	16.3	37.3
Karnataka	60.3	22.1	55.0	9.2	30.6
Kerala	20.7	27.0	82.6	8.0	34.7
Tamil Nadu	25.4	15.8	79.0	13.4	54.2

[1] To the market, to the health facility, and to places outside the village/community.

Few women in India have bank or savings accounts that they themselves use. Having a bank or savings account is relatively common only in Goa, where 42 percent of women have such an account that they themselves use. Delhi and Kerala are the only other states where more than one in four women have a bank or savings account they themselves use. There are eight states (Nagaland, Rajasthan, Manipur, Mizoram, Chhattisgarh, Bihar, Madhya Pradesh, and Orissa) where only 7-10 percent of women have a bank or savings account that they use.

Knowledge about micro-credit programmes and their use is very limited in the majority of states. The only states where more than half of women have heard of such a programme in their area include the four southern states of Kerala (83 percent), Tamil Nadu (79 percent), Andhra Pradesh (60 percent) and Karnataka (55 percent), Goa in the West (57 percent), and Orissa (69 percent) and Manipur (65 percent) in the East and Northeast, respectively. In the

remainder of the states, the percentage of women who know about a programme that gives loans to women to start or expand a business ranges from only 8 percent in Mizoram and 12-14 percent in Rajasthan, Jammu and Kashmir, Uttaranchal, and Uttar Pradesh to 45 percent in Gujarat. The proportion of women who have used such a programme is also relatively high only in the states of the South Region, ranging from 8 percent in Kerala to 16 percent in Andhra Pradesh, and in Orissa (7 percent). In the rest of the country, the proportion of women who have used such a loan programme is below 5 percent in all states and is 1 percent or less in 13 states.

Freedom of movement, as measured by the percentage of women allowed to go alone to the market, to the health facility, and to places outside the village or community, varies greatly across states. It ranges from 75 percent in Mizoram and 64 percent in Himachal Pradesh to only 23 percent in Uttar Pradesh, 19 percent in Orissa, and 18 percent in Chhattisgarh. The only states other than Mizoram and Himachal Pradesh, where more than half of the women are allowed to go alone to all three of these destinations are Goa, Tamil Nadu, Manipur, Jammu and Kashmir, and Sikkim.

14.3 GENDER ROLE ATTITUDES

A fundamental element of empowerment is the rejection of a normatively prescribed power of men *over* women and of unequal rights and privileges on the basis of the sex of an individual. One such normatively ascribed 'right' of husbands is to regulate and control their wives' behaviour and bodies through whatever actions necessary, including the use of violence. Hence, women who believe that husbands' control *over* their wives is justified can be considered as less empowered than women who think otherwise. While such attitudes do not necessarily signify approval by women of these rights for men, they do signify women's *acceptance of norms* that give men these rights.

To assess attitudes related to the acceptance of normative gender roles, women and men were asked two sets of questions in NFHS-3. The first asked respondents whether, in their opinion, a husband was justified in hitting or beating his wife in the following seven situations: if she goes out without telling him, if she neglects the house or children, if she argues with him, if she refuses to have sex with him, if she does no cook food properly, if he suspects her of being unfaithful, and if she shows disrespect for her in-laws. These justifications, which range from reasons that involve suspicions about a wife's moral character to those that may be considered more trivial, such as not cooking properly, were chosen to provide variation in the perceived seriousness of behavioural-norm violation. Women who agree that a husband is justified in hitting or beating his wife for any of the specified reasons are likely to perceive themselves to be low in status both absolutely and relative to men. Such perceptions may act as a barrier to women's accessing health care for themselves and their children, may affect their attitudes toward contraceptive use, and may impact their general well being. The second set of questions asks if the respondent thinks that a wife is justified in refusing to have sex with her husband when she knows her husband has a sexually transmitted disease, when she knows her husband has sex with other women, and when she is tired or not in the mood. Not having the right to decide when to have sex can affect women's ability to control their fertility and their reproductive health.

Agreement with any of the reasons justifying wife beating and disagreement with any of the reasons justifying a wife's refusal to have sex with her husband, indicates a low level of women's empowerment, since it implies an acceptance of men's exercise of power over women. Information on these indicators obtained from women and men is shown in Tables 14.15.1 through 14.18.

Table 14.15.1 shows the percentages of women who agree with the different reasons for wife beating by background characteristics. The reason most commonly agreed to by women that justifies a husband beating his wife is 'if she shows disrespect for her in-laws' (41 percent), followed by 'if she neglects the house or children' (35 percent). The reasons least agreed with are 'if she refuses to have sex with him' (14 percent), followed by 'if she doesn't cook food properly' (20 percent). Agreement with the other three reasons asked about ranges from 25-30 percent. Thus, less than one in two women agree with any specific reason justifying a husband beating his wife and more than one in two (54 percent) agree with at least one reason justifying wife beating.

Table 14.15.1 Attitude toward wife beating: Women

Percentage of women age 15-49 who agree that a husband is justified in hitting or beating his wife for specific reasons, by background characteristics, India, 2005-06

Background characteristic	Percentage who agree that a husband is justified in hitting or beating his wife if: She goes out without telling him	She neglects the house or children	She argues with him	She refuses to have sexual intercourse with him	She doesn't cook properly	He suspects she is unfaithful	She shows disrespect for in-laws	Percentage who agree with at least one specified reason	Number of women
Age									
15-19	25.7	32.7	28.6	11.3	19.4	23.1	39.1	52.9	24,811
20-24	26.7	33.6	28.4	12.5	18.2	22.6	39.5	52.5	22,779
25-29	28.9	34.0	30.0	14.1	19.5	25.0	40.0	54.0	20,417
30-39	31.1	36.0	31.5	15.5	21.6	26.4	41.3	55.5	33,522
40-49	31.9	36.8	32.7	16.5	22.5	28.0	42.7	56.7	22,856
Residence									
Urban	20.6	28.5	21.2	8.9	13.4	16.3	32.2	44.2	40,817
Rural	33.1	37.7	34.8	16.6	23.8	29.4	44.6	59.4	83,568
Education									
No education	36.4	38.7	38.1	19.3	26.4	33.2	47.3	62.3	50,487
<5 years complete	34.7	41.4	35.6	17.4	24.7	28.0	46.9	61.8	9,918
5-7 years complete	30.0	36.5	30.7	13.9	20.5	25.0	42.1	56.3	18,820
8-9 years complete	25.8	34.5	26.7	10.6	17.4	19.9	37.7	51.8	17,383
10-11 years complete	19.7	29.9	21.3	8.1	13.1	17.1	33.4	45.8	12,887
12 or more years complete	10.7	18.8	11.9	3.8	6.8	8.9	21.3	31.1	14,882
Employment (past 12 months)									
Employed	33.8	39.4	34.9	17.3	24.9	29.3	45.1	59.5	53,208
Employed, for cash	33.7	40.1	33.8	17.1	24.0	28.0	44.2	58.6	35,626
Employed, not for cash	34.2	38.0	37.1	17.6	26.8	32.0	47.0	61.4	17,582
Not employed	25.4	31.2	26.9	11.7	17.0	21.9	37.2	50.6	71,121
Marital status									
Never married	22.3	30.7	24.5	9.0	16.6	19.2	35.7	48.4	25,462
Currently married	30.5	35.5	31.7	15.2	21.1	26.5	41.7	55.9	93,089
Widowed/divorced/ separated/deserted	34.2	39.1	34.3	18.6	24.3	28.4	43.7	57.6	5,834
Number of living children									
0	24.1	31.6	26.5	10.7	17.9	21.1	37.2	50.3	36,450
1-2	28.9	35.1	29.2	13.9	19.3	23.6	39.3	53.2	43,482
3-4	33.0	37.2	34.0	17.2	23.3	29.1	44.3	58.7	32,994
5+	33.4	35.8	36.4	16.8	24.2	32.1	45.3	59.7	11,459

Continued…

Table 14.15.1 Attitude toward wife beating: Women—*Continued*

Background characteristic	Percentage who agree that a husband is justified in hitting or beating his wife if: She goes out without telling him	She neglects the house or children	She argues with him	She refuses to have sexual intercourse with him	She doesn't cook properly	He suspects she is unfaithful	She shows disrespect for in-laws	Percentage who agree with at least one specified reason	Number of women
Household structure[1]									
Nuclear	29.9	36.3	30.8	14.4	20.7	25.2	41.3	55.3	64,641
Non-nuclear	28.0	33.0	29.8	13.7	20.0	25.0	39.8	53.5	59,744
Religion									
Hindu	29.0	34.7	30.2	13.9	20.6	24.9	40.5	54.2	100,151
Muslim	30.1	34.3	32.4	15.3	19.2	26.2	41.5	56.0	16,936
Christian	32.4	43.9	30.2	13.9	19.8	26.6	42.9	59.5	3,053
Sikh	23.8	28.1	26.9	13.9	19.6	27.0	35.5	48.7	2,222
Buddhist/Neo-Buddhist	22.0	39.8	28.1	15.7	23.5	19.4	45.2	61.9	1,010
Jain	6.1	10.8	8.3	3.2	6.0	8.0	14.7	19.4	406
Other	30.9	35.9	31.0	17.3	19.5	28.4	39.1	59.3	484
Caste/tribe									
Scheduled caste	32.0	38.0	33.3	15.8	23.3	26.8	43.7	58.4	23,125
Scheduled tribe	31.1	37.1	33.7	16.9	23.5	30.8	44.9	58.5	10,119
Other backward class	32.0	37.3	32.9	15.3	22.8	26.9	42.3	57.7	48,880
Other	22.9	28.8	24.5	10.7	14.9	20.3	35.5	47.0	41,207
Don't know	46.7	55.5	44.3	29.9	33.1	40.8	54.4	69.7	649
Wealth index									
Lowest	34.1	37.0	37.8	18.0	25.7	32.4	46.8	62.4	21,718
Second	35.5	39.1	37.0	17.9	25.3	31.2	46.5	61.5	23,616
Middle	35.5	40.9	35.7	17.1	24.8	28.5	45.7	60.5	25,088
Fourth	28.3	36.1	28.5	12.7	18.4	23.2	40.6	54.2	26,106
Highest	14.4	22.3	15.8	6.4	9.8	13.0	26.1	37.0	27,856
Total	29.0	34.7	30.3	14.1	20.4	25.1	40.6	54.4	124,385

Note: Total includes women with missing information on education, employment (past 12 months), religion, and caste/tribe, who are not shown separately.
[1] Nuclear households are households comprised of a married couple or a man or a woman living alone or with unmarried children (biological, adopted, or fostered) with or without unrelated individuals.

Agreement with wife beating does not vary much by women's age, number of children, and household structure, but declines sharply with education and wealth quintile. Agreement is lower in urban than in rural areas, among women not employed in the past 12 months than women who were employed, and among never married women, compared with ever-married women. According to religion, Jain women stand out because, among them, agreement with one or more reasons is not only the lowest, at 19 percent, compared with women of other religions, but also the lowest compared with women in all other sub-groups. With the exception of religion, the greatest variation in agreement with at least one reason for wife beating is by education: 62 percent of women with no education agree with one or more justifications, compared with 31 percent of women with 12 or more complete years of education. Nonetheless, it is notable that even among the most educated women, at least one in three agrees with one or more justifications for wife beating.

Table 14.15.2 shows the percentages of men who agree with the different reasons for wife beating by their background characteristics. Overall, men are less likely than women to agree with each of the seven reasons justifying wife beating and with at least one reason. As Figure 14.2 shows, similar proportions of men and women in urban areas agree with at least one reason, but in rural areas, agreement is higher among women than men.

Table 14.15.2 Attitude toward wife beating: Men

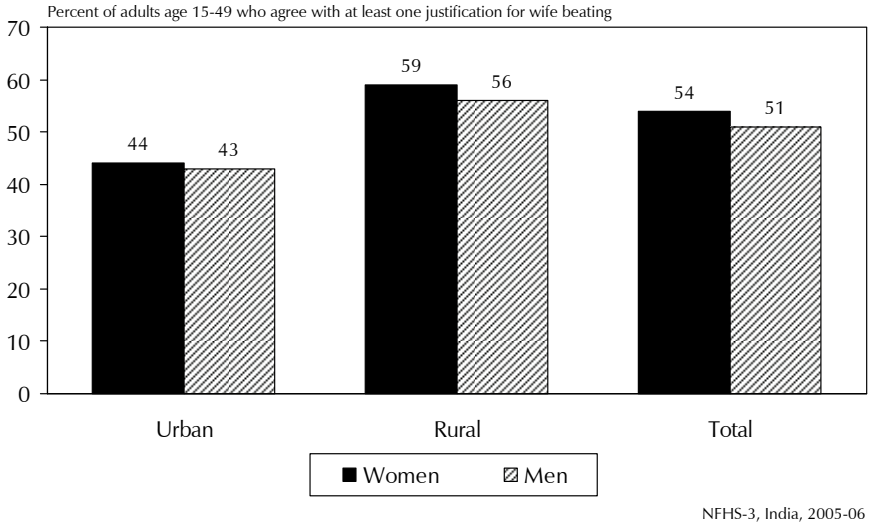
Percentage of men age 15-49 who agree that a husband is justified in hitting or beating his wife for specific reasons, by background characteristics, India, 2005-06

Background characteristic	Percentage who agree that a husband is justified in hitting or beating his wife if:							Percentage who agree with at least one specified reason	Number of men
	She goes out without telling him	She neglects the house or children	She argues with him	She refuses to have sexual intercourse with him	She doesn't cook properly	He suspects she is unfaithful	She shows disrespect for in-laws		
Age									
15-19	26.1	32.9	30.9	10.6	16.0	26.8	43.1	56.8	13,008
20-24	24.6	30.7	27.0	8.7	13.4	24.1	41.0	54.6	11,989
25-29	23.0	28.3	25.6	7.3	12.1	23.0	37.8	51.3	10,854
30-39	22.5	27.7	24.4	7.1	12.0	22.5	34.2	48.0	19,045
40-49	21.8	25.7	22.9	7.3	10.8	22.2	32.7	46.8	14,855
Residence									
Urban	16.7	22.8	18.9	5.3	8.6	16.7	31.5	42.7	25,504
Rural	27.3	32.3	30.0	9.7	15.1	27.5	40.6	55.9	44,247
Education									
No education	33.9	35.8	34.7	11.5	17.9	32.8	44.2	61.5	12,571
<5 years complete	30.5	35.6	32.1	11.4	15.3	28.6	42.5	59.3	7,109
5-7 years complete	27.7	33.3	29.8	9.8	15.3	27.8	42.7	57.0	11,523
8-9 years complete	24.1	29.9	27.1	8.3	13.3	23.2	39.8	52.9	14,398
10-11 years complete	17.3	25.4	21.3	6.1	10.2	18.9	33.6	46.1	10,380
12 or more years complete	10.6	16.8	13.7	3.3	5.9	13.0	23.8	33.8	13,754
Employment (past 12 months)									
Employed	24.4	29.4	26.6	8.4	13.0	24.1	37.7	51.8	60,623
Employed, for cash	23.7	28.9	25.9	8.0	12.6	23.3	36.9	50.8	55,026
Employed, not for cash	31.1	35.0	33.6	11.8	16.9	32.1	45.6	61.6	5,597
Not employed	17.5	25.0	21.6	6.3	10.9	20.1	34.4	46.2	9,045
Marital status									
Never married	23.0	30.2	26.5	9.0	13.6	23.4	40.0	52.9	25,307
Currently married	23.5	27.9	25.4	7.5	12.1	23.4	35.5	49.8	43,501
Widowed/divorced/ separated/deserted	34.0	36.9	36.1	14.6	18.1	35.3	44.3	60.2	942
Number of living children									
0	23.4	30.0	26.7	8.9	13.5	23.8	39.5	52.7	30,608
1-2	21.5	27.3	23.6	6.9	11.4	21.4	34.4	47.5	20,187
3-4	25.2	28.7	26.6	7.9	12.6	24.9	36.6	52.0	14,207
5+	26.7	28.5	28.7	8.6	14.1	27.7	37.2	52.5	4,748
Household structure[1]									
Nuclear	23.8	29.2	26.0	8.2	12.6	23.4	37.2	51.2	35,297
Non-nuclear	23.1	28.5	25.9	8.0	12.9	23.7	37.3	50.8	34,453
Religion									
Hindu	23.4	28.9	26.1	7.9	13.0	23.5	37.4	51.0	57,112
Muslim	26.2	30.4	27.6	9.3	12.2	25.3	38.8	53.7	8,747
Christian	20.0	31.5	20.0	7.6	10.3	25.0	32.9	49.1	1,567
Sikh	18.6	14.6	18.0	7.4	9.6	20.4	27.7	37.2	1,270
Buddhist/Neo-Buddhist	17.0	31.0	25.8	10.6	13.7	12.0	39.9	51.4	596
Jain	10.5	14.2	14.9	3.8	7.3	11.0	20.2	28.5	213
Other	19.6	32.6	30.5	11.4	13.3	34.7	35.2	57.2	232
Caste/tribe									
Scheduled caste	25.3	30.7	29.3	9.3	15.1	25.8	39.6	54.6	13,188
Scheduled tribe	28.2	32.6	32.0	12.7	14.8	31.5	43.7	58.7	5,725
Other backward class	26.7	32.4	28.0	7.5	14.3	25.3	39.0	54.4	27,219
Other	17.3	22.6	20.1	7.0	9.0	18.2	32.2	43.1	23,214
Don't know	49.4	59.6	44.1	13.9	28.9	52.7	65.0	74.9	177
Wealth index									
Lowest	33.1	34.7	35.4	11.8	19.1	32.7	43.6	60.2	11,031
Second	30.2	34.3	33.2	10.7	16.4	28.8	42.9	58.9	12,666
Middle	27.2	34.4	28.2	8.8	13.5	26.6	41.7	57.3	14,301
Fourth	20.2	27.3	23.0	7.2	11.2	20.5	36.1	49.2	15,493
Highest	11.3	17.2	14.7	3.9	6.4	13.5	25.8	34.9	16,260
Total age 15-49	23.4	28.9	25.9	8.1	12.8	23.6	37.3	51.0	69,751
Age 50-54	21.2	24.8	21.1	6.1	9.9	20.8	31.1	44.3	4,618
Total age 15-54	23.3	28.6	25.6	8.0	12.6	23.4	36.9	50.6	74,369

Note: Total includes men with missing information on education, employment (past 12 months), religion, and caste/tribe, who are not shown separately.
[1] Nuclear households are households comprised of a married couple or a man or a woman living alone or with unmarried children (biological, adopted, or fostered) with or without unrelated individuals.

Men, like women, are most likely to agree with the reason 'if she is disrespectful to the in-laws' and least likely to agree with the reason 'if she refuses to have sex with him'. Further, the pattern of variation by background characteristics among men is very similar to the pattern of agreement among women. The groups of men among whom agreement with one or more reasons for wife beating is least are Jain men (29 percent) and the most educated men (34 percent). Among men too, variation in agreement is greatest by education with 62 percent of men with no education agreeing with one or more reasons for wife beating, compared with 34 percent of men with 12 or more years of education.

Figure 14.2 Agreement with Wife Beating by Sex and Residence



This discussion reveals a consistently high level of agreement with norms about wife beating among both women and men. About half of all women and men agree with at least one or more reasons for wife beating, and even among the most educated, about one-third of women and men agree. Further, the justifications for wife beating most agreed to by both women and men pertain to disrespect for the in-laws and neglect of the house or children.

Table 14.16 shows the percentage of women who agree with the specific justifications for wife beating, as well as the percentage of women and men who agree with at least one of the justifications, by state. The percentage of women who agree with one or more reasons for wife beating ranges from 28 percent in Himachal Pradesh to 90 percent in Manipur, and the percentage of men who agree with one or more reasons for wife beating ranges from 23 percent in Uttaranchal to 85 percent in Manipur. The states in which a similar proportion of women and men agree with one or more reasons for wife beating include Himachal Pradesh, Jammu and Kashmir, Bihar, Mizoram, Sikkim, and Andhra Pradesh and Karnataka. In some states, women are much more likely than men to agree with one or more reasons for wife beating, including Uttaranchal, Orissa, Assam, Tripura, Jharkhand, and Arunachal Pradesh. By contrast, there are only two states, Gujarat and Meghalaya, where men are substantially more likely to agree with wife beating than women. In Jammu and Kashmir, Chhattisgarh, Madhya Pradesh, and Rajasthan too, men are more likely than women to agree with wife beating, but the differential in agreement is small.

Table 14.16 Attitude toward wife beating by state

Percentage of women age 15-49 who agree that a husband is justified in hitting or beating his wife for specific reasons and percentage of women and men who agree with at least one specified reason, by state, India, 2005-06

	Women								Men
	Percentage who agree that a husband is justified in hitting or beating his wife if:							Percentage who agree with at least one specified reason	Percentage who agree with at least one specified reason
State	She goes out without telling him	She neglects the house or children	She argues with him	She refuses to have sexual intercourse with him	She doesn't cook properly	He suspects she is unfaithful	She shows disrespect for in-laws		
India	29.0	34.7	30.3	14.1	20.4	25.1	40.6	54.4	51.0
North									
Delhi	12.9	13.5	14.4	4.2	7.8	11.0	24.8	32.3	27.7
Haryana	30.5	29.3	29.7	17.7	20.2	30.1	36.0	46.1	32.7
Himachal Pradesh	11.2	16.5	13.3	3.5	9.3	11.6	19.7	28.3	28.3
Jammu & Kashmir	42.3	49.5	44.8	24.0	26.6	47.8	50.7	64.0	65.7
Punjab	25.4	28.3	29.5	15.1	19.7	29.6	37.7	51.3	41.1
Rajasthan	32.5	31.3	34.2	13.1	24.3	24.8	44.2	57.6	63.9
Uttaranchal	26.7	33.0	28.3	13.0	22.4	30.6	38.6	49.8	23.4
Central									
Chhattisgarh	11.2	14.7	15.9	5.8	8.5	12.0	23.2	33.0	37.0
Madhya Pradesh	21.0	23.8	26.2	11.2	18.2	27.2	40.3	51.4	59.1
Uttar Pradesh	24.8	27.7	26.0	8.5	17.6	22.7	36.0	47.0	44.2
East									
Bihar	22.9	21.4	32.2	12.2	17.9	26.6	32.0	56.9	57.4
Jharkhand	23.8	30.0	29.5	13.5	18.4	27.6	31.6	50.4	33.0
Orissa	38.1	40.4	39.8	13.7	22.6	35.9	50.4	61.2	41.6
West Bengal	18.6	24.8	21.9	10.9	13.1	14.6	33.6	42.2	38.8
Northeast									
Arunachal Pradesh	28.9	55.5	19.9	7.5	21.7	20.8	55.9	71.7	54.6
Assam	23.4	31.4	24.9	11.5	11.0	16.4	32.4	44.6	25.4
Manipur	57.4	71.7	32.6	15.6	23.6	36.2	75.5	89.7	85.0
Meghalaya	31.0	42.0	26.6	12.7	24.9	32.1	37.5	53.2	63.5
Mizoram	21.9	64.1	36.5	13.6	1.7	61.7	66.6	83.0	82.6
Nagaland	41.8	64.1	42.4	18.4	21.0	52.9	55.1	78.9	71.2
Sikkim	39.2	54.0	40.3	10.4	16.8	37.2	58.2	75.7	76.2
Tripura	24.3	37.0	21.2	13.3	19.3	20.1	41.0	53.1	35.1
West									
Goa	14.2	26.2	17.2	8.3	7.7	14.3	21.6	38.9	34.7
Gujarat	31.0	38.1	37.1	18.9	26.8	30.3	40.5	57.2	74.1
Maharashtra	19.6	34.3	25.4	12.7	18.7	15.6	40.7	50.9	48.4
South									
Andhra Pradesh	53.9	61.6	46.0	28.5	33.1	47.2	60.8	75.3	72.9
Karnataka	40.9	49.3	34.9	25.1	27.2	34.0	52.2	65.7	62.7
Kerala	35.7	44.2	25.7	14.0	20.3	22.6	44.5	65.7	54.2
Tamil Nadu	43.0	54.2	38.0	12.5	24.9	12.1	42.7	65.5	52.0

The extent of control women have over when they have sexual intercourse has important implications for demographic and health outcomes. It is also an indicator of women's empowerment because it measures women's acceptance of norms that socialize women into believing that a woman does not have the right to refuse to have sexual intercourse with her husband for any reason. Table 14.17.1 shows the percentage of women who agree that a wife is justified in refusing her husband sex if she knows he has a sexually transmitted disease, if she knows he has sex with other women, and if she is tired or not in the mood, by background characteristics.

Table 14.17.1 Attitude toward refusing sexual intercourse with husband: Women

Percentage of women age 15-49 who believe that a wife is justified in refusing to have sexual intercourse with her husband in specific circumstances, by background characteristics, India, 2005-06

Background characteristic	Percentage who agree that a wife is justified in refusing to have sex with her husband when she:			Percentage who agree with all three reasons	Percentage who agree with none of the three reasons	Number of women
	Knows husband has a sexually transmitted disease	Knows husband has sex with other women	Is tired or not in the mood			
Age						
15-19	70.1	72.9	69.4	59.5	19.6	24,811
20-24	79.2	80.9	78.9	69.4	12.1	22,779
25-29	80.5	81.8	80.4	70.6	10.8	20,417
30-39	80.3	81.2	80.3	70.1	11.0	33,522
40-49	78.9	79.5	77.5	67.6	12.1	22,856
Residence						
Urban	80.9	81.9	80.4	72.6	12.1	40,817
Rural	76.4	78.0	75.9	65.0	13.6	83,568
Education						
No education	76.5	78.0	76.2	64.5	12.8	50,487
<5 years complete	73.2	74.7	73.6	61.8	16.1	9,918
5-7 years complete	76.6	78.0	76.3	66.0	14.1	18,820
8-9 years complete	78.3	80.2	77.7	69.1	13.6	17,383
10-11 years complete	79.6	80.9	78.4	71.3	13.6	12,887
12 or more years complete	84.9	85.9	84.1	78.1	9.8	14,882
Employment (past 12 months)						
Employed	77.4	79.4	77.2	66.7	12.8	53,208
Employed, for cash	76.2	78.2	76.2	65.6	14.0	35,626
Employed, not for cash	79.7	81.8	79.4	69.0	10.5	17,582
Not employed	78.2	79.2	77.5	68.1	13.3	71,121
Marital status						
Never married	69.2	72.4	68.2	59.5	21.3	25,462
Currently married	80.3	81.2	80.0	69.8	10.8	93,089
Widowed/divorced/ separated/deserted	76.2	77.9	76.1	65.7	14.4	5,834
Number of living children						
0	72.2	74.7	71.3	62.0	18.2	36,450
1-2	80.1	81.2	80.2	70.1	11.2	43,482
3-4	80.2	81.3	79.7	69.6	10.8	32,994
5+	80.5	80.6	79.3	69.1	10.4	11,459
Household structure[1]						
Nuclear	76.8	78.4	76.6	66.4	13.8	64,641
Non-nuclear	79.0	80.2	78.2	68.7	12.3	59,744
Religion						
Hindu	78.5	80.2	78.3	68.6	12.6	100,151
Muslim	73.2	73.6	72.2	60.6	16.2	16,936
Christian	76.4	77.9	74.5	65.8	15.0	3,053
Sikh	84.9	85.1	78.9	72.0	8.5	2,222
Buddhist/Neo-Buddhist	70.2	73.0	71.6	62.2	20.6	1,010
Jain	92.1	91.7	89.7	86.5	4.9	406
Other	78.7	82.7	79.2	69.1	9.5	484
Caste/tribe						
Scheduled caste	77.5	79.0	76.9	66.5	13.1	23,125
Scheduled tribe	72.8	76.3	74.4	61.8	15.3	10,119
Other backward class	78.9	80.7	78.3	68.8	12.1	48,880
Other	78.1	78.7	77.3	67.9	13.6	41,207
Don't know	74.1	73.8	75.7	65.5	17.0	649
Wealth index						
Lowest	73.5	76.4	74.8	61.7	14.2	21,718
Second	75.6	77.0	75.4	63.9	14.1	23,616
Middle	76.3	77.3	75.7	65.3	13.9	25,088
Fourth	78.6	79.9	77.4	68.7	13.4	26,106
Highest	83.7	84.6	82.5	76.0	10.4	27,856
Total	77.8	79.3	77.4	67.5	13.1	124,385

Note: Total includes women with missing information on education, employment (past 12 months), religion, and caste/tribe, who are not shown separately.

[1] Nuclear households are households comprised of a married couple or a man or a woman living alone or with unmarried children (biological, adopted, or fostered) with or without unrelated individuals.

Overall, 77-79 percent of women agree with each of the three reasons asked about, 68 percent agree with all three, and 13 percent do not agree with any of the three. Agreement with all three reasons bears the expected positive relationship with education, wealth quintile, and urban residence. The youngest women are somewhat less likely than older women to agree with a wife's right to refuse her husband sex. Women employed for cash are no different from women not employed in the past 12 months. Agreement is highest among Jain women, followed by Sikh women. Notably, the percentage of women who do not agree with any of the three reasons for refusing a husband sex is highest among never married women, the youngest women, women with no children and Buddhist/Neo-Buddhist women; about one in five of these women do not agree with any of the three reasons for refusing a husband sex.

Table 14.17.2 shows the percentage of men who agree that a wife is justified in refusing her husband sex for the same three reasons discussed for women, by men's background characteristics. The extent of agreement with each of the three reasons is similar among men and women. Specifically, the percentage of men who agree that a wife is justified in refusing her husband sex when he has a sexually transmitted disease is 82 percent, compared with 78 percent for women; the percentage who agree that a wife is justified in refusing sex when she knows that her husband has sex with other women is 79 percent, the same as for women; and the percentage who agree that a wife is justified in refusing sex when she is tired or not in the mood is 84 percent, compared with 77 percent for women. The percentage of men agreeing with all three reasons, 70 percent, is also only slightly higher than the percentage of women doing so (68 percent). In general, men's agreement with a wife's right to refuse her husband sex varies in the same way by background characteristics as women's agreement.

Table 14.17.2 Attitude toward refusing sexual intercourse with husband: Men

Percentage of men age 15-49 who believe that a wife is justified in refusing to have sexual intercourse with her husband in specific circumstances, by background characteristics, India, 2005-06

Background characteristic	Percentage who agree that a wife is justified in refusing to have sex with her husband when she:			Percentage who agree with all three reasons	Percentage who agree with none of the three reasons	Number of men
	Knows husband has a sexually transmitted disease	Knows husband has sex with other women	Is tired or not in the mood			
Age						
15-19	75.3	75.4	79.1	65.0	14.1	13,008
20-24	83.6	80.1	85.3	71.2	7.4	11,989
25-29	84.3	80.8	86.5	72.8	7.1	10,854
30-39	83.8	81.0	86.5	72.5	7.2	19,045
40-49	80.4	78.9	83.9	69.4	9.7	14,855
Residence						
Urban	86.3	81.7	86.6	75.2	7.6	25,504
Rural	78.8	77.9	83.1	67.5	9.9	44,247
Education						
No education	68.5	70.5	77.3	56.6	15.0	12,571
<5 years complete	74.2	74.2	80.2	62.3	12.0	7,109
5-7 years complete	79.8	76.7	82.5	67.4	10.0	11,523
8-9 years complete	83.9	80.7	85.2	72.4	8.4	14,398
10-11 years complete	87.5	83.5	87.0	76.6	6.6	10,380
12 or more years complete	91.7	87.6	91.6	82.3	3.8	13,754
Employment (past 12 months)						
Employed	81.7	79.2	84.6	70.2	8.8	60,623
Employed, for cash	82.4	79.6	84.9	70.8	8.5	55,026
Employed, not for cash	75.5	75.6	81.5	63.9	11.7	5,597
Not employed	80.4	80.0	82.9	70.7	10.9	9,045

Continued…

Table 14.17.2 Attitude toward refusing sexual intercourse with husband: Men—*Continued*

Background characteristic	Percentage who agree that a wife is justified in refusing to have sex with her husband when she: Knows husband has a sexually transmitted disease	Knows husband has sex with other women	Is tired or not in the mood	Percentage who agree with all three reasons	Percentage who agree with none of the three reasons	Number of men
Marital status						
Never married	79.2	77.2	81.9	67.6	11.1	25,307
Currently married	83.0	80.6	85.8	71.9	7.8	43,501
Widowed/divorced/ separated/deserted	77.8	78.0	83.0	67.4	10.6	942
Number of living children						
0	80.0	78.0	82.8	68.5	10.3	30,608
1-2	84.4	80.8	86.2	72.7	7.4	20,187
3-4	81.2	79.3	84.8	70.3	9.0	14,207
5+	80.1	82.0	85.1	71.0	8.1	4,748
Household structure[1]						
Nuclear	80.7	78.9	83.4	69.3	9.5	35,297
Non-nuclear	82.4	79.8	85.3	71.3	8.6	34,453
Religion						
Hindu	81.9	79.6	84.8	70.7	8.8	57,112
Muslim	78.2	76.1	82.2	66.2	10.9	8,747
Christian	79.6	78.2	78.6	68.0	12.4	1,567
Sikh	93.3	88.6	88.8	80.6	2.9	1,270
Buddhist/Neo-Buddhist	83.2	75.1	80.8	67.9	10.3	596
Jain	92.4	92.8	93.5	86.1	2.4	213
Other	66.9	80.8	83.2	61.4	12.1	232
Caste/tribe						
Scheduled caste	78.6	76.0	82.8	66.8	10.7	13,188
Scheduled tribe	70.6	74.2	79.3	59.8	13.1	5,725
Other backward class	84.4	82.5	86.1	73.4	7.0	27,219
Other	82.6	78.9	84.6	71.2	9.4	23,214
Don't know	75.2	68.0	72.0	63.0	18.7	177
Wealth index						
Lowest	69.5	74.6	79.8	59.2	13.0	11,031
Second	77.1	75.9	81.5	65.7	11.5	12,666
Middle	81.0	76.8	83.0	67.9	9.3	14,301
Fourth	85.0	80.5	85.7	72.9	7.7	15,493
Highest	90.4	86.2	89.5	80.9	5.6	16,260
Total age 15-49	81.5	79.3	84.4	70.3	9.0	69,751
Age 50-54	81.3	79.8	84.5	70.4	9.1	4,618
Total age 15-54	81.5	79.4	84.4	70.3	9.0	74,369

Note: Total includes men with missing information on education, employment (past 12 months), religion, and caste/tribe, who are not shown separately.
[1] Nuclear households are households comprised of a married couple or a man or a woman living alone or with unmarried children (biological, adopted, or fostered) with or without unrelated individuals.

Table 14.18 shows how women's and men's agreement with a wife's right to refuse her husband sex varies by state. The percentage of women who agree that women are justified in refusing their husband sex for all three reasons asked about, ranges from 42 percent in Tripura to 87 percent in Sikkim and the percentage of men who agree with all three reasons ranges from 41 percent in Tripura to 90 percent in Delhi. Other than Tripura, there are six more states where less than 60 percent of women agree with all three reasons, namely Orissa, Jammu and Kashmir, Meghalaya, West Bengal, Andhra Pradesh, and Kerala. In 11 states, the proportion of women and men who agree with all three reasons are very similar (the percentage point difference between the two is five or less), in five states, namely Sikkim, West Bengal, Goa, Rajasthan, and Arunachal Pradesh, women are much more likely than men (a difference of 10 or more percentage points) to agree with all three reasons, and in five states, namely Orissa, Jammu and Kashmir, Delhi, Tamil Nadu, and Mizoram men are much more likely than women to do so.

Table 14.18 Attitude toward refusing sexual intercourse with husband by state

Percentage of women age 15-49 who believe that a wife is justified in refusing to have sexual intercourse with her husband in specific circumstances, and percentage of women and men age 15-49 who agree with all specified reasons and none of the specified reasons, by state, India, 2005-06

State	Women					Men	
	Percentage who agree that a wife is justified in refusing to have sex with her husband when she:			Percentage who agree with all of the specified reasons	Percentage who agree with none of the specified reasons	Percentage who agree with all of the specified reasons	Percentage who agree with none of the specified reasons
	Knows husband has a sexually transmitted disease	Knows husband has sex with other women	Is tired or not in the mood				
India	77.8	79.3	77.4	67.5	13.1	70.3	9.0
North							
Delhi	82.5	81.9	81.9	76.8	12.5	89.5	3.3
Haryana	87.6	84.8	79.2	75.6	8.9	82.6	9.5
Himachal Pradesh	89.4	87.5	86.1	82.8	7.4	81.7	7.1
Jammu & Kashmir	73.9	76.6	62.4	53.8	14.6	70.7	10.9
Punjab	85.0	85.4	77.8	71.2	8.3	78.4	4.5
Rajasthan	89.1	90.3	85.2	78.3	4.3	66.3	6.0
Uttaranchal	87.8	87.4	83.8	77.7	6.9	78.0	4.1
Central							
Chhattisgarh	86.5	89.5	87.8	78.1	4.4	80.7	4.0
Madhya Pradesh	89.7	90.2	89.5	81.8	4.4	73.9	5.5
Uttar Pradesh	80.2	84.1	84.5	74.9	10.4	82.5	4.9
East							
Bihar	86.3	83.5	75.7	67.6	6.5	72.6	6.1
Jharkhand	87.1	89.4	89.9	82.2	5.2	83.7	2.6
Orissa	56.3	73.8	72.2	47.6	17.5	62.9	9.0
West Bengal	73.1	68.6	73.3	57.7	16.6	47.9	19.0
Northeast							
Arunachal Pradesh	79.4	80.5	74.3	66.2	12.1	55.2	13.2
Assam	75.3	76.3	79.8	66.2	13.2	73.3	8.9
Manipur	87.2	89.3	83.2	77.7	7.0	75.0	3.0
Meghalaya	64.9	73.6	62.0	54.1	21.6	53.3	24.7
Mizoram	87.2	86.9	72.2	64.3	6.1	74.0	2.1
Nagaland	87.0	84.4	68.9	63.9	8.4	70.6	5.1
Sikkim	94.9	93.4	92.8	87.1	1.6	65.5	6.0
Tripura	57.8	60.8	59.3	41.7	25.5	41.3	4.2
West							
Goa	80.8	78.2	75.0	66.5	12.5	48.0	26.6
Gujarat	76.7	79.2	72.4	62.6	13.3	65.8	10.9
Maharashtra	70.5	73.4	72.1	63.4	21.1	66.0	15.3
South							
Andhra Pradesh	69.9	68.1	66.6	58.8	23.4	65.2	6.9
Karnataka	78.4	75.6	74.1	67.1	16.4	67.6	11.9
Kerala	71.1	72.8	68.8	59.2	19.2	65.8	10.4
Tamil Nadu	71.3	77.9	75.8	62.8	15.3	73.2	9.3

In conclusion, these data show that a majority of women and men in India as a whole, and in most states, agree that women have a right to refuse their husbands' sex if they know that he has a sexually transmitted disease, if he has sex with other women, or if she is tired or not in the mood. However, there are several states where 15 percent or more of adults do not agree with any one of the three reasons. For women these states include all of the four states in South Region, as well as Jammu and Kashmir, Tripura, Meghalaya, Maharashtra, Orissa, West Bengal; and for men, they include Goa, Meghalaya, West Bengal, and Maharashtra.

To further understand whether conditions exist for women to be able to safely refuse sex to their husbands, NFHS-3 asked men what they thought a husband's rights are if his wife refuses him sex. Specifically, men were asked if they thought that if a woman refuses to have sex with her husband when he wants her to, has he the right to: a) get angry and reprimand her? b)

refuse to give her money or other means of financial support? c) use force and have sex with her even if she doesn't want to? and, d) go and have sex with another woman? Table 14.19 shows the percentage of men who agree that a man can take these specific actions if his wife refuses him sex by background characteristics and Table 14.20 shows these percentages by state.

Table 14.19 Men's attitude toward a husband's rights when his wife refuses to have sexual intercourse

Percentage of men age 15-49 who consider that a husband has the right to certain behaviours when his wife refuses to have sex with him when he wants her to, by background characteristics, India, 2005-06

Background characteristic	Percentage who agree that when a wife refuses to have sex with her husband, he has the right to:				Percentage who agree with the right to all four behaviours	Percentage who agree with right to none of the four behaviours	Number of men
	Get angry and reprimand her	Refuse to give her financial support	Use force to have sex	Have sex with another woman			
Age							
15-19	20.1	6.3	5.8	4.6	1.2	76.1	13,008
20-24	21.4	6.4	5.8	4.9	1.1	73.7	11,989
25-29	20.0	6.0	6.1	4.1	1.1	75.9	10,854
30-39	19.6	6.2	5.8	4.0	1.0	76.1	19,045
40-49	18.5	5.1	5.1	3.7	0.9	78.2	14,855
Residence							
Urban	14.3	4.2	4.1	4.1	0.9	81.9	25,504
Rural	23.0	7.0	6.6	4.3	1.1	72.8	44,247
Education							
No education	26.1	8.0	8.1	5.5	1.0	68.5	12,571
<5 years complete	24.2	7.8	7.6	5.0	1.5	71.5	7,109
5-7 years complete	22.5	7.1	7.6	5.6	1.5	72.7	11,523
8-9 years complete	20.0	5.7	5.6	3.8	1.0	76.3	14,398
10-11 years complete	16.0	4.8	3.8	3.4	1.0	80.7	10,380
12 or more years complete	12.4	3.4	2.5	2.6	0.6	84.7	13,754
Employment (past 12 months)							
Employed	20.4	6.2	6.0	4.3	1.1	75.5	60,623
Employed, for cash	20.2	6.0	6.0	4.4	1.0	75.7	55,026
Employed, not for cash	22.6	7.9	6.3	3.4	1.1	73.5	5,597
Not employed	16.2	4.5	3.8	3.9	1.0	80.3	9,045
Marital status							
Never married	19.2	6.1	5.1	4.7	1.1	76.5	25,307
Currently married	20.1	5.8	6.0	3.9	1.0	76.0	43,501
Widowed/divorced/ separated/deserted	24.3	9.4	9.4	8.2	2.3	71.8	942
Number of living children							
0	19.5	6.1	5.4	4.6	1.1	76.3	30,608
1-2	19.4	5.9	5.7	3.9	1.1	77.0	20,187
3-4	20.5	5.6	5.9	3.9	1.0	75.4	14,207
5+	22.1	7.0	7.3	4.1	1.0	73.6	4,748
Household structure[1]							
Nuclear	19.8	6.1	5.5	4.2	1.1	76.2	35,297
Non-nuclear	19.9	5.9	5.9	4.3	1.0	76.1	34,453
Religion							
Hindu	19.7	5.8	5.7	4.3	1.0	76.3	57,112
Muslim	21.8	7.1	6.0	3.9	1.1	73.9	8,747
Christian	15.6	4.9	3.5	4.1	0.8	80.3	1,567
Sikh	18.8	6.6	8.5	6.1	3.2	77.1	1,270
Buddhist/Neo-Buddhist	17.9	6.8	1.3	2.7	0.3	77.2	596
Jain	11.9	2.5	3.9	2.9	1.3	88.0	213
Other	17.1	10.9	6.3	4.5	0.8	75.6	232
Caste/tribe							
Scheduled caste	20.4	6.3	6.5	3.9	1.0	75.2	13,188
Scheduled tribe	24.9	6.7	7.9	6.4	1.0	69.6	5,725
Other backward class	20.5	6.2	5.9	4.5	1.1	75.4	27,219
Other	17.5	5.4	4.5	3.6	1.0	79.0	23,214
Don't know	22.1	11.6	6.7	5.6	2.7	73.6	177

Continued…

Table 14.19 Men's attitude toward a husband's rights when his wife refuses to have sexual intercourse—*Continued*

Background characteristic	Percentage who agree that when a wife refuses to have sex with her husband, he has the right to:				Percentage who agree with the right to all four behaviours	Percentage who agree with right to none of the four behaviours	Number of men
	Get angry and reprimand her	Refuse to give her financial support	Use force to have sex	Have sex with another woman			
Wealth index							
Lowest	24.4	7.9	8.0	4.3	0.8	70.5	11,031
Second	24.5	7.5	7.2	5.1	1.2	71.1	12,666
Middle	22.9	6.9	6.4	4.6	1.4	73.1	14,301
Fourth	17.8	5.3	5.0	4.0	1.1	78.3	15,493
Highest	12.3	3.3	3.0	3.4	0.7	84.4	16,260
Total age 15-49	19.8	6.0	5.7	4.2	1.0	76.1	69,751
Age 50-54	18.9	6.0	5.5	3.8	1.6	77.5	4,618
Total age 15-54	19.8	6.0	5.7	4.2	1.1	76.2	74,369

Note: Total includes men with missing information on education, employment (past 12 months), religion, and caste/tribe, who are not shown separately.
[1] Nuclear households are households comprised of a married couple or a man or a woman living alone or with unmarried children (biological, adopted, or fostered) with or without unrelated individuals.

Overall, 20 percent of men agree that a man has the right to get angry and reprimand his wife, 6 percent agree that he has a right to refuse her money or other means of financial support, 6 percent agree that he can use force to have sex with her even if she does not want to, and 4 percent agree that he has the right to go and have sex with another woman. Three in four men (76 percent) do not agree with any of these actions and only 1 percent agree with all of them. Men's agreement with each of these actions decreases with education and wealth and is higher in rural than in urban areas. Disagreement with a man's right to all of the four behaviours is highest among Jain men, followed by Christian men. In general, there is little variation by most other characteristics.

Table 14.20 shows that states vary greatly in terms of men's agreement with each of the four actions that a husband can take if his wife refuses him sex. The percentage of men who say that a husband has a right to get angry and reprimand his wife ranges from a low of 4 percent in Delhi, 5 percent in Haryana, and 7 percent in Himachal Pradesh, to 31 percent in Andhra Pradesh, 32 percent in Madhya Pradesh and Mizoram, and 35 percent in Jammu and Kashmir. Although few men in most states agree with each of the three other actions asked about, there are several states where the proportions are not negligible. At least 10 percent of men agree that a husband has a right to refuse his wife money and financial support if she refuses him sex in Bihar (15 percent), Sikkim (14 percent), and Manipur and Mizoram (10 percent); at least 10 percent of men agree that a husband can use force and have sex with his wife even if she doesn't want to in Bihar (15 percent), Madhya Pradesh (11 percent), Tripura (10 percent), and Manipur (10 percent); and 11-12 percent agree that a husband can go out and have sex with other women in Madhya Pradesh and Mizoram. The percentage of men disagreeing with all four actions ranges from over 90 percent in Haryana, Himachal Pradesh, and Delhi to 59-62 percent in Jammu and Kashmir, Madhya Pradesh, Mizoram and Bihar. Despite the variation across states, these data show a high level of agreement with men's right to take at least one of the four actions in most states. These data show that in India as a whole, about one in four men agree that men whose wives refuse them sex have the right to take one or more of the specified actions; and in 16 of the 29 states, this is true for at least one in five men.

Table 14.20 Men's attitude toward a husband's rights when his wife refuses to have sexual intercourse by state

Percentage of men age 15-49 who consider that a husband has the right to certain behaviours when a woman refuses to have sex with him when he wants her to, by state, India, 2005-06

State	Percentage who agree that when a wife refuses to have sex with her husband, he has the right to:				Percentage who agree with the right to all four behaviours	Percentage who agree with the right to none of the four behaviours
	Get angry and reprimand her	Refuse her financial support	Use force to have sex	Have sex with another woman		
India	19.8	6.0	5.7	4.2	1.0	76.1
North						
Delhi	4.0	1.8	2.4	6.0	0.2	89.6
Haryana	5.3	2.2	2.3	1.6	1.1	94.2
Himachal Pradesh	6.8	2.7	3.0	2.0	0.8	90.4
Jammu & Kashmir	35.0	7.9	4.0	1.9	0.8	62.4
Punjab	21.4	7.4	8.9	6.6	3.1	74.1
Rajasthan	27.0	4.7	8.5	2.4	0.5	69.5
Uttaranchal	15.4	2.3	4.1	1.5	0.4	83.0
Central						
Chhattisgarh	17.5	1.6	1.8	0.2	0.2	81.6
Madhya Pradesh	31.8	6.5	10.7	11.1	1.4	60.6
Uttar Pradesh	13.6	4.4	4.3	1.5	0.5	84.2
East						
Bihar	28.9	15.1	15.1	9.0	2.4	59.5
Jharkhand	12.8	4.9	1.9	0.7	0.2	85.7
Orissa	13.8	3.9	5.2	0.7	0.4	84.0
West Bengal	15.9	4.5	4.2	3.8	1.1	80.5
Northeast						
Arunachal Pradesh	12.6	3.2	3.9	4.8	0.3	82.9
Assam	13.2	3.6	2.7	1.4	0.7	85.4
Manipur	22.8	10.1	9.8	6.4	1.5	69.9
Meghalaya	14.5	9.0	6.3	6.0	2.0	80.3
Mizoram	32.3	10.1	3.3	12.1	1.1	60.8
Nagaland	16.3	4.7	3.1	5.1	0.9	78.9
Sikkim	24.2	13.9	4.7	10.1	2.1	65.9
Tripura	26.4	5.8	10.4	5.7	1.7	72.2
West						
Goa	22.4	5.6	3.1	3.5	0.9	73.4
Gujarat	27.5	7.4	6.1	5.2	1.3	68.0
Maharashtra	20.0	5.8	3.1	2.6	0.8	77.6
South						
Andhra Pradesh	31.1	4.7	6.2	9.5	1.1	63.1
Karnataka	15.1	7.6	4.0	3.6	1.3	81.0
Kerala	11.4	8.4	3.1	3.5	0.3	80.7
Tamil Nadu	18.0	8.4	6.8	4.0	1.9	79.0

14.4 EMPOWERMENT INDICATORS AND DEMOGRAPHIC AND HEALTH OUTCOMES

In order to examine how selected demographic and health outcomes vary by women's empowerment, the three sets of questions on women's participation in making household decisions, their attitude toward wife beating, and their attitude toward refusing sex with their husband are summarized into three separate indices. All indices are based on women's responses only.

The first index is the number of decisions (see Table 14.6 for the list of decisions) in which currently married women participate alone or jointly with their husband. This index ranges in value from 0 to 4, and is positively related to women's empowerment. It reflects the degree of decision-making control that women are able to exercise in areas that affect their lives and environments. The second index, which ranges in value from 0 to 7, is the total number of reasons (see Table 14.15.1 for the list of reasons) for which the respondent feels that a husband is

justified in beating his wife. A lower score on this indicator is interpreted as reflecting a greater sense of entitlement and self-esteem and a higher status of women. The final index, which ranges in value from 0 to 3, is the number of circumstances (see Table 14.17.1 for the list of the circumstances) in which the respondent feels that a woman is justified in refusing sexual intercourse with her husband. This indicator reflects perceptions of sexual roles and women's rights over their bodies and relates positively to women's sense of self and empowerment.

Table 14.21 shows how these three indicators relate to each other. In general, the expectation is that the women who participate in making household decisions are also more likely to have gender-egalitarian beliefs and that women who have gender-egalitarian beliefs are more likely to participate in household decision making. Note that the decision making index is defined only for currently married women, whereas the other two are defined for all women. As shown in earlier tables, 37 percent of currently married women participate in all four decisions, 46 percent of all women disagree with all reasons for wife beating, and 68 percent of women say that a wife is justified in refusing her husband sex for all the reasons asked about. Overall, the three indices do not appear to be very strongly related to each other. The relationship of both decision making and attitudes towards wife beating with the indicator based on women's agreement with a wife's right to refuse her husband sex is particularly weak.

Table 14.21 Indicators of women's empowerment

Percentage of women age 15-49 who participate in all decision making, percentage who disagree with all reasons for justifying wife-beating, and percentage who agree with all reasons for refusing sexual intercourse with husband, by value on each of the indicators of women's empowerment, India, 2005-06

Empowerment indicator	Percentage who participate in all decision making[1]	Number of currently married women	Percentage who disagree with all the reasons justifying wife-beating[2]	Percentage who agree with all the reasons for refusing sexual intercourse with husband[3]	Number of women
Number of decisions in which women participate[1]					
0	na	19,057	40.7	67.4	19,057
1-2	na	24,797	42.1	70.2	24,797
3-4	na	49,235	46.5	70.5	49,235
Number of reasons for which wife-beating is justified[2]					
0	39.9	41,069	100.0	72.4	56,685
1-2	34.3	18,847	na	64.4	25,167
3-4	34.2	16,248	na	60.8	21,080
5-6	33.0	9,775	na	61.9	12,695
7	35.3	7,151	na	68.7	8,757
Number of reasons given for refusing to have sexual intercourse with husband[3]					
0	36.6	10,039	46.2	na	16,301
1-2	33.9	18,086	33.5	na	24,142
3	37.5	64,964	48.9	100.0	83,942
Total	36.7	93,089	45.6	67.5	124,385

na = Not applicable
[1] Includes currently married women only. See Table 14.6 for the list of decisions.
[2] See Table 14.15.1 for the list of reasons.
[3] See Table 14.17.1 for the list of reasons.

Table 14.21 shows a positive association between women's participation in decision making and women's rejection of wife beating. Forty percent of women who reject wife beating for all reasons (index value is 0) participate in all four decisions, compared with 34 percent among those who agree with one or more reasons (index value 1-7). Also, the percentage of

women who disagree with all the reasons for wife beating increases from 41 percent for women who do not participate in any decisions to 47 percent who participate in most of the decisions asked about.

Women's participation in decision making is not strongly related to women's agreement with a wife's right to refuse her husband sex. The percentage of women who participate in all four decisions is only marginally higher among women who agree that a wife has the right to refuse her husband sex for all three reasons than among women who agree with none or 1-2 reasons. However, the proportion of women who agree with all three reasons is slightly higher among women who participate in 3-4decisions (71 percent) than women who participate in none (67 percent).

Finally, the relationship between the two gender-attitude variables is not linear. However, the proportion of women who agree with all three reasons for a wife to refuse her husband sex is higher among women who reject wife beating for any reason (72 percent), compared with women who agree with wife beating for one or more reasons (61-69 percent).

Table 14.22 shows how contraceptive method use among currently married women varies by the three empowerment indices. A woman's ability to control her fertility and the contraceptive method she chooses are likely to be affected by her status, self-image, and sense of empowerment. Women unable to control other aspects of their lives may be less likely to feel they can make and carry out decisions about their fertility. Women may also feel the need to choose methods that are less likely to be evident or which do not depend on their husband's cooperation. The number of decisions in which a woman has the final say is indicative of women's empowerment and reflects the degree of decision-making control women are able to exercise in areas that affect their lives. The indicator 'Number of reasons for which wife beating is justified' has an inverse association with a woman's greater sense of entitlement, self-esteem, and status and therefore her level of empowerment. The indicator 'Number of reasons a wife can refuse to have sex with her husband' reflects perceptions of sexual roles and of women's rights over their bodies and also indicates women's sense of self and empowerment.

The table shows that any contraceptive use, modern contraceptive use, and the use of the different modern methods and traditional methods are generally higher the greater the number of decisions in which women participate. In particular, 37 percent of women who participate in no decisions are currently using a modern contraceptive method, compared with 54 percent of women who participate in 3-4 decisions. The association of contraceptive use with the two attitude-based empowerment indices is more complex. Modern method use is only slightly higher among women who agree with all reasons for wife beating than it is for women who do not agree with any reason; however, this relationship is largely affected by the fact that a much lower proportion of women who do not agree with wife beating are sterilized (34 percent), compared with women who do agree with wife beating for one or more reasons (37-44 percent). Temporary modern female method use, condom use, and traditional method use, however, are all strongly and positively associated with women's rejection of wife beating. Condom use for example among women who reject wife beating (index value 0), at 7 percent, is more than three times as high as among women who agree with all reasons (index value 7). A similar relationship exists between the third empowerment index and the different contraceptive methods. Female

sterilization use declines as the index value increases, but temporary female method use and traditional method use increase as the index value increases. Thus, the conclusion from this table is that participation in decision making is positively associated with the use of contraception and that having more gender egalitarian attitudes is positively associated with temporary method use.

Table 14.22 Current use of contraception by women's status

Percent distribution of currently married women age 15-49 by current contraceptive method, according to selected indicators of women's status, India, 2005-06

Empowerment indicator	Any method	Any modern method	Modern methods: Female sterilization	Modern methods: Male sterilization	Modern methods: Temporary modern female methods[1]	Modern methods: Male condom	Any traditional method	Not currently using	Total	Number of women
Number of decisions in which women participate[2]										
0	44.0	37.0	28.1	0.7	4.1	4.0	7.1	56.0	100.0	19,057
1-2	55.3	46.5	34.9	0.8	5.3	5.5	8.8	44.7	100.0	24,797
3-4	61.6	54.1	42.1	1.3	5.1	5.6	7.6	38.4	100.0	49,235
Number of reasons for which wife-beating is justified[3]										
0	57.5	48.1	33.6	0.9	6.2	7.3	9.4	42.5	100.0	41,069
1-2	55.6	47.7	37.4	1.0	4.6	4.8	7.9	44.4	100.0	18,847
3-4	54.3	48.2	40.1	1.0	3.9	3.2	6.2	45.7	100.0	16,248
5-6	56.3	50.6	42.7	1.2	3.4	3.2	5.8	43.7	100.0	9,775
7	56.2	51.5	44.4	1.6	3.4	2.1	4.7	43.8	100.0	7,151
Number of reasons given for refusing to have sexual intercourse with husband[4]										
0	56.2	49.9	41.2	1.2	4.4	3.2	6.3	43.8	100.0	10,039
1-2	53.6	46.8	37.7	1.1	4.3	3.7	6.9	46.4	100.0	18,086
3	57.1	48.8	36.6	1.0	5.2	6.0	8.3	42.9	100.0	64,964
Total	56.3	48.5	37.3	1.0	5.0	5.2	7.8	43.7	100.0	93,089

Note: If more than one method is used, only the most effective method is considered in this tabulation.
[1] Pill, IUD, injectables, implants, female condom, diaphragm, and foam/jelly.
[2] Includes currently married women only. See Table 14.6 for the list of decisions.
[3] See Table 14.15.1 for the list of reasons.
[4] See Table 14.17.1 for the list of reasons.

Table 14.23 examines whether women's use of antenatal, delivery, and postnatal care services from health workers varies by level of women's empowerment as measured by the three indicators of empowerment. In societies where health care is widespread, women's empowerment may not affect their access to reproductive health services; in other societies, however, increased empowerment of women is likely to increase their ability to seek out and use health services to better meet their own reproductive health goals, including the goal of safe motherhood. The table includes only women who had a birth in the five years preceding the survey, and examines their access to antenatal care, delivery care, and postnatal care.

The table shows that women's empowerment in terms of decision making is not related to whether women received antenatal care, but access to appropriate delivery assistance and timely postnatal care increases with the number of decisions that women participate in. For example, 52 percent of women who participate in most of the four decisions had a delivery assisted by health personnel and 37 percent received postnatal care from health personnel within the first two days after delivery, compared with 46 percent and 30 percent, respectively, of women who do not participate in any of the four decisions.

Table 14.23 Reproductive health care by women's empowerment

Percentage of women age 15-49 with a live birth in the five years preceding the survey who received antenatal care, delivery assistance and postnatal care from health personnel for the most recent birth, by indicators of women's empowerment, India, 2005-06

Empowerment indicator	Received antenatal care from health personnel[1]	Received delivery assistance from health personnel[1]	Received postnatal care from health personnel[1] within the first two days since delivery[2]	Number of births
Number of decisions in which women participate[3]				
0	74.4	46.1	29.7	9,495
1-2	77.5	49.5	34.0	11,324
3-4	76.0	51.9	37.2	18,207
Number of reasons for which wife-beating is justified[4]				
0	79.8	53.6	37.1	17,830
1-2	73.0	48.3	33.0	8,134
3-4	73.4	47.9	33.9	6,948
5-6	72.0	42.7	28.9	3,964
7	71.6	44.0	29.6	2,801
Number of reasons given for refusing to have sexual intercourse with husband[5]				
0	77.8	48.6	35.2	4,139
1-2	72.9	44.6	30.3	7,451
3	76.5	51.3	35.3	28,087
Total	75.9	49.8	34.4	39,677

[1] Health personnel includes doctor, nurse, midwife, auxiliary nurse midwife, lady health visitor, or other health personnel.
[2] Pertains to all recent deliveries including those delivered in a health facility.
[3] Includes currently married women only. See Table 14.6 for the list of decisions.
[4] See Table 14.15.1for the list of reasons.
[5] See Table 14.17.1for the list of reasons.

The second empowerment index is related to all three maternal health indicators: women who reject wife beating are more likely than women who accept one or more reasons for wife beating to receive antenatal care from health personnel, receive delivery assistance from health personnel, and receive postnatal care from health personnel within the first two day after delivery. In each case the differential is about 8-10 percentage points between those who agree with no reason for wife beating and those who agree with all. The third indicator of empowerment bears an unexpected U-shaped relationship with all three maternal health indicators. Women who agree with no reason for refusing the husband sex and those who agree with all three reasons are more likely to have received antenatal care from health personnel, received delivery assistance from health personnel, and received postnatal care from health personnel within the first two day after delivery than women who agree with 1 or 2 reasons.

The ability to access information, take decisions, and act effectively in their own interest or in the interests of those who depend on them are essential aspects of empowerment of women. It follows that if women who are the primary caretakers of children are empowered, the health and survival of their children would be enhanced. In fact, mother's empowerment fits into the Mosley-Chen framework on child survival as an intervening individual-level variable that affects child survival through proximate determinants. Table 14.24 shows how infant and child mortality vary by women's empowerment indices (for definitions of mortality rates see Chapter 7).

Table 14.24 Early childhood mortality rates by indicators of women's empowerment

Infant, child, and under-five mortality rates for the 10 year period preceding the survey, by indicators of women's empowerment, India, 2005-06

Empowerment indicator	Neonatal mortality (NN)	Postneonatal mortality (PNN)	Infant mortality (1q0)	Child mortality (4q1)	Under-five mortality (5q0)
Number of decisions in which women participate[1]					
0	43.0	18.1	61.1	19.7	79.6
1-2	39.4	18.5	57.9	18.1	75.0
3-4	35.6	17.2	52.9	17.3	69.3
Number of reasons for which wife-beating is justified[2]					
0	37.6	14.6	52.2	16.2	67.5
1-2	40.3	19.3	59.6	19.3	77.7
3-4	39.9	21.5	61.4	22.2	82.3
5-6	36.1	20.4	56.5	14.5	70.2
7	39.6	19.8	59.4	20.7	78.8
Number of reasons given for refusing to have sexual intercourse with husband[3]					
0	44.5	13.2	57.7	20.8	77.3
1-2	39.3	20.1	59.5	23.5	81.6
3	37.4	17.9	55.3	16.1	70.6

[1] Includes currently married women only. See Table 14.6 for the list of decisions.
[2] See Table 14.15.1 for the list of reasons.
[3] See Table 14.17.1 for the list of reasons.

The table shows a negative association of women's empowerment with infant and child mortality, particularly mortality within one year of life (infant mortality) and mortality within five years since birth (under-five mortality). Specifically, the infant mortality rate falls from 61 per 1,000 births among women who participate in none of the four decisions to 53 per 1,000 births among women who participate in 3-4 decisions; the under-five mortality also declines between women who participate in no decisions and women who participate in most by about 10 deaths per 1,000 births. The other two indicators of empowerment do not bear a linear association with mortality rates; nonetheless, all five mortality rates are lower for women who reject wife beating than for women who agree with one or more reasons and for women who agree with a wife's right to refuse her husband sex for all three reasons than for women who agree with 0-2 reasons.

DOMESTIC VIOLENCE 15

Since the 1990s, there has been increasing concern about violence against women in general, and domestic violence in particular, in both developed and developing countries. Not only has domestic violence been acknowledged worldwide as a violation of basic human rights, but an increasing amount of research highlights the health burdens, intergenerational effects, and demo-graphic consequences of such violence (United Nations, 1997; Heise et al., 1999; Jewkes, 2002; Campbell, 2002; Kishor and Johnson, 2004; 2006). Domestic violence occurs in all socioeconomic and cultural population subgroups; and in many societies, including India, women are socialized to accept, tolerate, and even rationalize domestic violence and to remain silent about such experiences. Violence of any kind has a detrimental impact on the economy of a country through increased disability, medical costs, and loss of labour hours; however, because women bear the brunt of domestic violence, they disproportionately bear the health and psychological burdens as well. Victims of domestic violence are abused inside what should be the most secure environment—their own homes—and usually by the persons they trust most.

Domestic violence was recognized as a criminal offence in India in 1983. The offence chargeable under section 498-A of the Indian Penal Code that relates to domestic violence is any act of cruelty by a husband (or his family) towards his wife. However, until recently, there was no separate civil law addressing the specific complexities associated with domestic violence, including the embedded nature of violence within familial networks, the need for protection and maintenance of abused women, and the fact that punishment and imprisonment for the husband may not be the best resolution in every case. Accordingly, after a decade-long process of consultations and revisions, a comprehensive domestic violence law, known as the Protection of Women from Domestic Violence Act 2005**,** took effect in 2006. Key elements of the law include the prohibition of marital rape and the provision of protection and maintenance orders against husbands and partners who are emotionally, physically, or economically abusive.

In NFHS-3, a module of questions on domestic violence was included as part of the Woman's Questionnaire. Information was collected on different forms of violence experienced by women age 15-49 and their help-seeking behaviour. The module collects detailed information on physical, sexual, and emotional violence perpetrated by husbands against their wives, physical consequences of spousal violence, and when spousal violence was first initiated, as well as information on violence perpetrated by wives against their husbands. In addition, in order to examine the intergenerational effects of domestic violence, information was collected on whether the respondent's father ever beat her mother.

15.1 MEASUREMENT OF DOMESTIC VIOLENCE

Collecting valid, reliable, and ethical data on domestic violence poses particular challenges because: a) what constitutes violence or abuse varies across cultures and individuals; b) reporting can be affected by the culture of silence that surrounds domestic violence; and c) specific ethical concerns have to be addressed due to the sensitivity of the topic, concerns for the

safety of respondents and interviewers when talking about domestic violence in a familial setting, and the need to protect women who disclose violence. NFHS-3 addressed these concerns by using a module of questions known to increase the validity of domestic violence data; by building into the questionnaire special protections for the respondent; by providing, on request, information on sources of help for abused women; and by providing specialized training for field staff. These precautions are in keeping with the World Health Organization's ethical and safety recommendations for research on domestic violence (World Health Organization, 2001). Details of the NFHS-3 approach to the measurement of domestic violence are given below.

Use of valid measures of domestic violence. In NFHS-3, domestic violence is defined to include violence by spouses as well as by other household members. Thus, information was obtained from ever-married women on violence by husbands and by others, and from never married women on violence by anyone, including boyfriends.

International research has shown that spousal violence is one of the most common forms of violence experienced by women. Hence, violence perpetrated by the husband is measured in more detail than violence by other perpetrators. Specifically, violence by husbands is measured by using a greatly shortened and modified Conflict Tactics Scale (CTS) (Strauss, 1990). The CTS has been found to be effective in measuring domestic violence and can be easily adapted for use in different cultural situations. In NFHS-3, spousal physical and sexual violence is measured using the following set of questions:

(Does/did) your (last) husband ever do any of the following things to you:
a) Slap you?
b) Twist your arm or pull your hair?
c) Push you, shake you, or throw something at you?
d) Punch you with his fist or with something that could hurt you?
e) Kick you, drag you or beat you up?
f) Try to choke you or burn you on purpose?
g) Threaten or attack you with a knife, gun, or any other weapon?
h) Physically force you to have sexual intercourse with him even when you did not want to?
i) Force you to perform any sexual acts you did not want to?

Emotional violence among ever-married women was measured in a similar way, using the following set of questions:

(Does/did) your (last) husband ever:
a) Say or do something to humiliate you in front of others?
b) Threaten to hurt or harm you or someone close to you?
c) Insult you or make you feel bad about yourself?

The questions were asked with reference to the current husband for women currently married and with reference to the most recent husband for women formerly but not currently married. Women could respond 'yes' or 'no' to each item. In each instance of a 'yes' response, women were asked about the frequency of the act in the 12 months preceding the survey. A 'yes'

response to one or more of items (a) to (g) above constitutes evidence of physical violence, while a 'yes' response to items (h) or (i) constitutes evidence of sexual violence. Note that widowed women, like other ever-married women were asked the questions related to the ever experience of spousal violence; however, unlike other ever-married women, they were excluded from the questions on violence in the past 12 months. Asking widows questions about recent experience of violence was thought to be unnecessary, since most current widows would not have had a living husband for some or all of the 12 month period preceding the survey.

Asking about the experience of specific acts of violence, rather than about the experience of violence in general, has the advantage of removing from the measurement of violence the effect of variations in the understanding and interpretation of what constitutes violence. A woman has to say whether she has, for example, ever been slapped, not whether she has ever experienced any violence. Most women would probably agree on what constitutes a slap, but what constitutes a violent act or is understood as violence, may vary among women, as it does across cultures. In fact, summary terms such as 'abuse' or 'violence' were also avoided during the NFHS-3 training of interviewers, and not used at all in the title, design, or implementation of the module. This approach of inquiring about a wide range of acts has the additional advantage of giving the respondent multiple opportunities to disclose any experience of violence and of allowing an assessment of the severity of violence.

In addition to the questions asked only of ever-married women, all women, regardless of marital status, were asked about physical violence from persons other than the current or most recent husband with the question: *From the time you were 15 years old, has anyone [other than your (current/last) husband] hit, slapped, kicked, or done anything else to hurt you physically?* Women who responded 'yes' to this question were asked who had done this to them and the frequency of such violence during the 12 months preceding the survey. All women were also asked: *At any time in your life, as a child or as an adult, has any one ever forced you in any way to have sexual intercourse or perform any other sexual acts?* Women who said 'yes' were then asked questions about the age at which this first happened and their relationship with the person who committed the act.

Finally, ever-married women were asked whether they had ever hit, slapped, kicked, or done anything else to physically hurt their husband at any time when he was not already beating or physically hurting them. This information allows an estimate of violence initiated by women against their husbands.

Although the use of a CTS-type approach in the measurement of domestic violence is generally considered to be optimal, the possibility of underreporting of violence, particularly of sexual violence, cannot be entirely ruled out in any survey. Caution should always be exercised in interpreting both the overall prevalence of violence and differentials in prevalence between subgroups of the population. While a large part of any substantial difference in prevalence of violence between subgroups is likely to reflect actual differences, differential underreporting across subgroups can also contribute to exaggerating or narrowing the differences in prevalence to an unknown extent.

Protections for the respondent. There are three specific protections for respondents built into the questionnaire:

a) One woman only, from among all women in a sample household eligible for interview, was selected for the domestic violence module of questions. In households with more than one eligible woman, the woman administered the module was randomly selected through a specially designed simple selection procedure based on the Kish Grid (Kish, 1965) which was built into the Household Questionnaire. Selecting only one woman for the domestic module even when there are more women eligible for interview, allows the interviewed respondent to keep the information confidential. Security and confidentiality reasons also dictated that men not be asked questions about the experience or perpetration of violence.

b) Informed consent for the survey was obtained from the respondent at the start of the individual interview. In addition, at the start of the domestic violence section, each respondent was read a statement informing her that she was now going to be asked questions that could be personal in nature because they explored different aspects of the relationship between couples. The statement reassured the respondent that her answers were completely confidential and would not be told to anyone else and that no one else in the household would be asked these questions.

c) The domestic violence module was specially designed to allow the interviewer to continue the interview only if privacy was obtained. If privacy could not be obtained, the interviewer was instructed to skip the module, thank the respondent, and end the interview. In India, less than one percent of women selected for interview with the module could not be interviewed because of privacy considerations.

Although most women interviewed do not ask for help, some abused women may ask the interviewer for assistance. To prepare for this possibility, all field organizations involved in the implementation of NFHS-3 were required to put together a list of organizations in their state that assist women in distress. This list was provided to interviewers and interviewers were specially trained to provide this information in a confidential and safe manner when asked by respondents.

Special training for implementing the domestic violence module. Even women who want to speak about their experiences of domestic violence may find it difficult to do so because of feelings of shame or fear. The need to establish rapport with the respondent and ensure confidentiality and privacy during the interview is important for all parts of the survey, but is especially critical in ensuring the validity of domestic violence data. Complete privacy is also essential for ensuring the security of both interviewer and respondent. Asking about violence or reporting violence, especially in households where the perpetrator may be present at the time of interview, carries the risk of further violence. Accordingly, in NFHS-3, interviewers were provided training for implementing the domestic violence module based on a training manual specially developed to enable the field staff to collect violence data in a secure, confidential and ethical manner. The main goals of this training were to sensitize field staff to issues of gender and violence; to teach techniques for gender-sensitive interviewing and for building interviewer-respondent rapport and confidence in order to maximize disclosure; to manage safety and ethical concerns that are specific to domestic violence data collection, including ways of obtaining privacy and handling interruptions; and to achieve field staff buy-in for maintaining strict confidentiality.

The rest of this chapter is organized as follows: in Section 15.2 data on the experience of physical and sexual violence for all women, irrespective of marital status are presented. Also discussed in this section is information on the relationship of the perpetrator to the respondent, and for women who report sexual violence, the age at which it first occurred. Section 15.3 provides a discussion of marital control exerted by husbands on their wives through coercive behaviours. Such controlling behaviours are known to be correlated with the exercise of violence. Section 15.4 presents data on spousal violence experienced by ever-married women, along with information on the timing and consequences of the violence. Also discussed here are data on violence by women against their husbands. Finally, Section 15.5 addresses the help-seeking behaviours of abused women.

Note that the approach taken to measuring domestic violence in NFHS-3 is sufficiently different from that taken in NFHS-2 so as to preclude any possibility of comparison of the violence data in the two surveys. This also means that the data from the two surveys cannot be used to provide trends in violence against women.

As mentioned above, security precautions required that only one woman be administered the domestic violence module in each sample household, and that the domestic violence module not be administered if privacy is not achievable. With these restrictions, the resulting sample of women for the domestic violence module is 83,703 (13,999 never married women and 69,704 ever-married women) or 67 percent of the entire NFHS-3 sample of women. Of the 49,682 unweighted de facto women excluded, 40,117 women were not selected for the domestic violence sample because they belonged to households with more than one eligible woman, only 477 (0.6 percent of all women eligible for the module) could not be administered the module because privacy could not be obtained, and 88 could not be interviewed for other reasons. It is noteworthy that the age, residential, educational, religious, caste/tribe and wealth index distributions of the subsample of women who completed the domestic violence module are virtually identical to the entire NFHS-3 sample of eligible women (data not shown).

15.2 Experience of Violence by Women Age 15-49

In this section, women's experience of physical violence since age 15 is discussed, followed by a discussion of their lifetime experience of sexual violence. Indicators of the ever experience of physical or sexual violence are also discussed.

15.2.1 Physical Violence since Age 15

Table 15.1 shows the percentage of women who have experienced physical violence at any time since the age of 15 years—ever and in the previous 12 months—by background characteristics. Thirty-four percent of all women age 15-49 have experienced violence at any time since the age of 15. Nineteen percent of women age 15-49 have experienced violence in the 12 months preceding the survey. Notably, the majority (56 percent) of women who have ever experienced violence since the age of 15 have experienced violence in the 12 months preceding the survey. Of women who experienced any violence in the past 12 months, one in five reported that they experienced the violence often, and the remainder said that they experienced it sometimes.

Table 15.1 Experience of physical violence

Percentage of women age 15-49 who have ever experienced physical violence since age 15 and percentage who have experienced physical violence during the 12 months preceding the survey, by background characteristics, India, 2005-06

Background characteristic	Percentage who have ever experienced physical violence since age 15[1]	Percentage who have experienced physical violence in the past 12 months			Number of women
		Often	Sometimes	Often or sometimes	
Age					
15-19	20.7	2.8	11.7	14.5	16,617
20-24	30.8	4.1	15.8	19.9	15,427
25-29	38.1	5.2	18.3	23.5	13,832
30-39	39.4	4.6	16.4	21.0	22,542
40-49	37.7	3.1	12.4	15.5	15,286
Residence					
Urban	28.3	2.9	12.0	14.9	27,371
Rural	36.1	4.4	16.4	20.9	56,332
Education					
No education	44.3	5.7	19.9	25.6	34,138
<5 years complete	39.1	4.7	17.2	21.9	6,600
5-7 years complete	32.4	3.7	15.1	18.7	12,557
8-9 years complete	26.0	2.9	12.3	15.2	11,700
10-11 years complete	21.3	1.9	8.7	10.6	8,683
12 or more years complete	14.3	0.8	5.2	6.0	10,023
Employment (past 12 months)					
Not employed	29.1	3.2	13.4	16.6	47,720
Employed for cash	39.6	4.9	17.3	22.2	24,079
Employed not for cash	39.1	5.1	16.4	21.6	11,880
Marital status					
Never married	16.1	1.4	8.1	9.5	16,477
Currently married	37.4	4.7	17.5	22.1	62,652
Married, *gauna* not performed	14.9	0.7	5.6	6.3	568
Widowed	37.9	0.3	1.4	1.7	2,692
Divorced/separated/deserted	66.1	11.0	13.2	24.2	1,314
Household structure[2]					
Nuclear	35.7	4.2	16.4	20.5	43,551
Non-nuclear	31.2	3.7	13.5	17.2	40,152
Religion					
Hindu	33.7	3.9	14.9	18.8	67,426
Muslim	34.6	4.9	16.2	21.1	11,396
Christian	27.8	3.0	13.8	16.7	2,039
Sikh	26.1	1.5	11.9	13.3	1,492
Buddhist/Neo-Buddhist	40.9	4.1	14.4	18.5	681
Jain	12.6	1.4	3.9	5.3	264
Other	36.3	2.8	18.2	21.0	333
Caste/tribe					
Scheduled caste	41.7	4.9	19.0	23.9	15,609
Scheduled tribe	39.3	5.5	19.0	24.5	6,866
Other backward class	34.1	4.0	15.1	19.0	32,938
Other	26.8	3.1	11.4	14.5	27,582
Don't know	28.5	1.6	15.5	17.2	466
Wealth index					
Lowest	44.5	6.6	20.9	27.5	14,763
Second	41.8	5.5	19.6	25.1	15,997
Middle	35.9	4.3	16.2	20.5	16,790
Fourth	29.7	2.8	12.7	15.5	17,499
Highest	19.2	1.3	7.3	8.6	18,654
Total	33.5	4.0	15.0	18.9	83,703

Note: Total includes women with missing information on education, employment (past 12 months), religion, and caste/tribe, who are not shown separately.
[1] Includes physical violence in the past 12 months.
[2] Nuclear households are households comprised of a married couple or a man or a woman living alone or with unmarried children (biological, adopted, or fostered) with or without unrelated individuals.

By age, the prevalence of physical violence is lowest, at 21 percent, for women age 15-19, followed by 31 percent for women age 20-24 and 38-39 percent for women in the older age groups. The prevalence of violence in the past 12 months has an inverted U-shaped relationship

with age, with the highest prevalence (24 percent) found for women age 25-29 and the lowest (15-16 percent) for the youngest and oldest women. Women age 25-29 are also somewhat more likely to experience violence often. However, among women who have ever experienced violence at some time since the age of 15, the youngest women (age 15-19) are most likely, at 70 percent, to have experienced violence in the past 12 months and the oldest women (age 40-49) least likely, at 41 percent, to have done so. Rural women are more likely than urban women to have ever experienced physical violence since the age of 15, and to have experienced it in the past 12 months.

Differentials in prevalence by women's education are substantial. Forty-four percent of women with no education have experienced violence at some time since the age of 15, and 26 percent have experienced violence in the past 12 months. These proportions decline steadily with education, and the corresponding proportions for women who have completed 12 or more years of education are 14 percent and 6 percent, respectively. The percentage of women often experiencing violence in the past 12 months also declines with education, from 6 percent for women with no education to 1 percent for women who have the highest level of education. However, among women who have experienced violence since the age of 15, there is much less variation in the experience of violence in the past 12 months across educational levels (from 58 percent among women with no education to 50 percent among women with 10-11 complete years of education and 42 percent among women with the highest level of education). Women who were employed at any time in the past 12 months have a much higher prevalence of violence (39-40 percent) than women who were not employed (29 percent), although the corresponding differential in the experience of violence in the past 12 months is much smaller (22 percent for women employed in the past 12 months, compared with 17 percent for women who were not employed).

Two-thirds of currently divorced, separated, or deserted women have experienced violence at some time since age 15, twice the national average. Currently married women and widowed women have a much higher prevalence of violence (37 and 38 percent) than never married women or women whose *gauna* has not yet been performed (16 and 15 percent). This is not surprising since spousal violence for women age 15-49 is the most common form of domestic violence. The prevalence of violence does not vary by household structure.

Differentials by religion and caste/tribe status are large. Buddhist/Neo-Buddhist women report the highest level of violence (41 percent), followed by Muslim and Hindu women (34-35 percent), and Sikh and Christian women (26-28 percent); Jain women report the lowest levels of violence (13 percent). Prevalence of violence is also much higher among women belonging to the scheduled castes and tribes than among women who do not belong to these categories. While variation in violence in the past 12 months by religion and caste/tribe has a similar pattern, the differentials are much smaller.

Differentials across wealth quintiles are also large. The prevalence of the experience of physical violence since the age of 15 declines sharply and steadily with increasing wealth status from 45 percent for women in the lowest wealth quintile to 19 percent for women in the highest wealth quintile. The corresponding decline in the experience of violence in the past 12 months is from 27 percent among women in the lowest quintile to 9 percent among women in the highest

quintile. Notably, among women who have experienced violence since the age of 15, the proportion that have experienced violence in the past 12 months does not vary as much by wealth status. Sixty-two percent of women in the lowest quintile who have experienced violence since the age of 15 have experienced violence in the past 12 months, and this proportion declines slowly to 45 percent among women in the highest quintile. Thus, it is evident that even among the wealthiest groups, one of every five women has ever experienced physical violence, and among those who have experienced violence, almost half have experienced violence in the recent past.

Among women who reported having experienced any physical violence at some time since the age of 15, Table 15.2 identifies who committed the violence by providing the nature of the relationship between the perpetrator of the violence and the respondent. Data are shown separately by current marital status of the respondent, although the violence being reported by ever married women may have occurred before, during, or after having been married. Since women could have experienced violence at the hands of more than one person, the percentages do not sum to 100.

Table 15.2 Persons committing physical violence

Among women age 15-49 who have experienced physical violence since age 15, percentage who report specific persons who committed the violence, according to the respondent's marital status, India, 2005-06

Person	Marital status: Ever married	Married, *gauna* not performed	Never married	Total
Current husband	85.3	(4.9)	na	77.0
Former husband	7.3	(0.0)	na	6.6
Current boyfriend	0.0	(0.0)	0.1	0.0
Former boyfriend	0.0	(4.9)	0.5	0.1
Father/step-father	4.4	(29.5)	26.6	6.6
Mother/step-mother	8.9	(64.3)	57.1	13.7
Sister/brother	4.7	(19.6)	36.3	7.8
Daughter/son	0.1	(0.0)	0.5	0.1
Other relative	1.4	(3.4)	3.0	1.5
Mother-in-law	1.9	(0.0)	na	1.7
Father-in-law	0.6	(0.0)	na	0.6
Other in-law	1.5	(0.0)	na	1.3
Teacher	1.7	(16.3)	14.9	3.0
Employer/someone at work	0.0	(0.0)	0.1	0.0
Police/soldier	0.0	(0.0)	0.1	0.0
Other	0.2	(0.0)	0.8	0.3
Number of women	25,337	85	2,656	28,078

na = Not applicable
( ) Based on 25-49 unweighted cases.

As expected, almost all ever-married women who have experienced violence report a current or former husband as the person who inflicted violence. Eighty-five percent of ever-married women who have experienced violence since the age of 15 have experienced it from their current husband. Only 2 percent mention a mother-in-law as the perpetrator. Never married women and women whose *gauna* has not been performed mainly report family members, particularly mothers, as the person committing the violence. Notably, about one in seven of these women report violence at the hands of a teacher.

15.2.2 Lifetime Sexual Violence

NFHS-3 included two sets of questions on sexual violence. The first set asked only ever-married women about sexual violence by the current husband if currently married and the most recent husband if currently divorced, separated, deserted or widowed. The second asked all women, regardless of marital status, whether they had ever, as a child or as an adult, experienced sexual violence. Sexual violence here includes being forced to have sexual intercourse or perform any other sexual acts against one's own will. Table 15.3 shows that 9 percent of all women age 15-49 report having experienced sexual violence at sometime during their lifetime.

Ten percent of currently married or widowed women, 1 percent of never married women, and 2 percent of women whose *gauna* has not yet been performed report have experienced sexual violence. However, compared not only with women in other marital statuses, but also with all other subgroups in the table, it is divorced, separated, or deserted women have the highest prevalence of sexual violence (25 percent).

Five percent of women age 15-19 report having experienced sexual violence, the lowest rate among all the age groups. Ten percent of rural women have experienced sexual violence, compared with 6 percent of urban women. The prevalence of sexual violence declines sharply with education from 12 percent among women with no education to less than 5 percent of women with at least 10 years of education. As in the case of physical violence, women who were employed (either for cash or not for cash) during the 12 months preceding the survey have a somewhat higher prevalence of sexual violence (10 percent) than women not employed (7 percent). According to religion, Buddhist/Neo-Buddhist and Jain women have the lowest prevalence of sexual violence (3 and 4 percent) and Muslim women the highest (11 percent), followed by Hindu women (8 percent). Prevalence of sexual violence is somewhat higher for the scheduled castes (11 percent) and scheduled tribes (10 percent) than for women not belonging to the scheduled castes and tribes (7-9 percent). As with physical violence, prevalence is highest among women in the poorest wealth quintile (13 percent) and declines steadily with increasing wealth to a low of 4 percent among women in the highest quintile.

Table 15.3 Experience of sexual violence

Percentage of women age 15-49 who have ever experienced sexual violence, by background characteristics, India, 2005-06

Background characteristic	Percentage who have ever experienced sexual violence	Number of women
Age		
15-19	4.5	16,617
20-24	8.6	15,427
25-29	10.2	13,832
30-39	10.2	22,542
40-49	8.5	15,286
Residence		
Urban	5.9	27,371
Rural	9.7	56,332
Education		
No education	12.1	34,138
<5 years complete	10.5	6,600
5-7 years complete	8.1	12,557
8-9 years complete	6.0	11,700
10-11 years complete	3.7	8,683
12 or more years complete	2.3	10,023
Employment (past 12 months)		
Not employed	7.4	47,720
Employed for cash	9.7	24,079
Employed not for cash	10.1	11,880
Marital status		
Never married	1.1	16,477
Currently married	10.1	62,652
Married, *gauna* not performed	1.8	568
Widowed	9.7	2,692
Divorced/separated/deserted	24.6	1,314
Household structure[1]		
Nuclear	8.5	43,551
Non-nuclear	8.5	40,152
Religion		
Hindu	8.3	67,426
Muslim	10.9	11,396
Christian	5.8	2,039
Sikh	4.6	1,492
Buddhist/Neo-Buddhist	2.8	681
Jain	3.9	264
Other	9.3	333
Caste/tribe		
Scheduled caste	11.0	15,609
Scheduled tribe	10.2	6,866
Other backward class	7.4	32,938
Other	7.8	27,582
Don't know	8.7	466
Wealth index		
Lowest	13.2	14,763
Second	11.1	15,997
Middle	8.8	16,790
Fourth	6.8	17,499
Highest	3.7	18,654
Total	8.5	83,703

Note: Total includes women with missing information on education, employment (past 12 months), religion, and caste/tribe, who are not shown separately.
[1] See Table 15.1, footnote 2 for definition.

Table 15.4 gives the percent distribution of women who have experienced sexual violence by age at first experience of sexual violence. For the majority of women who report sexual violence, the information on age at first experience of sexual violence is not known. This is because a significant proportion (73 percent) of reported sexual violence occurred in the current or most recent marriage and the age at initiation of such violence was not determined. Thus, the data in the table largely reflect the age at which non-marital sexual

violence first occurred. These data suggest that, among women reporting sexual violence not committed by the current or most recent husband, sexual violence typically first occurs in the age group 15-19. However, a significant proportion also occurs before age 15. Specifically, for one in five women who reported any sexual violence not committed by the current or most recent husband, the violence first occurred before women were 15 years of age. Notably, among the youngest women reporting sexual violence, the proportion who have experienced violence before age 15 is 12 percent or about one in four of those who report violence by someone other than a current or most recent husband.

Table 15.4 Age at first experience of sexual violence

Percent distribution of women age 15-49 who have experienced sexual violence by age at first experience of sexual violence, according to current age, India, 2005-06

	Age at first experience of sexual violence							
Age	Less than age 10	Age 10-14	Age 15-19	Age 20-49	Not determined/ don't know[1]	Missing	Total	Number of women
15-19	2.1	9.8	32.2	na	55.3	0.7	100.0	751
20-24	0.0	4.4	18.3	7.3	69.8	0.3	100.0	1,324
25-29	0.2	4.6	10.5	8.4	76.2	0.2	100.0	1,413
30-39	0.4	3.9	10.3	8.3	77.1	0.0	100.0	2,308
40-49	0.0	4.3	10.6	11.3	73.5	0.2	100.0	1,293
Total	0.4	4.8	14.2	7.8	72.6	0.2	100.0	7,090

na = Not applicable
[1] Includes women who report having ever experienced sexual violence committed only by their current husband if currently married or most recent husband if widowed, divorced, separated, or deserted. For these women, the age at first experience of sexual violence is not known.

Table 15.5 shows the perpetrators of sexual violence according to women's marital status and age at first experience of violence. The table shows that although the vast majority of ever-married women reporting any sexual violence have experienced such violence at the hands of a husband, 2 percent report sexual violence by a relative, 1 percent report sexual violence by a friend/acquaintance, and about half a percentage point each, report sexual violence by a boyfriend, an in-law, a family friend, or a stranger. Never married women who have experienced sexual violence have most often been abused by a relative (27 percent), a friend/acquaintance (23 percent), a boyfriend (19 percent), a stranger (16 percent), and a family friend (8 percent).

Table 15.5 Persons committing sexual violence

Among women age 15-49 who have experienced sexual violence, percentage who report specific persons committing sexual violence according to age at first experience of sexual violence and current marital status, India, 2005-06

	Marital status		Age at first experience of sexual violence			
Person	Ever married	Never married	<15 years	15 years or higher	Don't know[1]	Total
Current husband	87.5	0.0	47.1	75.1	91.0	85.2
Former husband	7.9	0.0	8.0	5.5	8.3	7.7
Current/former boyfriend	0.4	19.2	2.2	2.9	0.1	0.9
Father	0.0	1.1	0.0	0.2	0.0	0.0
Step father	0.0	0.7	0.0	0.1	0.0	0.0
Other relative	1.7	26.7	18.6	5.7	0.2	2.4
In-law	0.4	1.5	0.0	1.1	0.2	0.4
Own friend/acquaintance	1.0	22.9	10.2	4.3	0.1	1.6
Family friend	0.4	7.6	4.6	1.4	0.0	0.6
Teacher	0.0	0.4	0.1	0.1	0.0	0.0

Continued…

Table 15.5 Persons committing sexual violence—*Continued*

Person	Marital status		Age at first experience of sexual violence			Total
	Ever married	Never married	<15 years	15 years or higher	Don't know[1]	
Employer/someone at work	0.2	3.0	1.3	0.8	0.0	0.2
Police/soldier	0.0	0.0	0.0	0.0	0.0	0.0
Priest/religious leader	0.0	0.0	0.0	0.0	0.0	0.0
Stranger	0.5	15.6	7.8	2.1	0.0	0.9
Other	0.1	1.3	0.0	0.4	0.0	0.1
Number of women	6,900	190	371	1,566	5,144	7,090

Note: Total includes women with missing information on age at experience of sexual violence, who are not shown separately.
[1] Includes women who report having ever experienced sexual violence committed only by their current husband if currently married or most recent husband if widowed, divorced, separated, or deserted. For these women, the age at first experience of sexual violence is not known.

Among women for whom the age at first sexual abuse is known, 371 were younger than 15 years when they were first abused. Almost half (47 percent) of this small number of women, say that their current husband was the perpetrator of the violence and 8 percent say that it was a former husband. Among women who first experienced sexual violence before age 15, significant proportions say that the violence was perpetrated by a relative (19 percent) or by a friend or acquaintance (10 percent). Among women who first experienced sexual violence after age 15, husbands are by far the most common perpetrators of sexual violence.

15.2.3 Physical or Sexual Violence

Table 15.6 shows the percentage of women who have experienced different combinations of physical and sexual violence for India as a whole, according to selected background characteristics and by state. Thirty-four percent have experienced physical violence and 27 percent have experienced physical violence but not sexual violence; 9 percent have experienced sexual violence and 2 percent have experienced sexual violence but not physical violence; and 7 percent have experienced both physical and sexual violence. Overall, in India 35 percent of women age 15-49 have experienced physical or sexual violence; this proportion is 40 percent for ever-married women and 17 percent for never married women. Both types of violence are higher in rural than in urban areas.

The proportion of women who have experienced only physical violence, as well as those who have experienced both physical and sexual violence, or have experienced physical or sexual violence, increases with age till the age group 30-39, but then declines somewhat for the oldest age group. Sexual violence only does not increase linearly with age and is highest for women in the age-groups 15-19 and 20-24.

Women's experience of the different types of violence varies greatly by state. In all states, however, physical violence alone tends to be the most common form of violence. Sexual violence rarely occurs without physical violence. Any sexual violence (with or without physical violence) ranges from 1 percent in Himachal Pradesh and Meghalaya to 16 percent in Tripura, 17 percent in Bihar and Rajasthan, and 18 pecent in West Bengal. The prevalence of any violence

Table 15.6 Experience of different forms of violence

Percentage of women age 15-49 who have experienced different forms of violence by residence, age, marital status, and state, India, 2005-06

State	Physical violence only	Sexual violence only	Physical and sexual violence	Physical or sexual violence
India	26.9	1.8	6.7	35.4
Age				
15-19	18.0	1.8	2.7	22.5
15-17	18.6	1.4	1.6	21.6
18-19	17.2	2.4	4.2	23.8
20-24	24.7	2.4	6.2	33.2
25-29	29.7	1.9	8.4	39.9
30-39	30.8	1.7	8.5	41.1
40-49	30.5	1.3	7.2	39.0
Residence				
Urban	23.5	1.1	4.8	29.4
Rural	28.5	2.1	7.6	38.3
Marital status				
Ever married	29.7	2.1	8.3	40.1
Never married	15.7	0.8	0.3	16.9
North				
Delhi	14.9	0.2	1.4	16.5
Haryana	23.4	1.4	4.3	29.0
Himachal Pradesh	4.1	0.3	1.1	5.6
Jammu & Kashmir	10.1	0.9	1.9	12.9
Punjab	25.0	1.0	4.9	30.9
Rajasthan	27.5	4.6	12.6	44.6
Uttaranchal	22.1	0.4	4.2	26.8
Central				
Chhattisgarh	24.0	0.8	5.3	30.1
Madhya Pradesh	37.0	1.4	8.4	46.8
Uttar Pradesh	30.3	1.1	6.7	38.1
East				
Bihar	38.9	2.9	13.8	55.6
Jharkhand	23.5	2.1	9.2	34.8
Orissa	24.5	3.5	8.2	36.2
West Bengal	19.9	6.2	12.2	38.3
Northeast				
Arunachal Pradesh	25.1	2.8	7.5	35.5
Assam	24.7	2.2	9.6	36.5
Manipur	28.8	2.1	7.9	38.9
Meghalaya	14.6	0.4	1.0	16.0
Mizoram	22.9	0.5	2.1	25.5
Nagaland	12.9	3.1	3.0	19.0
Sikkim	16.8	1.6	2.4	20.9
Tripura	28.9	2.5	13.2	44.7
West				
Goa	12.5	0.6	1.8	15.0
Gujarat	20.7	2.2	4.8	27.8
Maharashtra	27.2	0.3	1.7	29.2
South				
Andhra Pradesh	29.9	0.5	3.4	33.8
Karnataka	16.7	0.2	2.9	19.9
Kerala	12.6	1.3	3.4	17.3
Tamil Nadu	36.1	0.0	2.5	38.7

(physical or sexual) is least in Himachal Pradesh, at 6 percent, followed by Jammu and Kashmir (13 percent) and Goa (15 percent). Any violence is most common in Bihar (56 percent), followed by Rajasthan, Madhya Pradesh, and Tripura (45-47 percent).

15.3 MARITAL CONTROL

Certain male behaviours meant to keep tight control over women, particularly wives, have been identified in the literature as risk factors for violence (Campbell et al., 2003; Kishor and Johnson, 2004). Accordingly, NFHS-3 sought information on six controlling behaviours that may be manifested by husbands, by asking each ever-married respondent the following: whether her husband is jealous or angry if she talks to other men; frequently accuses her of being unfaithful; does not permit her to meet her female friends; tries to limit her contacts with her family; insists on knowing where she is at all times; and does not trust her with money. For currently married women these questions refer to their current husband and for formerly married women to their most recent husband. Table 15.7 shows the percentage of women who have been subjected to these behaviours, according to background characteristics. The most common behaviour of all the behaviours asked about is jealousy or anger if the wife talks to other men. This behaviour is experienced by a quarter of ever-married women (26 percent). The next most commonly experienced controlling behaviours asked about are the wife not being trusted with money (18 percent) and the wife not being allowed to meet her female friends (16 percent). However, few women have husbands who show a significant number of these behaviours: only 12 percent of women have husbands who display three or more of these behaviours, and 57 percent have husbands who display none of them.

Table 15.7 Degree of marital control exercised by husbands

Percentage of ever-married women age 15-49 whose husband has ever demonstrated specific types of controlling behaviours, according to background characteristics, India, 2005-06

Background characteristic	Percentage of women whose husband: Is jealous or angry if she talks to other men	Frequently accuses her of being unfaithful	Does not permit her to meet her female friends	Tries to limit her contact with her family	Insists on knowing where she is at all times	Does not trust her with any money	Husband displays 3 or more of the specific behaviours	Husband displays none of the specific behaviours	Number of women
Age									
15-19	33.6	11.7	19.3	12.3	16.1	20.9	17.2	49.5	4,643
20-24	27.7	8.2	15.9	10.3	12.7	18.5	12.7	56.3	11,642
25-29	27.1	8.7	16.1	9.8	12.7	18.0	12.4	55.9	13,006
30-39	25.8	8.5	15.9	10.0	11.2	18.8	12.0	57.5	22,191
40-49	23.5	7.7	14.9	8.7	10.4	17.1	10.4	59.8	15,175
Residence									
Urban	20.5	6.4	14.3	8.0	9.3	17.1	9.6	63.7	20,441
Rural	29.0	9.4	16.6	10.7	13.0	18.9	13.3	54.0	46,217
Education									
No education	32.3	10.8	16.5	11.4	13.4	19.3	14.5	51.5	32,024
<5 years complete	28.3	9.7	19.7	11.6	14.8	21.2	14.8	53.1	5,647
5-7 years complete	25.7	8.1	15.8	9.8	11.8	17.9	12.1	57.8	9,900
8-9 years complete	21.0	6.1	15.1	8.6	10.8	17.2	9.8	61.9	7,585
10-11 years complete	17.2	4.3	13.8	6.8	8.4	16.6	7.9	65.5	5,440
12 or more years complete	9.6	2.6	12.4	4.5	6.2	14.0	5.0	73.8	6,059
Employment (past 12 months)									
Not employed	23.6	6.7	15.2	9.1	10.9	18.1	10.7	59.3	37,020
Employed for cash	28.0	11.5	17.2	11.3	13.5	18.8	14.5	55.6	19,668
Employed not for cash	33.8	9.1	16.3	10.1	12.5	18.3	13.2	50.8	9,958
Marital status									
Currently married	26.0	7.8	15.6	9.4	11.4	18.0	11.6	57.3	62,652
Widowed	24.8	9.9	15.2	9.4	12.5	17.6	12.9	59.9	2,692
Divorced/separated/deserted	50.7	38.1	32.3	31.3	33.7	36.1	39.5	31.8	1,314
Marital duration[1]									
Married only once	25.7	7.7	15.5	9.3	11.2	17.9	11.4	57.6	61,395
0-4 years	24.3	7.4	15.5	8.6	11.7	17.7	11.5	59.5	11,411
5-9 years	26.7	7.6	15.6	10.1	12.0	17.7	12.1	56.8	12,261
10+ years	25.8	7.8	15.4	9.3	10.8	18.0	11.2	57.3	37,723
Married more than once	37.9	14.8	22.5	15.1	21.0	23.2	21.1	45.2	1,258

Continued…

Table 15.7 Degree of marital control exercised by husbands—*Continued*

Background characteristic	Percentage of women whose husband: Is jealous or angry if she talks to other men	Frequently accuses her of being unfaithful	Does not permit her to meet her female friends	Tries to limit her contact with her family	Insists on knowing where she is at all times	Does not trust her with any money	Husband displays 3 or more of the specific behaviours	Husband displays none of the specific behaviours	Number of women
Number of living children									
0	27.0	10.2	17.1	10.9	14.6	18.9	14.1	56.4	7,530
1-2	23.2	7.6	14.9	9.0	10.8	17.2	11.0	60.9	29,164
3-4	28.6	8.9	16.6	10.3	12.2	19.1	12.8	54.2	22,244
5+	32.0	9.2	16.8	11.1	12.6	19.8	13.3	50.5	7,720
Household structure[2]									
Nuclear	26.3	8.7	15.3	9.6	11.5	17.8	12.0	57.6	33,989
Non-nuclear	26.6	8.3	16.6	10.1	12.3	18.9	12.4	56.2	32,669
Religion									
Hindu	26.4	8.4	15.8	9.5	11.4	18.1	11.9	57.3	54,208
Muslim	29.1	9.3	16.8	12.8	14.8	19.8	14.4	52.3	8,795
Christian	18.0	7.4	9.8	6.3	10.4	11.8	8.6	69.5	1,500
Sikh	22.1	5.2	19.9	5.1	11.7	21.9	10.9	59.2	1,115
Buddhist/Neo-Buddhist	19.1	12.2	22.8	16.7	15.4	30.8	18.5	51.9	537
Jain	10.7	3.2	20.7	2.3	5.1	22.7	5.1	66.4	190
Other	27.1	8.6	13.2	10.2	25.6	15.6	12.6	50.6	245
Caste/tribe									
Scheduled caste	29.7	10.5	17.6	10.7	12.9	20.2	14.1	53.7	12,701
Scheduled tribe	31.3	12.0	17.6	11.0	15.3	18.9	16.0	52.7	5,562
Other backward class	27.2	8.2	13.6	9.8	11.1	16.1	11.5	58.3	26,438
Other	22.2	6.6	17.4	9.1	11.4	19.9	10.9	58.3	21,393
Don't know	31.0	16.1	17.4	16.2	18.2	16.6	18.5	53.6	375
Wealth index									
Lowest	33.9	12.4	17.2	12.8	15.4	19.8	16.0	49.3	12,815
Second	32.1	10.8	17.9	11.6	14.2	20.6	15.0	50.1	13,384
Middle	28.8	10.0	16.0	10.5	12.3	17.9	13.0	55.6	13,386
Fourth	23.0	6.5	14.6	8.8	10.8	17.0	10.5	60.9	13,444
Highest	14.8	3.0	14.0	5.8	7.1	16.6	6.8	68.1	13,628
Total	26.4	8.5	15.9	9.9	11.9	18.3	12.2	56.9	66,658

Note: Husband refers to the current husband for currently married women and the most recent husband for widowed, divorced, separated, or deserted women. Total includes women with missing information on education, employment (past 12 months), religion, and caste/tribe, who are not shown separately.
[1] Currently married women only.
[2] See Table 15.1, footnote 2 for definition.

The proportion of women whose husbands show three or more controlling behaviours declines with age. Husbands of the youngest married women (15-19 years) appear to be the most controlling, with 34 percent reporting that their husbands are jealous or angry when they talk to other men; 21 percent reporting that their husbands do not trust them with money; and 19 percent reporting that their husbands do not permit them to meet their female friends. While rural women are more likely to report controlling behaviours by their husbands than urban women, the differentials tend to be relatively small. The proportion of women experiencing controlling behaviours also tends to decline with increasing education and wealth, and is higher for women who are employed, particularly if employed for cash, than if they are not employed. Differentials by religion and caste/tribe are also evident.

Most of the behaviours asked about are most evident for women who have been married more than once or who are currently divorced, separated, or deserted. Only 11 percent of currently married women who have been married only once report that their husbands display three or more of the behaviours asked about, compared with 21 percent of women who have been married more than once (and are currently married), and 40 percent of women who are divorced, separated, or deserted. The proportion of women reporting controlling behaviours by their husbands does not vary by duration of marriage for women married only once. In general,

most of the behaviours are somewhat less common for women with 1-2 children, than for women with no children or 3 or more children.

15.4 SPOUSAL VIOLENCE

Spousal violence refers to violence perpetrated by partners in a marital union. Since spousal or intimate partner violence is the most common form of domestic violence for women age 15-49, the NFHS-3 collected detailed information on the different types of violence—physical, sexual, and emotional—experienced by women at the hands of their current or most recent husbands. Focusing on the most current/recent spouse permits a better understanding of current risk of spousal violence.

In NFHS-3, ever-married women were asked about seven sets of acts of physical violence by their current or most recent husband, two of sexual violence, and three of emotional violence. Although specific acts are labeled here as constituting physical, sexual, or emotional violence for purposes of discussion, there is no implication that an act of physical violence will not entail emotional violence or that an act of sexual violence does not entail physical violence.

15.4.1 Physical, Sexual, or Emotional Spousal Violence

Table 15.8 and Figure 15.1 show the percentage of ever-married women who report different types of acts committed by their current husband if currently married or most recent husband if not currently married. Note that since the different types of violence are not mutually exclusive, women may report experiencing multiple forms of violence. Widows were not asked about spousal violence in the 12 months preceding the survey.

Table 15.8 Forms of spousal violence

Percentage of ever-married women age 15-49 who have experienced various forms of violence ever or in the 12 months preceding the survey, committed by their husband, India, 2005-06

Type of violence	Ever	In the past 12 months[1]		
		Often	Sometimes	Often or sometimes
Physical violence				
Any form of physical violence	35.1	4.6	16.8	21.4
Pushed her, shook her, or threw something at her	13.6	1.6	6.6	8.2
Slapped her	34.0	3.8	16.3	20.1
Twisted her arm or pulled her hair	15.4	1.9	7.3	9.2
Punched her with his fist or with something that could hurt her	10.9	1.4	5.0	6.4
Kicked her, dragged her, or beat her up	11.5	1.4	5.1	6.6
Tried to choke her or burn her on purpose	2.2	0.4	0.8	1.2
Threatened her or attacked her with a knife, gun, or any other weapon	1.2	0.2	0.5	0.7
Sexual violence				
Any form of sexual violence	10.0	1.7	5.5	7.2
Physically forced her to have sexual intercourse with him even when she did not want to	9.5	1.5	5.3	6.9
Forced her to perform any sexual acts she did not want to	4.6	0.9	2.4	3.4
Emotional violence				
Any form of emotional violence	15.8	2.9	8.3	11.2
Said or did something to humiliate her in front of others	13.1	2.1	7.0	9.1
Threatened to hurt or harm her or someone close to her	5.4	0.9	2.7	3.6
Insulted her or made her feel bad about herself	8.2	1.7	4.1	5.7

Continued…

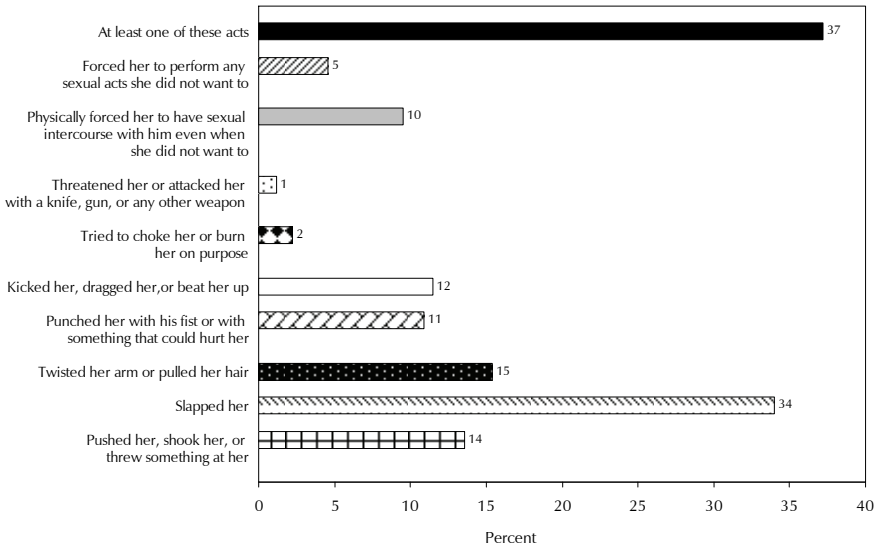
Table 15.8 Forms of spousal violence—*Continued*

Type of violence	Ever	In the past 12 months[1]		
		Often	Sometimes	Often or sometimes
Any form of physical and/or sexual violence	37.2	5.6	18.3	23.9
Any form of physical and sexual violence	7.9	2.1	4.2	6.3
Any form of physical and/or sexual violence and/or emotional violence	39.7	6.7	20.2	26.9
Any form of physical and sexual violence and emotional violence	4.2	1.7	2.0	3.6
Number of ever-married women	66,658	63,966	63,966	63,966

Note: Husband refers to the current husband for currently married women and the most recent husband for widowed, divorced, separated or deserted women.
[1] Excludes widows.

Slapping is the most commonly reported act of physical violence. Thirty-four percent of ever-married women report being slapped by their current or most recent husband, and 20 percent of ever-married women (except widows) report having been slapped in the 12 months preceding the survey. The next most common acts of physical violence experienced by women involve having hair pulled or arms twisted (15 percent) and being pushed shaken or having something thrown at them (14 percent). Twelve percent of women report having been kicked, dragged, or beaten up, and 2 percent report that their husbands tried to choke or burn them on purpose. Overall, 35 percent of women report having experienced physical violence at the hands of their current or most recent husband.

Figure 15.1 Forms of Spousal Violence Experienced by Ever-married Women



NFHS-3, India, 2005-06

Ten percent of women report experiencing one or both types of acts of sexual violence; most of these women report experiencing the violence in the last year. Being physically forced to have sexual intercourse is more common (10 percent) than being forced to perform any other sexual acts that she did not want to perform (5 percent).

Sixteen percent of ever-married women report having experienced emotional violence. Thirteen percent said that their husband had said or done something to humiliate them in front of others, 8 percent said that their husband had insulted them or made them feel bad about themselves, and 5 percent said that their husband threatened to hurt or harm them or someone close to them. The majority reporting any emotional violence also experienced the violence in the 12 months preceding the survey.

Overall, 37 percent of ever-married women have experienced spousal physical or sexual violence, and 40 percent have experienced spousal physical, sexual or emotional violence. Smaller proportions of women report experiencing both spousal physical and sexual violence (8 percent), as well as spousal physical and sexual and emotional violence (4 percent). Large differentials exist by background characteristics in the proportions of women who experience different forms of violence as shown in Table 15.9.

Table 15.9 Spousal violence by background characteristics

Percentage of ever-married women age 15-49 by whether they have ever experienced emotional, physical, or sexual violence committed by their husband, according to background characteristics, India, 2005-06

Background characteristic	Emotional violence	Physical violence	Sexual violence	Physical or sexual violence	Emotional, physical, or sexual violence	Number of women
Age						
15-19	12.5	25.3	13.1	30.8	33.9	4,643
20-24	14.4	32.3	10.5	35.2	37.6	11,642
25-29	16.3	36.3	10.4	38.2	40.6	13,006
30-39	16.5	37.3	10.1	39.0	41.5	22,191
40-49	16.5	35.7	8.2	37.1	39.9	15,175
Residence						
Urban	13.4	29.1	7.3	30.4	32.7	20,441
Rural	16.9	37.7	11.2	40.2	42.9	46,217
Education						
No education	19.2	44.4	12.5	46.4	49.0	32,024
<5 years complete	18.9	39.5	11.7	42.0	44.8	5,647
5-7 years complete	15.4	32.6	9.7	35.2	37.7	9,900
8-9 years complete	11.9	26.0	8.3	28.8	31.3	7,585
10-11 years complete	9.6	19.3	4.9	20.8	23.4	5,440
12 or more years complete	6.2	11.0	2.7	12.3	14.7	6,059
Employment (past 12 months)						
Not employed	12.7	29.9	9.1	32.3	34.6	37,020
Employed for cash	20.7	41.9	11.1	43.5	46.3	19,668
Employed not for cash	17.7	40.8	11.4	43.0	46.0	9,958
Marital status						
Currently married	15.0	34.5	9.7	36.7	39.2	62,652
Widowed	16.7	35.0	9.5	36.6	38.1	2,692
Divorced/separated/deserted	50.6	62.3	24.4	63.5	68.4	1,314
Marital duration[1]						
Married only once	14.9	34.2	9.6	36.4	38.9	61,395
0-4 years	10.2	21.0	8.7	24.7	27.2	11,411
5-9 years	14.6	34.2	10.1	36.7	39.2	12,261
10+ years	16.4	38.2	9.7	39.9	42.4	37,723
Married more than once	23.8	47.7	16.3	49.3	52.1	1,258
Number of living children						
0	13.5	24.4	10.3	27.9	30.8	7,530
1-2	14.4	30.2	8.7	32.5	35.1	29,164
3-4	17.5	40.1	10.8	42.0	44.4	22,244
5+	18.6	48.9	12.6	50.2	52.5	7,720
Household structure[2]						
Nuclear	16.7	38.5	10.2	40.3	42.7	33,989
Non-nuclear	14.8	31.5	9.9	33.9	36.6	32,669

Continued…

Table 15.9 Spousal violence by background characteristics—*Continued*

Background characteristic	Emotional violence	Physical violence	Sexual violence	Physical or sexual violence	Emotional, physical, or sexual violence	Number of women
Religion						
Hindu	15.9	34.9	9.8	37.1	39.7	54,208
Muslim	15.9	38.2	13.5	40.8	43.0	8,795
Christian	13.9	30.3	6.0	30.9	33.6	1,500
Sikh	11.0	22.8	5.8	23.5	25.3	1,115
Buddhist/Neo-Buddhist	24.5	44.6	2.9	44.8	47.2	537
Jain	6.3	11.1	4.8	12.3	13.9	190
Other	19.5	41.9	10.1	42.6	45.7	245
Caste/tribe						
Scheduled caste	19.0	43.3	12.8	45.6	47.9	12,701
Scheduled tribe	20.9	41.8	11.4	43.7	47.0	5,562
Other backward class	15.7	36.0	8.7	37.6	40.4	26,438
Other	12.7	27.3	9.6	30.0	32.3	21,393
Don't know	14.3	28.9	10.8	29.9	31.7	375
Wealth index						
Lowest	20.7	46.6	14.5	49.3	52.0	12,815
Second	19.8	43.9	12.6	46.2	49.0	13,384
Middle	17.0	38.0	10.5	40.2	42.5	13,386
Fourth	13.2	30.8	8.3	32.8	35.1	13,444
Highest	8.6	16.9	4.5	18.3	20.9	13,628
Respondent's father beat her mother						
Yes	28.5	57.4	17.4	59.6	62.2	12,346
No	12.4	28.3	7.8	30.3	32.8	49,201
Don't know	18.0	46.5	13.4	49.7	52.1	5,041
Total	15.8	35.1	10.0	37.2	39.7	66,658

Note: Husband refers to the current husband for currently married women and the most recent husband for widowed, divorced, separated or deserted women. Total includes women with missing information on education, employment (past 12 months), religion, caste/tribe, and whether respondent's father beat her mother, who are not shown separately.
[1] Currently married women only.
[2] Table 15.1, footnote 2 for definition.

Prevalence of physical or sexual violence, as well as emotional, physical or sexual violence, does not vary greatly by age for women age 20-49, but is somewhat lower for women age 15-19. Prevalence of such violence is higher in rural areas than in urban areas; however, even in urban areas, 30 percent of women have experienced spousal physical or sexual violence. Differentials in the prevalence of spousal violence are particularly large by education, with 46 percent of women with no education having experienced physical or sexual violence, compared with 12 percent of women with 12 or more completed years of education. Employed women experience higher rates of physical or sexual violence (43-44 percent) than women who are not employed (32 percent). Divorced, separated, and deserted women report much higher rates of violence (64 percent) than widowed or currently married women (37 percent). This is to be expected since a husband's violent behaviour is often an important reason for ending a marriage. Notably, rates of physical or sexual violence by the current husband among currently married women are higher for women who have been married more than once (49 percent) than for women in their first marriage (36 percent). Notably, the prevalence of violence increases with marital duration and with number of children. One in two women with five or more children report having experienced spousal physical or sexual violence.

Prevalence by religion shows that the rates are highest for Buddhist/Neo-Buddhist women, women belonging to the 'other' religion category, Muslim women, and Hindu women. Jain women experience the lowest levels of violence. By caste/tribe, rates of violence are highest for scheduled caste and scheduled tribe women. However, even though women not belonging to the scheduled castes, scheduled tribes, or other backward classes have a lower prevalence, nearly one out of three of these women have experienced spousal physical or sexual violence. Prevalence of spousal physical or sexual violence declines sharply with the wealth index from a

high of 49 percent for women in the lowest wealth quintile to a low of 18 percent for women in the highest wealth quintile. Despite the differentials by wealth, these data suggest high rates of all forms of violence in even the wealthiest households.

The contextual and intergenerational aspect of spousal violence is clear from the fact that women whose mothers were beaten by their fathers are twice as likely to report all forms of violence as women whose mothers were not beaten by their fathers. In fact, women who report that their fathers beat their mothers have a higher prevalence of physical or sexual violence (60 percent) than women in any other population subgroup.

Table 15.10 shows the differentials in prevalence of the different forms of violence by the characteristics of the husband and the marriage. Also shown are prevalence levels by selected indicators of women's empowerment. Increases in husband's education shows a clear negative association with prevalence of violence, but it has less of an effect on lowering the prevalence of violence than do increases in women's own education. Only 12 percent of women who had 12 or more years of education report experiencing physical or sexual violence, compared with 21 percent of women whose husbands have completed 12 or more years of education.

Table 15.10 Spousal violence by husband's characteristics and empowerment indicators

Percentage of ever-married women age 15-49 who have ever suffered emotional, physical, or sexual violence committed by their husband, according to his characteristics, marital characteristics, and selected empowerment indicators, India, 2005-06

Background characteristic	Emotional violence	Physical violence	Sexual violence	Physical or sexual violence	Emotional, physical, or sexual violence	Number of women
Husband's education						
No education	20.5	45.2	12.8	47.2	49.8	18,207
<5 years complete	19.7	43.8	13.0	45.7	48.4	5,728
5-7 years complete	16.7	38.2	10.4	40.5	42.8	10,589
8-9 years complete	15.2	34.2	10.4	36.6	39.2	10,342
10-11 years complete	12.5	27.7	8.1	29.9	32.4	9,317
12 or more years complete	8.9	18.9	4.9	20.8	23.6	11,867
Husband's alcohol consumption						
Does not drink	12.1	28.0	7.9	30.3	32.9	45,838
Drinks/never gets drunk	18.1	43.8	15.0	47.3	50.3	3,506
Gets drunk sometimes	20.5	46.8	11.6	48.5	50.6	12,816
Gets drunk very often	38.6	67.6	23.6	68.6	71.5	4,395
Spousal age difference[1]						
Wife older	16.1	34.6	8.0	36.9	40.9	1,364
Wife is same age	14.8	31.0	8.4	33.6	37.3	1,508
Wife 1-4 years younger	14.5	34.7	9.7	36.7	39.2	24,270
Wife 5-9 years younger	15.1	34.3	10.1	36.5	39.0	25,369
Wife 10+ years younger	15.8	34.9	9.2	37.1	39.6	9,959
Spousal education difference						
Husband better educated	15.0	34.1	9.7	36.4	39.0	34,674
Wife better educated	14.5	29.7	9.0	31.9	34.4	9,849
Both equally educated	10.0	21.4	6.0	23.3	25.5	6,153
Neither educated	20.6	46.0	12.8	47.8	50.4	15,373
Don't know/missing	17.7	36.2	15.0	39.5	43.0	609
Number of marital control behaviours displayed by husband[2]						
0	7.5	23.9	5.0	25.6	27.7	37,953
1-2	20.0	44.1	12.7	46.8	49.8	20,567
3-4	36.9	60.2	23.2	63.0	66.7	6,327
5-6	68.9	77.6	39.1	80.9	84.7	1,810
Number of decisions in which women participate[3]						
0	13.9	32.9	11.6	36.1	38.3	12,672
1-2	15.7	35.9	11.0	38.3	40.8	16,679
3-4	15.1	34.4	8.4	36.1	38.8	33,301

Continued…

Table 15.10 Spousal violence by husband's characteristics and empowerment indicators—*Continued*

Background characteristic	Emotional violence	Physical violence	Sexual violence	Physical or sexual violence	Emotional, physical, or sexual violence	Number of women
Number of reasons for which wife-beating is justified[4]						
0	12.4	28.2	8.4	30.4	32.3	29,317
1-2	17.0	38.7	10.5	41.0	43.7	13,403
3-4	20.4	42.0	11.6	44.0	47.7	11,731
5-6	18.4	40.5	11.8	42.7	45.7	7,044
7	17.9	41.4	11.9	42.8	45.3	5,163
Number of reasons given for refusing to have sexual intercourse with husband[5]						
0	13.7	31.0	7.2	32.4	34.8	7,204
1-2	18.7	38.7	12.0	41.2	44.0	12,981
3	15.3	34.6	9.9	36.8	39.3	46,473
Total	15.8	35.1	10.0	37.2	39.7	66,658

Note: Husband refers to the current husband for currently married women and the most recent husband for widowed, divorced, separated, or deserted women. Total includes women with missing information on husband's education and husband's alcohol consumption and women who do not know their husband's level of education, who are not shown separately.
[1] Currently married women only.
[2] See Table 15.7 for list of marital control behaviours included.
[3] Currently married women only. See Table 14.12 for list of decisions included.
[4] See Table 14.15.1 for list of reasons given for which wife beating is justified.
[5] See Table 14.17.1 for list of reasons given for refusing to have sexual intercourse with husband.

Women whose husbands drink alcohol have significantly higher rates of violence than women whose husbands do not drink at all; emotional violence is three times as high, physical violence is more than two times as high, and sexual violence is four times as high for women whose husbands are frequently drunk, compared with women whose husbands do not drink. Notably, the prevalence of emotional, physical, or sexual violence, at 72 percent, for women whose husbands are frequently drunk is also much higher than for women whose husbands drink alcohol but are either never or only sometimes drunk (50-51 percent). The high prevalence of spousal violence even among women whose husbands do not consume alchohol indicates that alcohol consumption is not the only explanation for the high prevalence of spousal violence in India.

The prevalence of spousal violence does not vary much with spousal age difference; however, prevalence does vary greatly by spousal educational difference. Couples in which both husband and wife are equally educated have the lowest prevalence of physical or sexual violence (23 percent) and couples in which neither the husband nor the wife is educated have the highest prevalence (48 percent). Couples in which the husband is better educated than the wife have a somewhat higher prevalence (36 percent) than couples in which the wife is better educated (32 percent). As expected, the number of marital control behaviours exhibited by husbands is strongly and positively associated with the prevalence of violence. Twenty-six percent of women whose husbands report none of the six marital control behaviours asked about (see Table 15.7) report experiencing physical or sexual violence, compared with 81 percent of women whose husbands display five to six of these behaviours.

As discussed in Chapter 14, NFHS-3 collected information to construct indicators of women's empowerment. One indicator is constructed from the number of decisions in which women participate among four different categories of decisions: one's own health care, major household purchases, purchases for daily household needs, and visits to one's own family and

relatives. Two indicators are constructed from gender role attitudes: one is agreement with seven different reasons to justify a husband beating his wife (namely, if the wife goes out without telling him, if she neglects the house or children, if she argues with him, if she refuses to have sex with him, if she does not cook the food properly, if he suspects her of being unfaithful, and if she shows disrespect for her in-laws), and the other is agreement with three different reasons to justify a wife's right to refuse sex with her husband (namely, when she knows her husband has a sexually transmitted disease, when she knows her husband has sex with other women, and when she is tired or not in the mood). The expectation is that women who participate in household decisions and have egalitarian gender-role attitudes are more empowered, and hence less likely to experience violence.

The data in Table 15.10 show no clear difference by women's decision-making power in the prevalence of violence, but do suggest that women who agree with one or more reasons for refusing sex with their husbands (37-41 percent) are more likely to experience physical or sexual violence than women who do not agree with any reason for refusing sex (32 percent). Women who say that wife beating is justified for any of the seven reasons asked about have a higher prevalence of all forms of violence than women who do not agree with any of the reasons asked about. For example, the prevalence of physical or sexual violence for women who agree with one or more reasons justifying a husband beating his wife is 41-44 percent, compared with 30 percent for women who do not agree with any reason. The differential according to women's agreement with wife beating is higher for physical violence than for sexual violence.

Despite the large differentials in prevalence of violence by background, spousal, and marital characteristics, the data in Tables 15.9 and 15.10 provide evidence that the experience of domestic violence is not confined to minorities or vulnerable groups of the population. Even among women who belong to the highest wealth quintile or women whose husbands have higher education, one in five women have experienced physical or sexual violence. The characteristic that appears to have the most significant protective effect is high levels of education for women.

15.4.2 Frequency of Spousal Emotional and Physical or Sexual Violence

The frequency of spousal violence is an indication of the extent to which domestic violence is a current or recurring problem. Table 15.11 shows the percent distribution of currently married, divorced, separated, or deserted women who report emotional violence and who report physical or sexual violence by the frequency with which they have experienced violence from their current or most recent husband in the 12 months preceding the survey, by selected background characteristics. For each of the two types of violence (emotional and physical or sexual), women are classified into a frequency group based on the highest frequency of any of the reported acts of violence that constitute the specific type of violence.

Table 15.11 shows that 72 percent of women who have ever experienced emotional violence by their current or most recent husband experienced such violence in the 12 months preceding the survey, and 19 percent of them did so often. Similarly, 65 percent of women who have ever experienced physical or sexual violence by their current or most recent husband have experienced such violence in the 12 months preceding the survey, and 15 percent have experienced such violence often.

Table 15.11 Frequency of spousal violence among those who report violence

Percent distribution of ever-married women age 15-49 (excluding widows) who have ever suffered emotional violence committed by their husband by frequency of violence in the 12 months preceding the survey and percent distribution of ever-married women age 15-49 (excluding widows) who have ever suffered physical or sexual violence committed by their husband by frequency of violence in the 12 months preceding the survey, according to background characteristics, India, 2005-06

Background characteristic	Frequency of emotional violence in the past 12 months					Frequency of physical or sexual violence in the past 12 months				
	Often	Some-times	Not at all	Total	Number of women	Often	Some-times	Not at all	Total	Number of women
Age										
15-19	26.9	55.7	17.4	100.0	579	25.2	63.1	11.7	100.0	1,413
20-24	19.0	56.5	24.5	100.0	1,639	17.9	58.8	23.3	100.0	4,073
25-29	19.8	57.1	23.0	100.0	2,022	16.4	54.7	28.9	100.0	4,857
30-39	18.8	53.0	28.3	100.0	3,443	14.4	46.4	39.1	100.0	8,275
40-49	14.9	49.1	36.0	100.0	2,227	10.4	37.8	51.8	100.0	5,103
Residence										
Urban	19.8	51.6	28.6	100.0	2,540	14.7	47.2	38.1	100.0	5,928
Rural	18.2	54.4	27.4	100.0	7,370	15.4	50.1	34.5	100.0	17,793
Education										
No education	17.1	54.7	28.1	100.0	5,746	15.3	48.9	35.7	100.0	14,172
<5 years complete	21.9	52.5	25.5	100.0	1,008	16.8	47.9	35.3	100.0	2,260
5-7 years complete	20.6	51.5	27.9	100.0	1,448	14.9	51.1	34.0	100.0	3,348
8-9 years complete	21.7	53.3	25.0	100.0	866	15.4	52.3	32.3	100.0	2,128
10-11 years complete	19.7	52.2	28.1	100.0	484	14.5	47.0	38.5	100.0	1,085
12 or more years complete	16.3	52.2	31.5	100.0	358	9.6	50.1	40.3	100.0	729
Employment (past 12 months)										
Not employed	17.8	55.1	27.1	100.0	4,518	14.5	51.3	34.2	100.0	11,673
Employed for cash	20.3	52.4	27.3	100.0	3,688	15.7	48.7	35.6	100.0	7,885
Employed not for cash	17.1	52.7	30.2	100.0	1,705	16.2	45.2	38.6	100.0	4,160
Marital status										
Currently married	18.6	56.1	25.3	100.0	9,275	15.2	50.5	34.4	100.0	22,915
Divorced/separated/deserted	19.3	17.9	62.8	100.0	635	16.3	18.0	65.7	100.0	807
Number of living children										
0	26.0	47.3	26.7	100.0	970	20.8	57.0	22.3	100.0	2,023
1-2	18.5	54.0	27.5	100.0	3,915	15.3	52.8	31.9	100.0	9,058
3-4	18.7	54.2	27.1	100.0	3,662	15.2	46.9	37.9	100.0	8,926
5+	13.3	56.0	30.6	100.0	1,363	12.1	42.8	45.1	100.0	3,715
Marital duration[1]										
Married only once	18.4	56.1	25.5	100.0	8,983	15.0	50.4	34.6	100.0	22,295
0-4 years	21.2	62.8	16.0	100.0	1,146	21.2	64.6	14.2	100.0	2,804
5-9 years	20.7	56.2	23.1	100.0	1,759	16.3	58.5	25.3	100.0	4,485
10+ years	17.3	54.8	28.0	100.0	6,078	13.5	45.3	41.1	100.0	15,006
Married more than once	22.8	58.6	18.5	100.0	292	18.9	54.1	26.9	100.0	619
Household structure[2]										
Nuclear	18.0	55.9	26.1	100.0	5,349	14.7	49.6	35.7	100.0	13,152
Non-nuclear	19.3	51.1	29.5	100.0	4,562	15.9	49.1	35.0	100.0	10,570
Religion										
Hindu	18.3	53.5	28.2	100.0	8,082	14.8	48.9	36.3	100.0	19,190
Muslim	20.4	54.8	24.9	100.0	1,334	17.7	50.9	31.3	100.0	3,489
Christian	18.6	62.7	18.7	100.0	191	15.0	58.2	26.8	100.0	425
Sikh	13.2	58.1	28.7	100.0	115	11.8	58.5	29.7	100.0	246
Buddhist/Neo-Buddhist	24.7	37.7	37.6	100.0	122	12.5	38.3	49.2	100.0	226
Jain	*	*	*	100.0	12	(15.4)	(44.0)	(40.6)	100.0	23
Other	16.3	63.7	20.0	100.0	43	10.9	57.3	31.8	100.0	100
Caste/tribe										
Scheduled caste	19.0	53.8	27.2	100.0	2,263	14.6	49.7	35.7	100.0	5,527
Scheduled tribe	19.5	58.1	22.4	100.0	1,077	17.3	53.0	29.6	100.0	2,300
Other backward class	16.7	53.2	30.1	100.0	3,936	14.4	48.3	37.3	100.0	9,557
Other	20.9	52.0	27.1	100.0	2,555	16.2	49.1	34.7	100.0	6,145
Don't know	21.4	62.9	15.7	100.0	45	8.7	54.3	37.0	100.0	105
Wealth index										
Lowest	18.7	54.5	26.8	100.0	2,471	17.5	50.9	31.7	100.0	6,029
Second	19.6	56.2	24.2	100.0	2,498	16.1	51.4	32.5	100.0	5,912
Middle	20.4	52.0	27.6	100.0	2,167	15.8	48.4	35.8	100.0	5,129
Fourth	18.0	52.4	29.7	100.0	1,656	12.2	47.9	39.9	100.0	4,231
Highest	13.8	51.6	34.6	100.0	1,119	11.2	45.6	43.1	100.0	2,421
Total	18.6	53.7	27.7	100.0	9,910	15.2	49.4	35.4	100.0	23,722

Note: Husband refers to the current husband for currently married women and the most recent husband for widowed, divorced, separated, or deserted women. Total includes women with missing information on employment in past 12 months, religion, and caste/tribe, who are not shown separately.
( ) Based on 25-49 unweighted cases.
* Percentage not shown; based on fewer than 25 unweighted cases.
[1] Currently married women only.
[2] See Table 15.1, footnote 2 for definition.

Among those who have ever experienced spousal emotional violence or physical or sexual violence, those in the 15-19 age group are more likely than older women to have experienced such violence in the past 12 months and to have experienced the violence often. Differentials by residence, education, and employment in these indicators are small. For example, among women who have ever experienced physical or sexual violence, 60 percent of women with at least 12 completed years of education experienced violence in the 12 months preceding the survey, compared with 62-68 percent of women in the remaining educational groups. The share of women experiencing violence frequently in the 12 months preceding the survey varies even less by education.

As expected, frequency of violence in the 12 months preceding the survey among women who report experiencing the violence ever, is higher for currently married women than for women who are divorced, separated, or deserted. However, currently married women who have been married more than once are somewhat more likely to have suffered the violence in the past 12 months and to have experienced the violence often, than currently married women who are in their first marriage. Among women who report violence, those with no children are more likely than women with children, particularly five or more children, to have experienced recent violence and to have experienced the violence often. This is particularly true for women reporting physical or sexual violence, suggesting that not having children may be a reason for which women are being abused.

Differentials by religion, caste/tribe, and wealth in the proportions of women reporting emotional violence or physical or sexual violence are much smaller for violence in the 12 months preceding the survey than in the proportions reporting the ever experience of such violence. Only among women in the wealthiest quintile are the proportions that experienced emotional violence or physical or sexual violence in the past 12 months relatively low. The frequency of such violence in the past 12 months is also relatively low in this wealth quintile.

15.4.3 Timing of the Onset of Spousal Violence

To study the timing of the onset of marital violence, NFHS-3 asked ever-married women who reported physical or sexual violence by their husband, how many years into the marriage the first incidence of violence occurred. Table 15.12 shows the percent distribution of ever-married women by the number of years between marriage and the first time they experienced physical or sexual violence by their current or most recent husband, according to current marital duration and residence.

Table 15.12 shows that in the majority of cases, in both rural and urban areas, if violence occurs at all, it is usually initiated early in the marriage. Almost one-fourth of all ever-married women (23 percent) experienced physical or sexual violence within the first two years of marriage (19 percent in urban areas and 24 percent in rural areas). One-third (32 percent) experienced violence in the first five years of marriage. Calculations based only on women who report ever experiencing spousal violence suggest that, for the majority (62 percent) of these women, violence was initiated within the first two years of marriage. Among currently married

Table 15.12 Onset of spousal violence

Percent distribution of ever-married women by number of years between marriage and first experience of physical or sexual violence by their husband, if ever, according to marital status, marital duration, number of unions, and residence, India, 2005-06

Marital status and duration	Years between marriage[1] and first experience of violence									
	Experienced no violence	Before marriage	<1 year	1-2 years	3-5 years	6-9 years	10+ years	Don't know/ missing[1]	Total	Number of women
					URBAN					
Currently married	70.6	0.3	5.1	12.9	7.8	1.9	1.1	0.4	100.0	19,154
Married only once	70.9	0.2	5.0	12.8	7.8	1.9	1.1	0.4	100.0	18,829
Marital duration										
<1 year	90.3	0.4	8.5	na	na	na	na	0.8	100.0	605
1-2 years	82.2	0.1	8.8	8.2	na	na	na	0.7	100.0	1,435
3-5 years	75.8	0.2	4.9	15.0	3.6	na	na	0.4	100.0	2,219
6-9 years	71.2	0.3	4.0	15.2	8.3	0.9	na	0.1	100.0	2,948
10+ years	67.4	0.2	4.7	12.9	9.8	2.8	1.8	0.4	100.0	11,623
Married more than once	54.6	1.1	11.1	19.5	9.9	2.4	1.4	0.1	100.0	324
Widowed/divorced/ separated/deserted	55.1	0.4	13.1	16.8	9.8	2.4	2.2	0.2	100.0	1,287
Total	69.6	0.3	5.6	13.1	7.9	1.9	1.2	0.4	100.0	20,441
					RURAL					
Currently married	60.2	0.2	6.8	17.2	10.5	2.8	1.7	0.7	100.0	43,499
Married only once	60.4	0.2	6.7	17.0	10.5	2.8	1.7	0.7	100.0	42,565
Marriage duration										
<1 year	84.6	0.1	13.8	na	na	na	na	1.5	100.0	1,599
1-2 years	74.4	0.3	12.2	11.2	na	na	na	1.9	100.0	3,216
3-5 years	62.8	0.3	8.3	22.7	4.7	na	na	1.1	100.0	5,048
6-9 years	59.7	0.2	6.5	20.1	10.8	2.0	na	0.7	100.0	6,602
10+ years	56.9	0.2	5.4	16.9	13.5	4.0	2.7	0.4	100.0	26,100
Married more than once	49.4	0.2	7.9	23.9	12.6	4.0	1.9	0.0	100.0	933
Widowed/divorced/ separated/deserted	54.6	0.2	11.1	17.1	11.3	3.3	1.9	0.4	100.0	2,718
Total	59.8	0.2	7.0	17.2	10.6	2.8	1.7	0.7	100.0	46,217
					TOTAL					
Currently married	63.4	0.2	6.3	15.9	9.7	2.5	1.5	0.6	100.0	62,652
Married only once	63.6	0.2	6.2	15.7	9.6	2.5	1.5	0.6	100.0	61,395
Marital duration										
<1 year	86.1	0.2	12.3	na	na	na	na	1.3	100.0	2,204
1-2 years	76.8	0.2	11.2	10.3	na	na	na	1.5	100.0	4,651
3-5 years	66.8	0.3	7.3	20.4	4.4	na	na	0.9	100.0	7,267
6-9 years	63.2	0.2	5.8	18.6	10.0	1.7	na	0.5	100.0	9,550
10+ years	60.2	0.2	5.1	15.7	12.3	3.6	2.4	0.4	100.0	37,723
Married more than once	50.8	0.4	8.8	22.8	11.9	3.6	1.8	0.0	100.0	1,258
Widowed/divorced/ separated/deserted	54.8	0.3	11.7	17.0	10.8	3.0	2.0	0.3	100.0	4,005
Total	62.8	0.2	6.6	15.9	9.8	2.6	1.5	0.6	100.0	66,658

Note: Husband refers to the current husband for currently married women and the most recent husband for widowed, divorced, separated, or deserted women.
na = Not applicable
[1] Includes women for whom the timing of the first experience of violence and duration of marriage are inconsistent.

women married only once, 22 percent report experiencing violence in the first two years of marriage; this proportion is higher at 32 percent among currently married women married more than once and at 29 percent among widowed, divorced, separated, or deserted women.

15.4.4 Physical Consequences of Spousal Violence

In NFHS-3, ever-married women reporting spousal physical or sexual violence were asked about the physical consequences of the violence. Specifically, they were asked if, as a consequence of what their husbands did to them, they ever had any of four different sets of

injuries: 1) cuts, bruises or aches; 2) severe burns; 3) eye injuries, sprains, dislocations, or minor burns; and 4) deep wounds, broken bones, broken teeth or any other serious injury. Table 15.13 shows the percentage of ever-married women who report any spousal physical or sexual violence by the different types of physical injuries sustained, according to the type of violence ever experienced and residence. Among all ever-married women who reported ever experiencing physical or sexual violence, 36 percent report cuts, bruises, or aches, 9 percent report eye injuries, sprains, dislocations or burns, 7 percent report deep wounds, broken bones, broken

Table 15.13 Injuries to women due to spousal violence

Percentage of ever-married women age 15-49 who have experienced specific types of spousal violence by types of injuries resulting from what their husband did to them, by residence according to the type of violence and whether they have experienced the violence ever and in the 12 months preceding the survey, India, 2005-06

Type of violence experienced	Percentage of women who have had: Cuts, bruises, or aches	Severe burns	Eye injuries, sprains, dislocations, or burns	Deep wounds, broken bones, broken teeth, or any other serious injury	Any of these injuries	Number of ever-married women
URBAN						
Experienced physical violence						
Ever	35.5	2.1	9.3	6.7	36.9	5,943
In the past 12 months[1]	41.2	2.3	11.5	7.6	42.9	3,344
Experienced sexual violence						
Ever	47.0	4.4	17.5	13.1	49.1	1,497
In the past 12 months[1]	44.3	4.0	17.1	11.6	46.2	974
Experienced physical or sexual violence						
Ever	34.2	2.0	8.9	6.4	35.6	6,212
In the past 12 months[1]	38.6	2.2	10.6	7.0	40.1	3,672
Experienced physical and sexual violence						
Ever	56.1	5.4	21.3	16.0	58.7	1,229
In the past 12 months[1]	60.7	5.7	24.9	17.2	63.3	647
RURAL						
Experienced physical violence						
Ever	39.4	1.8	9.4	7.0	41.1	17,421
In the past 12 months[1]	44.4	2.3	11.4	8.3	46.6	10,335
Experienced sexual violence						
Ever	42.1	2.5	15.7	11.7	44.7	5,143
In the past 12 months[1]	39.9	2.6	15.0	11.3	42.7	3,660
Experienced physical or sexual violence						
Ever	37.2	1.7	8.8	6.6	38.8	18,560
In the past 12 months[1]	41.0	2.1	10.4	7.6	43.0	11,647
Experienced physical and sexual violence						
Ever	53.1	3.3	20.0	15.0	56.4	4,004
In the past 12 months[1]	54.3	4.0	21.7	16.4	58.3	2,348
TOTAL						
Experienced physical violence						
Ever	38.4	1.9	9.4	6.9	40.0	23,364
In the past 12 months[1]	43.6	2.3	11.4	8.1	45.7	13,680
Experienced sexual violence						
Ever	43.2	3.0	16.1	12.0	45.7	6,640
In the past 12 months[1]	40.8	2.9	15.5	11.4	43.5	4,635
Experienced physical or sexual violence						
Ever	36.4	1.8	8.9	6.5	38.0	24,772
In the past 12 months[1]	40.4	2.1	10.5	7.5	42.3	15,319
Experienced physical and sexual violence						
Ever	53.8	3.8	20.3	15.2	56.9	5,232
In the past 12 months[1]	55.7	4.4	22.4	16.6	59.4	2,995

Note: Husband refers to the current husband for currently married women and the most recent husband for widowed, divorced, separated, or deserted women.
[1] Excludes widows

teeth, or other serious injury, and 2 percent report severe burns. All of these percentages are higher for women who reported violence in the 12 months preceding the survey. Notably, 38 percent of women experiencing physical or sexual violence report having experienced at least one of these groups of injuries; the corresponding proportion for women who reported violence in the 12 months preceding the survey is 42 percent. Women in urban areas who experience sexual violence are more likely, and those who experience physical violence are less likely, than their rural counterparts to report each of the different sets of injuries. However, rural women who experience physical or sexual violence are somehat more likely to report one or more types of injuries than urban women (39 percent, compared with 36 percent).

Women who have experienced both physical and sexual violence are at the highest risk of injury; 57 percent of them report one or more types of injury. Among women who report having experienced both physical and sexual violence in the past 12 months, 59 percent suffered one or more types of injury. The proportions who report having one or more types of injury is higher among women who report ever experiencing sexual violence (46 percent) than those who report ever experiencing physical violence (40 percent). These data attest to the very high incidence of injuries resulting from domestic violence and show that at least one in seven ever-married women age 15-49 in India have suffered injury resulting from acts of spousal violence.

15.4.5 Spousal Violence by State

Table 15.14 gives the percentages of ever-married women who have experienced different types of spousal violence by state. The most common form of violence in all states is physical violence. Sexual violence is reported least often in most states. The only exceptions are West Bengal, where the prevalence of sexual violence is much higher than the prevalence of emotional violence, and Manipur where the two are equally prevalent. Sexual violence is most common in West Bengal, Rajasthan, and Bihar where the prevalence is twice the national average.

The prevalence of physical or sexual violence ranges from 6 percent in Himachal Pradesh and 13 percent in Jammu and Kashmir and Meghalaya, to 46 percent in Madhya Pradesh and Rajasthan and 59 percent in Bihar (Figure 15.2). Other states with 40 percent or higher prevalence of spousal physical or sexual violence include Tripura, Manipur, Uttar Pradesh, Tamil Nadu, West Bengal, and Assam. For most states, the proportion of ever-married women who have experienced emotional or physical or sexual violence is only slightly higher than those who have experienced physical or sexual violence.

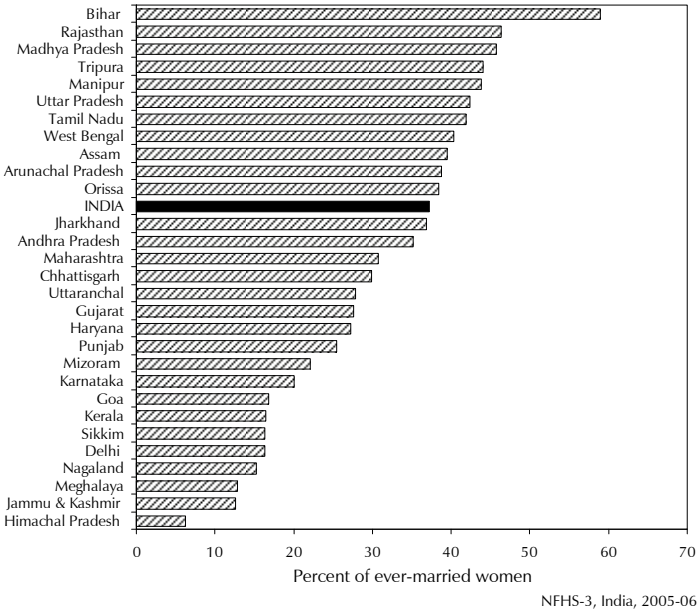
Table 15.14 Experience of physical or sexual spousal violence by state

Percentage of ever-married women age 15-49 who have experienced physical or sexual violence committed by their husband by state, India, 2005-06

State	Percentage who have experienced:				
	Emotional violence	Physical violence	Sexual violence	Physical or sexual violence	Emotional or physical or sexual violence
India	15.8	35.1	10.0	37.2	39.7
North					
Delhi	4.9	16.1	2.1	16.3	17.2
Haryana	8.7	25.5	7.1	27.3	28.0
Himachal Pradesh	3.8	5.9	1.8	6.2	6.9
Jammu & Kashmir	8.9	11.5	3.9	12.6	15.1
Punjab	10.7	24.4	7.2	25.4	26.7
Rajasthan	22.9	40.3	20.2	46.3	50.2
Uttaranchal	8.9	27.3	6.1	27.8	29.8
Central					
Chhattisgarh	12.7	29.2	6.9	29.9	32.3
Madhya Pradesh	22.5	44.0	11.0	45.7	49.1
Uttar Pradesh	16.1	41.2	9.4	42.4	45.0
East					
Bihar	19.7	55.6	19.1	59.0	60.8
Jharkhand	18.0	34.7	12.5	36.9	40.9
Orissa	19.8	33.5	14.7	38.4	41.2
West Bengal	12.3	32.7	21.5	40.3	41.8
Northeast					
Arunachal Pradesh	16.6	37.5	9.5	38.8	43.0
Assam	15.6	36.7	14.8	39.5	42.1
Manipur	13.9	40.7	14.0	43.8	46.2
Meghalaya	7.1	12.6	1.6	12.8	15.0
Mizoram	11.0	22.0	2.0	22.1	25.1
Nagaland	12.6	14.0	3.0	15.3	21.3
Sikkim	10.2	14.8	4.8	16.3	18.8
Tripura	22.8	40.9	19.0	44.1	46.6
West					
Goa	12.0	16.5	2.8	16.8	19.6
Gujarat	18.5	25.7	7.5	27.6	33.8
Maharashtra	17.5	30.6	2.0	30.7	33.4
South					
Andhra Pradesh	13.3	35.0	4.1	35.2	36.8
Karnataka	8.1	19.5	4.0	20.0	21.5
Kerala	10.1	15.3	4.8	16.4	19.8
Tamil Nadu	16.8	41.9	3.2	41.9	44.1

Note: Husband refers to the current husband for currently married women and the most recent husband for widowed, divorced, separated, or deserted women.

Figure 15.2 Spousal Violence by State



NFHS-3, India, 2005-06

15.4.6 Violence Initiated by Women against Husbands

Violence by husbands against their wives is not the only form of spousal violence; women are also sometimes the perpetrators of violence. In most cultures, however, the level of spousal violence initiated by wives is only a fraction of the level of spousal violence initiated by husbands. To measure spousal violence by women, NFHS-3 asked ever-married women *Have you ever hit, slapped, kicked, or done anything else to physically hurt your (last) husband/partner at times when he was not already beating or physically hurting you?* Women who respond yes to this question are asked about the frequency of such violence in the 12 months preceding the survey. Table 15.15 shows the percentage of ever-married women who have ever initiated violence against their current or most recent husband, and the percentage of ever-married women (excluding widows) who say that they initiated spousal violence in the 12 months preceding the survey by background, spousal, and marital characteristics.

Table 15.15 Violence by women against their spouse

Percentage of ever-married women age 15-49 who have committed physical violence against their husband when he was not already beating or physically hurting them ever and in the past 12 months, according to women's own experience of spousal violence and their own and husband's characteristics, India, 2005-06

Characteristics	Percentage who have committed physical violence against their current or most recent husband			
	Ever	Number of women	In the past 12 months[1]	Number of women[1]
Woman's experience of spousal physical violence				
Ever	1.8	23,364	1.1	22,421
In the past 12 months[1]	2.3	13,680	1.7	13,680
Not in past 12 months or not asked[2]	1.1	9,684	0.1	8,742
Never	0.1	43,294	0.1	41,545
Age				
15-19	0.3	4,643	0.3	4,628
20-24	0.5	11,642	0.4	11,571
25-29	0.8	13,006	0.5	12,789
30-39	0.8	22,191	0.4	21,241
40-49	0.8	15,175	0.4	13,736
Residence				
Urban	0.9	20,441	0.5	19,634
Rural	0.7	46,217	0.4	44,332
Education				
No education	0.8	32,024	0.5	30,360
<5 years complete	1.0	5,647	0.5	5,354
5-7 years complete	0.6	9,900	0.4	9,597
8-9 years complete	0.6	7,585	0.3	7,376
10-11 years complete	0.6	5,440	0.4	5,318
12 or more years complete	0.4	6,059	0.3	5,960
Husband's education				
No education	0.9	18,207	0.6	17,181
<5 years complete	1.3	5,728	0.8	5,508
5-7 years complete	0.8	10,589	0.5	10,125
8-9 years complete	0.5	10,342	0.2	10,007
10-11 years complete	0.6	9,317	0.3	9,001
12 or more years complete	0.4	11,867	0.2	11,600
Husband's alcohol consumption				
Does not drink	0.4	45,838	0.2	43,147
Drinks/never gets drunk	0.4	3,506	0.1	3,506
Gets drunk sometimes	1.2	12,816	0.8	12,816
Gets drunk often	3.3	4,395	2.1	4,395
Spousal age difference[2]				
Wife older	0.9	1,364	0.8	1,364
Wife is same age	1.1	1,508	0.7	1,508
Wife's 1-4 years younger	0.6	24,270	0.4	24,270
Wife's 5-9 years younger	0.7	25,369	0.4	25,369
Wife's 10+ years younger	0.9	9,959	0.5	9,959

Continued…

Table 15.15 Violence by women against their spouse—*Continued*

Characteristics	Percentage who have committed physical violence against their current or most recent husband: Ever	Number of women	In the past 12 months[1]	Number of women[1]
Spousal education difference				
Husband better educated	0.6	34,674	0.3	33,369
Wife better educated	0.9	9,849	0.5	9,553
Both equally educated	0.6	6,153	0.4	6,014
Neither educated	0.9	15,373	0.7	14,484
Household structure[3]				
Nuclear	0.9	33,989	0.5	32,705
Non-nuclear	0.5	32,669	0.4	31,261
Religion				
Hindu	0.7	54,208	0.5	51,977
Muslim	0.4	8,795	0.2	8,525
Christian	1.6	1,500	1.0	1,423
Sikh	0.2	1,115	0.2	1,060
Buddhist/Neo-Buddhist	1.9	537	1.7	499
Jain	0.0	190	0.0	187
Other	2.0	245	1.6	229
Caste/tribe				
Scheduled caste	0.9	12,701	0.7	12,088
Scheduled tribe	1.7	5,562	1.1	5,282
Other backward class	0.6	26,438	0.3	25,443
Other	0.5	21,393	0.2	20,629
Don't know	0.7	375	0.5	342
Wealth index				
Lowest	0.8	12,815	0.6	12,202
Second	0.9	13,384	0.6	12,782
Middle	0.7	13,386	0.3	12,791
Fourth	0.7	13,444	0.5	12,936
Highest	0.4	13,628	0.2	13,255
Respondent's father beat her mother				
Yes	1.7	12,346	1.0	11,820
No	0.5	49,201	0.3	47,281
Don't know	0.8	5,041	0.4	4,803
Total	0.7	66,658	0.4	63,966

Note: Husband refers to the current husband for currently married women and the most recent husband for widowed, divorced, separated, or deserted women. Total includes women with missing information on education, husband's education, husband's alcohol consumption, spousal age difference, spousal education difference, religion, caste/tribe, and respondent's father beat her mother, who are not shown separately.
[1] Excludes widows.
[2] Currently married women.
[3] See Table 15.1, footnote 2 for definition.

Results show that 1 percent of ever-married women report initiating violence against their husbands, and only 0.4 percent initiated such violence in the 12 months preceding the survey. This percentage is higher for women who have experienced spousal violence ever, as well as in the past 12 months (2 percent), than for women who have never experienced such violence (0.1 percent). The prevalence of spousal violence initiated by women is highest, at 4 percent, for women for whom information on alcohol consumption by the husband is not known, followed by women whose husbands often get drunk (3 percent). The only other population subgroups in which at least 2 percent of women report ever initiating violence against their husband, are Buddhist/Neo-Buddhist women, Christian women, women belonging to other religions, women belonging to the scheduled tribes, and women whose fathers beat their mothers. Even among these sub-groups the percentage never exceeds 2. Overall these data show that in India spousal violence initiated by women is a very small fraction of spousal violence initiated by men.

15.5 HELP SEEKING

In NFHS-3, all women (married, formerly married, and never married) who reported physical or sexual violence were asked a series of questions about whether and from whom they sought help to try to end the violence. First, women were asked if they had ever sought help; then, the women who said they had sought help, were asked from whom they had sought help. Women who said they had not sought help were asked whether they had ever told anyone about any of the violence they had experienced. Table 15.16 shows the percent distribution of women who have ever experienced any type of physical or sexual violence by their help seeking behaviour and by background characteristics.

Table 15.16 Help seeking to stop violence

Percent distribution of women age 15-49 who have ever experienced physical or sexual violence by whether they have told anyone about the violence and whether they have ever sought help from any source to end the violence according to type of violence and background characteristics, India, 2005-06

Background characteristic	Never sought help: Never told anyone	Never sought help: Percentage who told someone	Have sought help from any source	Don't know/ missing	Total	Number of women
Residence						
Urban	65.2	8.6	23.6	2.6	100.0	8,046
Rural	66.4	7.3	23.9	2.3	100.0	21,549
Marital status						
Never married	63.7	10.8	21.5	4.0	100.0	2,782
Currently married	67.9	7.3	22.7	2.2	100.0	24,781
Married, *gauna* not performed	(73.0)	(1.0)	(18.4)	(7.7)	100.0	92
Widowed	61.8	9.2	26.2	2.8	100.0	1,058
Divorced/separated/ deserted	29.1	8.4	60.0	2.5	100.0	882
Education						
No education	66.5	7.8	23.7	1.9	100.0	15,790
<5 years complete	65.9	7.8	24.0	2.3	100.0	2,722
5-7 years complete	63.9	6.6	27.1	2.4	100.0	4,322
8-9 years complete	66.9	8.2	22.3	2.7	100.0	3,270
10-11 years complete	64.3	8.5	22.6	4.7	100.0	1,956
12 or more years complete	69.0	6.8	20.0	4.1	100.0	1,534
Household structure[1]						
Nuclear	66.3	7.8	23.7	2.2	100.0	16,260
Non-nuclear	65.9	7.5	24.0	2.6	100.0	13,334
Religion						
Hindu	66.3	7.4	23.8	2.5	100.0	23,962
Muslim	67.3	8.9	22.1	1.7	100.0	4,185
Christian	52.0	13.3	32.1	2.5	100.0	585
Sikh	63.0	4.2	31.1	1.7	100.0	399
Buddhist/Neo-Buddhist	73.6	4.3	18.8	3.3	100.0	281
Jain	(65.5)	(17.3)	(17.2)	(0.0)	100.0	36
Other	47.5	6.6	41.3	4.7	100.0	124
Caste/tribe						
Scheduled caste	64.8	7.0	26.1	2.0	100.0	6,822
Scheduled tribe	65.4	9.5	23.2	1.9	100.0	2,834
Other backward class	65.0	7.8	24.6	2.5	100.0	11,722
Other	69.2	7.3	20.9	2.6	100.0	7,972
Don't know	61.2	8.7	25.9	4.2	100.0	137
Wealth index						
Lowest	67.1	8.0	23.2	1.8	100.0	6,930
Second	64.5	8.0	25.4	2.0	100.0	7,019
Middle	66.1	7.1	24.8	2.0	100.0	6,354
Fourth	65.7	7.3	23.9	3.1	100.0	5,477
Highest	67.8	8.1	20.4	3.7	100.0	3,815
Type of violence						
Physical only	68.1	7.5	21.7	2.7	100.0	22,505
Sexual only	85.3	4.1	7.7	2.8	100.0	1,517
Both physical and sexual	52.7	9.5	36.7	1.0	100.0	5,573

Continued…

Table 15.16 Help seeking to stop violence—*Continued*

Background characteristic	Never sought help: Never told anyone	Never sought help: Percentage who told someone	Have sought help from any source	Don't know/ missing	Total	Number of women
Persons who committed the violence						
Current husband only	69.7	6.5	22.0	1.8	100.0	20,200
Any previous husband only	47.9	7.3	43.0	1.9	100.0	1,579
Any husband and others	52.6	13.2	33.8	0.4	100.0	3,012
Own family members only	68.3	9.3	16.1	6.3	100.0	3,753
Person(s) other than husband or own family	55.1	9.8	29.2	5.9	100.0	1,025
Total	66.1	7.7	23.8	2.4	100.0	29,595

Note: Total includes women with missing information on education, religion, and caste/tribe, who are not shown separately.
( ) Based on 25-49 unweighted cases.
[1] See Table 15.1, footnote 2 for definition.

The table shows that only one in four women have ever sought help to end the violence they have experienced. Two out of three women who have ever experienced violence have not only never sought help, but have also never told anyone about the violence. A large majority of women who have experienced only sexual violence have never told anyone about the violence (85 percent), and only 8 percent have ever sought help. By contrast, 37 percent of women who have experienced both physical and sexual violence and 22 percent who have experienced only physical violence have sought help. Help seeking varies by the type of perpetrator. Women who have experienced violence by a former husband are the most likely to have sought help. This is to be expected since seeking help against spousal violence is likely to be a first step in being able to leave an abusive husband and ending the marriage.

What is also particularly striking about help-seeking behaviour among women who have ever experienced violence is the virtual lack of differentials by most background characteristics, including education and wealth. Overall, the data suggest that neither education nor wealth imply a greater likelihood that women will seek help against violence. There is even some indication that the most educated women and women in the highest wealth quintile are less likely to seek help than less educated or less wealthy women. The largest differentials by background characteristics are found by religion. Jain women (who are least likely to report experiencing any violence) and Buddhist/Neo Buddhist women (who are most likely to report experiencing violence) are the least likely to seek help (17 and 19 percent respectively). Sikh and Christian women are most likely (31 and 32 percent respectively) to seek help.

Abused women most often seek help from their own families. Table 15.17 shows abused women's sources of help, according to the type of violence they had suffered. Seventy-two percent of women who experienced only physical violence and 58 percent of women who experienced only sexual violence mention their own family as a source. The second most common source of help for women who experienced physical violence is the husbands' family (28 percent); by contrast, among women who experienced sexual violence only and sought help, friends are the second most common source of help (34 percent). Only 6 percent of women who suffered sexual violence only and sought help turned to their husband's family. Notably few women seek help from any institutional sources such as the police, medical personnel, or social service organizations.

Table 15.17 Sources from where help was sought

Percentage of women age 15-49 who have ever experienced physical or sexual violence and have sought help from any source by source from which help was sought, according to the type of violence experienced, India, 2005-06

Source	Type of violence experienced			Total
	Physical only	Sexual only	Both physical and sexual	
Own family	71.7	57.7	70.2	71.0
Husband's family	27.6	6.4	31.5	28.4
Husband/last husband	0.8	0.9	0.9	0.8
Current/former boyfriend	0.1	3.9	0.1	0.1
Friend	8.3	34.4	10.6	9.4
Neighbour	12.3	4.9	20.1	14.4
Religious leader	0.9	0.0	1.3	1.0
Doctor/medical personnel	0.5	0.0	0.2	0.4
Police	1.5	0.6	3.8	2.1
Lawyer	0.4	0.5	1.0	0.6
Social service organization	0.5	0.0	1.1	0.6
Other	0.8	1.1	1.8	1.1
Number of women	4,884	118	2,047	7,048

REFERENCES

Agarwal, K.N, D.K. Agarwal, A. Sharma, K. Sharma, K. Prasad, M.C. Kalita, et al. 2006. Prevalence of anaemia in pregnant & lactating women in India. *Indian Journal of Medical Research* 124(2): 173-184.

Arokiasamy, P. 2002. Gender preference, contraceptive use and fertility in India: Regional and development influences. *International Journal of Population Geography* 8(1): 49-67.

Arnold, Fred, Minja Kim Choe, and T.K. Roy. 1998. Son preference, the family-building process and child mortality in India. *Population Studies* 52(3): 301-315.

Arnold, Fred, Sunita Kishor, and T.K. Roy. 2002. Sex-selective abortions in India. *Population and Development Review* 28(4): 759-785.

Bäck, S.-E., C.G.M. Magnusson, L.K. Norlund, H.H. von Schenck, M.E. Menschik, P.E.S. Lindberg. 2004. Multi-site analytical evaluation of a new portable analyzer, HemoCue Hb 201+, for point of care testing. *Point of Care* 3(2): 60-65.

Bailey, R.C., S. Moses, C.B. Parker, K. Agot, I. Maclean, J.N. Krieger, et al. 2007. Male circumcision for HIV prevention in young men in Kisumu, Kenya: A randomised controlled trial. *Lancet* 369(9562): 643-656.

Bhaskaram, P., N. Balakrishna, K.V. Radhakrishna, K. Krishnaswamy. 2003. Validation of hemoglobin estimation using Hemocue. *Indian Journal of Pediatrics* 70(1): 25-28.

Bhat, P.N.M. and A.J.F. Zavier. 2003. Fertility decline and gender bias in northern India. *Demography* 40(4): 637-657.

Campbell, J.C. 2002. Health consequences of intimate partner violence. *The Lancet* 359(9314): 1331-1336.

Campbell, J.C., D. Webster, J. Koziol-McLain, C. Block, D. Campbell, M.A. Curry, et al. 2003. Risk factors for femicide in abusive relationships: Results from a multisite case-control study. *American Journal of Public Health* 93(7): 1089-1097.

Centers for Disease Control and Prevention (CDC). 1998. Recommendations to prevent and control iron deficiency in the United States. *Morbidity and Mortality Weekly Report* 47(RR-3): 1-29.

Citizen's Initiative for Rights of Children under Six. 2006. Focus on children under six. Abridged report 2006. New Delhi: CIRCUS.

Clark, Shelley. 2000. Son preference and sex composition of children: Evidence from India. *Demography* 37(1): 95-108.

Das Gupta, M., J. Zhenghua, L. Bohua, X. Zhenming, W. Chung, and B. Hwa-Ok. 2003. Why is son preference so persistent in East and South Asia? A cross-country study of China, India and the Republic of Korea. *Journal of Development Studies* 40(2): 153-187.

Dibley, M.J., J.B. Goldsby, N.W. Staehling, and F.L. Trowbridge. 1987a. Development of normalized curves for the international growth reference: Historical and technical considerations. *American Journal of Clinical Nutrition* 46(5): 736-748.

Dibley, M.J., N.W. Staehling, P. Neiburg, and F.L. Trowbridge. 1987b. Interpretation of Z-score anthropometric indicators derived from the international growth reference. *American Journal of Clinical Nutrition* 46(5): 749-762.

Directorate General of Health Services (DGHS), Ministry of Health and Family Welfare (MOHFW) in collaboration with WHO India Country Office. 2005. *National Health Profile 2005*. New Delhi: Central Bureau of Health Intelligence, DGHS, MOHFW, Govt. of India.

Dyson, Tim and Mick Moore. 1983. On kinship structure, female autonomy and demographic behavior in India. *Population and Development Review* 9(1): 35–60.

Ellsberg, M., L. Heise, R. Pena, S. Agurto, and A.Winkvist. 2001. Researching domestic violence against women: Methodological and ethical considerations. *Studies in Family Planning* 32(1): 1-16.

Gehring, H., C. Hornberger, L. Dibbelt, A. Rothisigkeit, K. Gerlach, J. Schumacher, P. Schmucker. 2002. Accuracy of point-of-care-testing (POCT) for determining hemoglobin concentrations. *Acta Anaeshesiologica Scandinavica* 46(8): 980-986.

Gopalan, C., B.V. Rama Sastri, and S.C. Balasubramanian. 1996. *Nutritive value of Indian foods.* Hyderabad: National Institute of Nutrition, Indian Council of Medical Research.

Gray, R.H., G. Kigozi, D. Serwadda, F. Makumbi, S. Watya, F. Nalugoda, et al. 2007. Male circumcision for HIV prevention in men in Rakai, Uganda: A randomised trial. *Lancet* 369(9562): 657-666.

Gupta, K., F. Arnold, S. Kishor, and S. Parasuraman. 2007. Concern on prevalence of anaemia in pregnant & lactating women in India. *Indian Journal of Medical Research* 125(1):99-101.

Gwatkin, D.R., S. Rutstein, K. Johnson, R.P. Pande, and A. Wagstaff. 2000. *Socio-economic differences in health, nutrition and poverty.* HNP/Poverty Thematic Group of the World Bank. Washington, D.C.: The World Bank.

Heise, L., M. Ellsberg and M. Gottemoeller. 1999. Ending violence against women. *Population Reports*, Series L, No. 11. Baltimore: Johns Hopkins School of Public Health, Population Information Program.

International Institute for Population Sciences (IIPS), World Health Organization (WHO), and World Health Organization (WHO) - India – WR Office. 2006. *Health System Performance Assessment: World Health Survey 2003 India*. Mumbai: IIPS.

Jejeebhoy, Shireen J. 1995. *Women's education, autonomy and reproductive behaviour: experiences from developing countries*. Oxford: Clarendon Press.

Jeffery, Roger and Alaka M. Basu. 1996. *Girls' Schooling, Women's Autonomy and Fertility Change in South Asia*. New Delhi ; Thousand Oaks : Sage Publications in association with the Book Review Literary Trust, New Delhi.

Jewkes, R. 2002. Intimate partner violence: causes and prevention. *Lancet*: 359 (9315): 1423-1429.

John, T., P.G. Babu, H. Jayakumari, and E.A. Simoes. 1987. Prevalence of HIV infection in risk groups in Tamilnadu, India. *Lancet* 1(8525): 160-161.

Kabeer, Naila. 2001. Reflections on the Measurement of Women's Empowerment. In *Discussing women's empowerment-theory and practice*. Sida Studies. No.3. Stockholm: Swedish International Development Cooperation Agency.

Kapoor, S.K., U. Kapil, S.N. Dwivedi, K. Anand, P. Pathak, P. Singh. 2002. Comparison of HemoCue method with cyanmethemoglobin method for estimation of hemoglobin. *Indian Pediatrics* 39: 743-746.

Kish, L. 1965. *Survey sampling*. New York: John Wiley.

Kishor, S. and K. Johnson. 2004. *Profiling domestic violence: A multi-country study*. Calverton, Maryland: ORC Macro.

Kishor, S. and K. Johnson. 2006. Reproductive health and domestic violence: Are the poorest women uniquely disadvantaged? *Demography* Vol. 43(2):293-307.

Krenzischeck, D.A. and F.V. Tanseco. 1996. Comparative study of bedside and laboratory measurements of haemoglobin. *American Journal of Critical Care* 5:427-432.

Lardi, A.M., C. Hirst, A.J. Mortimer, C.M. McCollum. 1998. Evaluation of the HemoCue(R) for measuring intra-operative haemoglobin concentrations: A comparison with the Coulter Max-M(R). *Anaesthesia* 53(4): 349-352.

McNulty, Stephen E., Marc Torjman, Wlodzimierz Grodecki, Alex Marr, and Hugh Schieren. 1995. A comparison of four bedside methods of hemoglobin assessment during cardiac surgery. *Anesthesia and Analgesic* 81(6): 1197-1202.

Medina, A.L., C. Mundy, J. Kandulu, L. Chisuwo, and I. Bates. 2005. Evaluation and costs of different haemoglobin methods for use in district hospitals in Malawi. *Journal of Clinical Pathology* 58(1): 56-60.

Ministry of Health and Family Welfare (MOHFW).1992. *Family Welfare Programme in India Year Book: 1990-91*. New Delhi: Dept. of Family Welfare, MOHFW.

Ministry of Health and Family Welfare (MOHFW). 1997. *Reproductive and Child Health Programme: Schemes for implementation*. New Delhi: Dept. of Family Welfare, MOHFW.

Ministry of Health and Family Welfare (MOHFW). 2000. *National Population Policy, 2000*. New Delhi: Department of Family Welfare, MOHFW.

Ministry of Health and Family Welfare (MOHFW). 2002. *National Health Policy, 2002*. New Delhi: MOHFW.

Ministry of Health and Family Welfare (MOHFW). 2004. *Annual report 2003-2004*. New Delhi: MOHFW.

Ministry of Health and Family Welfare (MOHFW). 2005. *Annual report 2004-2005*. New Delhi: MOHFW.

Ministry of Health and Family Welfare (MOHFW). 2006. *National Rural Health Mission (2005-2012), Mission Document*. New Delhi: MOHFW.

Ministry of Women and Child Development (MOWCD). 2006. *National guidelines on infant and young child feeding*. New Delhi: MOWCD (Food and Nutrition Board), Government of India.

Mishra, V. 2004. What do we know about health effects of smoke from solid fuel combustion?, *East-West Center Working Papers, Population and Health Series*, No. 117. Honolulu: East-West Center.

Mishra, V., R.D. Retherford, and K.R. Smith. 1999. Biomass cooking fuels and prevalence of tuberculosis in India. *International Journal of Infectious Diseases* 3(3): 119-129.

Mishra, Vinod, T.K. Roy, and Robert D. Retherford. 2004. Sex differentials in childhood feeding, health care, and nutritional status in India. *Population and Development Review* 30(2): 269-295.

National AIDS Control Organization (NACO). 2004. *Annual report 2002-04*. New Delhi: NACO, Ministry of Health and Family Welfare, Government of India.

National AIDS Control Organization (NACO). 2005. *UNGASS India report: Progress report on the Declaration of Commitment on HIV/AIDS, United Nations General Assembly Special Session on HIV/AIDS*. New Delhi: NACO, Ministry of Health and Family Welfare, Government of India.

National AIDS Control Organization (NACO). 2006. *HIV/AIDS epidemiological surveillance & estimation report for the year 2005*. New Delhi: NACO, Ministry of Health & Family Welfare, Government of India.

National Sample Survey Organization (NSSO). 1998. A note on the consumption of tobacco in India: NSS 50th round (1993-94). *Sarvekshana* 21(3): 51-61.

Office of the Registrar General. 2006a. *Sample Registration System, Statistical report 2004*. New Delhi: Office of the Registrar General, India.

Office of the Registrar General. 2006b. *SRS Bulletin*. 40(1). New Delhi: Office of the Registrar General, India.

Pande, R. and N. Astone. 2007. Explaining son preference in rural India: The independent role of structural versus individual factors. *Population Research and Policy Review* 26(1): 1-29.

Pathak, P., S.K. Kapoor, S.N. Dwivedi, P. Singh, U. Kapil. 2004. Comparison of hemoglobin estimates from filter paper, Cyanmethemoglobin and HemoCue methods. *Indian Journal of Community Medicine* 29(3): 149-150.

Pelto, P.J. 1999. Sexuality and sexual behaviour in India: The current discourse. In S. Pachauri, S. Sokhi, and S. Almroth (eds.). *Implementing a reproductive health agenda in India: The beginning*. New Delhi: Population Council, South & East Asia--Regional Office.

Prakash, S., U. Kapil, G. Singh, S.N. Dwivedi, and M. Tandon. 1999. Utility of Hemocue in estimation of hemoglobin against standard blood cell counter method. *Journal of the Association of Physicians of India* 47(10):995-997.

Prasada Rao, J.V.R., N.K. Ganguly, S.M. Mehendale, R.C. Bollinger. 2004. India's response to the HIV epidemic. *Lancet* 364(9442): 1296-1297.

Ramachandran, Prema. 1992. Need of organization of antenatal and intrapartum care in India. *Demography India* 21(2): 179-193.

Reidpath, D. and K. Chan. 2005. HIV discrimination: Integrating the results from a six-country situational analysis in the Asia Pacific. *AIDS Care* 17(suppl 2): S195-204.

Roehr, Bob. 2007. Dramatic drop in HIV infections halts circumcision trials. *British Medical Journal* 334(7583): 11.

Rosenblit, J., C.R. Abreu, L.N. Szterling, J.M. Kutner, N. Hamerschlak, P. Frutuoso, et al. 1999. Evaluation of three methods of hemoglobin measurement in a blood donor setting. *Sao Paulo Medical Journal* 117(3): 108-112.

Rutstein, S. 1999. *Wealth versus expenditure: Comparison between the DHS wealth index and household expenditures in four departments of Guatemala*. Calverton, Maryland: ORC Macro.

Rutstein, S.O. 2005. Effects of preceding birth intervals on neonatal, infant and under-five years mortality and nutritional status in developing countries: Evidence from the Demographic and Health Surveys. *International Journal of Gynaecology and Obstetrics* 89(suppl 1): S7-S24.

Rutstein, S., K. Johnson, and D. Gwatkin. 2000. Poverty, health inequality, and its health and demographic effects. Paper presented at the 2000 Annual Meeting of the Population Association of America, Los Angeles, California.

Sari, M., S. de Pee, E. Martini, S. Herman, Sugiatmi, M.W. Bloem, et al. 2001. Estimating the prevalence of anaemia: A comparison of three methods. *Bulletin of the World Health Organization* 79(6): 506-511.

Saxena, R., R. Malik. 2002. Comparison of HemoCue method with the cyanmethemoglobin method for estimation of hemoglobin. *Indian Pediatrics* 40(9): 917.

Singh S.K., H. Lhungdim, A. Chattopadhyay, T.K. Roy. 2004. *Women's vulnerability to STI/HIV in India: Findings of the CHARCA Baseline Survey*. Mumbai: International Institute for Population Sciences.

Sinha, D.N., P.C. Gupta, and M.S. Pednekar. 2003. Tobacco use among school personnel in eight north-eastern states of India. *Indian Journal of Cancer* 40(1): 3-14.

Srivastava A., H. Pal , S.N. Dwivedi, A. Pandey, J.N. Pande. 2004. *National Household Survey of Drug and Alcohol Abuse in India (NHSDAA)*. New Delhi: Ministry of Social Justice and Empowerment, Government of India and UN Office for Drug and Crime, Regional Office of South Asia.

Straus, M.A. 1990. Measuring intrafamily conflict and violence: The conflict tactic (CT) scales. In M.A. Straus, R.J. Gelles, and C. Smith. (eds.) *Physical violence in American families: Risk factors and adaptations to violence in 8,145 families*. New Brunswick: Transaction Publishers.

UNAIDS (Joint United Nations Program on HIV/AIDS). 2006. *2006 Report on the global AIDS epidemic*. Geneva, Switzerland: UNAIDS.

United Nations. 1997. *Report of the Fourth World Conference on Women, Beijing, 4-15 September 1995*. Beijing, China: United Nations.

U.S. Department of Health and Human Services. 2004. *The health consequences of smoking: A report of the Surgeon General.* Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health.

Vir, S.C. 2002. Current status of iodine deficiency disorders (IDD) and strategy for its control in India. *Indian Journal of Pediatrics* 69(7): 589-596.

Von Schenk, H., M. Falkensson, and B. Lundberg. 1986. Evaluation of "HemoCue", a new device for determining hemoglobin. *Clinical Chemistry* 32(3): 526-529.

Watts, C. and C. Zimmerman. 2002. Violence against women: Global scope and magnitude. *Lancet* 359(9313): 1232-1237.

World Bank. 2001. *Engendering development—through gender equality in rights, resources, and voice*. A Policy Research Report. New York: Oxford University Press.

World Health Organization (WHO). 1998. *Postpartum care of the mother and newborn: A practical guide*. Geneva: Maternal and Newborn Health/Safe Motherhood Unit, Division of Reproductive Health (Technical Support), WHO.

World Health Organization (WHO). 2001. *Putting women first: Ethical and safety recommendations for research on domestic violence against women*. Department of Gender and Women's Health, Family and Community Health, WHO. Geneva, Switzerland.

World Health Organization (WHO). 2006. Provision of effective antenatal care. In *Standards for maternal and neonatal care*. Geneva, Switzerland: WHO Integrated Management of Pregnancy and Childbirth Care (IMPAC), WHO. Available at http://www.who.int/making_pregnancy_safer/publications/standards/en/index.html

World Health Organization Multicenter Growth Reference Study Group. 2006. *WHO child growth standards: Length/height-for-age, weight-for-age, weight-for-length, weight-for-height and body mass index-for age—methods and development*. Geneva: World Health Organization.

World Health Organization (WHO) and UNAIDS (Joint United Nations Programme on HIV/AIDS). 2000. *Guidelines for second generation HIV surveillance*. Geneva, Switzerland: WHO and UNAIDS.

ORGANIZATIONS INVOLVED IN NFHS-3 FIELDWORK

Appendix A

Research Organization	State(s)
Administrative Staff College of India (ASCI) Bella Vista, Raj Bhavan Road Khairatabad, Hyderabad – 500 082	Andhra Pradesh
Centre for Operations Research and Training (CORT) 402, Woodland Apartment Race Course, Vadodara – 390 007	Bihar Maharashtra
Centre for Research in Rural and Industrial Development (CRRID) Sector 19A, Madhya Marg, Chandigarh – 160 019	Haryana Punjab
Development & Research Services (DRS) A-1/19, First Floor, Safdarjung Enclave New Delhi – 110 029	Arunachal Pradesh Tripura
Economic Information Technology (EIT) CZ-33, Metropolitan Housing Society Kolkata – 700 105	Sikkim West Bengal
Indian Institute of Health Management Research (IIHMR) 1, Prabhu Dayal Marg, Sanganer Airport, Jaipur – 302 011	Madhya Pradesh Rajasthan
Institute for Social and Economic Change (ISEC) Nagarbhavi P.O. Bangalore – 560 072	Karanataka
MODE Services Pvt. Ltd. L-7, 1st Floor Green Park Extension New Delhi – 110 016	Meghalya Mizoram
Operations Research Group - Centre for Social Research A Division of ACNIELSEN, ORG - MARG Pvt. Ltd. 3rd Floor, Bharat Yuvak Bhavan, 1 Jai Singh Road, New Delhi – 110 001	Jammu & Kashmir Jharkhand Uttar Pradesh

Research Organization	State(s)
Population Research Centre Institute of Economic Growth North Campus, University Enclave Delhi – 110 007	Delhi
Population Research Centre JSS Institute of Economic Research Vidyagiri, Dharwad – 580 004	Goa
Population Research Centre University of Kerala Kariavattom, Thiruvanathapuram Kerala – 695 581	Kerala
Research and Development Initiative Pvt. Ltd. (RDI) D-66A, Chhabra Complex, Opposite Canara Bank Laxmi Market, Munirka New Delhi – 110 067	Chhattisgarh Nagaland
Society for Applied Research in Humanities (SARH) E-205, Above Bank of Baroda Munirka Village, New Delhi – 110 067	Himachal Pradesh
State Institute of Health and Family Welfare Nayapalli, Bhubaneshwar, Orissa – 751 012	Orissa
TALEEM Research Foundation City Plaza, Sterling City Bopal, Ahmedabad – 380 058	Gujarat Uttaranchal
The Gandhigram Institute of Rural Health and Family Welfare Trust Ambathurai R.S., Gandhigram P.O. Dindigul District, Tamil Nadu – 624 302	Tamil Nadu
TNS India Pvt. Ltd. CICD Tower (next to NIFT), Institutional Area, Hauz Khas New Delhi – 110 016	Assam Manipur

NFHS-3 SURVEY STAFF

Appendix ***B***

International Institute for Population Sciences, Mumbai

Dr. T.K. Roy
Dr. G. Rama Rao
Dr. P.N. Mari Bhat
Dr. S. Lahiri
(Project Directors)

Prof. Kamla Gupta
Prof. Sulabha Parasuraman
Dr. P. Arokiasamy
Dr. S.K. Singh
Dr. H. Lhungdim
(Project Coordinators)

Assistant Research Officer, IIPS

Dr. Rajeshri Chitanand

Health Coordinators

Dr. Snehel Bhele
Dr. Chongnu
Dr. Hemlata Jiwnani
Dr. Faiz Khan
Dr. Vipul Kubavat

Dr. Kaushal Kumar
Dr. Dharmesh Lal
Dr. Dibya Singh
Dr. Mithilesh Varma

Senior Research Officers

Mr. Sangram Kishor Patel
Mr. Kh. Jiten Kumar Singh

Mr. Lakhan Singh
Ms. Y. Vaidehi

Research Officers

Mr. Manoranjan Barik
Mr. Mohd. Iqbal Bhat
Ms. Pallavi Chachre
Mr. Abhijeet V. Deshpande
Ms. Paramita Dutta
Dr. Marto Ette
Ms. Sanjita Gupta
Mr. Arunendu Kumar Jha
Mr. Manoranjan Kumar
Ms. Imtilemla Longkumer
Mr. M. Sateesh Gouda
Mr. Premkant Mallick

Mr. Dipti Kishore Nayak
Dr. Aparesh Patra
Mr. Subhash Chandra Prabhat
Dr. M. Benarji Prasad
Ms. Salam Jenny Ranjit
Mr. S. Azhagendran
Ms. Ruby Alambusha Singh
Mr. Mohan Kumar Tiwary
Ms. R. Usha
Mr. V. Kandasamy
Mr. Dipak Zade

Assistant Research Officer, NFHS-3

Ms. Subarna Debnath

Accounts and Administrative Staff

Mr. R.S. Hegde, Project Officer
Mr. Manuel Roche, Office Assistant
Ms. Kavita Rathod, Office Assistant
Ms. Manorama Rautela, Office Assistant
Mr. Ashok Pawar, Office Attendant
Mr. Pramod T. Sawant, Office Attendant
Mr. Yogesh Bhagat, Office Attendant

Consultants

Dr. Fred Arnold
Ms. Elizabeth Britton
Mr. Trevor Croft
Dr. Dean Garrett
Ms. Sherrell Goggin
Mr. Glen Heller
Mr. Zaheer Ahmad Khan
Dr. Sunita Kishor
Ms. Monica Kothari
Dr. Anil Mishra
Ms. Erica Nybro
Dr. Ruilin Rein
Dr. Kia Reinis
Prof. T.K. Roy
Ms. Jasbir Kaur Sangha
Ms. Reena Sethi
Ms. Laurie Liskin
Mr. Martin Wulfe

Steering Committee for NFHS-3

Secretary
Ministry of Health and Family Welfare
New Delhi

Secretary
Ministry of Statistics and Programme Implementation
New Delhi

Secretary
Ministry of Women and Child Development
New Delhi

Director General of Health Services
Ministry of Health and Family Welfare
New Delhi

Project Director
NACO
Ministry of Health and Family Welfare
New Delhi

Additional Secretary and Financial Advisor
Ministry of Health and Family Welfare
New Delhi

Chief Director (M&E)
Department of Family Welfare
New Delhi

Registrar General of India
New Delhi

Director
International Institute for Population Sciences
Mumbai

Dr. P.K. Bhargava
Director
Population Research Centre
Dharwad, Karnataka

Director
Institute for Research in Medical Statistics
ICMR, New Delhi

Prof. T.K. Roy
Ex-Director
International Institute for Population Sciences
Mumbai

Advisor (Health)
Planning Commission
New Delhi

Representative
USAID
New Delhi

Representative
UNFPA
New Delhi

Representative
UNICEF
New Delhi

Representative
DFID
New Delhi

Representative
European Commission
New Delhi

Director (MH/NFHS)
Department of Family Welfare
New Delhi

Representative
World Bank
New Delhi

Representative
Bill and Melinda Gates Foundation
New Delhi

Representative
Macro International
Calverton, Maryland, USA

Chief Director (DRS)
Department of Family Welfare
New Delhi

Administrative and Financial Management Committee for NFHS-3

Additional Secretary and Financial Advisor
Ministry of Health and Family Welfare
New Delhi

Joint Secretary (Policy)
Department of Family Welfare
New Delhi

Joint Secretary
NACO
Ministry of Health and Family Welfare
New Delhi

Chief Director (DRS)
Department of Family Welfare
New Delhi

Director
International Institute for Population Sciences
Mumbai

Representative
UNICEF
New Delhi

Representative
DFID
New Delhi

Representative
European Commission
New Delhi

Representative
World Bank
New Delhi

Representative
Bill and Melinda Gates Foundation
New Delhi

Deputy Secretary (IF)
Ministry of Health and Family Welfare
New Delhi

Under Secretary (Budget)
Department of Family Welfare
New Delhi

Representative
USAID
New Delhi

Representative
UNFPA
New Delhi

Representative
Macro International
Calverton, Maryland, USA

Chief Coordinator
NFHS-3
International Institute for Population Sciences
Mumbai

Director (MH/NFHS)
Department of Family Welfare
New Delhi

Technical Advisory Committee for NFHS-3

Prof. Arvind Pandey
Director
National Institute of Medical Statistics
ICMR, New Delhi

Representative
Ministry of Statistics and Programme Implementation
Government of India
New Delhi

Registrar General of India/Representative
New Delhi

Technical Representative
NACO
Ministry of Health and Family Welfare
New Delhi

Technical Representative
Ministry of Women and Child Development
New Delhi

Prof. P.N. Mari Bhat
Director
International Institute for Population Sciences
Mumbai

Dr. P. K. Bhargava
Population Research Centre
Dharwad, Karnataka

Chief Coordinator
NFHS-3
International Institute for Population Sciences
Mumbai

Director (MH/NFHS)
Department of Family Health Welfare
New Delhi

Representative
USAID
New Delhi

Representative
UNFPA
New Delhi

Representative
UNICEF
New Delhi

Representative
DFID
New Delhi

Prof. T.K. Roy
Ex-Director
International Institute for Population Sciences
Mumbai

Prof. K. Srinivasan
Prof-Emeritus
International Institute for Population Sciences
Mumbai

Representative
Bill and Melinda Gates Foundation
New Delhi

Representative
Macro International
Calverton, Maryland, USA

Chief Director (DRS)
Member Secretary

LIST OF CONTRIBUTORS

Dr. P.N. Mari Bhat, Ex-Director, International Institute for Population Sciences, Govandi Station Road, Deonar, Mumbai - 400 088, India

Dr. Fred Arnold, Vice President, Macro International, 11785 Beltsville Drive, Calverton, Maryland 20705, USA

Dr. Kamla Gupta, Professor and Head, Department of Migration and Urban Studies, International Institute for Population Sciences, Govandi Station Road, Deonar, Mumbai - 400 088, India

Dr. Sunita Kishor, Senior Gender Specialist, Macro International, 11785 Beltsville Drive, Calverton, Maryland 20705, USA

Dr. Sulabha Parasuraman, Professor and Head, Department of Population Policies and Programmes, International Institute for Population Sciences, Govandi Station Road, Deonar, Mumbai - 400 088, India

Dr. P. Arokiasamy, Reader, Department of Fertility Studies, International Institute for Population Sciences, Govandi Station Road, Deonar, Mumbai - 400 088, India

Dr. S.K. Singh, Reader, Department of Mathematical Demography and Statistics, International Institute for Population Sciences, Govandi Station Road, Deonar, Mumbai - 400 088, India

Dr. H. Lhungdim, Reader, Department of Population Policies and Programmes, International Institute for Population Sciences, Govandi Station Road, Deonar, Mumbai - 400 088, India

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For related information, visit www.iipsindia.org or www.mohfw.nic.in.

India

Ministry of Health and
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Government of India

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2005-06

Volume II

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For additional information about the 2005-06 National Family Health Survey (NFHS-3), please contact:

International Institute for Population Sciences
Govandi Station Road, Deonar, Mumbai - 400 088
Telephone: 022-2556-4883, 022-2558-3778
Fax: 022-2558-3778
E-mail: iipsnfhs@vsnl.com, iipsnfhs@gmail.com
Website: http://www.nfhsindia.org

For related information, visit http://www.iipsindia.org or http://www.mohfw.nic.in

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SAMPLE DESIGN

Appendix C

Chapter 1, Section 1.7, in Volume I of this report contains basic information about the sample design and sample implementation for the 2005-06 National Family Health Survey (NFHS-3). This appendix contains additional details about the sampling, including the methodology for determining the sample size, the sampling frame, sample selection in rural and urban areas, stratification of the sample, the selection of households, and sample weights.

Sample Size

The determination of the overall sample size for NFHS-3 was governed by several considerations, including the magnitude of the key indicators, the subgroups for which the indicators are required, the desired level of precision of the estimates, the availability of resources, and logistical considerations. Besides the requirement of producing population and health indicators at both the national and state levels, two additional considerations were critical for determining the size of the sample for NFHS-3. The survey was tasked with producing a) HIV prevalence estimates at the national level and at the state level for each of the six states identified by the National AIDS Control Organization (NACO) as having high HIV prevalence (Andhra Pradesh, Karnataka, Maharashtra, Manipur, Nagaland, and Tamil Nadu), and Uttar Pradesh, and b) robust estimates of population and health indicators for slum areas and for non-slum areas in eight cities, namely Delhi, Chennai in Tamil Nadu, Hyderabad in Andhra Pradesh, Indore in Madhya Pradesh, Kolkata in West Bengal, Meerut in Uttar Pradesh, and Mumbai and Nagpur in Maharashtra. Both of these requirements were crucial for determining the target number of individual interviews. In light of these requirements, the sample size was estimated separately for the number of individual interviews with women and with men and the number of women and number of men to be tested for HIV.

Sample size for HIV tests

The expected level of HIV prevalence, the acceptable level of standard errors for HIV prevalence, and the design effect of the sample design were the three prime determinants of sample size for HIV tests at the national level and at the state level for each of the seven states for which separate HIV estimates were to be produced. To estimate the required sample size for HIV testing, it was necessary to make a reasonable assumption about the design effect of HIV prevalence for the NFHS-3 sample design. The design effect is defined as the ratio of the standard error of the HIV estimate for the NFHS-3 sample design to the standard error that would result if a simple random sample had been used. Based on the experience of testing HIV in national household surveys in other countries, a design effect of 1.25 was assumed. The actual design effect of HIV prevalence in NFHS-3 (1.19 for women and 1.33 for men) was very close to the assumed design effect of 1.25.

In the absence of any previous community-based estimate of HIV prevalence for India, the HIV prevalence rates as reported by NACO of 0.92 percent at the national level, 0.75 percent

for Tamil Nadu, and 1.25 percent for each of the remaining five high HIV prevalence states were used for estimation of the sample size for the number of HIV tests. For state-level estimates of HIV prevalence, the maximum permissible relative standard error for women and men together was set at 15 percent. However, for the national estimate, the maximum permissible relative standard error was set at a low level of 5 percent. The table below gives the assumptions at the national and state levels, the proposed sample sizes of women and men to be tested compatible with the assumptions, and the expected precision of the HIV prevalence estimate associated with the proposed sample sizes for India as a whole and for each of the six high HIV prevalence states.

Region	Assumed HIV prevalence rate	Assumed design effect	Proposed sample size	Estimated relative precision of resulting HIV prevalence estimate	Confidence interval	
					Lower bound	Upper bound
Tamil Nadu						
Women and men separately	0.75	1.25	6,400	18.0%	0.5%	1.0%
Women and men together	0.75	1.25	12,800	12.7%	0.6%	0.9%
Each of the remaining five high HIV prevalence states						
Women and men separately	1.25%	1.25	6,400	13.9%	0.9%	1.6%
Women and men together	1.25%	1.25	12,800	9.8%	1.0%	1.5%
India						
Women and men separately	0.92%	1.25	62,693	5.2%	0.8%	1.0%
Women and men together	0.92%	1.25	125,385	3.7%	0.9%	1.0%

Based on the assumed levels of HIV prevalence, the maximum permissible level of the relative standard errors and the design effects, it was determined that in each of the six high HIV prevalence states, 6,400 women and 6,400 men would be tested for HIV, and at the national level, the number tested would be about 125,000 women and men in about equal numbers. This sample size was sufficiently large to permit national estimates for urban and rural areas and for youth age 15-24 with a somewhat lower, but still acceptable, level of precision.

It was thus originally planned to have a total of about 76,800 persons tested in the six high HIV prevalence states. The balance of HIV tests needed to achieve a national sample of 125,385 HIV tests were to be distributed to all the remaining states in proportion to the sample size for individual interviews of women and men in those states. However, after the planning process had begun, it was decided to conduct 24,400 HIV tests in Uttar Pradesh in order to provide a separate estimate of HIV prevalence for this state. In light of this change, the final HIV sample design increased the required number of HIV tests nationally to 134,000, with approximately 101,000 tests in the seven states for which separate estimates were to be provided and 33,000 tests distributed between the remaining 22 states in proportion to their sample sizes.

Sample size for women's interviews

As many of the key indicators that were to be generated from NFHS-3, such as those pertaining to family planning practices and maternal and child health, refer to ever-married women in the reproductive ages, the target sample size in NFHS-3 was fixed in terms of ever-married women age 15-49 years. Based on previous survey experience, it was decided to select an initial target sample size of 1,500 completed interviews with ever-married women in states with a 2001 Census population less than 5 million, 3,000 completed interviews with ever-married women in states with a 2001 Census population between 5 and 30 million, and 4,000

completed interviews with ever-married women in states with a population of more than 30 million. The initial target sample size in Uttar Pradesh, the largest Indian state with about one-sixth of the country's population, was fixed at 10,000 ever-married women. The initial target sample size for the 29 states is given in the following table.

State	Initial target sample size for ever-married women age 15-49
Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura	1,500
Assam, Chhattisgarh, Delhi, Goa, Haryana, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Punjab, Uttaranchal	3,000
Andhra Pradesh, Bihar, Gujarat, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Tamil Nadu, West Bengal	4,000
Uttar Pradesh	10,000

However, in the states with the cities for which slum/non-slum estimates were to be produced and in the states for which separate estimates of HIV were to be produced, these initial state sample sizes were not sufficient and needed to be adjusted upwards.

Adjustments to the initial sample size in specific states. Based on the general assumption that a robust estimation of most population and health indicators requires a minimum sample of 1,000 ever-married women, the target sample size for the eight cities with separate slum and non-slum estimates was fixed at a minimum of 2,000 interviews with ever-married women (equally distributed between slum and non-slum areas of each city). In addition, adjustments needed to be made to the initial sample size in states with separate HIV prevalence estimates. These considerations resulted in the following adjustments to the initial sample size of ever-married women age 15-49 in specified states:

State	Adjusted target sample size of ever-married women 15-49	Reason for adjustment
Andhra Pradesh	6,500	To allow for a state-level estimate of HIV prevalence and slum/non-slum estimates for Hyderabad.
Karnataka	5,600	To allow for a state-level estimate of HIV prevalence.
Madhya Pradesh	6,000	To allow for slum/non-slum estimates for Indore.
Maharashtra	8,000	To allow for a state-level estimate of HIV prevalence and slum/non-slum estimates for Mumbai and Nagpur.
Manipur	4,250	To allow for a state-level estimate of HIV prevalence.
Nagaland	4,500	To allow for a state-level estimate of HIV prevalence.
Tamil Nadu	6,250	To allow for a state-level estimate of HIV prevalence and slum/non-slum estimates for Chennai.
Uttar Pradesh	11,000	To allow for slum/non-slum estimates for Meerut. (The initial target sample size was already sufficient to produce HIV estimates.)
West Bengal	5,750	To allow for slum/non slum estimates for Kolkata.

To the extent possible, each state sample size was allocated to urban and rural areas in proportion to the population in the 2001 Census. However, in all those states for which city-level estimates were required, a larger proportion of the target sample was allocated to urban areas.

The target sample size, which was fixed in terms of ever-married women, was transformed into the number of households to be covered by assuming the number of ever-married women per household was the same as observed in NFHS-2. With the assumption that on average 30 households would be interviewed in each primary sampling unit (PSU), the number of PSUs to be surveyed in urban and rural areas of all states and the eight cities selected for slum/non slum measures was estimated.

Sample size for men's interviews

It has already been mentioned that most of the population and health indicators to be measured in NFHS-3 refer to ever-married women and their children and are estimated from women's interviews. Estimation of these indicators, particularly for children, needs a fairly large sample size to produce robust estimates for subgroups of the population. The required sample size for men's interviews is considerably smaller because the men's interviews were not designed to produce indicator estimates for their children. Hence, it was decided to interview men only from a subsample of households except in the states for which separate HIV prevalence estimates were required. In those seven states, men from all the selected households would be interviewed.

Sampling Design

NFHS-3 adopted a two-stage sample design in most rural areas and a three-stage sample design in most urban areas. In each state, the rural sample was typically selected in two stages: the first stage involved selection of Primary Sampling Units (PSUs), i.e., villages, with probability proportional to population size (PPS); the second stage involved the systematic selection of households within each PSU.

The basic reason for adopting a three-stage sample design in urban areas is that urban wards are quite large, making it difficult to list all the households in a ward and select households directly from the resulting list. Although data on census enumeration blocks (CEBs) in all wards were collected in the 2001 Census, these data were not available in published form; hence, it was not possible to select CEBs directly from an existing list of CEBs for the urban part of a state. For this reason, the selection of the urban sample (in all urban areas except in the eight cities for which slum and non-slum estimates were to be provided) involved the following three stages: in the first stage, wards were selected with PPS sampling; in the next stage, one CEB was selected by PPS from each selected ward; and in the final stage, households were randomly selected within each selected CEB. However, CEB-wise data was made available by the Registrar General of India on special request for the eight cities for which slum/non-slum estimates were planned; hence in these eight cities, the sample households were selected in two stages. First slum and non-slum CEBs were selected, and then households were selected from selected CEBs.

Sample selection in rural areas

Sampling frame. In rural areas, the 2001 Census list of villages served as the sampling frame. The Primary Census Abstract (PCA) by the Census of India, 2001, provides data on the number

of households, persons, males, females, literates, persons belonging to the scheduled castes (SC), persons belonging to the scheduled tribes (ST), employed persons, etc. for all the villages in each district of India. All the villages with fewer than five households were removed from this list. Since the population in all such villages was only 0.02 percent of the total rural population, the exclusion of small villages from the sampling frame is not expected to disturb the representativeness of the sample. Further, to ensure the selection of a sufficient number of households in the selected PSUs, all the smaller villages with 5-49 households were linked with a nearby village. In some cases, more than two villages had to be linked to form a group of villages with a minimum of 50 households. In this way, a minimum size of 50 households in each village was ensured in all the villages in the sampling frame.

Stratification. To ensure the inclusion of villages with different socioeconomic characteristics in the sample, stratified sampling was adopted at the first stage of sample selection. All the villages (or groups of villages) were stratified by a number of variables. The first level of stratification was geographic, with districts being subdivided into contiguous regions. The categorization of districts in different regions in each state is shown in Table C.1. In some states, a single district comprised a region.

Within each of these regions, villages were further stratified using selected variables from the following list: village size, percentage of males working in the nonagricultural sector, percentage of the population belonging to scheduled castes or scheduled tribes, and female literacy. In addition to these variables, districts in high HIV prevalence states were stratified according to HIV prevalence. For this purpose, the classification of all the districts in the six high HIV prevalence states as 'high', 'medium', and 'low' prevalence districts by NACO was adopted. Female literacy was used for implicit stratification (i.e., the villages were ordered prior to selection according to the proportion of females who were literate) in most states, although female literacy was an explicit stratification variable in a few states. The list of variables used for explicit and implicit stratification in each state is given in Table C.2.

The number of PSUs to be selected from each stratum was proportional to the stratum size. In each stratum, an independent sample of PSUs was drawn using PPS sampling.

Sampling frame at the second stage. A household listing operation carried out in each sample area provided the necessary frame for selecting households at the second stage. The household listing operation involved preparing up-to-date location and layout sketch maps, assigning a number to each structure, recording addresses of these structures, identifying residential structures, and then listing the names of heads of households. Listing of all households in large villages with 500 or more households is a huge task, potentially prone to errors of omission or duplication. Hence, large villages with about 500 or more households were segmented into three or more segments (depending on village size) of approximately equal size (usually about 100 to 200 households). From all the segments in each large village, two segments were selected using PPS sampling. Houselisting was then done only in the two selected segments. In all such large villages, the sampling design became a three-stage design.

The selection of the required number of households was done using systematic sampling. For the logistical convenience of the fieldwork and to minimize refusals, runs of five consecutive households, rather than single households, were selected systematically.

Selection of households. The number of households selected in a rural PSU was the product of number of households listed in the PSU and the probability of selection of a household in the selected rural PSU.

The probability of selecting a household from a selected rural PSU (f_2) of a specific state was computed as:

$$f_2 = \frac{f}{f_1}$$

where f, the domain sampling fraction (i.e., the probability of selecting an ever-married woman in the rural area of a state), is computed as:

$$f = \frac{n}{N}$$

where

n = number of ever-married rural women to be interviewed (after adjusting upward to account for nonresponse and other loss), and

N = projected rural population of ever-married women in the state in March 2006 (the midpoint of the NFHS-3 survey period).

The probability of selecting a PSU from a rural stratum of a state (f_1) was computed as:

$$f_1 = \frac{a * s_i}{\sum s_i}$$

where

a = number of rural PSUs selected from the stratum,

s_i = population size of the i^{th} PSU, and

Σs_i = total rural population of the stratum.

Sample selection in urban areas

The following discussion refers to sampling in all the urban areas of the states in which no separate city estimates were planned. In Andhra Pradesh, Madhya Pradesh, Maharashtra, Uttar Pradesh, Tamil Nadu, and West Bengal, the following procedure was adopted for sampling in all urban areas excluding the cities in which slum/non-slum estimates were planned. This procedure was not applied to sampling in urban areas of Delhi.

Sampling frame. In urban areas, the sampling frame for the first stage of selection was the list of all the wards in a state. The Primary Census Abstract (PCA) provides details of all the wards in each city or town in urban areas. The list was arranged by geographical regions and then by female literacy. A sample of urban wards was drawn from the list of wards by PPS sampling.

Sample selection at the second and third stages. As mentioned earlier, the sample of households from a selected ward was drawn by adopting two-stage sampling. A ward in a

township is a large area comprising a large number of households. Each ward comprises several enumeration blocks (CEB) created for the census. A list of all the CEBs in a selected ward formed the sampling frame at the second stage. Such lists of CEBs in the selected wards were made available for use for NFHS-3 by the census office on request. Each CEB is comprised of about 150-200 households. A sample of households from a ward was drawn in two stages. One CEB was selected from each selected ward at the first stage. Then in each selected CEB, a household listing operation was carried out (similar to the listing operation in rural PSUs). The household listing provided the necessary frame for selecting households at the third stage. The selection of the required number of households from the list of households was done using systematic sampling. As in rural areas, systematically selected groups of five consecutive households, rather than a single household, were selected.

Similar to rural PSUs, the sample size of households was not the same in every urban PSU. The sample size of households in an urban PSU was obtained by applying the probability of selection of an ever-married woman in an urban PSU (f_3) to the total number of households listed in the urban PSU.

The domain sampling fraction, i.e., the probability of selecting an ever-married woman from an urban domain in a state (f), was computed as:

$$f = \frac{n}{N}$$

where

n = number of ever-married women to be interviewed from the urban domain (after adjusting upward to account for nonresponse and other loss), and

N = projected population of ever-married women in the urban domain in March 2006.

The probability of selecting a ward from an urban stratum (f_1) was computed as:

$$f_1 = \frac{a * s_i}{\sum s_i}$$

where

a = number of wards selected from the stratum,

s_i = population size of the i^{th} ward, and

Σs_i = total population of the urban stratum.

The probability of selecting a CEB from a selected ward (f_2) was computed as:

$$f_2 = \frac{B_i}{\sum B_i}$$

where

B_i = population size of the i^{th} CEB, and

ΣB_i = total population of the ward.

The probability of selecting a household from a selected block (f_3) was computed as:

$$f_3 = \frac{f}{f_1 * f_2}$$

Sample selection in eight cities

In the eight cities for which separate indicators for slum and non-slum areas were to be provided, a different sampling procedure was adopted. As mentioned above, sample households in the cities were selected with a two-stage sampling design. At the first stage CEBs were selected and at the second stage households were selected. In each city, slum and non-slum PSUs were selected independently from the respective lists of slum and non-slum CEBs. For the estimation of the number of households and the selection of households from the selected slum/non-slum PSUs (CEBs), a procedure similar to that used for rural and urban PSUs was adopted.

Sampling frame. As mentioned above, although the Census of India collects and compiles data by CEBs, that information is not published. However, on special request for NFHS-3, the Registrar General of India made available CEB-wise data for the eight cities for which slum and non-slum estimates were to be provided. Two separate lists of all the slum CEBs and non-slum CEBs in all the wards of each city served as two separate sampling frames at the first stage of selection. From each sampling frame, slum and non-slum PSUs were selected using PPS sampling. The houselisting carried out in each of the selected CEBs served as the sampling frame for the selection of households.

Sample weights

The basic objective of weighting sample data is to try and maximize the representativeness of the sample in terms of the size, distribution, and characteristics of the study population. When sample units have been selected with differing probabilities, it is common to weight the results inversely proportional to the unit selection probabilities, i.e., the design weight, so as to reflect the actual situation in the population. In a survey sample selected from a robust frame and well implemented with high response rates, the application of the design weight is all that is required. In practice, however, the situation is more complicated because of shortcomings in the selection and implementation of the sample.

In NFHS-3, two sets of weights are in operation. One set of weights is used for generating national-level indicators and another set is used for producing state-level indicators. Each set has the following different types of weights:

1. *Household weight* for estimating indicators such as the proportion of female-headed households and the percentage of children age 0-4 years whose birth was registered.
2. *Woman's weight* for generating indicators such as the contraceptive prevalence rate and the percentage of children age 12-23 months who are fully immunized.
3. *Man's weight* for estimation of indicators such as the proportion of men who have heard of AIDS.

4. *HIV weight* for women for generating indicators such as HIV prevalence by age for women.
5. *HIV weight* for men for generating indicators such as HIV prevalence by age for men.
6. *Domestic violence weight* for estimating indicators such as the proportion of married women who have ever experienced spousal violence.

Note that children of interviewed women are assigned the weight of their mother. Some child indicators are assessed at the household level; in such cases, children are assigned the weight of the household.

Calculation of sampling weights

Calculation of state and national household weights. The basic reasons for weighting primary data while estimating state-level indicators are:

a) To take care of the non-equal probability of selection in different domains, i.e., rural and urban areas and slum and non-slum areas in the seven states of Andhra Pradesh, Delhi, Madhya Pradesh, Maharashtra, Tamil Nadu, Uttar Pradesh, and West Bengal. In each state, the total sample size was distributed between urban and rural areas according to the proportion of urban-rural households. However, oversampling was done in urban areas in states with very small urban populations in order to have a sample large enough to yield stable estimates; oversampling was also done in the cities where slum and non-slum estimates were required in order to have large enough samples in the slum areas and the non-slum areas separately. Whatever the reason, oversampling of urban areas of some states leads to unequal probabilities of selection.

b) To take care of the differential non-response rates of household interviews in different domains, namely urban and rural areas and slum and non-slum areas of the eight cities.

To take care of the non-equal probabilities of selection in different domains, a design weight was computed. The household design weight W_{Di} for the i^{th} domain is the inverse of the sampling fraction for the i^{th} domain ($f_i = n_i/N_i$). To take care of differential nonresponse in different domains, the design weight for each domain is multiplied by the inverse of the response rates.

The household weight (W_{Hi}) for the i^{th} domain is then:

$$W_{Hi} = \frac{W_{Di}}{R_{Hi}}$$

where

R_{Hi} = response rate of the household interview (number of completed household interviews divided by the number of households selected for interview)

After adjustment for nonresponse, the weights are normalized so that the total number of weighted cases is equal to the total number of unweighted cases. This is done by multiplying W_{Hi} for each domain by the ratio of total number of unweighted cases to total number of weighted cases (obtained by applying weights before normalization to the number of cases in each domain).

The final state household weight is calculated as

$$\hat{W}_{Hi} = W_{Hi} * \left[\frac{\sum n_i}{\left(\sum W_{Hi} * n_i\right)} \right]$$

Because of the normalization of the state household weight at the state level, the normalized state household weight cannot be used for national indicators. A set of national weights is thus calculated. The final national household weight is based on the state household weight W_{Hi} (after correction for nonresponse and before normalization at the state level) normalized at the national level.

Calculation of state and national women's and men's weights. The state level and national level women's weights are derived exactly the same way as the household weights. The only difference is that the response rate of the household interview is replaced by the response rate of the household interview (R_{Hi}) times the response rate of the women's interview (R_{Wi}). The eligible women's weight is:

$$W_{Wi} = \frac{W_{Di}}{R_{Hi} * R_{Wi}}$$

Normalization of W_{Wi} at the individual state level gives the state's normalized women's weight; normalization at the national level for all states together gives the all-India normalized women's weight.

Men's weights are calculated in the same way by incorporating the men's response rates.

The state and national HIV household weights and HIV individual weights are also calculated in a similar fashion. The only difference is the normalization of the individual HIV weights. Since HIV prevalence is reported not only for women and men separately, but also for women and men together, the individual HIV weights must be normalized for women and men together at the individual state level and at the national level, respectively.

Calculation of state and national domestic violence weights. Unlike all other sections of the Woman's Questionnaire, the section on domestic violence was not administered to all women in the household. This was part of a strategy built into the questionnaire to maintain confidentiality and to protect respondents from any potential security-related problems. Only one eligible woman in each selected household was administered the section on domestic violence. In households with more than one eligible woman, the woman that the module was administered to was randomly selected through a specially designed simple selection procedure based on the

Kish Grid (see the NFHS-3 Household Questionnaire) which was built into the Household Questionnaire.

The selection of one woman per sample household implies that women who were selected for the domestic violence module of the questionnaire are a subsample of the entire NFHS-3 sample. This subsampling results in the need to generate one additional set of weights for estimating state and national indicators of domestic violence. The domestic violence weights (DW_{Wi}) are calculated the same way as other weights but they also take account of the number of eligible women in the household.

The domestic violence weight for women is:

$$DW_{Wi} = \frac{W_{Di}}{R_{Hi} * S_{Hi} * DR_{Wi}}$$

where

S_{Hi} = the inverse of the number of eligible women in the household, and
DR_{wi} = response rate of the women selected for the domestic violence module.

Normalization of DW_{Wi} at the individual state level gives the state's normalized domestic violence weight; normalization at the national level for all states together gives the all-India normalized domestic violence weight.

Sample implementation

NFHS-3 response rates for households, women, and men were discussed in Chapter 1, Section 1.7. Tables C.3.1 and C.3.2 provide additional information on the reasons for non-response for women and men, respectively. Response rates for HIV blood collection were estimated separately and were discussed in Chapter 12.

Table C.1 Regions by state

State	Region	2001 Census districts
Andhra Pradesh	I	Srikakulam, Vizianagaram, Visakhapatnam
	II	East Godavari, West Godavari, Krishna, Guntur
	III	Prakasam, Nellore
	IV	Chittoor, Cuddapah, Anantapur, Kurnool
	V	Mahbubnagar, Rangareddi, Hyderabad, Medak, Nizamabad, Adilabad, Nalgonda
	VI	Karimnagar, Warangal, Khammam
Arunachal Pradesh	I	Tawang, West Kameng, East Kameng
	II	Papumpare, Lower Subansiri, Upper Subansiri
	III	West Siang, East Siang, Upper Siang
	IV	Darrang, Lohit
	V	Tirap, Changlang
Assam	I	Goalpara, Kamrup, Marigaon, Nagaon, Darrang
	II	Dhubri, Bongaigaon, Barpeta, Nalbari, Sonitpur
	III	Golaghat, Jorhat, Sibsagar, Dibrugarh, Tinsukia, Karimganj, Hailakandi, Cachar
	IV	Lakhimpur, Dhemaji
	V	Karbi Anglong
Bihar	I	Saran, Siwan, Gopalganj, Pashchim Champaran, Purba Champaran
	II	Sitamarhi, Vaishali, Darbhanga, Madhubani, Samastipur, Muzaffarpur, Saharsa, Sheohar, Supaul
	III	Purnia, Araria, Kishanganj, Katihar, Madhepura
	IV	Patna, Bhojpur, Rohtas, Buxor, Kaimur (Bhabua)
	V	Munger, Khagaria, Bhagalpur, Banka, Jamui, Lakhisarai, Sheikhpura
	VI	Nalanda, Gaya, Jehanabad, Aurangabad, Nawada, Begusarai
Chhattisgarh	I	Koriya, Surguja, Bilaspur, Korba, Janjgir-champa, Jashpur, Raigarh
	II	Kawaedha, rajnandgao, Durg, Raipur, Mahasamund, Dhamtari
	III	Kanker, Bastar, Dantewada
Goa		Each district is one region
Gujarat	I	Jamnagar, Rajkot
	II	Surendranagar, Bhavnagar, Amreli
	III	Junagadh, Porbandar
	IV	Kachchh, Banaskantha
	V	Sabarkantha, Mahesana, Patan
	VI	Gandhinagar, Ahmedabad
	VII	Kheda, Anand
	VIII	Panch Mahals, Vadodara, Dohad
	IX	Bharuch, Surat, Valsad, The Dangs, Narmada, Navsari
Haryana	I	Faridabad, Gurgaon, Sonipat
	II	Ambala, Kaithal, Karnal, Kurukshetra, Panipat, Yamunanagar, Panchkula
	III	Bhiwani, Mahendragarh, Rewari, Sirsa
	IV	Hissar, Jind, Rohtak, Fatehbad, Jhajjar
Himachal Pradesh	I	Chamba, Lahaul-Spiti, Kinnaur
	II	Kangra, Hamirpur, Una, Mandi, Kullu
	III	Bilaspur, Shimla, Solan, Sirmaur
Jammu & Kashmir	I	Kargil, Leh
	II	Anantnag, Pulwama, Srinagar, Badgam, Baramulla
	III	Kupwara, Rajouri, Poonch
	IV	Doda, Udhampur, Kathua, Jammu
Jharkhand	I	Deogarh, Godda, sahibganj, Pakaur, Dumka
	II	Chatra, Hazaribagh, Kodarma, Giridh, Bokaro, Dhanbad
	III	Garhwa, Palamu, Lohardagga, Gumla, Ranchi, Pashchim Singhbhum, Purbi Singhbhum
Karnataka	I	Bidar, Bijapur, Gulbarga, Raichur, Bagalkot, Koppal
	II	Belgaum, Dharwad, Gadag, Haveri
	III	Dakshina Kannada, Kodagu, Uttara Kannada, Udupi
	IV	Chikmagalur, Shimoga
	V	Bangalore rural, Bellary, Chitradurga, Kolar, Tumkur, Davangere
	VI	Hassan, Mandya, Mysore, Chamrajnagar
Kerala		Each district is one region

Continued…

Table C.1 Regions by state—*Continued*

State	Region	2001 Census districts
Madhya Pradesh	I	Panna, Rewa, Satna, Sidhi, Shahdol, Chhatarpur, Tikamgarh, Umaria
	II	Raisen, Sagar, Damoh, Vidisha, Bhopal, Sehore
	III	Dewas, Dhar, Indore, Jhabua, Ujjain, Rajgarh, Ratlam, Mandsaur, Shajapur, Neemuch
	IV	Mandla, Jabalpur, Seoni, Narsimhapur, Chhindwara, Balaghat, Dindori, Katni
	V	Betul, Hoshangabad, East Nimar, West Nimar, Barwani, Harda
	VI	Gwalior, Bhind, Morena, Datia, Guna, Shivpuri, Sheopur
Maharashtra	I	Thane, Raigad, Ratnagiri, Sindhudurg
	II	Nasik, Dhule, Jalgaon, Nandurbar
	III	Ahmednagar, Pune, Satara, Sangli, Solapur, Kolhapur
	IV	Aurangabad, Jalna, Parbhani, Bid, Latur, Osmanabad, Buldhana, Akola, Amaravati, Washim, Hingoli
	V	Yeotmal, Wardha, Nagpur, Nanded
	VI	Bhandara, Chandrapur, Gadchiroli, Gondiya
Manipur	I	Senapati, Tamenglang, Ukhrul
	II	Churchandpur, Chandel
	III	Bishnupur , Imphal West, Imphal East, Toubal
Meghalaya	I	West Garo Hills
	II	East Garo Hills, South Garo Hills
	III	West Khasi Hills
	IV	Ri Bhoi, East Khasi Hills
	V	Jantia Hills
Mizoram	I	Kolasib, Mamit, Aizwal, Champhal, Serchip
	II	Lunglei
	III	Lawangttai, Saita
Nagaland	I	Tuensang, Mon
	II	Mokakchung, Zunhebota
	III	Wokha , Dimapur
	IV	Kohima , Phek
Orissa	I	Sundargarh, Kendujhar, Mayurbhanj
	II	Phulabani, Koraput, Baudh, Malkangiri, Navarangapur, Rayagada
	III	Sambalpur, Balangir, Kalahandi, Bargarh, Debagarh, Jharsuguda, Nuapada, Sonapur
	IV	Baleshwar, Cuttack, Ganjam, Puri, Dhenkanal, Anugul, Bhadrak, Gajapati, Jagatsinghpur, Jajapur, Kendrapara, Khordha, Nayagarh
Punjab	I	Gurdaspur, Amritsar, Firozpur
	II	Jalandhar, Kapurthala, Hoshiarpur, Rupnagar, Nawashahr
	III	Ludhiana, Patiala, Sangrur, Fatehgarh Sahib
	IV	Bhatinda, Faridkot, Mansa, Moga, Muktsar
Rajasthan	I	Ganganagar, Bikaner, Churu, Jaisalmer, Jodhpur, Nagaur, Pali, Barmer, Jalor, Sirohi, Hanuman garh
	II	Jhunjhunun, Alwar, Bharatpur, Dhaulpur, Sawai Madhopur, Jaipur, Sikar, Ajmer, Tonk, Bhilwara, Dausa, Karauli
	III	Dungarpur, Banswara, Udaipur, Rajasamand
	IV	Chhitaurgarh, Bundi, Kota, Jhalawar, Baran
Sikkim		Each district is one region
Tripura		Each district is one region
Tamil Nadu	I	Coimbatore, Dindigul Anna (Dindigul), Madurai (Madura and Theni), Periyar (Erode), Nilgiri
	II	North Arcot-Ambedkar (Vellore), Dharmapuri, Tiruvannamalai-Sambuvarayan, Salem (Salem and Namakal), Tiruchirappalli (Tiruchirapalli, Karur and Perambalur), Ariyalur
	III	Kanniyakumari
	IV	Chengalpattu-MGR (Kanchipuram and Tiruvallur), South Arcot (Cuddalore and Villupuram), Thanjavur, (Thanjavur, Nagappattinam and Tiruvarur), Chennal
	V	Pudukkottai, Pasumpon, Muthuramalinga Thevar (Sivagangai), Kamarajar (Virudhunagar), Ramanathapuram, Chidambaranar (Thootukudi), Tirunelveli Kattabomman (Tirunelveli)
Uttaranchal	I	Dehradun, Hardwar, Udham Singh Nagar
	II	Uttar Kashi, Tehri Garhwal, Rudra Prayag, Pauri Garhwal
	III	Chamoli, Bageshwar, Pitorgarh, Almora, Nainital, Champawat

Continued…

Table C.1 Regions by state—*Continued*

State	Region	2001 Census districts
Uttar Pradesh	I	Bijnor, Ghaziabad, Meerut, Moradabad, Rampur, Saharanpur, Muzzafarnagar, Agra, Aligarh, Bareilly, Budaun, Bulandshahr, Etah, Farrukhabad, Firozabad, Mainpuri, Pilibhit, Shahjahanpur, Etawah, Mathura, Auraiya, Baghpat, Goutam Buddha Nagar, Hathras, Jyotiba Phule Nagar, Kannauj
	II	Kheri, Hardoi, Rae Bareli, Sitapur, Barabanki, Fatehpur, Kanpur Dehat, Kanpur Nagar, Lucknow, Unnao
	III	Allahabad, Gonda, Pratapgarh, Sultanpur, Bahraich, Faizabad, Azamgarh, Basti, Deoria, Gorakhpur, Jaunpur, Maharajganj, Mau, Siddharthnagar, Ballia, Gazipur, Varanasi, Mirzapur, Sonbhadra, Ambedkar Nagar, Balrampur, Chandauli, Kaushambi, Kushinagar, Sant Kabir Nagar, Sant Ravidas Nagar, Shrawasti
	IV	Banda, Lalitpur, Hamirpur, Jalaun, Jhansi, Chitrakoot, Mahoba
West Bengal	I	Jalpaiguri, Darjeeling
	II	Koch Bihar, West Dinajpur (Uttar Dinajpur and Dakshin Dinajpur), Maldah, Murshidabad
	III	Nadia, Haora, Hugli, North Twenty-Four Parganas, South Twenty-Four Parganas, Barddhaman
	IV	Medinipur, Bankura, Birbhum
	V	Puruliya

Note: Delhi does not have regions.

Table C.2 Sample characteristics

State	2001 population[1]	Variables for rural stratification	Number of primary sampling units				
			Urban			Rural	Total
			Slum	Non-slum	Total		
Andhra Pradesh	76,208,158	Region (group of districts) HIV Prevalence Village size Percent of SC/ST population Female literacy (implicit)	28	31	91	104	195
Arunachal Pradesh	1,093,199	Region (group of districts) Village size Female literacy (implicit)	na	na	17	48	65
Assam	26,651,050	Region (group of districts) Village size Percent of SC/ST population Percent of males in nonagricultural work Female literacy (implicit)	na	na	29	58	87
Bihar	82,991,525	Region (group of districts) Village size Percent of SC/ST population Female literacy (implicit)	na	na	31	71	102
Chhattisgarh	20,832,242	Region (group of districts) Village size Female literacy Percent of SC/ST population (implicit)	na	na	30	64	94
Delhi	13,850,477	Village size Female literacy (implicit)	37	67	104	8	112
Goa	1,347,641	Region Village size Female literacy (implicit)	na	na	63	63	126
Gujarat	50,670,013	Region (group of districts) Village size Percent of SC/ST population Female literacy (implicit)	na	na	43	70	113
Haryana	21,144,059	Region (group of districts) Village size Percent of SC/ST population Female literacy (implicit)	na	na	29	62	91
Himachal Pradesh	6,064,355	Region (group of districts) Village size Percent of SC/ST population Female literacy (implicit)	na	na	34	72	106
Jammu & Kashmir	10,142,775	Region (group of districts) Village size Percent of SC/ST population Percent of males in nonagricultural work Female literacy (implicit)	na	na	32	65	97
Jharkhand	26,937,511	Region (group of districts) Village size Female literacy Percent of SC/ST population (implicit)	na	na	34	61	95
Karnataka	52,843,804	Region (group of districts) HIV Prevalence Village size Percent of SC/ST population Female literacy (implicit)	na	na	64	112	176
Kerala	31,841,187	Region (group of districts) Female literacy	na	na	34	91	125
Madhya Pradesh	60,336,893	Region (group of districts) Village size Percent of SC/ST population Female literacy (implicit)	30	33	94	92	186

Continued…

Table C.2 Sample characteristics—*Continued*

State	2001 population[1]	Variables for rural stratification	Number of primary sampling units				
			Urban			Rural	Total
			Slum	Non-slum	Total		
Maharashtra	96,874,368	Region (group of districts) HIV Prevalence Village size Percent of SC/ST population Percent of males in nonagricultural work Female literacy (implicit)	72	80	203	86	289
Manipur	2,166,589	Region (group of districts) HIV Prevalence Village size Female literacy (implicit)	na	na	57	98	155
Meghalaya	2,317,408	Region (group of districts) Village size Percent males in nonagricultural work Female literacy (implicit)	na	na	25	46	71
Mizoram	888,451	Region (group of districts) Village size Percent of SC/ST population (implicit)	na	na	31	33	64
Nagaland	1,990,021	Region (group of districts) HIV Prevalence Village size Female literacy (implicit)	na	na	76	125	201
Orissa	36,792,823	Region (group of districts) Village size Female literacy Percent of males in nonagricultural work Percent of SC/ST population (implicit)	na	na	32	83	115
Punjab	24,356,831	Region (group of districts) Village size Percent of SC/ST population Percent of males in nonagricultural work Female literacy (implicit)	na	na	34	65	99
Rajasthan	56,500,901	Region (group of districts) Village size Percent of SC/ST population Percent of males in nonagricultural work Female literacy (implicit)	na	na	32	74	106
Sikkim	540,768	Region Village size Percent of SC/ST population Female literacy (implicit)	na	na	19	41	60
Tamil Nadu	62,405,273	Region (group of districts) HIV Prevalence Village size Percent of SC/ST population Female literacy (implicit)	32	36	110	104	214
Tripura	3,199,145	Region Village size Percent of SC/ST population Female literacy (implicit)	na	na	17	39	56
Uttaranchal	8,480,537	Region (group of districts) Village size Percent of SC/ST population Female literacy (implicit)	na	na	32	66	98
Uttar Pradesh	166,171,011	Region (group of districts) Village size Percent of SC/ST population Percent of males in nonagricultural work Female literacy (implicit)	33	36	133	220	353

Continued…

Table C.2 Sample characteristics—*Continued*

State	2001 population[1]	Variables for rural stratification	Number of primary sampling units				
			Urban			Rural	Total
			Slum	Non-slum	Total		
West Bengal	80,171,814	Region (group of districts) Village size Percent of SC/ST population Percent of males in non-agricultural work Female literacy (implicit)	39	43	119	86	205
India	1,025,810,829		271	326	1,649	2,201	3,850

na = Not applicable
SC = Scheduled caste
ST = Scheduled tribe
[1] The population shown is the 2001 Census population, excluding persons living in villages with fewer that five households.

Table C.3.1 Sample implementation: Women

Percent distribution of households and eligible women by results of the household and individual interviews, and household, eligible women, and overall response rates, by residence, India, 2005-06

Result	Residence		Total
	Urban	Rural	
Selected households			
Completed (C)	92.3	94.5	93.5
Household present but no competent respondent at home (HP)	1.4	1.1	1.2
Postponed (P)	0.1	0.0	0.0
Refused (R)	1.4	0.2	0.8
Dwelling not found (DNF)	0.1	0.1	0.1
Household absent (HA)	2.2	2.0	2.1
Dwelling vacant/address not a dwelling (DV)	2.5	1.9	2.1
Dwelling destroy (DD)	0.1	0.2	0.1
Total	100.0	100.0	100.0
Number of sampled households	54,453	62,199	116,652
Household response rate (HRR)[1]	96.9	98.5	97.7
Eligible women			
Completed (EWC)	93.3	95.5	94.5
Not at home (EWNH)	3.4	2.6	2.9
Postponed (EWP)	0.1	0.0	0.1
Refused (EWR)	2.3	0.8	1.5
Partly completed (EWPC)	0.3	0.2	0.2
Incapacitated (EWI)	0.4	0.6	0.5
Other (EWO)	0.3	0.2	0.3
Total	100.0	100.0	100.0
Number of women	61,028	70,568	131,596
Eligible women response rate (EWRR)[2]	93.3	95.5	94.5
Overall response rate (ORR)[3]	90.4	94.1	92.4

[1] Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{100 * C}{C + HP + P + R + DNF}$$

[2] Using the number of eligible women falling into specific response categories, the eligible women response rate (EWRR) is calculated as:

$$\frac{100 * EWC}{EWC + EWNH + EWP + EWR + EWPC + EWI + EWO}$$

[3] The overall response rate (ORR) is calculated as:

$ORR = HRR * EWRR/100$

Table C.3.2 Sample implementation: Men

Percent distribution of households and eligible men by results of the household and individual interviews, and household, eligible men, and overall response rates, by residence, India, 2005-06

Result	Residence		Total
	Urban	Rural	
Selected households			
Completed (C)	91.8	94.3	93.1
Household present but no competent respondent at home (HP)	1.3	1.2	1.3
Postponed (P)	0.1	0.0	0.1
Refused (R)	1.7	0.2	0.9
Dwelling not found (DNF)	0.1	0.1	0.1
Household absent (HA)	2.2	2.1	2.1
Dwelling vacant/address not a dwelling (DV)	2.6	1.9	2.2
Dwelling destroyed (DD)	0.2	0.2	0.2
Total	100.0	100.0	100.0
Number of sampled households	36,313	37,661	73,974
Household response rate (HRR)[1]	96.6	98.4	97.5
Eligible men			
Completed (EMC)	84.6	89.9	87.1
Not at home (EMNH)	11.2	7.6	9.5
Postponed (EMP)	0.1	0.0	0.1
Refused (EMR)	3.0	1.1	2.1
Partly completed (EMPC)	0.1	0.1	0.1
Incapacitated (EMI)	0.5	0.8	0.7
Other (EMO)	0.4	0.4	0.4
Total	100.0	100.0	100.0
Number of men	45,133	40,240	85,373
Eligible men response rate (EMRR)[2]	84.6	89.9	87.1
Overall response rate (ORR)[3]	81.8	88.4	84.9

[1] Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{100 * C}{C + HP + P + R + DNF}$$

[2] Using the number of eligible men falling into specific response categories, the eligible men response rate (EMRR) is calculated as:

$$\frac{100 * EMC}{EMC + EMNH + EMP + EMR + EMPC + EMI + EMO}$$

[3] The overall response rate (ORR) is calculated as:

ORR = HRR * EMRR/100

ESTIMATES OF SAMPLING ERRORS

Appendix D

The estimates from a sample survey are affected by two types of errors: (1) nonsampling errors, and (2) sampling errors. Nonsampling errors are the results of mistakes made in implementing data collection and data processing, such as failure to locate and interview the correct household, misunderstanding of the questions on the part of either the interviewer or the respondent, and data entry errors. Although numerous efforts were made during the implementation of the third National Family Health Survey 2005-06 (NFHS-3) to minimize this type of error, nonsampling errors are impossible to avoid and difficult to evaluate statistically.

Sampling errors, on the other hand, can be evaluated statistically. The sample of respondents selected in NFHS-3 is only one of many samples that could have been selected from the same population, using the same design and expected size. Each of these samples would yield results that differ somewhat from the results of the actual sample selected. Sampling errors are a measure of the variability between all possible samples. Although the degree of variability is not known exactly, it can be estimated from the survey results.

A sampling error is usually measured in terms of the *standard error* for a particular statistic (mean, percentage, etc.), which is the square root of the variance. The standard error can be used to calculate confidence intervals within which the true value for the population can reasonably be assumed to fall. For example, for any given statistic calculated from a sample survey, the value of that statistic will fall within a range of plus or minus two times the standard error of that statistic in 95 percent of all possible samples of identical size and design.

If the sample of respondents had been selected as a simple random sample, it would have been possible to use straightforward formulas for calculating sampling errors. However, the NFHS-3 sample is the result of a multi-stage stratified design, and, consequently, it was necessary to use more complex formulae. The computer software used to calculate sampling errors for NFHS-3 is programmed in SAS. This procedure uses the Taylor linearization method for variance estimation for survey estimates that are means or proportions. The Jackknife repeated replication method is used for variance estimation of more complex statistics such as total fertility rate and child mortality rates.

The Taylor linearization method treats any percentage or average as a ratio estimate, $r = y/x$, where y represents the total sample value for variable y, and x represents the total number of cases in the group or subgroup under consideration. The variance of r is computed using the formula given below, with the standard error being the square root of the variance:

$$SE^2(r) = var(r) = \frac{1-f}{x^2}\sum_{h=1}^{H}\left[\frac{m_h}{m_h-1}\left(\sum_{i=1}^{m_h} z_{hi}^2 - \frac{z_h^2}{m_h}\right)\right]$$

in which

$$z_{hi} = y_{hi} - rx_{hi} \text{ , and } \quad z_h = y_h - rx_h$$

where h represents the stratum which varies from 1 to H,
m_h is the total number of clusters selected in the h^{th} stratum,
y_{hi} is the sum of the weighted values of variable y in the i^{th} cluster in the h^{th} stratum,
x_{hi} is the sum of the weighted number of cases in the i^{th} cluster in the h^{th} stratum, and
f is the overall sampling fraction, which is so small that it is ignored.

The Jackknife repeated replication method derives estimates of complex rates from each of several replications of the parent sample, and calculates standard errors for these estimates using simple formulae. Each replication considers *all but one* clusters in the calculation of the estimates. Pseudo-independent replications are thus created. In the NFHS-3 sample, there were 3850 non-empty clusters. Hence, 3850 replications were created. The variance of a rate r is calculated as follows:

$$SE^2(r) = var(r) = \frac{1}{k(k-1)} \sum_{i=1}^{k} (r_i - r)^2$$

in which

$$r_i = kr - (k-1)r_{(i)}$$

where r is the estimate computed from the full sample of 3850 clusters,
$r_{(i)}$ is the estimate computed from the reduced sample of 3849 clusters (i^{th} cluster excluded), and
k is the total number of clusters.

In addition to the standard error, the design effect (DEFT) for each estimate is also computed, which is defined as the ratio between the standard error using the given sample design and the standard error that would result if a simple random sample had been used. A DEFT value of 1.0 indicates that the sample design is as efficient as a simple random sample, while a value greater than 1.0 indicates the increase in the sampling error due to the use of a more complex and less statistically efficient design. Relative standard error (SE/R) and confidence limits (R±2SE) for each estimate are also computed.

Sampling errors for NFHS-3 are calculated for selected variables considered to be of primary interest for woman's survey and for man's surveys, respectively. The results are presented in this appendix for the country as a whole, and for the urban and rural areas. For each variable, the type of statistic (mean, proportion, or rate) and the base population are given in Table D.1. Table D.2 presents the value of the statistic (R), its standard error (SE), the number of unweighted (N) and weighted (WN) cases, the design effect (DEFT), the relative standard error (SE/R), and the 95 percent confidence limits (R±2SE), for each variable. The DEFT is

considered undefined when the standard error for a simple random sample is zero (when the estimate is close to 0 or 1). In the case of the total fertility rate, the number of unweighted cases is not relevant, as there is no known unweighted value for woman-years of exposure to childbearing.

Table D.1 List of variables for sampling errors, India, 2005-06

Variable	Estimate	Base population
Sex ratio (females per 1,000 males)	Ratio	De facto household population, all ages
No education	Proportion	De facto household population age 6+
Tuberculosis prevalence	Rate	100,000 usual household residents
Using adequately iodized salt	Proportion	Households
Urban residence	Proportion	Women/men age 15-49
No education	Proportion	Women/men age 15-49
Completed 12 or more years of education	Proportion	Women/men age 15-49
Never married, including married *gauna* not performed	Proportion	Women/men age 15-49
Currently married	Proportion	Women/men age 15-49
Married before age 18	Proportion	Women age 20-49
Married before age 21	Proportion	Men age 25-49
Children ever born	Mean	Women age 15-49
Children surviving	Mean	Women age 15-49
Ever used any contraceptive method	Proportion	Currently married women age 15-49
Currently using any method	Proportion	Currently married women age 15-49
Currently using a modern method	Proportion	Currently married women age 15-49
Currently using a traditional method	Proportion	Currently married women age 15-49
Currently using female sterilization	Proportion	Currently married women age 15-49
Currently using pill	Proportion	Currently married women age 15-49
Currently using IUD	Proportion	Currently married women age 15-49
Currently using condom	Proportion	Currently married women age 15-49
Using public medical sector source of contraception	Proportion	Women age 15-49 currently using modern methods of contraception
Want no more children	Proportion	Currently married women/men age 15-49
Want to delay next birth at least 2 years	Proportion	Currently married women/men age 15-49
Ideal number of children	Mean	Women/men age 15-49
Mother received ANC from health personnel	Proportion	Women with at least one birth in last five years (last birth)
Took iron or folic acid (IFA) for 90 days or more	Proportion	Women with at least one birth in last five years (last birth)
Births delivered by a skilled provider	Proportion	Births in last 5 years
Institutional delivery	Proportion	Births in last 5 years
Postpartum check for mother within 2 days of birth	Proportion	Women with at least one birth in last five years (last birth)
Treated with ORS packets	Proportion	Children under age 5 years with diarrhoea in last 2 weeks
Children with diarrhoea taken to a health provider	Proportion	Children under age 5 years with diarrhoea in last 2 weeks
Child's vaccination card seen by interviewer	Proportion	Children age 12-23 months
Child received BCG vaccination	Proportion	Children age 12-23 months
Child received DPT vaccination (3 doses)	Proportion	Children age 12-23 months
Child received polio vaccination (3 doses)	Proportion	Children age 12-23 months
Child received measles vaccination	Proportion	Children age 12-23 months
Child fully vaccinated	Proportion	Children age 12-23 months
Given vitamin A supplement in last 6 months	Proportion	Children age 6-59 months
Ever experienced physical or sexual violence	Proportion	Women age 15-49
Weight-for-height, wasting (below -2SD)	Proportion	Children under age 5 years who were measured
Height-for-age, stunting (below -2SD)	Proportion	Children under age 5 years who were measured
Weight-for-age, underweight (below -2SD)	Proportion	Children under age 5 years who were measured
Body mass index (BMI) < 18.5	Proportion	Women/men age 15-49 who were measured
Body mass index (BMI) ≥ 25.0	Proportion	Women/men age 15-49 who were measured
Have heard of AIDS	Proportion	Women/men age 15-49
Comprehensive knowledge about HIV/AIDS	Proportion	Women/men age 15-49
Total and age-specific fertility rates (last 3 years)	Rate	Women
Mortality rates	Rate	Births in last 5 years
Women/men with any anaemia	Proportion	Women/men age 15-49
Children with any anaemia	Proportion	Children age 6-59 months
HIV prevalence	Percentage	Women/men/total age 15-24, women/men/total age 15-49

Table D.2 Sampling errors, India, 2005-06

Variable/ residence	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative standard error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
Sex ratio (females per 1,000 males, all ages)								
Urban	939	5.331	116,901	82,562	1.732	0.006	928	949
Rural	1,030	4.220	140,198	175,144	1.416	0.004	1,021	1,038
Total	1,000	3.357	257,099	257,707	1.554	0.003	994	1,007
No education (household female population age 6+ years)								
Urban	0.253	0.006	98,040	69,184	3.790	0.024	0.241	0.265
Rural	0.486	0.004	124,562	156,130	2.465	0.008	0.479	0.494
Total	0.415	0.003	222,602	225,314	2.862	0.008	0.408	0.421
No education (household male population age 6+ years)								
Urban	0.125	0.004	104,202	73,341	3.381	0.034	0.116	0.133
Rural	0.265	0.004	120,273	148,779	2.477	0.014	0.258	0.273
Total	0.219	0.003	224,475	222,120	2.769	0.013	0.213	0.225
Tuberculosis prevalence (per 100,000 usual household residents)								
Urban	319	20.364	229,391	162,133	1.626	0.064	278	359
Rural	502	20.329	286,860	359,894	1.494	0.041	461	542
Total	445	15.377	516,251	522,027	1.605	0.035	414	475
Using adequately iodized salt (households)								
Urban	0.715	0.009	49,370	34,950	4.659	0.013	0.696	0.734
Rural	0.412	0.006	58,081	72,504	3.020	0.015	0.400	0.424
Total	0.511	0.005	107,451	107,455	3.466	0.010	0.500	0.521
Urban residence (women age 15-49)								
Total	0.328	0.006	124,385	124,385	4.314	0.018	0.317	0.340
Urban residence (men age 15-49)								
Total	0.366	0.006	69,834	69,751	3.438	0.017	0.353	0.378
No education (women age 15-49)								
Urban	0.220	0.007	56,961	40,817	3.949	0.031	0.206	0.233
Rural	0.497	0.005	67,424	83,568	2.689	0.010	0.487	0.507
Total	0.406	0.004	124,385	124,385	3.091	0.011	0.397	0.415
No education (men age 15-49)								
Urban	0.095	0.004	35,930	25,504	2.647	0.043	0.086	0.103
Rural	0.230	0.005	33,904	44,247	2.110	0.021	0.220	0.239
Total	0.180	0.003	69,834	69,751	2.378	0.019	0.173	0.187
Completed 12 or more years of education (women age 15-49)								
Urban	0.244	0.007	56,961	40,817	3.802	0.028	0.230	0.258
Rural	0.059	0.002	67,424	83,568	2.007	0.031	0.055	0.063
Total	0.120	0.003	124,385	124,385	2.846	0.022	0.114	0.125
Completed 12 or more years of education (men age 15-49)								
Urban	0.305	0.008	35,930	25,504	3.109	0.025	0.290	0.320
Rural	0.135	0.003	33,904	44,247	1.803	0.025	0.128	0.142
Total	0.197	0.004	69,834	69,751	2.357	0.018	0.190	0.204
Never married, including married *gauna* not performed (women age 15-49)								
Urban	0.253	0.003	56,961	40,817	1.699	0.012	0.247	0.259
Rural	0.181	0.002	67,424	83,568	1.471	0.012	0.177	0.185
Total	0.205	0.002	124,385	124,385	1.587	0.009	0.201	0.208
Never married, including married *gauna* not performed (men age 15-49)								
Urban	0.425	0.004	35,930	25,504	1.723	0.011	0.416	0.434
Rural	0.327	0.004	33,904	44,247	1.435	0.011	0.320	0.334
Total	0.363	0.003	69,834	69,751	1.580	0.008	0.357	0.369
Currently married (women age 15-49)								
Urban	0.701	0.003	56,961	40,817	1.665	0.005	0.694	0.707
Rural	0.772	0.002	67,424	83,568	1.420	0.003	0.767	0.776
Total	0.748	0.002	124,385	124,385	1.551	0.003	0.745	0.752
Currently married (men age 15-49)								
Urban	0.566	0.005	35,930	25,504	1.722	0.008	0.557	0.575
Rural	0.657	0.004	33,904	44,247	1.427	0.006	0.650	0.664
Total	0.624	0.003	69,834	69,751	1.574	0.005	0.618	0.629

Continued…

Table D.2 Sampling errors, India, 2005-06—*Continued*

Variable/ residence	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative standard error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
Married before age 18 (women age 20-49)								
Urban	0.415	0.007	46,580	33,355	3.180	0.018	0.400	0.429
Rural	0.662	0.004	53,850	66,219	2.074	0.006	0.654	0.671
Total	0.579	0.004	100,430	99,574	2.465	0.007	0.572	0.587
Married before age 21 (men age 25-49)								
Urban	0.249	0.007	22,412	16,068	2.446	0.028	0.235	0.263
Rural	0.467	0.006	21,884	28,685	1.719	0.012	0.456	0.479
Total	0.389	0.005	44,296	44,754	2.023	0.012	0.380	0.398
Children ever born (women age 15-49)								
Urban	1.874	0.019	56,961	40,817	2.424	0.010	1.836	1.912
Rural	2.446	0.013	67,424	83,568	1.537	0.005	2.419	2.472
Total	2.258	0.011	124,385	124,385	1.815	0.005	2.236	2.280
Children surviving (women age 15-49)								
Urban	1.717	0.016	56,961	40,817	2.294	0.009	1.686	1.749
Rural	2.131	0.011	67,424	83,568	1.496	0.005	2.109	2.152
Total	1.995	0.009	124,385	124,385	1.749	0.005	1.977	2.013
Ever used any contraceptive method (currently married women age 15-49)								
Urban	0.743	0.005	38,382	28,604	2.292	0.007	0.732	0.753
Rural	0.624	0.004	49,543	64,485	2.030	0.007	0.615	0.633
Total	0.660	0.004	87,925	93,089	2.194	0.005	0.653	0.667
Currently using any method (currently married women age 15-49)								
Urban	0.640	0.005	38,382	28,604	2.080	0.008	0.629	0.650
Rural	0.530	0.004	49,543	64,485	1.890	0.008	0.521	0.538
Total	0.563	0.003	87,925	93,089	2.022	0.006	0.557	0.570
Currently using a modern method (currently married women age 15-49)								
Urban	0.558	0.006	38,382	28,604	2.191	0.010	0.547	0.569
Rural	0.453	0.004	49,543	64,485	1.865	0.009	0.445	0.461
Total	0.485	0.003	87,925	93,089	2.024	0.007	0.479	0.492
Currently using a traditional method (currently married women age 15-49)								
Urban	0.081	0.003	38,382	28,604	2.315	0.040	0.075	0.088
Rural	0.076	0.002	49,543	64,485	1.742	0.027	0.072	0.081
Total	0.078	0.002	87,925	93,089	1.934	0.022	0.074	0.081
Currently using female sterilization (currently married women age 15-49)								
Urban	0.378	0.006	38,382	28,604	2.623	0.017	0.365	0.391
Rural	0.371	0.004	49,543	64,485	1.942	0.011	0.363	0.379
Total	0.373	0.004	87,925	93,089	2.168	0.009	0.366	0.380
Currently using pill (currently married women age 15-49)								
Urban	0.038	0.002	38,382	28,604	2.036	0.052	0.034	0.042
Rural	0.028	0.001	49,543	64,485	1.629	0.043	0.025	0.030
Total	0.031	0.001	87,925	93,089	1.777	0.034	0.029	0.033
Currently using IUD (currently married women age 15-49)								
Urban	0.032	0.002	38,382	28,604	1.885	0.053	0.029	0.036
Rural	0.011	0.001	49,543	64,485	1.271	0.055	0.010	0.012
Total	0.017	0.001	87,925	93,089	1.522	0.039	0.016	0.019
Currently using condom (currently married women age 15-49)								
Urban	0.098	0.003	38,382	28,604	2.096	0.033	0.091	0.104
Rural	0.032	0.001	49,543	64,485	1.418	0.035	0.030	0.035
Total	0.052	0.001	87,925	93,089	1.715	0.025	0.050	0.055
Using public medical sector source of contraception (women age 15-49 currently using modern methods of contraception)								
Urban	0.568	0.009	21,781	16,685	2.613	0.015	0.550	0.585
Rural	0.782	0.005	23,434	30,556	1.853	0.006	0.772	0.792
Total	0.706	0.005	45,215	47,241	2.166	0.007	0.697	0.716
Want no more children (currently married women age 15-49)								
Urban	0.739	0.004	38,382	28,604	1.650	0.005	0.732	0.747
Rural	0.690	0.003	49,543	64,485	1.507	0.005	0.683	0.696
Total	0.705	0.002	87,925	93,089	1.607	0.004	0.700	0.710
Want no more children (currently married men age 15-49)								
Urban	0.713	0.005	19,405	14,434	1.648	0.008	0.702	0.723
Rural	0.703	0.004	21,169	29,068	1.398	0.006	0.694	0.712
Total	0.706	0.003	40,574	43,501	1.518	0.005	0.699	0.713

Continued…

Table D.2 Sampling errors, India, 2005-06—*Continued*

Variable/ residence	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative standard error (SE/R)	Confidence limits	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
Want to delay next birth at least 2 years (currently married women age 15-49)								
Urban	0.102	0.003	38,382	28,604	1.674	0.025	0.096	0.107
Rural	0.124	0.002	49,543	64,485	1.402	0.017	0.120	0.128
Total	0.117	0.002	87,925	93,089	1.519	0.014	0.114	0.121
Want to delay next birth at least 2 years (currently married men age 15-49)								
Urban	0.124	0.004	19,405	14,434	1.582	0.030	0.116	0.131
Rural	0.126	0.003	21,169	29,068	1.440	0.026	0.119	0.132
Total	0.125	0.003	40,574	43,501	1.534	0.020	0.120	0.130
Ideal number of children (women age 15-49)								
Urban	2.065	0.012	55,745	39,967	3.774	0.006	2.040	2.090
Rural	2.409	0.010	65,178	81,213	2.736	0.004	2.389	2.429
Total	2.295	0.008	120,923	121,181	3.085	0.003	2.279	2.311
Ideal number of children (men age 15-49)								
Urban	2.087	0.013	35,405	25,138	2.965	0.006	2.060	2.114
Rural	2.343	0.011	33,195	43,367	2.174	0.005	2.321	2.365
Total	2.249	0.009	68,600	68,505	2.477	0.004	2.232	2.266
Mother received ANC from health personnel (women with at least one birth in last five years, last birth)								
Urban	0.894	0.008	14,527	10,626	3.041	0.009	0.878	0.909
Rural	0.687	0.006	22,323	29,051	2.070	0.009	0.675	0.700
Total	0.743	0.005	36,850	39,677	2.331	0.007	0.732	0.753
Took iron or folic acid (IFA) for 90 days or more (women with at least one birth in last five years, last birth)								
Urban	0.348	0.009	14,527	10,626	2.375	0.027	0.329	0.367
Rural	0.188	0.004	22,323	29,051	1.601	0.022	0.180	0.197
Total	0.231	0.004	36,850	39,677	1.807	0.017	0.223	0.239
Births delivered by a skilled provider (births in the last five years)								
Urban	0.735	0.012	19,483	14,303	3.009	0.016	0.711	0.758
Rural	0.375	0.007	32,072	42,135	2.082	0.018	0.361	0.388
Total	0.466	0.006	51,555	56,438	2.354	0.013	0.454	0.478
Institutional delivery (births in the last five years)								
Urban	0.675	0.013	19,483	14,303	3.111	0.019	0.649	0.700
Rural	0.289	0.006	32,072	42,135	2.085	0.021	0.277	0.301
Total	0.387	0.006	51,555	56,438	2.371	0.015	0.375	0.399
Postpartum check for mother within 2 days of birth (last birth in last five years)								
Urban	0.610	0.011	14,527	10,626	2.735	0.018	0.588	0.633
Rural	0.286	0.006	22,323	29,051	1.841	0.019	0.275	0.297
Total	0.373	0.005	36,850	39,677	2.135	0.014	0.362	0.384
Treated with ORS packets (children under age 5 years with diarrhoea in last 2 weeks)								
Urban	0.326	0.018	1,691	1,215	1.500	0.056	0.290	0.363
Rural	0.238	0.011	2,749	3,540	1.274	0.045	0.216	0.259
Total	0.260	0.009	4,440	4,755	1.365	0.035	0.242	0.279
Children with diarrhoea taken to a health provider (children under age 5 years with diarrhoea in last 2 weeks)								
Urban	0.645	0.018	1,691	1,215	1.483	0.028	0.608	0.681
Rural	0.582	0.013	2,749	3,540	1.339	0.023	0.556	0.608
Total	0.598	0.011	4,440	4,755	1.426	0.018	0.577	0.620
Child's vaccination card seen by interviewer (children age 12-23 months)								
Urban	0.462	0.014	3,666	2,723	1.741	0.031	0.433	0.490
Rural	0.345	0.009	5,916	7,696	1.461	0.026	0.327	0.363
Total	0.375	0.008	9,582	10,419	1.572	0.020	0.360	0.391
Child received BCG vaccination (children age 12-23 months)								
Urban	0.869	0.010	3,666	2,723	1.801	0.012	0.848	0.889
Rural	0.751	0.009	5,916	7,696	1.622	0.012	0.732	0.769
Total	0.781	0.007	9,582	10,419	1.756	0.009	0.767	0.796
Child received DPT vaccination (3 doses) (children age 12-23 months)								
Urban	0.691	0.014	3,666	2,723	1.875	0.021	0.662	0.720
Rural	0.504	0.010	5,916	7,696	1.553	0.020	0.484	0.525
Total	0.553	0.009	9,582	10,419	1.700	0.015	0.536	0.570
Child received polio vaccination (3 doses) (children age 12-23 months)								
Urban	0.831	0.010	3,666	2,723	1.623	0.012	0.810	0.851
Rural	0.765	0.008	5,916	7,696	1.509	0.011	0.749	0.782
Total	0.782	0.007	9,582	10,419	1.613	0.009	0.769	0.796

Continued…

Table D.2 Sampling errors, India, 2005-06—*Continued*

Variable/ residence	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative standard error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
Child received measles vaccination (children age 12-23 months)								
Urban	0.718	0.013	3,666	2,723	1.767	0.018	0.691	0.744
Rural	0.542	0.010	5,916	7,696	1.549	0.018	0.522	0.562
Total	0.588	0.008	9,582	10,419	1.682	0.014	0.571	0.605
Child fully vaccinated (children age 12-23 months)								
Urban	0.576	0.015	3,666	2,723	1.789	0.025	0.547	0.605
Rural	0.386	0.009	5,916	7,696	1.470	0.024	0.367	0.404
Total	0.435	0.008	9,582	10,419	1.606	0.018	0.419	0.451
Given vitamin A supplement in last 6 months (children age 6-59 months)								
Urban	0.197	0.007	16,926	12,417	2.188	0.037	0.182	0.211
Rural	0.177	0.005	27,097	35,324	1.805	0.026	0.168	0.186
Total	0.182	0.004	44,023	47,742	1.960	0.021	0.175	0.190
Ever experienced physical or sexual violence (women age 15-49)								
Urban	0.294	0.007	37,877	27,371	2.792	0.022	0.281	0.307
Rural	0.383	0.005	45,826	56,332	2.187	0.013	0.373	0.392
Total	0.354	0.004	83,703	83,703	2.398	0.011	0.346	0.361
Weight-for-height, wasting (children under age 5 years who were measured and are below -2SD)								
Urban	0.169	0.005	15,694	11,337	1.762	0.032	0.159	0.180
Rural	0.207	0.004	26,846	35,318	1.414	0.017	0.200	0.214
Total	0.198	0.003	42,540	46,655	1.564	0.015	0.192	0.204
Height-for-age, stunting (children under age 5 years who were measured and are below -2SD)								
Urban	0.396	0.008	15,694	11,337	1.906	0.020	0.380	0.412
Rural	0.507	0.005	26,846	35,318	1.553	0.010	0.498	0.517
Total	0.480	0.004	42,540	46,655	1.698	0.009	0.472	0.489
Weight-for-age, underweight (children under age 5 years who were measured and are below -2SD)								
Urban	0.327	0.008	15,694	11,337	1.942	0.024	0.311	0.342
Rural	0.456	0.005	26,846	35,318	1.539	0.011	0.446	0.466
Total	0.425	0.004	42,540	46,655	1.701	0.010	0.416	0.433
Body mass index (BMI) < 18.5 (women age 15-49 who were measured)								
Urban	0.250	0.005	50,690	36,366	2.364	0.018	0.241	0.259
Rural	0.406	0.003	61,293	75,416	1.724	0.008	0.400	0.413
Total	0.356	0.003	111,983	111,781	1.972	0.008	0.350	0.361
Body mass index (BMI) < 18.5 (men age 15-49 who were measured)								
Urban	0.265	0.005	32,583	23,304	1.962	0.018	0.256	0.275
Rural	0.384	0.004	32,384	42,438	1.633	0.011	0.375	0.393
Total	0.342	0.003	64,967	65,742	1.818	0.010	0.335	0.349
Body mass index (BMI) >= 25.0 (women age 15-49 who were measured)								
Urban	0.235	0.005	50,690	36,366	2.520	0.020	0.225	0.244
Rural	0.074	0.002	61,293	75,416	1.646	0.024	0.071	0.078
Total	0.126	0.002	111,983	111,781	2.085	0.016	0.122	0.131
Body mass index (BMI) >= 25.0 (men age 15-49 who were measured)								
Urban	0.159	0.004	32,583	23,304	1.960	0.025	0.151	0.167
Rural	0.056	0.002	32,384	42,438	1.428	0.032	0.052	0.060
Total	0.093	0.002	64,967	65,742	1.678	0.020	0.089	0.096
Have heard of HIV/AIDS (women age 15-49)								
Urban	0.832	0.007	56,961	40,817	4.163	0.008	0.819	0.845
Rural	0.500	0.006	67,424	83,568	3.157	0.012	0.488	0.512
Total	0.609	0.005	124,385	124,385	3.565	0.008	0.599	0.619
Have heard of HIV/AIDS (men age 15-49)								
Urban	0.948	0.003	35,930	25,504	2.687	0.003	0.942	0.954
Rural	0.771	0.005	33,904	44,247	2.355	0.007	0.760	0.782
Total	0.836	0.004	69,834	69,751	2.656	0.004	0.828	0.843
Comprehensive knowledge about HIV/AIDS (women age 15-49)								
Urban	0.303	0.007	56,961	40,817	3.692	0.023	0.289	0.317
Rural	0.110	0.003	67,424	83,568	2.403	0.026	0.104	0.115
Total	0.173	0.003	124,385	124,385	2.940	0.018	0.167	0.179
Comprehensive knowledge about HIV/AIDS (men age 15-49)								
Urban	0.466	0.008	35,930	25,504	2.882	0.016	0.451	0.481
Rural	0.251	0.005	33,904	44,247	1.988	0.019	0.242	0.261
Total	0.330	0.004	69,834	69,751	2.383	0.013	0.321	0.338

Continued…

Table D.2 Sampling errors, India, 2005-06—*Continued*

Variable/ residence	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative standard error (SE/R)	Confidence limits	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
Total fertility rate (last 3 years)								
Urban	2.064	0.038	na	115,817	1.999	0.019	1.988	2.141
Rural	2.977	0.039	na	234,526	1.573	0.013	2.900	3.055
Total	2.679	0.031	na	350,344	1.754	0.011	2.617	2.740
(15-19) age specific fertility rate (last 3 years)								
Urban	0.057	0.003	na	23,000	1.832	0.044	0.052	0.061
Rural	0.105	0.002	na	51,462	1.426	0.021	0.101	0.110
Total	0.090	0.002	na	74,461	1.589	0.019	0.087	0.094
(20-24) age specific fertility rate (last 3 years)								
Urban	0.166	0.004	na	21,969	1.744	0.022	0.159	0.173
Rural	0.231	0.003	na	44,583	1.399	0.013	0.225	0.236
Total	0.209	0.002	na	66,552	1.550	0.011	0.205	0.214
(25-29) age specific fertility rate (last 3 years)								
Urban	0.123	0.003	na	19,511	1.579	0.025	0.117	0.130
Rural	0.146	0.003	na	39,498	1.313	0.017	0.141	0.152
Total	0.139	0.002	na	59,010	1.430	0.014	0.135	0.143
(30-34) age specific fertility rate (last 3 years)								
Urban	0.048	0.002	na	17,367	1.571	0.045	0.044	0.053
Rural	0.069	0.002	na	34,469	1.378	0.031	0.065	0.074
Total	0.062	0.002	na	51,836	1.484	0.026	0.059	0.066
(35-39) age specific fertility rate (last 3 years)								
Urban	0.013	0.001	na	15,467	1.600	0.096	0.011	0.016
Rural	0.031	0.002	na	29,493	1.299	0.048	0.028	0.034
Total	0.025	0.001	na	44,959	1.433	0.043	0.023	0.027
(40-44) age specific fertility rate (last 3 years)								
Urban	0.004	0.001	na	12,116	1.630	0.209	0.002	0.006
Rural	0.009	0.001	na	23,505	1.242	0.098	0.007	0.011
Total	0.007	0.001	na	35,621	1.381	0.089	0.006	0.009
(45-49) age specific fertility rate (last 3 years)								
Urban	0.001	0.000	na	6,387	1.342	0.479	0.000	0.002
Rural	0.004	0.001	na	11,517	1.239	0.207	0.002	0.006
Total	0.003	0.001	na	17,904	1.356	0.192	0.002	0.004
Neonatal mortality (0-4 years)								
Urban	28.5	1.794	19,680	14,435	1.480	0.063	24.9	32.1
Rural	42.5	1.369	32,322	42,443	1.185	0.032	39.8	45.3
Total	39.0	1.130	52,002	56,878	1.314	0.029	36.7	41.2
Post-neonatal mortality (0-4 years)								
Urban	13.0	1.217	19,788	14,530	1.515	0.093	10.6	15.5
Rural	19.7	0.996	32,357	42,454	1.285	0.051	17.7	21.7
Total	18.0	0.807	52,145	56,984	1.404	0.045	16.4	19.6
Infant mortality (0-4 years)								
Urban	41.5	2.175	19,705	14,452	1.467	0.052	37.2	45.9
Rural	62.2	1.721	32,369	42,516	1.241	0.028	58.8	65.7
Total	57.0	1.417	52,074	56,968	1.363	0.025	54.1	59.8
Child mortality (0-4 years)								
Urban	10.6	1.063	20,014	14,775	1.465	0.100	8.5	12.7
Rural	21.0	1.083	32,709	43,087	1.360	0.051	18.9	23.2
Total	18.4	0.860	52,723	57,862	1.482	0.047	16.6	20.1
Under-five mortality (0-4 years)								
Urban	51.7	2.532	19,791	14,519	1.519	0.049	46.6	56.8
Rural	82.0	1.999	32,642	42,897	1.270	0.024	78.0	86.0
Total	74.3	1.661	52,433	57,416	1.401	0.022	71.0	77.6
Women with any anaemia (women age 15-49 years)								
Urban	0.509	0.005	49,813	36,967	2.421	0.010	0.499	0.520
Rural	0.574	0.004	62,901	79,888	1.916	0.007	0.566	0.581
Total	0.553	0.003	112,714	116,855	2.107	0.006	0.547	0.559
Men with any anaemia (men age 15-49 years)								
Urban	0.177	0.005	30,018	22,773	2.179	0.026	0.168	0.186
Rural	0.277	0.005	30,369	41,963	1.828	0.016	0.268	0.286
Total	0.242	0.003	60,387	64,736	2.037	0.014	0.235	0.249

Continued…

Table D.2 Sampling errors, India, 2005-06—*Continued*

Variable/ residence	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative standard error (SE/R)	Confidence limits	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
Children with any anaemia (children age 6-59 months)								
Urban	0.630	0.008	13,445	10,133	1.850	0.012	0.614	0.645
Rural	0.715	0.004	23,687	32,255	1.534	0.006	0.706	0.724
Total	0.695	0.004	37,132	42,388	1.665	0.006	0.687	0.702
HIV prevalence (women age 15-24)								
Urban	0.161	0.075	9,365	6,382	1.805	0.464	0.012	0.311
Rural	0.092	0.029	10,332	13,896	0.983	0.318	0.034	0.151
Total	0.114	0.031	19,697	20,278	1.289	0.272	0.052	0.176
HIV prevalence (men age 15-24)								
Urban	0.113	0.049	9,149	6,025	1.399	0.435	0.015	0.211
Rural	0.080	0.028	8,016	10,465	0.886	0.350	0.024	0.136
Total	0.092	0.025	17,165	16,490	1.091	0.275	0.041	0.142
HIV prevalence (men and women age 15-24)								
Urban	0.138	0.046	18,514	12,408	1.674	0.331	0.046	0.229
Rural	0.087	0.020	18,348	24,361	0.940	0.236	0.046	0.128
Total	0.104	0.021	36,862	36,768	1.223	0.197	0.063	0.145
HIV prevalence (women age 15-49)								
Urban	0.287	0.056	25,738	17,475	1.682	0.195	0.175	0.399
Rural	0.182	0.023	27,115	35,856	0.890	0.127	0.136	0.228
Total	0.216	0.024	52,853	53,332	1.189	0.111	0.168	0.265
HIV prevalence (men age 15-49)								
Urban	0.411	0.065	24,240	16,502	1.578	0.158	0.281	0.541
Rural	0.324	0.044	22,810	30,009	1.166	0.135	0.237	0.412
Total	0.355	0.037	47,050	46,512	1.331	0.103	0.282	0.428
HIV prevalence (men and women age 15-49)								
Urban	0.347	0.044	49,978	33,978	1.676	0.127	0.259	0.435
Rural	0.247	0.027	49,925	65,866	1.215	0.109	0.193	0.301
Total	0.281	0.023	99,903	99,843	1.391	0.083	0.234	0.328

DATA QUALITY TABLES

Appendix E

Table E.1 Household age distribution

Single-year age distribution of the de facto household population by sex (weighted), India, 2005-06

	Women		Men			Women		Men	
Age	Number	Percent	Number	Percent	Age	Number	Percent	Number	Percent
0	5,458	2.1	5,699	2.2	37	1,872	0.7	1,779	0.7
1	5,038	2.0	5,697	2.2	38	3,378	1.3	3,146	1.2
2	5,226	2.0	5,839	2.3	39	1,490	0.6	1,327	0.5
3	5,632	2.2	6,122	2.4	40	7,032	2.7	7,689	3.0
4	5,546	2.2	6,068	2.4	41	1,086	0.4	1,057	0.4
5	5,566	2.2	6,152	2.4	42	2,589	1.0	2,714	1.1
6	6,432	2.5	6,795	2.6	43	1,417	0.5	1,228	0.5
7	6,121	2.4	6,309	2.4	44	1,147	0.4	1,146	0.4
8	6,788	2.6	7,104	2.8	45	5,499	2.1	6,710	2.6
9	5,169	2.0	5,487	2.1	46	1,405	0.5	1,421	0.6
10	6,795	2.6	7,661	3.0	47	1,343	0.5	1,183	0.5
11	4,681	1.8	5,113	2.0	48	1,859	0.7	2,190	0.8
12	7,022	2.7	7,633	3.0	49	790	0.3	950	0.4
13	6,380	2.5	6,430	2.5	50	2,481	1.0	4,781	1.9
14	4,633	1.8	5,408	2.1	51	1,883	0.7	875	0.3
15	4,794	1.9	4,710	1.8	52	3,318	1.3	1,673	0.6
16	5,488	2.1	5,104	2.0	53	1,503	0.6	892	0.3
17	4,443	1.7	4,273	1.7	54	1,168	0.5	716	0.3
18	6,367	2.5	6,209	2.4	55	5,294	2.1	2,786	1.1
19	3,863	1.5	3,504	1.4	56	1,228	0.5	2,257	0.9
20	6,855	2.7	5,650	2.2	57	691	0.3	1,124	0.4
21	3,349	1.3	3,498	1.4	58	1,159	0.4	1,854	0.7
22	5,749	2.2	5,109	2.0	59	420	0.2	626	0.2
23	3,911	1.5	3,455	1.3	60	6,152	2.4	5,489	2.1
24	3,457	1.3	3,397	1.3	61	350	0.1	447	0.2
25	7,736	3.0	6,492	2.5	62	1,013	0.4	1,162	0.5
26	3,858	1.5	3,537	1.4	63	416	0.2	502	0.2
27	3,264	1.3	3,066	1.2	64	261	0.1	447	0.2
28	4,969	1.9	4,354	1.7	65	4,153	1.6	4,147	1.6
29	2,213	0.9	1,946	0.8	66	269	0.1	422	0.2
30	8,167	3.2	7,574	2.9	67	257	0.1	385	0.1
31	1,669	0.6	1,560	0.6	68	538	0.2	557	0.2
32	4,236	1.6	3,879	1.5	69	214	0.1	222	0.1
33	2,088	0.8	1,734	0.7	70+	8,250	3.2	8,422	3.3
34	2,022	0.8	1,760	0.7	Don't know/missing	35	0.0	14	0.0
35	8,338	3.2	8,585	3.3					
36	2,518	1.0	2,453	1.0	Total	257,801	100.0	257,707	100.0

Note: The de facto population includes residents and nonresidents who stayed in the household the night before the interview.

Table E.2.1 Age distribution of eligible and interviewed women

De facto household population of women age 10-54, interviewed women age 15-49, and percentage of eligible women who were interviewed (weighted), by five-year age groups, India, 2005-06

Age group	Household population of women age 10-54	Interviewed women age 15-49		Percentage of eligible women interviewed
		Number	Percent	
10-14	29,511	na	na	na
15-19	24,954	23,779	19.2	95.3
20-24	23,320	22,092	17.8	94.7
25-29	22,040	20,969	16.9	95.1
30-34	18,183	17,421	14.0	95.8
25-39	17,596	16,830	13.6	95.6
40-44	13,271	12,686	10.2	95.6
45-49	10,895	10,312	8.3	94.6
50-54	10,353	na	na	na
15-49	130,259	124,088	100.0	95.3

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before the interview. For all columns, the age distribution is taken from the ages reported on the Household Questionnaire. The total number of interviewed women in this table differs from the number in earlier tables because this table uses household weights rather than individual weights for the calculations.
na = Not applicable

Table E.2.2 Age distribution of eligible and interviewed men

De facto household population of men age 10-59, interviewed men age 15-54, and percentage of eligible men who were interviewed (weighted), India, 2005-06

Age group	Household population of men age 10-59	Interviewed men age 15-54		Percentage of eligible men interviewed
		Number	Percent	
10-14	21,150	na	na	na
15-19	14,570	13,113	17.6	90.0
20-24	13,290	11,723	15.8	88.2
25-29	12,247	10,720	14.4	87.5
30-34	10,528	9,256	12.4	87.9
25-39	11,007	9,727	13.1	88.4
40-44	8,962	7,906	10.6	88.2
45-49	7,942	7,073	9.5	89.1
50-54	5,531	4,850	6.5	87.7
55-59	5,609	na	na	na
15-54	84,078	74,369	100.0	88.5

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before the interview. For all columns, the age distribution is taken from the ages reported on the Household Questionnaire. The total number of interviewed men in this table differs from the number in earlier tables because this table uses household weights rather than individual weights for the calculations.
na = Not applicable

Table E.3 Completeness of reporting

Percentage of observations missing information for selected demographic and health questions/measures (weighted), India, 2005-06

Subject	Reference group	Percentage with missing information	Number of cases
Birth date	Births in the 15 years before the survey		
Month only		1.23	180,641
Month and year		0.17	180,641
Age at death	Deceased children born in the 15 years preceding the survey	0.09	16,424
Age/date at first marriage[1]			
Women	Ever-married women age 15-49	0.11	98,923
Men	Ever-married men age 15-54	0.06	49,422
Respondent's education			
Women	Women age 15-49	0.01	124,385
Men	Men age 15-54	0.02	74,369
Diarrhoea in past two weeks	Children age 0-59 months	0.40	52,868
Anthropometry: Women	Women age 15-49 (from the Household Questionnaire)		
Height		8.44	130,259
Weight		8.42	130,259
Height or weight		8.46	130,259
Anthropometry: Men	Men age 15-54 (from the Household Questionnaire)		
Height		16.37	84,078
Weight		16.31	84,078
Height or weight		16.39	84,078
Anthropometry: Children	Children age 0-59 months (from the Household Questionnaire)		
Height		11.83	56,084
Weight		11.46	56,084
Height or weight		11.86	56,084
Anaemia			
Women	Women age 15-49 (from the Household Questionnaire)	10.27	130,259
Men	Men age 15-54 (from the Household Questionnaire)	17.69	84,078
Children	Children age 6-59 months (from the Household Questionnaire)	16.31	50,651

[1] Both year and age missing.

Table E.4 Births by calendar year

Number of births, percentage with complete birth date, sex ratio at birth, and calendar year ratio by calendar year, according to living (L), dead (D), and total (T) children (weighted), India, 2005-06

	Number of births			Percentage with complete birth date[1]			Sex ratio at birth[2]			Calendar year ratio[3]		
Calendar year	L	D	T	L	D	T	L	D	T	L	D	T
2006	2,116	88	2,204	100.0	100.0	100.0	940	873	938	na	na	na
2005	10,699	572	11,271	100.0	100.0	100.0	952	807	944	na	na	na
2004	10,494	620	11,114	100.0	99.8	100.0	899	807	894	na	na	na
2003	10,584	796	11,380	100.0	99.7	100.0	881	1,079	893	99.8	108.1	100.3
2002	10,716	853	11,569	100.0	100.0	100.0	938	1,201	956	100.3	106.1	100.8
2001	10,774	812	11,587	100.0	98.6	99.9	904	1,068	914	97.8	92.0	97.4
2000	11,318	914	12,232	99.8	97.2	99.6	928	1,043	936	100.7	89.7	99.8
1999	11,699	1,226	12,925	98.5	94.3	98.1	931	949	933	100.7	111.4	101.6
1998	11,914	1,288	13,203	98.7	94.7	98.3	930	908	928	101.2	98.0	100.9
1997	11,849	1,403	13,252	98.3	94.6	97.9	925	959	929	106.0	108.4	106.2
2000-2004	53,886	3,995	57,881	99.9	99.0	99.9	910	1,045	919	na	na	na
1995-1999	58,122	6,653	64,775	98.4	94.7	98.0	927	953	930	na	na	na
1990-1994	50,387	6,823	57,210	97.9	93.9	97.4	916	998	925	na	na	na
1985-1989	39,591	6,639	46,230	97.1	92.7	96.5	957	937	954	na	na	na
<1985	33,341	7,959	41,301	96.3	91.8	95.4	901	864	894	na	na	na
All	248,142	32,730	280,872	98.2	94.0	97.7	923	944	926	na	na	na

na = Not applicable

[1] Both year and month of birth given.

[2] $(B_f/B_m) \times 1000$, where B_f and B_m are the numbers of female and male births, respectively.

[3] $[2B_x/(B_{x-1}+B_{x+1})] \times 100$, where B_x is the number of births in calendar year x.

Table E.5 Reporting of age at death in days

Distribution of reported deaths under one month of age by age at death in days and the percentage of neonatal deaths reported to occur at ages 0-6 days, for five-year periods of birth preceding the survey (weighted), India, 2005-06

	Number of years preceding the survey				
Age at death (days)	0-4	5-9	10-14	15-19	0-19
<1	703	988	931	847	3,468
1	367	501	499	376	1,742
2	137	216	215	183	751
3	224	336	244	228	1,031
4	88	104	137	122	451
5	91	140	138	144	512
6	77	87	139	109	412
7	49	108	141	105	403
8	73	110	128	128	439
9	31	47	61	46	185
10	41	51	57	75	225
11	23	29	21	19	92
12	22	20	64	47	154
13	14	17	23	26	80
14	9	26	13	17	65
15	93	138	126	83	439
16	7	15	16	15	53
17	5	17	9	14	45
18	6	17	26	4	53
19	9	2	6	8	25
20	42	52	38	50	182
21	20	24	16	21	81
22	9	17	28	12	66
23	3	0	3	2	8
24	3	5	0	3	11
25	11	13	23	11	58
26	0	1	7	5	13
27	7	3	9	3	22
28	1	3	6	3	13
29	5	0	3	6	14
30	0	2	2	2	7
Missing	0	2	0	2	4
Total 0-30 days	2,169	3,088	3,131	2,712	11,100
Percent early neonatal[1]	77.7	76.8	73.5	74.0	75.4

[1] ≤6 days/≤30days

Table E.6 Reporting of age at death in months

Distribution of reported deaths under two years of age by age at death in months and the percentage of infant deaths reported to occur at age under one month, for five-year periods of birth preceding the survey, India, 2005-06

	Number of years preceding the survey				
Age at death (months)	0-4	5-9	10-14	15-19	0-19
<1[a]	2,169	3,091	3,133	2,715	11,107
1	244	283	327	341	1,195
2	121	183	177	198	679
3	134	142	191	173	639
4	68	102	109	96	376
5	55	103	84	73	316
6	91	174	191	203	659
7	38	60	76	80	254
8	57	93	79	82	311
9	49	117	78	122	366
10	39	69	100	74	282
11	28	61	82	78	248
12	41	140	205	166	552
13	20	55	43	48	166
14	15	19	34	37	106
15	17	21	21	22	81
16	5	13	12	13	43
17	10	12	4	8	33
18	73	120	130	102	424
19	4	2	6	4	15
20	4	4	2	6	16
21	0	5	4	12	21
22	3	4	3	10	21
23	6	10	11	16	43
1 year	48	136	192	202	578
Missing	2	0	2	0	4
Total 0-11 months	3,093	4,477	4,629	4,235	16,433
Percent neonatal[1]	70.1	69.0	67.7	64.1	67.6

[a] Includes deaths under one month reported in days.
[1] <1 month/<12 months

SURVEY INSTRUMENTS

Appendix F

The three core questionnaires (the Household Questionnaire, the Woman's Questionnaire, and the Man's Questionnaire) used in NFHS-3 are presented in this appendix. These questionnaires were used in all 29 states. However, since the fieldwork for NFHS-3 was conducted in two phases that spanned parts of two calendar years (2005 and 2006), the reference period for questions/sections that were reference-period specific was different for Phase 1 and Phase 2 states[1]. The table below gives a list of the affected sections and questions with the reference year for the two phases of fieldwork.

Questionnaire	Section and question number	Reference year	
		Phase 1 states	Phase 2 states
Household	Biomarkers for children (Qs. 69-84)	2000	2001
Woman's	Section 2: Q. 225, Q. 226, Q. 228, Q. 229, and Qs. 233-239	2000	2001
	Section 3: Q. 302, Q. 314, Q. 343, and Q. 344	2000	2001
	Section 4: Qs. 401-477	2000	2001
	Section 4: Qs. 478-482	2002	2003
	Section 5: Qs. 501-556 and Q. 576	2000	2001
	Section 5A: Qs. 577-591	1999	2000
	Calendar	2000	2001

NFHS-3 questionnaires, shown here in English, were translated into 18 languages. Questionnaires in each state were bilingual, with questions in both the principal language of the state and English.

[1] Fieldwork was conducted from November 2005 to May 2006 (Phase 1) in Andhra Pradesh, Assam, Chhattisgarh, Delhi, Gujarat, Maharashtra, Meghalaya, Orissa, Punjab, Rajasthan, Uttar Pradesh, and West Bengal. Fieldwork was conducted from April 2006 to August 2006 (Phase 2) in Arunachal Pradesh, Bihar, Goa, Haryana, Himachal Pradesh, Jammu and Kashmir, Jharkhand, Karnataka, Kerala, Manipur, Madhya Pradesh, Mizoram, Nagaland, Sikkim, Tamil Nadu, Tripura, and Uttaranchal.

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Questionnaire Number_____

NATIONAL FAMILY HEALTH SURVEY, INDIA 2005-2006 (NFHS- 3)
HOUSEHOLD QUESTIONNAIRE [STATE NAME]

IDENTIFICATION

STATE _____ ☐☐

DISTRICT _____

TEHSIL/TALUK _____

CITY/TOWN/VILLAGE _____

MEGA CITY/LARGE CITY/SMALL CITY/LARGETOWN/SMALL TOWN/RURAL ..... ☐
(MEGA CITY=1, LARGE CITY=2, SMALL CITY=3, LARGE TOWN=4, SMALL TOWN=5, RURAL=6)

PSU NUMBER ..... ☐☐☐

HOUSEHOLD NUMBER ..... ☐☐☐☐

NAME OF HOUSEHOLD HEAD _____

ADDRESS OF HOUSEHOLD _____

HOUSEHOLD IS SELECTED FOR MAN'S INTERVIEW?
(YES = 1, NO = 2) ..... ☐

HOUSEHOLD IS SELECTED FOR HIV TESTING?
(YES = 1, NO = 2) ..... ☐

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE				DAY ☐☐
				MONTH ☐☐
				YEAR ☐☐☐☐
INTERVIEWER'S NAME				INT. NUMBER ☐☐☐
RESULT*				RESULT CODE ☐
NEXT VISIT: DATE				TOTAL NUMBER OF VISITS ☐
TIME				

*RESULT CODES:

1 COMPLETED
2 NO HOUSEHOLD MEMBER AT HOME OR NO COMPETENT RESPONDENT AT HOME AT TIME OF VISIT
3 ENTIRE HOUSEHOLD ABSENT FOR EXTENDED PERIOD OF TIME
4 POSTPONED
5 REFUSED
6 DWELLING VACANT OR ADDRESS NOT A DWELLING
7 DWELLING DESTROYED
8 DWELLING NOT FOUND
9 OTHER _____ (SPECIFY)

TOTAL PERSONS IN HOUSEHOLD ☐☐

TOTAL ELIGIBLE WOMEN ☐☐

TOTAL ELIGIBLE MEN ☐☐

LINE NO. OF RESPONDENT TO HOUSEHOLD QUESTIONNAIRE ☐☐

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
NAME _____	NAME _____		
DATE _____ ☐☐☐	DATE _____ ☐☐☐	☐☐	☐☐

INTRODUCTION AND INFORMED CONSENT

Namaste. My name is _____ and I am working with (NAME OF ORGANIZATION). We are conducting a national survey about the health of women, men, and children, including information on household membership, living conditions, and use of health facilities. We would very much appreciate the participation of your household in this survey. I would like to ask you some questions about your household. The survey usually takes about 25 minutes to complete. Whatever information you provide will be kept strictly confidential.

Participation in this survey is voluntary and you can choose not to answer any question or all of the questions. However, we hope that you will participate in this survey since your participation is important.

At this time, do you want to ask me anything about the survey?
ANSWER ANY QUESTIONS AND ADDRESS RESPONDENT'S CONCERNS.

In case you need more information about the survey, you may contact these persons.
GIVE CARD WITH CONTACT INFORMATION.

May I begin the interview now?

Signature of interviewer: _____ Date: _____

RESPONDENT AGREES TO BE INTERVIEWED . . . 1 ↓ BEGIN INTERVIEW

RESPONDENT DOES NOT AGREE TO BE INTERVIEWED . . . 2→ END

HOUSEHOLD SCHEDULE

Now we would like some information about the people who usually live in your household or who are staying with you now.

LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	RESIDENCE		AGE	MARITAL STATUS	ELIGIBILITY			BIRTH REGISTRATION
	Please give me the names of the persons who usually live in your household and guests of the household who stayed here last night, starting with the head of the household.	What is the relationship of (NAME) to the head of the household? (A)	Is (NAME) male or female?	Does (NAME) usually live here?	Did (NAME) stay here last night?	How old is (NAME)? (B)	**IF AGE 10 OR OLDER** What is the current marital status of (NAME)? (C)	CIRCLE LINE NUMBER OF ALL WOMEN AGE 15-49	CIRCLE LINE NUMBER OF ALL MEN AGE 15-54	CIRCLE LINE NUMBER OF ALL CHILDREN UNDER AGE 6	**IF AGE 0-4** Does (NAME) have a birth certificate? IF NO: Has (NAME)'s birth ever been registered with the civil authority?(D)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
			M F	YES NO	YES NO	IN YEARS					C R N DK
01			1 2	1 2	1 2			01	01	01	1 2 3 8
02			1 2	1 2	1 2			02	02	02	1 2 3 8
03			1 2	1 2	1 2			03	03	03	1 2 3 8
04			1 2	1 2	1 2			04	04	04	1 2 3 8
05			1 2	1 2	1 2			05	05	05	1 2 3 8
06			1 2	1 2	1 2			06	06	06	1 2 3 8
07			1 2	1 2	1 2			07	07	07	1 2 3 8
08			1 2	1 2	1 2			08	08	08	1 2 3 8
09			1 2	1 2	1 2			09	09	09	1 2 3 8
10			1 2	1 2	1 2			10	10	10	1 2 3 8
11			1 2	1 2	1 2			11	11	11	1 2 3 8
12			1 2	1 2	1 2			12	12	12	1 2 3 8
13			1 2	1 2	1 2			13	13	13	1 2 3 8
14			1 2	1 2	1 2			14	14	14	1 2 3 8
15			1 2	1 2	1 2			15	15	15	1 2 3 8

LINE NO.	SURVIVORSHIP AND RESIDENCE OF BIOLOGICAL PARENTS		EDUCATION							
	IF AGE 0-17 YEARS		**IF AGE 5 YEARS OR OLDER**			**IF AGE 5-18 YEARS**				**IF NO ON Q.18**
	Does (NAME)'s natural mother live in this household or did she stay here last night? IF YES: What is her name? RECORD MOTHER'S LINE NUMBER. IF NO: Is she alive? IF DEAD, RECORD '95'. IF ALIVE BUT NOT LISTED IN THE HOUSEHOLD, RECORD '00'.	Does (NAME)'s natural father live in this household or did he stay here last night? IF YES: What is his name? RECORD FATHER'S LINE NUMBER. IF NO: Is he alive? IF DEAD, RECORD '95'. IF ALIVE BUT NOT LISTED IN THE HOUSEHOLD, RECORD '00'.	Can (NAME) read and write?	Has (NAME) ever attended school?	What is the highest standard (NAME) has completed? (E)	Did (NAME) attend school or college at any time during the 2005 - 2006 school year?	During this/that school year, what standard/ year is/was (NAME) attending? (E)	Did (NAME) attend school or college at any time during the previous school year, that is, 2004 - 2005?	During that school year, what standard/ year did (NAME) attend? (E)	What is the main reason (NAME) is not attending school? (F)
(12A)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
			YES NO	YES NO	STANDARD	YES NO	STANDARD	YES NO	STANDARD	REASON
01			1 2	1 2 → GO TO 23		1 2 → GO TO 20		1 2 → GO TO 22		
02			1 2	1 2 → GO TO 23		1 2 → GO TO 20		1 2 → GO TO 22		
03			1 2	1 2 → GO TO 23		1 2 → GO TO 20		1 2 → GO TO 22		
04			1 2	1 2 → GO TO 23		1 2 → GO TO 20		1 2 → GO TO 22		
05			1 2	1 2 → GO TO 23		1 2 → GO TO 20		1 2 → GO TO 22		
06			1 2	1 2 → GO TO 23		1 2 → GO TO 20		1 2 → GO TO 22		
07			1 2	1 2 → GO TO 23		1 2 → GO TO 20		1 2 → GO TO 22		
08			1 2	1 2 → GO TO 23		1 2 → GO TO 20		1 2 → GO TO 22		
09			1 2	1 2 → GO TO 23		1 2 → GO TO 20		1 2 → GO TO 22		
10			1 2	1 2 → GO TO 23		1 2 → GO TO 20		1 2 → GO TO 22		
11			1 2	1 2 → GO TO 23		1 2 → GO TO 20		1 2 → GO TO 22		
12			1 2	1 2 → GO TO 23		1 2 → GO TO 20		1 2 → GO TO 22		
13			1 2	1 2 → GO TO 23		1 2 → GO TO 20		1 2 → GO TO 22		
14			1 2	1 2 → GO TO 23		1 2 → GO TO 20		1 2 → GO TO 22		
15			1 2	1 2 → GO TO 23		1 2 → GO TO 20		1 2 → GO TO 22		

LINE NO.	CHILD LABOUR						
	IF AGE 5-14 YEARS						
	During the past week, did (NAME) do any kind of work for someone who is not a member of this household? IF YES: For pay? 1 YES, FOR PAY (CASH OR KIND) 2 YES, UNPAID 3 NO	Since last (DAY OF THE WEEK), about how many hours did he/she do this work for someone who is not a member of this household? (G) IF MORE THAN ONE JOB, INCLUDE ALL HOURS AT ALL JOBS	At any time during the past year, did (NAME) do any kind of work for someone who is not a member of this household? IF YES: For pay? 1 YES, FOR PAY (CASH OR KIND) 2 YES, UNPAID 3 NO	During the past week, did (NAME) help with household chores such as shopping, collecting firewood, cleaning, fetching water, or caring for children?	Since last (DAY OF THE WEEK), about how many hours did he/she spend doing these chores? (G)	During the past week, did (NAME) do any other family work, such as work on the farm, or in a business or selling goods in the street?	Since last (DAY OF THE WEEK), about how many hours did he/she do this work? (G)
(22A)	(23)	(24)	(25)	(26)	(27)	(28)	(29)
	YES PAID UNPAID NO	HOURS	YES PAID UNPAID NO	YES NO	HOURS	YES NO	HOURS
01	1 2 3 → GO TO 25	→ GO TO 26	1 2 3	1 2 → GO TO 28		1 2 → GO TO NEXT LINE	
02	1 2 3 → GO TO 25	→ GO TO 26	1 2 3	1 2 → GO TO 28		1 2 → GO TO NEXT LINE	
03	1 2 3 → GO TO 25	→ GO TO 26	1 2 3	1 2 → GO TO 28		1 2 → GO TO NEXT LINE	
04	1 2 3 → GO TO 25	→ GO TO 26	1 2 3	1 2 → GO TO 28		1 2 → GO TO NEXT LINE	
05	1 2 3 → GO TO 25	→ GO TO 26	1 2 3	1 2 → GO TO 28		1 2 → GO TO NEXT LINE	
06	1 2 3 → GO TO 25	→ GO TO 26	1 2 3	1 2 → GO TO 28		1 2 → GO TO NEXT LINE	
07	1 2 3 → GO TO 25	→ GO TO 26	1 2 3	1 2 → GO TO 28		1 2 → GO TO NEXT LINE	
08	1 2 3 → GO TO 25	→ GO TO 26	1 2 3	1 2 → GO TO 28		1 2 → GO TO NEXT LINE	
09	1 2 3 → GO TO 25	→ GO TO 26	1 2 3	1 2 → GO TO 28		1 2 → GO TO NEXT LINE	
10	1 2 3 → GO TO 25	→ GO TO 26	1 2 3	1 2 → GO TO 28		1 2 → GO TO NEXT LINE	
11	1 2 3 → GO TO 25	→ GO TO 26	1 2 3	1 2 → GO TO 28		1 2 → GO TO NEXT LINE	
12	1 2 3 → GO TO 25	→ GO TO 26	1 2 3	1 2 → GO TO 28		1 2 → GO TO NEXT LINE	
13	1 2 3 → GO TO 25	→ GO TO 26	1 2 3	1 2 → GO TO 28		1 2 → GO TO NEXT LINE	
14	1 2 3 → GO TO 25	→ GO TO 26	1 2 3	1 2 → GO TO 28		1 2 → GO TO NEXT LINE	
15	1 2 3 → GO TO 25	→ GO TO 26	1 2 3	1 2 → GO TO 28		1 2 → GO TO NEXT LINE	

TICK HERE IF CONTINUATION QUESTIONNAIRE USED ☐

4A Just to make sure that I have a complete household listing:

a) Are there any other persons such as small children or infants that we have not listed? YES ☐ → ENTER EACH IN TABLE NO ☐

b) Are there any other people who may not be members of your family such as domestic servants, lodgers or friends who usually live here? YES ☐ → ENTER EACH IN TABLE NO ☐

c) Are there any guests or temporary visitors staying here, or anyone else who stayed here last night, who have not been listed? YES ☐ → ENTER EACH IN TABLE NO ☐

(A) CODES FOR Q. 3
RELATIONSHIP TO HEAD OF HOUSEHOLD:
01 = HEAD
02 = WIFE OR HUSBAND
03 = SON OR DAUGHTER
04 = SON-IN-LAW OR DAUGHTER-IN-LAW
05 = GRANDCHILD
06 = PARENT
07 = PARENT-IN-LAW
08 = BROTHER OR SISTER
09= BROTHER-IN-LAW OR SISTER-IN-LAW
10 = NIECE/NEPHEW
11 = OTHER RELATIVE
12 = ADOPTED/FOSTER/STEP-CHILD
13 = DOMESTIC SERVANT
14 = OTHER NOT RELATED
98 = DON'T KNOW

(B) CODES FOR Q. 7
AGE
00 = AGE LESS THAN ONE YEAR
95 = AGE 95 YEARS OR MORE

(C) CODES FOR Q. 8
MARITAL STATUS
1 = CURRENTLY MARRIED
2 = MARRIED, BUT GAUNA NOT PERFORMED
3 = WIDOWED
4 = DIVORCED
5 = SEPARATED
6 = DESERTED
7 = NEVER MARRIED
8 = DON'T KNOW

(D) CODES FOR Q. 12
BIRTH REGISTRATION
C = CERTIFICATE
R = REGISTRATION
N = NEITHER
DK = DON'T KNOW

(E) CODES FOR Qs. 17, 19, AND 21
EDUCATION STANDARD:
00 = LESS THAN 1 YEAR COMPLETED
(FOR Q.17 ONLY. THIS CODE IS NOT ALLOWED FOR Qs. 19 AND 21)
98 = DON'T KNOW

(F) CODES FOR Q. 22
REASON FOR NOT ATTENDING SCHOOL
01 = SCHOOL TOO FAR AWAY
02 = TRANSPORT NOT AVAILABLE
03 = FURTHER EDUCATION NOT CONSIDERED NECESSARY
04 = REQUIRED FOR HOUSEHOLD WOR
05 = REQUIRED FOR WORK ON FARM/FAMILY BUSINESS
06 = REQUIRED FOR OUTSIDE WORK FOR PAYMENT IN CASH OR KIND
07 = COSTS TOO MUCH
08 = NO PROPER SCHOOL FACILITIES FOR GIRLS
09=NOT SAFE TO SEND GIRLS
10 = NO FEMALE TEACHER
11 = REQUIRED FOR CARE OF SIBLINGS
12 = NOT INTERESTED IN STUDIES
13 = REPEATED FAILURES
14 = GOT MARRIED
15= DID NOT GET ADMISSION
96 = OTHER
98 = DON'T KNOW

(G) CODES FOR Qs. 24, 27, AND 29
HOURS WORKED:
00 = LESS THAN 1 HOUR
95 = 95 HOURS OR MORE

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
30	Does any usual resident of your household suffer from tuberculosis?	YES . . . . . 1 NO 2	→ 32
31	Who suffers from tuberculosis? Anyone else? RECORD LINE NUMBER(S). IF NO MORE TB CASES, RECORD '95'.	31A FOR EACH PERSON, ASK: Has (NAME) received medical treatment for the tuberculosis? LINE NO. [ ][ ] YES 1 NO 2 LINE NO. [ ][ ] YES 1 NO 2 LINE NO. [ ][ ] YES 1 NO 2 LINE NO. [ ][ ] YES 1 NO 2	
32	What is the main source of drinking water for members of your household?	PIPED WATER PIPED INTO DWELLING . . . . . 11 PIPED TO YARD/PLOT . . . . . 12 → 37 PUBLIC TAP/STANDPIPE . . . . . 13 TUBE WELL OR BOREHOLE . . . . . 21 DUG WELL PROTECTED WELL . . . . . 31 UNPROTECTED WELL . . . . . 32 → 34 WATER FROM SPRING PROTECTED SPRING . . . . . 41 UNPROTECTED SPRING . . . . . 42 RAINWATER . . . . . 51 → 37 TANKER TRUCK . . . . . 61 CART WITH SMALL TANK . . . . . 71 SURFACE WATER (RIVER/DAM/ LAKE/POND/STREAM/CANAL/ IRRIGATION CHANNEL) . . . . . 81 → 34 BOTTLED WATER . . . . . 91 OTHER _____ 96 → 34 (SPECIFY)	
33	What is the main source of water used by your household for other purposes such as cooking and handwashing?	PIPED WATER PIPED INTO DWELLING . . . . . 11 PIPED TO YARD/PLOT . . . . . 12 → 37 PUBLIC TAP/STANDPIPE . . . . . 13 TUBE WELL OR BOREHOLE . . . . . 21 DUG WELL PROTECTED WELL . . . . . 31 UNPROTECTED WELL . . . . . 32 WATER FROM SPRING PROTECTED SPRING . . . . . 41 UNPROTECTED SPRING . . . . . 42 RAINWATER . . . . . 51 → 37 TANKER TRUCK . . . . . 61 CART WITH SMALL TANK . . . . . 71 SURFACE WATER (RIVER/DAM/ LAKE/POND/STREAM/CANAL/ IRRIGATION CHANNEL) . . . . . 81 OTHER _____ 96 (SPECIFY)	
34	Where is the water source located?	IN OWN DWELLING . . . . . 1 IN OWN YARD/PLOT . . . . . 2 → 37 ELSEWHERE 3	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
35	How long does it take to go there, get water, and come back in one trip?	MINUTES . . . . . [ ][ ][ ] ON THE PREMISES . . . . . 996 DON'T KNOW 998	→ 37
36	Who usually goes to this source to fetch the water for your household?	ADULT WOMAN . . . . . 1 ADULT MAN . . . . . 2 FEMALE CHILD UNDER AGE 15 YEARS . . . . . 3 MALE CHILD UNDER AGE 15 YEARS . . . . . 4 OTHER _____ 6 (SPECIFY)	
37	Do you treat your water in any way to make it safer to drink?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 39
38	What do you usually do to the water to make it safer to drink? Anything else? RECORD ALL MENTIONED.	BOIL . . . . . A USE ALUM . . . . . B ADD BLEACH/CHLORINE TABLETS . . . C STRAIN THROUGH A CLOTH . . . . . D USE WATER FILTER (CERAMIC/ SAND/COMPOSITE/ETC.) . . . . . E USE ELECTRONIC PURIFIER . . . . . F LET IT STAND AND SETTLE . . . . . G OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
39	What kind of toilet facility do members of your household usually use?	FLUSH OR POUR FLUSH TOILET FLUSH TO PIPED SEWER SYSTEM . . . . . 11 FLUSH TO SEPTIC TANK . . . . . 12 FLUSH TO PIT LATRINE . . . . . 13 FLUSH TO SOMEWHERE ELSE . . . 14 FLUSH, DON'T KNOW WHERE . . . . . 15 PIT LATRINE VENTILATED IMPROVED PIT (VIP)/BIOGAS LATRINE . . . . . 21 PIT LATRINE WITH SLAB . . . . . 22 PIT LATRINE WITHOUT SLAB/ OPEN PIT . . . . . 23 TWIN PIT/COMPOSTING TOILET . . . . . 31 DRY TOILET . . . . . 41 NO FACILITY/USES OPEN SPACE OR FIELD . . . . . 51 OTHER _____ 96 (SPECIFY)	→ 42
40	Do you share this toilet facility with other households?	YES . . . . . 1 NO 2	→ 42
41	How many households use this toilet facility?	NO. OF HOUSEHOLDS IF LESS THAN 10 . . . . . [0][ ] 10 OR MORE HOUSEHOLDS . . . . . 95 DON'T KNOW 98	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
42	When members of your household get sick, where do they generally go for treatment?	PUBLIC MEDICAL SECTOR GOVT./MUNICIPAL HOSPITAL . . . . . 11 GOVT. DISPENSARY . . . . . 12 UHC/UHP/UFWC . . . . . 13 CHC/RURAL HOSPITAL/PHC . . . . . 14 SUB-CENTRE . . . . . 15 ANGANWADI/ICDS CENTRE . . . . . 16 GOVT. MOBILE CLINIC . . . . . 17 OTHER PUBLIC SECTOR HEALTH FACILITY . . . . . 18 NGO OR TRUST HOSPITAL/CLINIC . . . 21 PRIVATE MEDICAL SECTOR PVT. HOSPITAL . . . . . 31 PVT. DOCTOR/CLINIC . . . . . 32 PVT. PARAMEDIC . . . . . 33 VAIDYA/HAKIM/HOMEOPATH . . . . . 34 TRADITIONAL HEALER . . . . . 35 PHARMACY/DRUGSTORE . . . . . 36 DAI (TBA) . . . . . 37 OTHER PRIVATE SECTOR HEALTH FACILITY . . . . . 38 OTHER SHOP . . . . . 41 HOME TREATMENT . . . . . 42 OTHER _____ 96 (SPECIFY)	→ 44
43	Why don't members of your household generally go to a government facility when they are sick? Any other reason? RECORD ALL MENTIONED.	NO NEARBY FACILITY . . . . . A FACILITY TIMING NOT CONVENIENT . . . B HEALTH PERSONNEL OFTEN ABSENT . C WAITING TIME TOO LONG . . . . . D POOR QUALITY OF CARE . . . . . E OTHER _____ X (SPECIFY)	
44	What is the religion of the head of the household?	HINDU . . . . . 01 MUSLIM . . . . . 02 CHRISTIAN . . . . . 03 SIKH . . . . . 04 BUDDHIST/NEO-BUDDHIST . . . . . 05 JAIN . . . . . 06 JEWISH . . . . . 07 PARSI/ZOROASTRIAN . . . . . 08 NO RELIGION . . . . . 09 OTHER _____ 96 (SPECIFY)	
45	What is the caste or tribe of the head of the household?	CASTE _____ 1 (SPECIFY) TRIBE _____ 2 (SPECIFY) NO CASTE/TRIBE . . . . . 3 DON'T KNOW 8	→ 47
46	Is this a scheduled caste, a scheduled tribe, other backward class, or none of them?	SCHEDULED CASTE . . . . . 1 SCHEDULED TRIBE . . . . . 2 OBC . . . . . 3 NONE OF THEM 4	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
47	Does your household have:	YES NO	
	Electricity?	ELECTRICITY 1 2	
	A mattress?	MATTRESS 1 2	
	A pressure cooker?	PRESSURE COOKER 1 2	
	A chair?	CHAIR 1 2	
	A cot or bed?	COT/BED 1 2	
	A table?	TABLE 1 2	
	An electric fan?	ELECTRIC FAN 1 2	
	A radio or transistor?	RADIO/TRANSISTOR 1 2	
	A black and white television?	B & W TELEVISION 1 2	
	A colour television?	COLOUR TELEVISION 1 2	
	A sewing machine?	SEWING MACHINE 1 2	
	A mobile telephone?	MOBILE TELEPHONE 1 2	
	Any other type of telephone?	ANY OTHER TELEPHONE 1 2	
	A computer?	COMPUTER 1 2	
	A refrigerator?	REFRIGERATOR 1 2	
	A watch or clock?	WATCH/CLOCK 1 2	
	A bicycle?	BICYCLE 1 2	
	A motorcycle or scooter?	MOTORCYCLE/SCOOTER 1 2	
	An animal-drawn cart?	ANIMAL-DRAWN CART 1 2	
	A car?	CAR 1 2	
	A water pump?	WATER PUMP 1 2	
	A thresher?	THRESHER 1 2	
	A tractor?	TRACTOR 1 2	
48	What type of fuel does your household mainly use for cooking?	ELECTRICITY . . . . . 01 LPG/NATURAL GAS . . . . . 02 BIOGAS . . . . . 03 KEROSENE . . . . . 04 COAL/LIGNITE . . . . . 05 CHARCOAL . . . . . 06 WOOD . . . . . 07 STRAW/SHRUBS/GRASS . . . . . 08 AGRICULTURAL CROP WASTE . . . . . 09 DUNG CAKES . . . . . 10 OTHER _____ 96 (SPECIFY)	→ 51
49	In this household, is food cooked on a stove, a chullah or an open fire?	STOVE . . . . . 1 CHULLAH . . . . . 2 OPEN FIRE . . . . . 3 OTHER _____ 6 (SPECIFY)	
50	Is the cooking done under a chimney?	YES . . . . . 1 NO 2	
51	Is the cooking usually done in the house, in a separate building, or outdoors?	IN THE HOUSE . . . . . 1 IN A SEPARATE BUILDING . . . . . 2 OUTDOORS . . . . . 3 OTHER _____ 6 (SPECIFY)	→ 53
52	Do you have a separate room which is used as a kitchen?	YES . . . . . 1 NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
53	MAIN MATERIAL OF THE FLOOR. RECORD OBSERVATION.	NATURAL FLOOR MUD/CLAY/EARTH . . . . . 11 SAND . . . . . 12 DUNG . . . . . 13 RUDIMENTARY FLOOR RAW WOOD PLANKS . . . . . 21 PALM/BAMBOO . . . . . 22 BRICK . . . . . 23 STONE . . . . . 24 FINISHED FLOOR PARQUET OR POLISHED WOOD . . . 31 VINYL OR ASPHALT . . . . . 32 CERAMIC TILES . . . . . 33 CEMENT . . . . . 34 CARPET . . . . . 35 POLISHED STONE/MARBLE/ GRANITE . . . . . 36 OTHER _____ 96 (SPECIFY)	
54	MAIN MATERIAL OF THE ROOF. RECORD OBSERVATION.	NATURAL ROOFING NO ROOF . . . . . 11 THATCH/PALM LEAF/ REED/GRASS . . . . . 12 MUD . . . . . 13 SOD/MUD AND GRASS MIXTURE . . . 14 PLASTIC/POLYTHENE SHEETING . . . 15 RUDIMENTARY ROOFING RUSTIC MAT . . . . . 21 PALM/BAMBOO . . . . . 22 RAW WOOD PLANKS/TIMBER . . . . . 23 UNBURNT BRICK . . . . . 24 LOOSELY PACKED STONE . . . . . 25 FINISHED ROOFING METAL/GI . . . . . 31 WOOD . . . . . 32 CALAMINE/CEMENT FIBER . . . . . 33 ASBESTOS SHEETS . . . . . 34 RCC/RBC/CEMENT/CONCRETE . . . . . 35 ROOFING SHINGLES . . . . . 36 TILES . . . . . 37 SLATE . . . . . 38 BURNT BRICK . . . . . 39 OTHER _____ 96 (SPECIFY)	
55	MAIN MATERIAL OF THE EXTERIOR WALLS. RECORD OBSERVATION.	NATURAL WALLS NO WALLS . . . . . 11 CANE/PALM/TRUNKS/BAMBOO . . . . . 12 MUD . . . . . 13 GRASS/REEDS/THATCH . . . . . 14 RUDIMENTARY WALLS BAMBOO WITH MUD . . . . . 21 STONE WITH MUD . . . . . 22 PLYWOOD . . . . . 23 CARDBOARD . . . . . 24 UNBURNT BRICK . . . . . 25 RAW WOOD/REUSED WOOD . . . . . 26 FINISHED WALLS CEMENT/CONCRETE . . . . . 31 STONE WITH LIME/CEMENT . . . . . 32 BURNT BRICKS . . . . . 33 CEMENT BLOCKS . . . . . 34 WOOD PLANKS/SHINGLES . . . . . 35 GI/METAL/ASBESTOS SHEETS . . . . . 36 OTHER _____ 96 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
56	TYPE OF WINDOWS. RECORD OBSERVATION.	YES NO ANY WINDOWS . . . . . 1 2 WINDOWS WITH GLASS . . . . . 1 2 WINDOWS WITH SCREENS . . . 1 2 WINDOWS WITH CURTAINS OR SHUTTERS 1 2	
57	How many rooms in this household are used for sleeping?	ROOMS	
58	Does this household own this house or any other house?	YES . . . . . 1 NO 2	
59	Does this household own any agricultural land?	YES . . . . . 1 NO . . . . . 2 → 62	
60	How much agricultural land does this household own? (IF NOT IN ACRES, SPECIFY SIZE AND UNIT)	ACRES	
61	Out of this land, how much is irrigated? (IF NOT IN ACRES, SPECIFY SIZE AND UNIT)	ACRES . . . . NONE 9995	
62	Does your household own any of the following animals:	YES NO	
	Cows, bulls, or buffaloes?	COWS/BULLS/BUFFALOES . . . 1 2	
	Camels?	CAMELS 1 2	
	Horses, donkeys, or mules?	HORSES/DONKEYS/MULES . . . 1 2	
	Goats?	GOATS 1 2	
	Sheep?	SHEEP 1 2	
	Chickens or ducks?	CHICKENS/DUCKS 1 2	
63	Does any usual member of this household have a bank account or a post office account?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
64	Is any usual member of this household covered by a health scheme or health insurance?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW . . . . . 8 → 66	
65	What type of health scheme or health insurance? Any other type? RECORD ALL MENTIONED.	EMPLOYEES STATE INSURANCE SCHEME (ESIS) . . . . . A CENTRAL GOVERNMENT HEALTH SCHEME (CGHS) . . . . . B COMMUNITY HEALTH INSURANCE PROGRAMME . . . . . C OTHER HEALTH INSURANCE THROUGH EMPLOYER . . . . . D MEDICAL REIMBURSEMENT FROM EMPLOYER . . . . . E OTHER PRIVATELY PURCHASED COMMERCIAL HEALTH INSURANCE . F OTHER _____ X (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
66	Does this household have a BPL card?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
67	Does this household have any mosquito nets that can be used for sleeping?	YES . . . . . 1 NO 2	
68	ASK RESPONDENT FOR A TEASPOONFUL OF COOKING SALT. TEST SALT FOR IODINE. RECORD PPM (PARTS PER MILLION)	0 PPM (NO IODINE) . . . . . 1 LESS THAN 15 PPM . . . . . 2 MORE THAN 15 PPM . . . . . 3 NO SALT IN HOUSEHOLD . . . . . 4 SALT NOT TESTED _____ 6 (SPECIFY REASON)	

QUESTIONS ON SECURITY OF TENURE ASKED ONLY IN MUMBAI AND KOLKATA

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
58*	Does this household own this house or any other house?	THIS HOUSE ONLY . . . . . 1 OTHER HOUSE(S) ONLY . . . . . 2 BOTH THIS AND OTHER HOUSE(S) . . . . . 3 NEITHER 4	 → 58B → 58B
58A	Do you or someone else in this household have a document for the ownership of this dwelling?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 58D
58B	Do you or someone else in this household pay rent for this dwelling, live here as part of your employment terms, or have some other arrangement?	RENT . . . . . 1 PART OF EMPLOYMENT AGREEMENT . . . . 2 OTHER ARRANGEMENT 3	 → 58D
58C	Do you have a written rental contract for this dwelling?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
58D	Do you feel secure from eviction from this dwelling?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
58E	DWELLING LOCATED IN OR NEAR: RECORD OBSERVATION	YES NO a. LANDSLIDE AREA . . . . 1 2 b. FLOOD PRONE AREA . 1 2 c. RIVER BANK . . . . . 1 2 d. STEEP HILL . . . . . 1 2 e. GARBAGE DUMPING GROUND . . . . . 1 2 f. INDUSTRIAL POLLUTION AREA . . . . . 1 2 g. RAILROAD . . . . . 1 2 h. POWER PLANT . . . . . 1 2 i. FLYOVER 1 2	

* In Mumbai and Kolkata, this version of Q. 58 was used.

TABLE FOR SELECTION OF WOMEN FOR THE HOUSEHOLD RELATIONS QUESTIONS

INSTRUCTIONS

LOOK AT THE LAST DIGIT OF THE QUESTIONNAIRE NUMBER ON THE COVER PAGE. THIS IS THE ROW NUMBER YOU SHOULD CIRCLE. CHECK THE TOTAL NUMBER OF ELIGIBLE WOMEN ON THE COVER SHEET OF THE HOUSEHOLD QUESTIONNAIRE. THIS IS THE COLUMN NUMBER YOU SHOULD CIRCLE. FIND THE BOX WHERE THE CIRCLED ROW AND THE CIRCLED COLUMN MEET AND CIRCLE THE NUMBER THAT APPEARS IN THE BOX. THIS IS THE NUMBER OF THE ELIGIBLE WOMAN WHO WILL BE ASKED THE HOUSEHOLD RELATIONS QUESTIONS. THEN, GO TO COLUMN (9) IN THE HOUSEHOLD SCHEDULE AND PUT A * NEXT TO THE HOUSEHOLD LINE NUMBER OF THE SELECTED ELIGIBLE WOMAN AND RECORD THIS HOUSEHOLD LINE NUMBER IN THE TWO BOXES AT THE BOTTOM OF THIS TABLE.

FOR EXAMPLE, IF THE HOUSEHOLD QUESTIONNAIRE NUMBER IS '3716', GO TO ROW 6 AND CIRCLE THE ROW NUMBER ('6'). IF THERE ARE THREE ELIGIBLE WOMEN IN THE HOUSEHOLD, GO TO COLUMN 3 AND CIRCLE THE COLUMN NUMBER ('3'). DRAW LINES FROM ROW 6 AND COLUMN 3 AND FIND THE BOX WHERE THE TWO MEET, AND CIRCLE THE NUMBER IN IT ('2'). THIS MEANS YOU HAVE TO SELECT THE SECOND ELIGIBLE WOMAN. SUPPOSE THE HOUSEHOLD LINE NUMBERS OF THE THREE ELIGIBLE WOMEN ARE '02', '03', AND '07'; THEN THE ELIGIBLE WOMAN FOR THE HOUSEHOLD RELATIONS QUESTIONS IS THE SECOND ELIGIBLE WOMAN, I.E., THE WOMAN WITH HOUSEHOLD LINE NUMBER '03'. PUT A * NEXT TO THIS WOMAN'S LINE NUMBER IN COLUMN (9) OF THE HOUSEHOLD SCHEDULE AND ALSO ENTER THE TWO DIGIT LINE NUMBER IN THE TWO BOXES AT THE BOTTOM OF THIS TABLE.

LAST DIGIT OF THE QUESTIONNAIRE NUMBER	TOTAL NUMBER OF ELIGIBLE WOMEN IN THE HOUSEHOLD							
	1	2	3	4	5	6	7	8
0	1	2	2	4	3	6	5	4
1	1	1	3	1	4	1	6	5
2	1	2	1	2	5	2	7	6
3	1	1	2	3	1	3	1	7
4	1	2	3	4	2	4	2	8
5	1	1	1	1	3	5	3	1
6	1	2	2	2	4	6	4	2
7	1	1	3	3	5	1	5	3
8	1	2	1	4	1	2	6	4
9	1	1	2	1	2	3	7	5

HOUSEHOLD LINE NUMBER OF WOMAN SELECTED FOR HOUSEHOLD RELATIONS SECTION

WEIGHT, HEIGHT AND BIOMARKER MEASUREMENT

CHECK COLUMNS (9), (10), AND (11): RECORD THE LINE NUMBER, NAME, AND AGE OF ALL WOMEN AGE 15-49 AND CHILDREN UNDER AGE 6. IF THE HOUSEHOLD IS SELECTED FOR MEN'S INTERVIEWS, ALSO RECORD THE LINE NUMBER, NAME, AND AGE OF ALL MEN AGE 15-54.

WOMEN 15-49					WEIGHT AND HEIGHT MEASUREMENT OF WOMEN 15-49			
LINE NO. FROM COL. (9)	NAME FROM COL. (2)	AGE FROM COL. (7)	NEVER MARRIED CHECK COL.(8): IS COL. (8) =7?	CURRENTLY PREGNANT CHECK Q.227 IN WOMAN'S QUESTIONNAIRE	WEIGHT (KILOGRAMS)	HEIGHT (CENTIMETERS)	MEASURED LYING DOWN OR STANDING UP	RESULT 1 MEASURED 2 NOT PRESENT 3 REFUSED 6 OTHER
(69)	(70)	(71)	(72A)	(72B)	(73)	(74)	(75)	(76)
		YEARS	YES NO	YES NO/DK				
			1 2	1 2	.	.		
			1 2	1 2	.	.		
			1 2	1 2	.	.		

MEN 15-54					WEIGHT AND HEIGHT MEASUREMENT OF MEN 15-54			
LINE NO. FROM COL. (10)	NAME FROM COL. (2)	AGE FROM COL. (7)	NEVER MARRIED CHECK COL. (8): IS COL.(8) =7?		WEIGHT (KILOGRAMS)	HEIGHT (CENTIMETERS)		RESULT 1 MEASURED 2 NOT PRESENT 3 REFUSED 6 OTHER
(69)	(70)	(71)	(72A)		(73)	(74)		(76)
		YEARS	YES NO					
			1 2		.	.		
			1 2		.	.		
			1 2		.	.		

CHILDREN UNDER AGE 6				WEIGHT AND HEIGHT MEASUREMENT OF CHILDREN BORN IN 2001 OR LATER			
LINE NO. FROM COL. (11)	NAME FROM COL. (2)	AGE FROM COL. (7)	What is (NAME'S) date of birth?*	WEIGHT (KILOGRAMS)	HEIGHT (CENTIMETERS)	MEASURED LYING DOWN OR STANDING UP	RESULT 1 MEASURED 2 NOT PRESENT 3 REFUSED 6 OTHER
(69)	(70)	(71)	(72C)	(73)	(74)	(75)	(76)
			DAY MONTH YEAR			LYING STAND.	
				0 .	.	1 2	
				0 .	.	1 2	
				0 .	.	1 2	
				0 .	.	1 2	

TICK HERE IF CONTINUATION QUESTIONNAIRE USED ☐

* COPY MONTH AND YEAR FROM 215 IN THE MOTHER'S BIRTH HISTORY AND ASK DAY. FOR CHILDREN NOT INCLUDED IN ANY BIRTH HISTORY, ASK DAY, MONTH, AND YEAR.

HAEMOGLOBIN AND HIV FOR WOMEN 15-49				
CHECK COLUMN (71) AND (72A): IS RESPONDENT AGE 15-17 **AND** NEVER MARRIED?	LINE NO. OF PARENT/ RESPONSIBLE ADULT. RECORD '00' IF NOT LISTED IN HOUSEHOLD SCHEDULE.	READ CONSENT STATEMENT FOR ANAEMIA TESTING TO WOMAN/PARENT/RESPONSIBLE ADULT. CIRCLE CODE (AND SIGN)	READ CONSENT STATEMENT FOR HIV TESTING TO WOMAN/PARENT/ RESPONSIBLE ADULT. CIRCLE CODE (AND SIGN)	HAEMOGLOBIN LEVEL (G/DL)
(77)	(78)	(79)	(80)	(81)
YES 1 / NO 2 GO TO 79 ◄┘		GRANTED 1 / REFUSED 2 SIGN _____	GRANTED 1 / REFUSED 2 SIGN _____	.
1 / 2 GO TO 79 ◄┘		1 / 2 SIGN _____	1 / 2 SIGN _____	.
1 / 2 GO TO 79 ◄┘		1 / 2 SIGN _____	1 / 2 SIGN _____	.

HAEMOGLOBIN AND HIV FOR MEN 15-54				
CHECK COLUMN (71) AND (72A): IS RESPONDENT AGE 15-17 **AND** NEVER MARRIED?	LINE NO. OF PARENT/ RESPONSIBLE ADULT. RECORD '00' IF NOT LISTED IN HOUSEHOLD SCHEDULE.	READ CONSENT STATEMENT FOR ANAEMIA TESTING TO MAN/PARENT/RESPONSIBLE ADULT. CIRCLE CODE (AND SIGN)	READ CONSENT STATEMENT FOR HIV TESTING TO MAN/PARENT/RESPONSIBLE ADULT. CIRCLE CODE (AND SIGN)	HAEMOGLOBIN LEVEL (G/DL)
(77)	(78)	(79)	(80)	(81)
YES 1 / NO 2 GO TO 79 ◄┘		GRANTED 1 / REFUSED 2 SIGN _____	GRANTED 1 / REFUSED 2 SIGN _____	.
1 / 2 GO TO 79 ◄┘		1 / 2 SIGN _____	1 / 2 SIGN _____	.
1 / 2 GO TO 79 ◄┘		1 / 2 SIGN _____	1 / 2 SIGN _____	.

HAEMOGLOBIN MEASUREMENT OF CHILDREN BORN IN 2001 OR LATER				
CHECK COLUMN (72C): CHILD BORN IN MONTH OF INTERVIEW OR PREVIOUS 5 MONTHS?	LINE NO. OF PARENT/ RESPONSIBLE ADULT. RECORD '00' IF NOT LISTED IN HOUSEHOLD SCHEDULE.	READ CONSENT STATEMENT TO PARENT/RESPONSIBLE ADULT. CIRCLE CODE (AND SIGN)		HAEMOGLOBIN LEVEL (G/DL)
(77)	(78)	(79)		(81)
YES 1 / NO 2 NEXT CHILD		GRANTED 1 / REFUSED 2 SIGN _____ NEXT LINE ◄┘		.
1 / 2 NEXT CHILD		1 / 2 SIGN _____ NEXT LINE ◄┘		.
1 / 2 NEXT CHILD		1 / 2 SIGN _____ NEXT LINE ◄┘		.
1 / 2 NEXT CHILD		1 / 2 SIGN _____ NEXT LINE ◄┘		.

HAEMOGLOBIN RESULT 1 MEASURED 2 NOT PRESENT 3 REFUSED 6 OTHER	HIV RESULT 1 COLLECTED 2 NOT PRESENT 3 REFUSED 6 OTHER	PLACE BAR CODE BELOW
(82)	(83)	(84)
☐	☐	PUT 1st BAR CODE HERE PUT 2nd BAR CODE ON RESPONDENT'S FILTER PAPER AND THIRD BAR CODE ON THE BLOOD TRANSMITTAL SHEET.
☐	☐	PUT 1st BAR CODE HERE PUT 2nd BAR CODE ON RESPONDENT'S FILTER PAPER AND THIRD BAR CODE ON THE BLOOD TRANSMITTAL SHEET.
☐	☐	PUT 1st BAR CODE HERE PUT 2nd BAR CODE ON RESPONDENT'S FILTER PAPER AND THIRD BAR CODE ON THE BLOOD TRANSMITTAL SHEET.

HAEMOGLOBIN RESULT 1 MEASURED 2 NOT PRESENT 3 REFUSED 6 OTHER	HIV RESULT 1 COLLECTED 2 NOT PRESENT 3 REFUSED 6 OTHER	PLACE BAR CODE BELOW
(82)	(83)	(84)
☐	☐	PUT 1st BAR CODE HERE PUT 2nd BAR CODE ON RESPONDENT'S FILTER PAPER AND THIRD BAR CODE ON THE BLOOD TRANSMITTAL SHEET.
☐	☐	PUT 1st BAR CODE HERE PUT 2nd BAR CODE ON RESPONDENT'S FILTER PAPER AND THIRD BAR CODE ON THE BLOOD TRANSMITTAL SHEET.
☐	☐	PUT 1st BAR CODE HERE PUT 2nd BAR CODE ON RESPONDENT'S FILTER PAPER AND THIRD BAR CODE ON THE BLOOD TRANSMITTAL SHEET.

HAEMOGLOBIN RESULT 1 MEASURED 2 NOT PRESENT 3 REFUSED 6 OTHER
(82)
☐
☐
☐
☐

INFORMED CONSENT FOR ANAEMIA TESTING

As part of this survey, we are studying anaemia among women, men, and children under age 6 years. Anaemia is a serious health problem that usually results from poor nutrition, infection, or chronic disease. This information will assist the government to develop programmes to prevent and treat anaemia.

We request that (you/you and (NAME OF RESPONDENT'S CHILD(REN)/CHILD(REN) IN RESPONDENT'S CARE) born in 2001 or later participate in the anaemia testing part of this survey by giving a few drops of blood from a finger. The test uses disposable sterile instruments that are clean and completely safe. The blood will be tested with new equipment and the results of the test will be given to you immediately. The results will be kept confidential.

Do you have any questions?
ANSWER ANY QUESTIONS AND ADDRESS RESPONDENT'S/GUARDIAN'S CONCERNS.

May I now ask that (you/you and NAME OF RESPONDENT'S CHILD(REN)/CHILD(REN) IN RESPONDENT'S CARE) participate in the anaemia testing. However, if you decide not to have the test(s) done, it is your right and we will respect your decision. Now please tell me if you agree to have the test(s) done.

GO TO COLUMN 79, CIRCLE THE APPROPRIATE CODE, AND SIGN.

IF RESPONDENT IS AGE 15-17 AND NEVER MARRIED, ASK PARENT/GUARDIAN:
Now, will you tell me if you accept that (NAME OF YOUTH(S)) participate in the anaemia testing? GO TO COLUMN 78 AND WRITE THE LINE NUMBER OF THE PARENT/GUARDIAN. ASK FOR THEIR CONSENT. IF THE PARENT/GUARDIAN DOES NOT AGREE, CIRCLE CODE '2' IN COLUMN 79 AND SIGN. IF THE PARENT/GUARDIAN AGREES, READ THE PRECEDING PARAGRAPHS TO THE YOUTH FOR HIS/HER CONSENT, RECORD THE APPROPRIATE CODE IN COLUMN 79, AND SIGN. CIRCLE CODE '1' FOR 'GRANTED' ONLY IF BOTH THE PARENT/GUARDIAN AND THE YOUTH AGREE TO THE TESTING.

INFORMED CONSENT FOR HIV TEST FOR MEN AND WOMEN

In addition to studying anaemia, we are also studying HIV. HIV is the virus that causes AIDS.

In order to determine how prevalent HIV is in India, we are asking women and men throughout India to give a few drops of blood. The drops of blood will be collected from your finger (at the same time as we do your anaemia test) and sent to a laboratory for testing. To ensure complete confidentiality of the collected blood, no individual names will be attached to the blood sample. This means that no one, including me, will be able to trace the blood sample or the test result back to you. Since we are only collecting blood on a filter paper with no other identifiying information, we cannot give you the result of the HIV test.

However, whether or not you choose to particpate in this effort to estimate the prevalence of HIV in India, you will be given a voucher for a free HIV test at a health clinic where you can get your blood tested for HIV if you want and receive your results.

Do you have any questions?
ANSWER ANY QUESTIONS AND ADDRESS RESPONDENT'S CONCERNS.

I hope you will agree to give a few drops of blood from your finger for this very important country-wide effort, as it will help the government to develop programmes to prevent the spread of HIV and AIDS. However, if you decide not to participate, it is your right and we will respect your decision.

Do you agree to give a few drops of blood for anonymous HIV testing?

GO TO COLUMN 80 AND CIRCLE THE APPROPRIATE CODE AND SIGN.

IF RESPONDENT IS AGE 15-17 AND NEVER MARRIED, ASK THE PARENT/GUARDIAN:
Now, will you tell me if you accept that (NAME OF YOUTH(S)) participate in the HIV testing?
IF THE PARENT/GUARDIAN DOES NOT AGREE, CIRCLE CODE '2' IN COLUMN 80 AND SIGN. IF THE PARENT/GUARDIAN AGREES, READ THE PRECEDING PARAGRAPHS TO THE YOUTH FOR HIS/HER CONSENT, RECORD THE APPROPRIATE CODE IN COLUMN 80, AND SIGN. CIRCLE CODE '1' FOR 'GRANTED' ONLY IF BOTH THE PARENT/GUARDIAN AND THE YOUTH AGREE TO THE TESTING.

85	CHECK 81: NUMBER OF PERSONS WITH HAEMOGLOBIN LEVEL BELOW THE CUTOFF POINT OF 7 G/DL. ONE OR MORE ☐ → GIVE EACH WOMAN/MAN/PARENT/RESPONSIBLE ADULT ANAEMIA PAMPHLET WITH RESULT OF HAEMOGLOBIN MEASUREMENT AND CONTINUE WITH 86.* NONE ☐ → GIVE EACH WOMAN/MAN/PARENT/RESPONSIBLE ADULT ANAEMIA PAMPHLET WITH RESULT OF HAEMOGLOBIN MEASUREMENT AND END INTERVIEW.
86	We detected a low level of haemoglobin in (your blood/the blood of NAME OF CHILD(REN)). This indicates that (you/NAME OF CHILD(REN)) have severe anaemia, which is a serious health problem. We would like to inform the doctor at _____ about (your condition/the condition of NAME OF CHILD(REN)). This will assist you in obtaining appropriate treatment for the condition. Do you agree that the information about the level of haemoglobin in (your blood/the blood of NAME OF CHILD(REN)) may be given to the doctor?

NAME OF PERSON WITH HAEMOGLOBIN BELOW 7 G/DL	NAME OF PARENT/RESPONSIBLE ADULT	AGREES TO REFERRAL?
WOMEN AGE 18-49 AND MEN AGE 18-54		
		YES . . . . . 1 NO 2
		YES . . . . . 1 NO 2
		YES . . . . . 1 NO 2
		YES . . . . . 1 NO 2
WOMEN AND MEN AGE 15-17 AND CHILDREN		
		YES . . . . . 1 NO 2
		YES . . . . . 1 NO 2
		YES . . . . . 1 NO 2
		YES . . . . . 1 NO 2
		YES . . . . . 1 NO 2
		YES . . . . . 1 NO 2
		YES . . . . . 1 NO 2
		YES . . . . . 1 NO 2
		YES . . . . . 1 NO 2

* If more than one woman, man, or child is below the cutoff point, read the statement in Q. 86 to each adult who is below the cutoff point and to each parent/responsible adult of a child who is below the cutoff point. For persons age 15-17, circle code `1' only if both the person and the parent/guardian agree that the information may be provided to the doctor.

NATIONAL FAMILY HEALTH SURVEY, INDIA 2005-2006 (NFHS- 3)
WOMAN'S QUESTIONNAIRE [STATE NAME]

CONFIDENTIAL
For research
purposes only

IDENTIFICATION

STATE _____ ☐☐

DISTRICT _____

TEHSIL/TALUK _____

CITY/TOWN/VILLAGE _____

MEGA CITY/LARGE CITY/SMALL CITY/LARGE TOWN/SMALL TOWN/RURAL . . . . . ☐
(MEGA CITY=1, LARGE CITY=2, SMALL CITY=3, LARGE TOWN=4, SMALL TOWN=5, RURAL=6)

PSU NUMBER . . . . . ☐☐☐

HOUSEHOLD NUMBER . . . . . ☐☐☐☐

NAME AND LINE NUMBER OF WOMAN _____ ☐☐

ADDRESS OF HOUSEHOLD _____

_____

IS WOMAN SELECTED FOR QUESTIONS ON HOUSEHOLD RELATIONS (SECTION 10)?
(YES = 1, NO = 2) . . . . . ☐

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE	_____	_____	_____	DAY ☐☐
				MONTH ☐☐
				YEAR ☐☐☐☐
INTERVIEWER'S NAME	_____	_____	_____	INT. NO. ☐☐☐
RESULT*	_____	_____	_____	RESULT CODE ☐
NEXT VISIT: DATE	_____	_____	_____	
TIME	_____	_____	_____	TOTAL NUMBER OF VISITS ☐

*RESULT CODES:

1	COMPLETED	4	REFUSED		
2	NOT AT HOME	5	PARTLY COMPLETED	7	OTHER _____ (SPECIFY)
3	POSTPONED	6	INCAPACITATED		

NATIVE LANGUAGE OF RESPONDENT** ☐☐

** LANGUAGE CODES:

01 ASSAMESE	06 KANNADA	11 MARATHI	16 TAMIL
02 BENGALI	07 KASHMIRI	12 NEPALI	17 TELUGU
03 ENGLISH	08 KONKANI	13 ORIYA	18 URDU
04 GUJARATI	09 MALAYALAM	14 PUNJABI	19 OTHER _____ (SPECIFY)
05 HINDI	10 MANIPURI	15 SINDHI	

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
NAME _____	NAME _____		
DATE _____ ☐☐☐	DATE _____ ☐☐☐	☐☐	☐☐

SECTION 1. RESPONDENT'S BACKGROUND

INTRODUCTION AND INFORMED CONSENT

Namaste. My name is _____ and I am working with (NAME OF ORGANIZATION). We are conducting a national survey about the health of women, men, and children. We would very much appreciate your participation in this survey. Several different health-related topics will be discussed including use of health services, the quality of health care, marital and sexual relationships, and infectious diseases.This information will help the government to assess health and information needs and to better plan health services. The survey usually takes between 30 and 60 minutes to complete. Whatever information you provide will be kept strictly confidential and will not be shown to other persons.

Participation in this survey is voluntary and if you choose to participate, you may withdraw at any time. However, we hope that you will take part in this survey since your participation is important.

At this time, do you want to ask me anything about the survey?
ANSWER ANY QUESTIONS AND ADDRESS RESPONDENT'S CONCERNS.

In case you need more information about the survey, you may contact the person listed on the card that has already been given to you household.

May I begin the interview now?

Signature of interviewer: _____ Date: _____

RESPONDENT AGREES TO BE INTERVIEWED 1 ↓ RESPONDENT DOES NOT AGREE TO BE INTERVIEWED 2 → END

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	RECORD THE TIME.	HOUR . . . . . ☐☐ MINUTES . . . . . ☐☐	
102	How long have you been living continuously in (NAME OF CURRENT PLACE OF RESIDENCE)? IF LESS THAN ONE YEAR, RECORD '00' YEARS.	YEARS . . . . . ☐☐ ALWAYS . . . . . 95 VISITOR 96	→ 104
103	Just before you moved here, did you live in a city, in a town, or in the countryside?	CITY . . . . . 1 TOWN . . . . . 2 COUNTRYSIDE 3	
104	In what month and year were you born?	MONTH . . . . . ☐☐ DON'T KNOW MONTH . . . . . 98 YEAR . . . . . ☐☐☐☐ DON'T KNOW YEAR 9998	
105	How old were you at your last birthday? COMPARE AND CORRECT 104 AND/OR 105 IF INCONSISTENT.	AGE IN COMPLETED YEARS . . . ☐☐	
106	Have you ever attended school?	YES . . . . . 1 NO 2	→ 109
107	What is the highest standard you completed?	STANDARD . . . . . ☐☐	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
108	CHECK 107: STANDARD 0-5 ☐ ↓ STANDARD 6 AND ABOVE ☐ →		112
109	Now I would like you to read this sentence to me. SHOW A SENTENCE FROM THE LITERACY CARD TO THE RESPONDENT. IF RESPONDENT CANNOT READ WHOLE SENTENCE, PROBE: Can you read any part of the sentence to me?	CANNOT READ AT ALL . . . . . 1 ABLE TO READ ONLY PARTS OF SENTENCE . . . . . 2 ABLE TO READ WHOLE SENTENCE . . . 3 NO CARD WITH REQUIRED LANGUAGE _____ 4 (SPECIFY LANGUAGE) BLIND/VISUALLY IMPAIRED 5	
110	Have you ever participated in a literacy programme or any other programme that involves learning to read or write (not including primary school)?	YES . . . . . 1 NO 2	
111	CHECK 109: CODE '2', '3' OR '4' CIRCLED ☐ ↓ CODE '1' OR '5' CIRCLED ☐ →		113
112	Do you read a newspaper or magazine almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEEK . . . . . 3 NOT AT ALL 4	
113	Do you listen to the radio almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEEK . . . . . 3 NOT AT ALL 4	
114	Do you watch television almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEEK . . . . . 3 NOT AT ALL 4	
115	Do you usually go to a cinema hall or theatre to see a movie at least once a month?	YES . . . . . 1 NO 2	
116	What is your religion?	HINDU . . . . . 01 MUSLIM . . . . . 02 CHRISTIAN . . . . . 03 SIKH . . . . . 04 BUDDHIST/NEO-BUDDHIST . . . . . 05 JAIN . . . . . 06 JEWISH . . . . . 07 PARSI/ZOROASTRIAN . . . . . 08 NO RELIGION . . . . . 09 OTHER _____ 96 (SPECIFY)	
117	What is your caste or tribe?	CASTE _____ 1 (SPECIFY) TRIBE _____ 2 (SPECIFY) NO CASTE/TRIBE . . . . . 3 DON'T KNOW 8	→ 201
118	Do you belong to a scheduled caste, a scheduled tribe, other backward class, or none of these?	SCHEDULED CASTE . . . . . 1 SCHEDULED TRIBE . . . . . 2 OBC . . . . . 3 NONE OF THEM 4	

SECTION 2. REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
201	Now I would like to ask about all the births you have had during your life. Have you ever given birth?	YES . . . . . 1 NO 2	→ 206
202	Do you have any sons or daughters to whom you have given birth who are now living with you?	YES . . . . . 1 NO 2	→ 204
203	How many sons live with you? And how many daughters live with you? IF NONE, RECORD '00'.	SONS AT HOME . . . . . [ ][ ] DAUGHTERS AT HOME . . . . . [ ][ ]	
204	Do you have any sons or daughters to whom you have given birth who are alive but do not live with you?	YES . . . . . 1 NO 2	→ 206
205	How many sons are alive but do not live with you? And how many daughters are alive but do not live with you? IF NONE, RECORD '00'.	SONS ELSEWHERE . . . . . [ ][ ] DAUGHTERS ELSEWHERE . [ ][ ]	
206	Have you ever given birth to a boy or girl who was born alive but later died? IF NO, PROBE: Any baby who cried or showed signs of life but did not survive?	YES . . . . . 1 NO 2	→ 208
207	How many boys have died? And how many girls have died? IF NONE, RECORD '00'.	BOYS DEAD . . . . . [ ][ ] GIRLS DEAD . . . . . [ ][ ]	
208	SUM ANSWERS TO 203, 205, AND 207, AND ENTER TOTAL. IF NONE, RECORD '00'.	TOTAL . . . . . [ ][ ]	
209	CHECK 208: Just to make sure that I have this right: you have had in TOTAL _____ births during your life. Is that correct? YES ☐ ↓ NO ☐ → PROBE AND CORRECT 201-208 AS NECESSARY.		
210	CHECK 208: ONE OR MORE BIRTHS ☐ ↓ NO BIRTHS ☐		→ 227

211 Now I would like to record the names of all your births, whether still alive or not, starting with the first one you had. RECORD NAMES OF ALL THE BIRTHS IN 212. RECORD TWINS AND TRIPLETS ON SEPARATE LINES. (IF THERE ARE MORE THAN 12 BIRTHS, USE AN ADDITIONAL QUESTIONNAIRE).

212 What name was given to your (first/next) baby? (NAME)	213 Were any of these births twins?	214 Is (NAME) a boy or a girl?	215 In what month and year was (NAME) born? PROBE: What is his/her birthday?	216 Is (NAME) still alive?	217 IF ALIVE: How old was (NAME) at his/her last birthday? RECORD AGE IN COM-PLETED YEARS.	218 IF ALIVE: Is (NAME) living with you?	219 IF ALIVE: RECORD HOUSE-HOLD LINE NUMBER OF CHILD (RECORD '00' IF CHILD NOT LISTED IN HOUSE-HOLD).	220 IF DEAD: How old was (NAME) when he/she died? IF '1 YR', PROBE: How many months old was (NAME)? RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN TWO YEARS; OR YEARS.	221 Were there any other live births between (NAME OF PREVIOUS BIRTH) and (NAME), including any children who died after birth?
01	SING 1 MULT 2	BOY 1 GIRL 2	MONTH YEAR	YES . . 1 NO . . . 2 → 220	AGE IN YEARS	YES . . . 1 NO 2	LINE NUMBER (NEXT BIRTH)	DAYS . . . 1 MONTHS 2 YEARS . . 3	
02	SING 1 MULT 2	BOY 1 GIRL 2	MONTH YEAR	YES . . 1 NO . . . 2 → 220	AGE IN YEARS	YES . . . 1 NO 2	LINE NUMBER (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES . . . . 1 NO 2
03	SING 1 MULT 2	BOY 1 GIRL 2	MONTH YEAR	YES . . 1 NO . . . 2 → 220	AGE IN YEARS	YES . . . 1 NO 2	LINE NUMBER (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES . . . . 1 NO 2
04	SING 1 MULT 2	BOY 1 GIRL 2	MONTH YEAR	YES . . 1 NO . . . 2 → 220	AGE IN YEARS	YES . . . 1 NO 2	LINE NUMBER (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES . . . . 1 NO 2
05	SING 1 MULT 2	BOY 1 GIRL 2	MONTH YEAR	YES . . 1 NO . . . 2 → 220	AGE IN YEARS	YES . . . 1 NO 2	LINE NUMBER (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES . . . . 1 NO 2
06	SING 1 MULT 2	BOY 1 GIRL 2	MONTH YEAR	YES . . 1 NO . . . 2 → 220	AGE IN YEARS	YES . . . 1 NO 2	LINE NUMBER (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES . . . . 1 NO 2
07	SING 1 MULT 2	BOY 1 GIRL 2	MONTH YEAR	YES . . 1 NO . . . 2 → 220	AGE IN YEARS	YES . . . 1 NO 2	LINE NUMBER (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES . . . . 1 NO 2

212 What name was given to your next baby? (NAME)	213 Were any of these births twins?	214 Is (NAME) a boy or a girl?	215 In what month and year was (NAME) born? PROBE: What is his/her birthday?	216 Is (NAME) still alive?	217 IF ALIVE: How old was (NAME) at his/her last birthday? RECORD AGE IN COM-PLETED YEARS.	218 IF ALIVE: Is (NAME) living with you?	219 IF ALIVE: RECORD HOUSE-HOLD LINE NUMBER OF CHILD (RECORD '00' IF CHILD NOT LISTED IN HOUSE-HOLD).	220 IF DEAD: How old was (NAME) when he/she died? IF '1 YR', PROBE: How many months old was (NAME)? RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN TWO YEARS; OR YEARS.	221 Were there any other live births between (NAME OF PREVIOUS BIRTH) and (NAME), including any children who died after birth?
08	SING 1 MULT 2	BOY 1 GIRL 2	MONTH ☐☐ YEAR ☐☐☐☐	YES . . 1 NO . . . 2 → 220	AGE IN YEARS ☐☐	YES . . . 1 NO 2	LINE NUMBER ☐☐ → (GO TO 221)	DAYS . . . 1 ☐☐ MONTHS 2 ☐☐ YEARS . . 3 ☐☐	YES . . . . 1 NO 2
09	SING 1 MULT 2	BOY 1 GIRL 2	MONTH ☐☐ YEAR ☐☐☐☐	YES . . 1 NO . . . 2 → 220	AGE IN YEARS ☐☐	YES . . . 1 NO 2	LINE NUMBER ☐☐ → (GO TO 221)	DAYS . . . 1 ☐☐ MONTHS 2 ☐☐ YEARS . . 3 ☐☐	YES . . . . 1 NO 2
10	SING 1 MULT 2	BOY 1 GIRL 2	MONTH ☐☐ YEAR ☐☐☐☐	YES . . 1 NO . . . 2 → 220	AGE IN YEARS ☐☐	YES . . . 1 NO 2	LINE NUMBER ☐☐ → (GO TO 221)	DAYS . . . 1 ☐☐ MONTHS 2 ☐☐ YEARS . . 3 ☐☐	YES . . . . 1 NO 2
11	SING 1 MULT 2	BOY 1 GIRL 2	MONTH ☐☐ YEAR ☐☐☐☐	YES . . 1 NO . . . 2 → 220	AGE IN YEARS ☐☐	YES . . . 1 NO 2	LINE NUMBER ☐☐ → (GO TO 221)	DAYS . . . 1 ☐☐ MONTHS 2 ☐☐ YEARS . . 3 ☐☐	YES . . . . 1 NO 2
12	SING 1 MULT 2	BOY 1 GIRL 2	MONTH ☐☐ YEAR ☐☐☐☐	YES . . 1 NO . . . 2 → 220	AGE IN YEARS ☐☐	YES . . . 1 NO 2	LINE NUMBER ☐☐ → (GO TO 221)	DAYS . . . 1 ☐☐ MONTHS 2 ☐☐ YEARS . . 3 ☐☐	YES . . . . 1 NO 2

222	Have you had any live births since the birth of (NAME OF LASTBIRTH)? IF YES, RECORD BIRTH(S) IN TABLE.	YES . . . . . 1 NO 2
223	Before the birth of (NAME OF FIRST BIRTH), did you have any other live births? IF YES, RECORD BIRTH(S) IN TABLE.	YES . . . . . 1 NO 2

224 COMPARE 208 WITH NUMBER OF BIRTHS IN HISTORY ABOVE AND MARK:

NUMBERS ARE SAME ☐ ↓

NUMBERS ARE DIFFERENT ☐ → (PROBE AND RECONCILE)

CHECK: FOR EACH BIRTH: YEAR OF BIRTH IS RECORDED. ☐

FOR EACH LIVING CHILD: CURRENT AGE IS RECORDED. ☐

FOR EACH DEAD CHILD: AGE AT DEATH IS RECORDED. ☐

FOR AGE AT DEATH 12 MONTHS OR 1 YEAR: PROBE TO DETERMINE EXACT NUMBER OF MONTHS. ☐

225 CHECK 215 AND ENTER THE NUMBER OF BIRTHS IN 2000 OR LATER.
IF NONE, RECORD '0'. ☐☐

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
226	FOR EACH BIRTH SINCE JANUARY 2001, ENTER 'B' IN THE MONTH OF BIRTH IN **COLUMN 1** OF THE CALENDAR. WRITE THE NAME OF THE CHILD TO THE LEFT OF THE 'B' CODE. FOR EACH BIRTH, ASK THE NUMBER OF MONTHS THE PREGNANCY LASTED AND RECORD 'P' IN EACH OF THE PRECEDING MONTHS ACCORDING TO THE DURATION OF PREGNANCY. (NOTE: THE NUMBER OF P's MUST BE ONE LESS THAN THE NUMBER OF MONTHS THAT THE PREGNANCY LASTED.) FOR EACH BIRTH ASK: At any time when you were pregnant with (NAME), did you have an ultrasound test? RECORD 'Y' IF YES AND 'N' IF NO IN **COLUMN 2** IN THE MONTH OF BIRTH.		
227	Are you pregnant now?	YES . . . . . 1 NO . . . . . 2 UNSURE 8	→ 231
228	How many months pregnant are you? RECORD NUMBER OF MONTHS PREGNANT. ENTER 'P's IN **COLUMN 1** OF CALENDAR, BEGINNING WITH THE MONTH OF INTERVIEW AND FOR THE REMAINING NUMBER OF MONTHS PREGNANT.	MONTHS . . . . . ☐☐	
229	At any time during this pregnancy, have you had an ultrasound test? RECORD 'Y' IF YES AND 'N' IF NO IN **COLUMN 2** OF THE CALENDAR IN THE CURRENT MONTH.		
230	At the time you became pregnant did you want to become pregnant then, did you want to wait until later, or did you not want to have any (more) children at all?	THEN . . . . . 1 LATER . . . . . 2 NOT AT ALL 3	
231	Have you ever had a pregnancy that miscarried, was aborted, or ended in a stillbirth?	YES . . . . . 1 NO 2	→ 240
232	When did the last such pregnancy end?	MONTH . . . . . ☐☐ YEAR . . . . . ☐☐☐☐	
233	CHECK 232: LAST PREGNANCY ENDED IN JANUARY 2001 OR LATER ☐ ↓ LAST PREGNANCY ENDED BEFORE JANUARY 2001 ☐ → 240		
234	How many months pregnant were you when the last such pregnancy ended? RECORD NUMBER OF MONTHS THE PREGNANCY LASTED. ENTER 'T' IN **COLUMN 1** OF CALENDAR IN THE MONTH THAT THE PREGNANCY TERMINATED AND 'P' FOR THE REMAINING NUMBER OF MONTHS.	MONTHS . . . . . ☐☐	
235	At any time during this pregnancy, did you have an ultrasound test? RECORD 'Y' IF YES AND 'N' IF NO IN **COLUMN 2** OF THE CALENDAR IN THE MONTH IN WHICH THE PREGNANCY WAS TERMINATED.		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
236	Since January 2001, have you had any other pregnancies that did not result in a live birth?	YES . . . . . 1 NO 2	→ 238
237	ASK THE DATE AND THE DURATION OF PREGNANCY FOR EACH EARLIER NON-LIVE BIRTH PREGNANCY BACK TO JANUARY 2001. ENTER 'T' IN **COLUMN 1** OF CALENDAR IN THE MONTH THAT EACH PREGNANCY TERMINATED AND 'P' FOR THE REMAINING NUMBER OF MONTHS. FOR EACH TERMINATED PREGNANCY ASK: At any time this pregnancy, did you have an ultrasound test? RECORD 'Y' IF YES AND 'N' IF NO IN **COLUMN 2** OF THE CALENDAR IN THE MONTH IN WHICH THE PREGNANCY WAS TERMINATED.		
238	Did you have any pregnancies that terminated before January 2001 that did not result in a live birth?	YES . . . . . 1 NO 2	→ 240
239	When did the last such pregnancy that terminated before January 2001 end?	MONTH . . . . . ☐☐ YEAR . . . . . ☐☐☐☐	
240	When did your last menstrual period start? _____ (DATE, IF GIVEN)	DAYS AGO . . . . . 1 ☐☐ WEEKS AGO . . . . . 2 ☐☐ MONTHS AGO . . . . . 3 ☐☐ YEARS AGO . . . . . 4 ☐☐ IN MENOPAUSE/ HAS HAD HYSTERECTOMY . . . 994 BEFORE LAST BIRTH . . . . . 995 NEVER MENSTRUATED 996	
241	From one menstrual period to the next, are there certain days when a woman is more likely to become pregnant if she has sexual relations?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 301
242	Is this time just before her period begins, during her period, right after her period has ended, or halfway between two periods?	JUST BEFORE HER PERIOD BEGINS . . . . . 1 DURING HER PERIOD . . . . . 2 RIGHT AFTER HER PERIOD HAS ENDED . . . . . 3 HALFWAY BETWEEN TWO PERIODS . . . . . 4 OTHER _____ 6 (SPECIFY) DON'T KNOW 8	

SECTION 3A. MARRIAGE AND COHABITATION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
301	What is your current marital status?	CURRENTLY MARRIED . . . . . 1 MARRIED, GAUNA NOT PERFORMED . . . . . 2 WIDOWED . . . . . 3 DIVORCED . . . . . 4 SEPARATED . . . . . 5 DESERTED . . . . . 6 NEVER MARRIED 7	→ 303 → 306 → 308
302	ENTER '0' IN **COLUMN 3** OF CALENDAR IN THE MONTH OF INTERVIEW, AND IN EACH MONTH BACK TO JANUARY 2001		→ 316
303	Are you living with your husband now, or is he staying elsewhere?	LIVING WITH HUSBAND . . . . . 1 STAYING ELSEWHERE 2	→ 305
304	For how long have you and your husband not been living together? IF LESS THAN 1 YEAR, RECORD MONTHS; OTHERWISE RECORD COMPLETED YEARS.	MONTHS . . . . . 1 ☐☐ YEARS . . . . . 2 ☐☐	
305	RECORD THE HUSBAND'S NAME AND LINE NUMBER FROM THE HOUSEHOLD QUESTIONNAIRE. IF HE IS NOT LISTED IN THE HOUSEHOLD, RECORD '00'.	NAME _____ LINE NO. . . . . ☐☐	
306	Besides yourself, does your husband have other wives?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 308
307	How many other wives does your husband have?	NUMBER OF OTHER WIVES . . . . . ☐ DON'T KNOW 8	
308	Have you been married only once or more than once?	ONLY ONCE . . . . . 1 MORE THAN ONCE 2	→ 309A
309	In what month and year did you get married?	MONTH . . . . . ☐☐ DON'T KNOW MONTH 98	
309A	Now I would like to ask about when you married your first husband. In what month and year was that?	YEAR . . . . . ☐☐☐☐ DON'T KNOW YEAR 9998	→ 311
310	How old were you when you (first) got married?	AGE . . . . . ☐☐	
311	CHECK 301: CODE '2' CIRCLED ☐ CODE '2' NOT CIRCLED ☐		→ 314

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
312	CHECK 308: MARRIED ONLY ONCE ☐ → In what month and year did you start living with your husband? MARRIED MORE THAN ONCE ☐ → Now I would like to ask about when you started living with your first husband. In what month and year was that?	MONTH . . . . . ☐☐ DON'T KNOW MONTH . . . . . 98 YEAR . . . . . ☐☐☐☐ DON'T KNOW YEAR 9998	→ 314
313	How old were you when you first started living with him?	AGE . . . . . ☐☐	
314	<u>FOR CURRENTLY MARRIED WOMEN WHO HAVE BEEN MARRIED ONLY ONCE AND WOMEN WHO ARE MARRIED BUT GAUNA NOT PERFORMED:</u> DETERMINE MONTHS MARRIED OR MARRIED BUT GAUNA NOT PERFORMED SINCE JANUARY 2001. ENTER 'X' IN **<u>COLUMN 3</u>** OF CALENDAR FOR EACH MONTH MARRIED, 'N' FOR EACH MONTH MARRIED BUT GAUNA NOT PERFORMED, AND '0' FOR EACH MONTH NOT MARRIED. <u>FOR CURRENTLY MARRIED WOMEN WHO HAVE BEEN MARRIED MORE THAN ONCE:</u> PROBE FOR DATE WHEN CURRENT MARRIAGE STARTED AND, IF APPROPRIATE, FOR STARTING AND TERMINATION DATES OF ANY PREVIOUS MARRIAGES. <u>FOR WOMEN WHO ARE NOT CURRENTLY MARRIED:</u> PROBE FOR DATE WHEN LAST MARRIAGE STARTED, WHEN SHE WAS MARRIED BUT GAUNA WAS NOT PERFORMED, TERMINATION DATE AND, IF APPROPRIATE, FOR THE STARTING AND TERMINATION DATES OF ANY PREVIOUS MARRIAGES.		
315	CHECK 301: CODE '2' CIRCLED ☐ ↓ CODE '2' NOT CIRCLED ☐ → 317		
316	CHECK FOR THE PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY. Now I need to ask you some questions about sexual life in order to gain a better understanding of some family life issues. Let me assure you again that your answers are completely confidential and will not be told to anyone. If you do not want to answer, just let me know and I will skip to the next question. Have you ever had sexual intercourse?	YES . . . . . 1 NO 2	→ 318
317	CHECK FOR THE PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY. (Now I need to ask you some questions about sexual activity in order to gain a better understanding of some family life issues. Let me assure you again that your answers are completely confidential and will not be told to anyone. If you do not want to answer, just let me know and I will skip to the next question.) How old were you when you had sexual intercourse for the very first time?	NEVER HAD SEXUAL INTERCOURSE . . . . . 00 AGE IN YEARS . . . . . ☐☐ FIRST TIME WHEN STARTED LIVING WITH (FIRST) HUSBAND 95	

SECTION 3B. CONTRACEPTION

318	Now I would like to talk about family planning - the various ways or methods that a couple can use to delay or avoid a pregnancy. Which ways or methods have you heard about? FOR METHODS NOT MENTIONED SPONTANEOUSLY, ASK: Have you ever heard of (METHOD)? CIRCLE CODE '1' IN 318 FOR EACH METHOD MENTIONED SPONTANEOUSLY. THEN PROCEED DOWN COLUMN 318 READING THE NAME AND DESCRIPTION OF EACH METHOD NOT MENTIONED SPONTANEOUSLY. CIRCLE CODE '1' IF METHOD IS RECOGNIZED AND CODE '2' IF NOT RECOGNIZED. THEN PERFORM THE CHECK AT THE BOTTOM OF THE COLUMN. IF 316 = YES OR NOT ASKED, ASK 320 FOR EACH METHOD WITH CODE '1' CIRCLED IN 318.		320 Have you ever used (METHOD)?
01	FEMALE STERILIZATION Women can have an operation to avoid having any more children.	YES . . . . . 1 NO 2	Have you ever had an operation to avoid having any more children? YES . . . . . 1 NO 2
02	MALE STERILIZATION Men can have an operation to avoid having any more children.	YES . . . . . 1 NO 2	Has your husband/partner ever had an operation to avoid having any more children? YES . . . . . 1 NO 2
03	PILL Women can take a pill every day or every week to avoid becoming pregnant.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
04	IUD OR LOOP Women can have a loop or coil placed inside them by a doctor or a nurse.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
05	INJECTABLES Women can have an injection by a health provider that stops them from becoming pregnant for one or more months.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
06	CONDOM OR NIRODH Men can put a rubber sheath on their penis before sexual intercourse.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
07	FEMALE CONDOM Women can place a sheath in their vagina before sexual intercourse.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
08	RHYTHM METHOD Every month that a woman is sexually active she can avoid pregnancy by not having sexual intercourse on the days of the month she is most likely to get pregnant.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
09	WITHDRAWAL Men can be careful and pull out before climax.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
10	EMERGENCY CONTRACEPTION Women can take pills up to three days after sexual intercourse to avoid becoming pregnant.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
11	Have you heard of any other ways or methods that women or men can use to avoid pregnancy?	YES . . . . . 1 _____ (SPECIFY) _____ (SPECIFY) NO 2	YES . . . . . 1 NO . . . . . 2 YES . . . . . 1 NO 2
319		CHECK 316: YES OR NOT ASKED → GO TO 320 FOR KNOWN METHODS NO → SKIP TO 323	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
321	CHECK 320: NOT A SINGLE "YES" (NEVER USED) ☐ ↓ AT LEAST ONE "YES" (EVER USED) ☐ → 325		
322	Have you ever used anything or tried in any way to delay or avoid getting pregnant?	YES . . . . . 1 NO 2	→ 324
323	ENTER '0' IN **COLUMN 1** OF CALENDAR IN EACH BLANK MONTH. → 353		
324	What have you used or done? CORRECT 320 AND 321(AND 318 IF NECESSARY).		
325	CHECK 208: ONE OR MORE BIRTHS ☐ ↓ NO BIRTHS ☐ → 327		
326	Now I would like to ask you about the first time that you did something or used a method to avoid getting pregnant. How many living children did you have at that time, if any? IF NONE, RECORD '00'.	NUMBER OF CHILDREN . . . . ☐☐	
327	CHECK 320(01): WOMAN NOT STERILIZED ☐ ↓ WOMAN STERILIZED ☐ → 330A		
328	CHECK 227: NOT PREGNANT OR UNSURE ☐ ↓ PREGNANT ☐ → 344		
329	Are you currently doing something or using any method to delay or avoid getting pregnant?	YES . . . . . 1 NO 2	→ 344
330 330A	Which method are you using? CIRCLE ALL MENTIONED. IF MORE THAN ONE METHOD MENTIONED, FOLLOW SKIP INSTRUCTION FOR HIGHEST METHOD ON LIST. CIRCLE 'A' FOR FEMALE STERILIZATION.	FEMALE STERILIZATION . . . . . A MALE STERILIZATION . . . . . B → 335 PILL . . . . . C IUD/LOOP . . . . . D INJECTABLES . . . . . E → 334 IMPLANTS . . . . . F CONDOM/NIRODH . . . . . G FEMALE CONDOM . . . . . H DIAPHRAGM . . . . . I → 334 FOAM/JELLY . . . . . J RHYTHM METHOD . . . . . K WITHDRAWAL . . . . . L → 341A OTHER _____ X (SPECIFY)	
331	May I see the package of (pills/condoms) you are using? RECORD NAME OF BRAND.	PACKAGE SEEN . . . . . 1 BRAND NAME _____ (SPECIFY) ☐☐☐ PACKAGE NOT SEEN 2	→ 333
332	Do you know the brand name of the (pills/condoms) you are using? RECORD NAME OF BRAND.	BRAND NAME _____ (SPECIFY) ☐☐☐ DON'T KNOW 998	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
333	How many (pill cycles/condoms) did you get the last time?	NUMBER OF PILL CYCLES/CONDOMS ☐☐☐ DON'T KNOW 998	
334	The last time you obtained (CURRENT METHOD IN 330), how much did you pay in total, including the cost of the method and any consultation you may have had?	COST . . . . . Rs. ☐☐☐☐ FREE . . . . . 9995 DON'T KNOW 9998	→ 341A
335	In what facility did the sterilization take place? IF UNABLE TO DETERMINE IF A HOSPITAL, HEALTH CENTRE, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	PUBLIC MEDICAL SECTOR GOVT./MUNICIPAL HOSPITAL . . . . . 11 GOVT. DISPENSARY . . . . . 12 UHC/UHP/UFWC . . . . . 13 CHC/RURAL HOSPITAL/PHC . . . . . 14 SUB-CENTRE . . . . . 15 GOVT. MOBILE CLINIC . . . . . 16 CAMP . . . . . 17 OTHER PUBLIC SECTOR HEALTH FACILITY . . . . . 18 NGO OR TRUST HOSPITAL/CLINIC . . . . 21 PRIVATE MEDICAL SECTOR PVT. HOSPITAL . . . . . 31 PVT. DOCTOR/CLINIC . . . . . 32 PVT. MOBILE CLINIC . . . . . 33 OTHER PRIVATE HEALTH FACILITY . . . . . 34 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	
336	CHECK 330/330A: CODE 'A' CIRCLED ☐ ↓ CODE 'A' NOT CIRCLED ☐ → 341		
337	Before your sterilization operation, were you told that you would not be able to have any (more) children because of the operation?	YES . . . . . 1 NO 2	
338	How would you rate the care you received during and immediately after the operation: very good, all right, not so good, or bad?	VERY GOOD . . . . . 1 ALL RIGHT . . . . . 2 NOT SO GOOD . . . . . 3 BAD 4	
339	How much did you pay in total for the sterilization, including any consultation you may have had?	COST . . . Rs. ☐☐☐☐☐ FREE . . . . . 99995 DON'T KNOW 99998	
340	Do you regret that you had the sterilization?	YES . . . . . 1 NO 2	
341	In what month and year was the sterilization performed?		
341A	In what month and year did you start using (CURRENT METHOD) continuously? PROBE: For how long have you been using (CURRENT METHOD) now without stopping?	MONTH . . . . . ☐☐ YEAR . . . . . ☐☐☐☐	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
342	CHECK 341/341A, 215 AND 232: ANY BIRTH OR PREGNANCY TERMINATION AFTER MONTH AND YEAR OF START OF USE OF CONTRACEPTION IN 341/341A?	YES ☐ NO ☐	
	FOR METHODS OTHER THAN STERILIZATION: GO BACK TO 341/341A, PROBE AND RECORD MONTH AND YEAR AT START OF CONTINUOUS USE OF CURRENT METHOD (MUST BE AFTER LAST BIRTH OR PREGNANCY TERMINATION). **FOR FEMALE STERILIZATION:** GO BACK TO 329. ASK 329 AND FOLLOW CORRECT SKIP PATTERN.		
343	CHECK 341/341A:		
	YEAR IS 2001 OR LATER ☐ ENTER CODE FOR METHOD USED IN MONTH OF INTERVIEW IN **COLUMN 1** OF THE CALENDAR AND IN EACH MONTH BACK TO THE DATE STARTED USING. THEN CONTINUE WITH 344.	YEAR IS 2000 OR EARLIER ☐ ENTER CODE FOR METHOD USED IN MONTH OF INTERVIEW IN **COLUMN 1** OF THE CALENDAR AND EACH MONTH BACK TO JANUARY 2001 THEN SKIP TO → 351	
344	I would like to ask you some questions about the times you or your husband/partner may have used a method to avoid getting pregnant during the last few years. USE CALENDAR TO PROBE FOR EARLIER PERIODS OF USE AND NONUSE, STARTING WITH MOST RECENT USE, BACK TO JANUARY 2001. USE NAMES OF CHILDREN, DATES OF BIRTH, AND PERIODS OF PREGNANCY AS REFERENCE POINTS. **IN COLUMN 1**, ENTER METHOD USE CODE OR '0' FOR NONUSE IN EACH BLANK MONTH. ILLUSTRATIVE QUESTIONS: **COLUMN 1**: * When was the last time you used a method? Which method was that? * When did you start using that method? How long after the birth of (NAME)? * How long did you use the method then? **IN COLUMN 4**, ENTER CODES FOR DISCONTINUATION IN THE SAME ROW AS THE LAST MONTH OF USE. NUMBER OF CODES IN COLUMN 4 MUST BE SAME AS NUMBER OF INTERRUPTIONS OF METHOD USE IN COLUMN 1. ASK WHY SHE STOPPED USING THE METHOD. IF A PREGNANCY FOLLOWED, ASK WHETHER SHE BECAME PREGNANT UNINTENTIONALLY WHILE USING THE METHOD OR DELIBERATELY STOPPED TO GET PREGNANT. ILLUSTRATIVE QUESTIONS: **COLUMN 4**: * Why did you stop using the (METHOD)? * Did you become pregnant while using (METHOD), did you stop using to get pregnant, or did you stop for some other reason? IF DELIBERATELY STOPPED TO BECOME PREGNANT, ASK: * How many months did it take you to get pregnant after you stopped using (METHOD)? AND ENTER '0' IN EACH SUCH MONTH IN **COLUMN 1**.		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
345	CHECK 330/330A: CIRCLE METHOD CODE: IF MORE THAN ONE METHOD CODE CIRCLED IN 330/330A, CIRCLE CODE FOR HIGHEST METHOD IN LIST.	NO CODE CIRCLED . . . . . 00 FEMALE STERILIZATION . . . . . 01 MALE STERILIZATION . . . . . 02 PILL . . . . . 03 IUD/LOOP . . . . . 04 INJECTABLES . . . . . 05 IMPLANTS . . . . . 06 CONDOM/NIRODH . . . . . 07 FEMALE CONDOM . . . . . 08 DIAPHRAGM . . . . . 09 FOAM/JELLY . . . . . 10 RHYTHM METHOD . . . . . 11 WITHDRAWAL . . . . . 12 OTHER METHOD 96	→ 353 → 356 → 352 → 349 → 356
346	You started using (CURRENT METHOD) in (DATE). At that time, were you told about side effects or problems you might have with the method?	YES . . . . . 1 NO 2	→ 348
347	Were you ever told by a health or family planning worker about side effects or problems you might have with the method?	YES . . . . . 1 NO 2	 → 349
348	Were you told what to do if you experienced side effects or problems?	YES . . . . . 1 NO 2	
349	CHECK 346: CODE '1' CIRCLED → At that time, were you told about other methods of family planning that you could use? CODE '1' NOT CIRCLED → When you obtained (CURRENT METHOD) in (DATE), were you told about other methods of family planning that you could use?	YES . . . . . 1 NO 2	→ 351
350	Were you ever told by a health or family planning worker about other methods of family planning that you could use?	YES . . . . . 1 NO 2	
351	CHECK 330/330A: CIRCLE METHOD CODE: IF MORE THAN ONE METHOD CODE CIRCLED IN 330/330A, CIRCLE CODE FOR HIGHEST METHOD IN LIST.	FEMALE STERILIZATION . . . . . 01 MALE STERILIZATION . . . . . 02 PILL . . . . . 03 IUD/LOOP . . . . . 04 INJECTABLES . . . . . 05 IMPLANTS . . . . . 06 CONDOM/NIRODH . . . . . 07 FEMALE CONDOM . . . . . 08 DIAPHRAGM . . . . . 09 FOAM/JELLY . . . . . 10 RHYTHM METHOD . . . . . 11 WITHDRAWAL . . . . . 12 OTHER METHOD 96	→ 356 → 356

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
352	Where did you obtain (CURRENT METHOD) the last time? IF UNABLE TO DETERMINE IF A HOSPITAL, HEALTH CENTRE, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	PUBLIC MEDICAL SECTOR GOVT./MUNICIPAL HOSPITAL . . . . 11 GOVT. DISPENSARY . . . . . 12 UHC/UHP/UFWC . . . . . 13 CHC/RURAL HOSPITAL/PHC . . . . . 14 SUB-CENTRE/ANM . . . . . 15 GOVT. MOBILE CLINIC . . . . . 16 CAMP . . . . . 17 ANGANWADI/ICDS CENTRE . . . . . 18 ASHA . . . . . 19 OTHER COMMUNITY-BASED WORKER . . . . . 20 OTHER PUBLIC MEDICAL SECTOR . . . . . 21 NGO OR TRUST HOSPITAL/CLINIC . . . . 31 PRIVATE MEDICAL SECTOR PVT. HOSPITAL . . . . . 41 PVT. DOCTOR/CLINIC . . . . . 42 PVT. MOBILE CLINIC . . . . . 43 VAIDYA/HAKIM/HOMEOPATH . . . . . 44 TRADITIONAL HEALER . . . . . 45 PHARMACY/DRUGSTORE . . . . . 46 DAI (TBA) . . . . . 47 OTHER PRIVATE MEDICAL SECTOR . . . . . 48 OTHER SOURCE SHOP . . . . . 51 HUSBAND . . . . . 52 FRIEND/RELATIVE . . . . . 53 OTHER _____ 96 (SPECIFY)	→ 356
353	Were you ever told by a health or family planning worker about any methods of family planning that you can use to avoid pregnancy?	YES . . . . . 1 NO 2	
354	Do you know of a place where you can obtain a method of family planning?	YES . . . . . 1 NO 2	→ 356
355	Where is that? Any other place? IF UNABLE TO DETERMINE IF A HOSPITAL, HEALTH CENTRE, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL SECTOR, WRITE THE NAME OF THE PLACE(S). _____ (NAME OF PLACE(S)) RECORD ALL PLACES MENTIONED.	PUBLIC MEDICAL SECTOR GOVT./MUNICIPAL HOSPITAL . . . . . A GOVT. DISPENSARY . . . . . B UHC/UHP/UFWC . . . . . C CHC/RURAL HOSPITAL/PHC . . . . . D SUB-CENTRE/ANM . . . . . E GOVT. MOBILE CLINIC . . . . . F CAMP . . . . . G ANGANWADI/ICDS CENTRE . . . . . H ASHA . . . . . I OTHER COMMUNITY-BASED WORKER . . . . . J OTHER PUBLIC MEDICAL SECTOR . . . . . K NGO OR TRUST HOSPITAL/CLINIC . . . . L PRIVATE MEDICAL SECTOR PVT. HOSPITAL . . . . . M PVT. DOCTOR/CLINIC . . . . . N PVT. MOBILE CLINIC . . . . . O VAIDYA/HAKIM/HOMEOPATH . . . . . P TRADITIONAL HEALER . . . . . Q PHARMACY/DRUGSTORE . . . . . R DAI (TBA) . . . . . S OTHER PRIVATE MEDICAL SECTOR . . . . . T OTHER SOURCE SHOP . . . . . U FRIEND/RELATIVE . . . . . V OTHER _____ X (SPECIFY)	

SECTION 3C. CONTACTS WITH HEALTH PERSONNEL

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
356	Now I would like to talk to you about any contacts you have had recently with an ANM or Lady Health Visitor. In the last three months have you met with an ANM or LHV?	YES . . . . . 1 NO 2	→358
357	In the last three months, how many times did you meet with (this person/these persons): a. At home? b. At the anganwadi centre? c. At a health facility or camp? d. Anywhere else?	HOME . . . . . [ ][ ] AWC . . . . . [ ][ ] HEALTH FACILITY/CAMP . [ ][ ] ELSEWHERE . . . . . [ ][ ]	
358	In the last three months, have you met with an anganwadi worker or other community health worker?	YES . . . . . 1 NO 2	→361
359	Who did you meet? Anyone else? RECORD ALL MENTIONED.	ANGANWADI WORKER . . . . . A ASHA . . . . . B MPW . . . . . C OTHER _____ X (SPECIFY)	
360	In the last three months, how many times did you meet with (this person/these persons): a. At home? b. At the anganwadi centre? c. At a health facility or camp? d. Anywhere else?	HOME . . . . . [ ][ ] AWC . . . . . [ ][ ] HEALTH FACILITY/CAMP . [ ][ ] ELSEWHERE . . . . . [ ][ ]	
361	CHECK 356 AND 358: AT LEAST ONE 'YES' ☐ BOTH 'NO' ☐		→367
362	During (this contact/all these contacts) with [PERSONS MENTIONED IN 356 AND 359] in the last three months, what were the different services provided and matters talked about? Anything else? RECORD ALL MENTIONED.	FAMILY PLANNING . . . . . A IMMUNIZATION . . . . . B ANTENATAL CARE . . . . . C DELIVERY CARE . . . . . D DELIVERY PREPAREDNESS . . . . . E POSTNATAL CARE . . . . . F DISEASE PREVENTION . . . . . G MEDICAL TREATMENT FOR SELF . . . H TREATMENT FOR SICK CHILD . . . . I TREATMENT FOR OTHER PERSON . J MALARIA CONTROL . . . . . K SUPPLEMENTARY FOOD . . . . . L GROWTH MONITORING OF CHILD . . . M EARLY CHILDHOOD CARE . . . . . N PRE-SCHOOL EDUCATION . . . . . O NUTRITION/HEALTH EDUCATION . . . P FAMILY LIFE EDUCATION . . . . . Q MENSTRUAL HYGIENE . . . . . R OTHER _____ X (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
363	Who did you meet during your (most recent) contact?	ANM . . . . . 1 LHV . . . . . 2 ANGANWADI WORKER . . . . . 3 ASHA . . . . . 4 MPW . . . . . 5 OTHER _____ 6 (SPECIFY)	
364	Did she/he talk to you nicely, somewhat nicely, or not nicely?	NICELY . . . . . 1 SOMEWHAT NICELY . . . . . 2 NOT NICELY 3	
365	When she/he explained something to you, did she/he try to make sure that you understood the information?	YES . . . . . 1 NO . . . . . 2 NO EXPLANATION NEEDED 3	
366	CHECK 357c AND 360c: 357c AND 360c = 00 OR BLANK ☐ ↓ OTHER ☐ → 368		
367	In the last three months, have you visited a health facility or camp for any reason for yourself (or for your children)?	YES . . . . . 1 NO 2	→ 401
368	What type of health facility did you visit most recently for yourself (or for your children)? IF UNABLE TO DETERMINE IF A HOSPITAL, HEALTH CENTRE, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	PUBLIC MEDICAL SECTOR GOVT./MUNICIPAL HOSPITAL . . . 11 GOVT. DISPENSARY . . . . . 12 UHC/UHP/UFWC . . . . . 13 CHC/RURAL HOSPITAL/PHC . . . . . 14 SUB-CENTRE . . . . . 15 GOVT. MOBILE CLINIC . . . . . 16 CAMP . . . . . 17 ANGANWADI/ICDS CENTRE . . . . . 18 OTHER PUBLIC SECTOR HEALTH FACILITY . . . . . 19 NGO OR TRUST HOSPITAL/CLINIC . . 21 PRIVATE MEDICAL SECTOR PVT. HOSPITAL/CLINIC . . . . . 31 PVT. MOBILE CLINIC . . . . . 32 PHARMACY/DRUGSTORE . . . . . 33 OTHER PRIVATE SECTOR HEALTH FACILITY . . . . . 34 OTHER _____ 96 (SPECIFY)	
369	What service did you go for? Any other service? RECORD ALL MENTIONED.	FAMILY PLANNING . . . . . A IMMUNIZATION . . . . . B ANTENATAL CARE . . . . . C DELIVERY CARE . . . . . D POSTNATAL CARE . . . . . E DISEASE PREVENTION . . . . . F MEDICAL TREATMENT FOR SELF . . . G TREATMENT FOR CHILD . . . . . H TREATMENT FOR OTHER PERSON . I GROWTH MONITORING OF CHILD . . . J HEALTH CHECK-UP . . . . . K OTHER _____ X (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
370	How long did you have to wait before you received the service you went for?	MINUTES . . . . . 1 ☐☐ HOURS . . . . . 2 ☐☐ NO WAIT AT ALL . . . . . 995 DID NOT RECEIVE SERVICE 996	→373
371	Was the person who provided the service to you responsive to your problems and needs?	YES . . . . . 1 NO 2	
372	Did she/he respect your need for privacy if you needed it?	YES . . . . . 1 NO . . . . . 2 SAYS PRIVACY NOT NEEDED 3	
373	Would you say that the (camp/health facility) was very clean, somewhat clean, or not clean?	VERY CLEAN . . . . . 1 SOMEWHAT CLEAN . . . . . 2 NOT CLEAN 3	

401	CHECK 225: ONE OR MORE BIRTHS IN 2001 OR LATER ☐ ↓ NO BIRTHS IN 2001 OR LATER ☐ → 556	
402	ENTER IN THE TABLE BELOW THE LINE NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH IN 2001 OR LATER. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. (IF THERE ARE MORE THAN 3 BIRTHS, USE LAST 2 COLUMNS OF ADDITIONAL QUESTIONNAIRES). Now I would like to ask you some questions about the health of all your children born in the last five years. (We will talk about each separately.)	

		LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST BIRTH
403	LINE NUMBER FROM 212	LINE NUMBER .... ☐☐	LINE NUMBER .... ☐☐	LINE NUMBER .... ☐☐
404	FROM 212 AND 216	NAME _____ LIVING ☐ ↓ DEAD ☐ ↓	NAME _____ LIVING ☐ ↓ DEAD ☐ ↓	NAME _____ LIVING ☐ ↓ DEAD ☐ ↓
405	At the time you became pregnant with (NAME), did you want to become pregnant then, did you want to wait until later, or did you not want to have any (more) children at all?	THEN ..... 1 (SKIP TO 407) ← LATER ..... 2 NOT AT ALL ..... 3 (SKIP TO 407) ←	THEN ..... 1 (SKIP TO 435) ← LATER ..... 2 NOT AT ALL ..... 3 (SKIP TO 435) ←	THEN ..... 1 (SKIP TO 435) ← LATER ..... 2 NOT AT ALL ..... 3 (SKIP TO 435) ←
406	How much longer would you have liked to wait?	MONTHS .. 1 ☐☐ YEARS .. 2 ☐☐ DON'T KNOW 998	MONTHS .. 1 ☐☐ YEARS .. 2 ☐☐ DON'T KNOW ... 998	MONTHS .. 1 ☐☐ YEARS .. 2 ☐☐ DON'T KNOW ... 998
407	Was this pregnancy registered with the ANM?	YES ..... 1 NO ..... 2 (SKIP TO 409) ←		
408	Did you get a card from the ANM?	YES ..... 1 NO 2		
409	Did you see anyone for antenatal care for this pregnancy? IF YES: Whom did you see? Anyone else? PROBE FOR THE TYPE OF PERSON AND RECORD ALL PERSONS SEEN.	HEALTH PERSONNEL DOCTOR ..... A ANM/NURSE/ MIDWIFE/LHV .... B OTHER HEALTH PERSONNEL .... C OTHER PERSON DAI/TBA ..... D ANGANWADI/ICDS WORKER .... E OTHER _____ X (SPECIFY) NO ONE ..... Y (SKIP TO 417) ←		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
410	Where did you receive antenatal care for this pregnancy? Any other place? IF UNABLE TO DETERMINE IF A HOSPITAL, HEALTH CENTRE, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL SECTOR, WRITE THE NAME OF THE PLACE(S). _____ (NAME OF PLACE(S)) RECORD ALL PLACES MENTIONED.	HOME YOUR HOME . . . . A PARENTS' HOME B OTHER HOME . . . . C PUB. MED. SECTOR GOVT./MUNIC. HOSPITAL . . . . D GOVT. DISP. . . . . E UHC/UHP/UFWC . . . . F CHC/RUR. HOSP./ PHC . . . . . G SUB-CENTRE . . . . H ANGANWADI/ICDS CENTRE . . . . . I VILLAGE CLINIC BY ANM . . . . . J OTHER PUBLIC SECT. HEALTH FACILITY . . . . . K NGO/TRUST HOSP./ CLINIC . . . . . L PVT. MED. SECTOR PVT. HOSP./ MATERNITY HOME/CLINIC . . . . M OTHER PVT. SECT. HEALTH FACILITY . . . . . N OTHER _____ X (SPECIFY)	
411	How many months pregnant were you when you first received antenatal care for this pregnancy?	MONTHS . . . . [ ][ ] DON'T KNOW 98		
412	How many times did you receive antenatal care during this pregnancy?	NUMBER OF TIMES . . . [ ][ ] DON'T KNOW 98		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
413	As part of your antenatal care during this pregnancy, were any of the following done at least once?	YES NO		
	a. Were you weighed?	WEIGHT 1 2		
	b. Was your blood pressure measured?	BP 1 2		
	c. Did you give a urine sample?	URINE 1 2		
	d. Did you give a blood sample?	BLOOD 1 2		
	e. Was your abdomen checked?	ABDOMEN 1 2		
	f. Were you told your expected delivery date?	DELIVERY DATE 1 2		
	g. Were you advised to deliver in a hospital or health facility?	DELIVERY ADVICE 1 2		
	h. Were you advised about proper nutrition during pregnancy?	NUTRITION ADVICE 1 2		
414	During (any of) your antenatal care visit(s), were you told about the following signs of pregnancy complications?	YES NO		
	a. Vaginal bleeding?	BLEEDING 1 2		
	b. Convulsions?	CONVULSIONS 1 2		
	c. Prolonged labour?	PROLONGED LABOUR 1 2		
415	Were you told where to go if you had any pregnancy complications?	YES . . . . . 1 NO 2		
416	Was (NAME'S) father present during (any of) your antenatal visits?	YES . . . . . 1 NO 2		
417	During this pregnancy, were you given an injection to prevent you and the baby from getting tetanus?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 420) ← DON'T KNOW 8		
418	During this pregnancy, how many times did you get a tetanus injection?	TIMES . . . . . ☐ DON'T KNOW 8		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
419	CHECK 418:	2 OR MORE TIMES ☐ → (SKIP TO 422) OTHER ☐ ↓		
420	At any time before this pregnancy, did you receive any tetanus injections?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 422) ← DON'T KNOW 8		
421	How many years ago did you receive the last tetanus injection before this pregnancy?	YEARS AGO . . . . . ☐☐		
422	During this pregnancy, were you given or did you buy any iron folic acid tablets or syrup? SHOW TABLETS/SYRUP.	YES . . . . . 1 NO . . . . . 2 (SKIP TO 424) ← DON'T KNOW 8		
423	During the whole pregnancy, for how many days did you take the tablets or syrup? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER OF DAYS.	NUMBER OF DAYS ☐☐☐ DON'T KNOW 998		
424	During this pregnancy, did you take any drug to get rid of worms in your intestines?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8		
425	During this pregnancy, did you have difficulty with your vision during daylight?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8		
426	During this pregnancy, did you suffer from night blindness [USE LOCAL TERM]?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8		
427	During this pregnancy, did you have convulsions not from fever?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8		
428	During this pregnancy, did you have swelling of the legs, body or face?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8		
429	During this pregnancy, did you feel excessive fatigue?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
430	During this pregnancy, did you have any vaginal bleeding?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8		
431	Did you receive any supplementary nutrition from the anganwadi centre during this pregnancy?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 433) ←		
432	During this pregnancy, were you always able to get the supplementary nutrition from the anganwadi centre when you wanted it?	YES, ALWAYS . . . . . 1 NO 2		
433	During the last three months of this pregnancy, did you meet with an ANM, Lady Health Visitor, anganwadi worker, or other community health worker? IF YES: Where did you meet this/ these person(s)?	HOME ONLY . . . . . 1 ELSEWHERE ONLY . . . . 2 BOTH HOME AND ELSEWHERE . . . . . 3 DID NOT MEET . . . . . 4 (SKIP TO 435) ←		
434	During any of these meetings in the last three months of this pregnancy, did you receive advice on the following at least once?	YES NO		
	a. Breastfeeding?	BREASTFEED 1 2		
	b. Keeping the baby warm?	BABY WARM 1 2		
	c. The need for cleanliness at the time of delivery?	CLEANLINESS 1 2		
	d. Family planning or delaying your next child?	FAMILY PLAN 1 2		
435	When (NAME) was born, was he/she very large, larger than average, average, smaller than average, or very small?	VERY LARGE . . . . . 1 LARGER THAN AVERAGE . . . . . 2 AVERAGE . . . . . 3 SMALLER THAN AVERAGE . . . . . 4 VERY SMALL . . . . . 5 DON'T KNOW 8	VERY LARGE . . . . . 1 LARGER THAN AVERAGE . . . . . 2 AVERAGE . . . . . 3 SMALLER THAN AVERAGE . . . . . 4 VERY SMALL . . . . . 5 DON'T KNOW 8	VERY LARGE . . . . . 1 LARGER THAN AVERAGE . . . . . 2 AVERAGE . . . . . 3 SMALLER THAN AVERAGE . . . . . 4 VERY SMALL . . . . . 5 DON'T KNOW 8
436	Was (NAME) weighed at birth?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 438) ← DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 438) ← DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 438) ← DON'T KNOW 8

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
437	How much did (NAME) weigh? RECORD WEIGHT IN KILOGRAMS FROM HEALTH CARD, IF AVAILABLE.	KG FROM CARD 1 ☐. ☐☐☐ KG FROM RECALL 2 ☐. ☐☐☐ DON'T KNOW . 99.998	KG FROM CARD 1 ☐. ☐☐☐ KG FROM RECALL 2 ☐. ☐☐☐ DON'T KNOW . 99.998	KG FROM CARD 1 ☐. ☐☐☐ KG FROM RECALL 2 ☐. ☐☐☐ DON'T KNOW . 99.998
438	Who assisted with the delivery of (NAME)? Anyone else? PROBE FOR THE TYPE OF PERSON AND RECORD ALL PERSONS ASSISTING. IF RESPONDENT SAYS NO ONE ASSISTED, PROBE TO DETERMINE WHETHER ANY ADULTS WERE PRESENT AT THE DELIVERY.	HEALTH PERSONNEL DOCTOR . . . . . A ANM/NURSE/ MIDWIFE/LHV . B OTHER HEALTH PERSONNEL . C OTHER PERSON DAI (TBA) . . . . D FRIEND/RELATIVE E OTHER _____ X (SPECIFY) NO ONE . . . . . Y	HEALTH PERSONNEL DOCTOR . . . . . A ANM/NURSE/ MIDWIFE/LHV . B OTHER HEALTH PERSONNEL . C OTHER PERSON DAI (TBA) . . . D FRIEND/RELATIVE E OTHER _____ X (SPECIFY) NO ONE . . . . . Y	HEALTH PERSONNEL DOCTOR . . . . . A ANM/NURSE/ MIDWIFE/LHV . B OTHER HEALTH PERSONNEL . C OTHER PERSON DAI (TBA) . . . D FRIEND/RELATIVE E OTHER _____ X (SPECIFY) NO ONE . . . . . Y
439	Where did you give birth to (NAME)? IF UNABLE TO DETERMINE IF A HOSPITAL, HEALTH CENTRE, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	HOME YOUR HOME . . . . 11 (SKIP TO 446) PARENTS' HOME 12 OTHER HOME . . . . 13 (SKIP TO 446) PUB. MED. SECTOR GOVT./MUNIC. HOSPITAL . . . . 21 GOVT. DISP. . . . . 22 UHC/UHP/UFWC 23 CHC/RUR. HOSP/ PHC . . . . . 24 SUB-CENTRE . . . . 25 OTHER PUB. SECT. HEALTH FACILITY . . . . . 26 NGO/TRUST HOSP./ CLINIC . . . . . 31 PVT. MED. SECTOR PVT. HOSP./ MATERNITY HOME/CLINIC . 41 OTHER PVT. SECT. HEALTH FACILITY . . . . . 42 OTHER _____ 96 (SPECIFY) (SKIP TO 446)	HOME YOUR HOME . . . 11 (SKIP TO 448) PARENTS' HOME 12 OTHER HOME . . . 13 (SKIP TO 448) PUB. MED. SECTOR GOVT./MUNIC. HOSPITAL . . . 21 GOVT. DISP. . . . 22 UHC/UHP/UFWC 23 CHC/RUR. HOSP/ PHC . . . . . 24 SUB-CENTRE . . . 25 OTHER PUB. SECT. HEALTH FACILITY . . . . . 26 NGO/TRUST HOSP./ CLINIC . . . . . 31 PVT. MED. SECTOR PVT. HOSP./ MATERNITY HOME/CLINIC . 41 OTHER PVT. SECT. HEALTH FACILITY . . . . . 42 OTHER _____ 96 (SPECIFY) (SKIP TO 448)	HOME YOUR HOME . . . 11 (SKIP TO 448) PARENTS' HOME 12 OTHER HOME . . . 13 (SKIP TO 448) PUB. MED. SECTOR GOVT./MUNIC. HOSPITAL . . . 21 GOVT. DISP. . . . 22 UHC/UHP/UFWC 23 CHC/RUR. HOSP/ PHC . . . . . 24 SUB-CENTRE . . . 25 OTHER PUB. SECT. HEALTH FACILITY . . . . . 26 NGO/TRUST HOSP./ CLINIC . . . . . 31 PVT. MED. SECTOR PVT. HOSP./ MATERNITY HOME/CLINIC . 41 OTHER PVT. SECT. HEALTH FACILITY . . . . . 42 OTHER _____ 96 (SPECIFY) (SKIP TO 448)

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
440	How long after (NAME) was delivered did you stay there? IF LESS THAN ONE DAY, RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS.	HOURS . . 1 ☐☐ DAYS . . . . . 2 ☐☐ WEEKS . . 3 ☐☐ DON'T KNOW 998	HOURS . 1 ☐☐ DAYS . . . 2 ☐☐ WEEKS . 3 ☐☐ DON'T KNOW . . . 998	HOURS . 1 ☐☐ DAYS . . . 2 ☐☐ WEEKS . 3 ☐☐ DON'T KNOW . . . 998
441	Was (NAME) delivered by caesarean section?	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
442	Before you were discharged (FROM PLACE IN 439) after (NAME) was born, did any health personnel check on your health?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 445)	YES . . . . . 1 (SKIP TO 461) NO 2	YES . . . . . 1 (SKIP TO 461) NO 2
443	How long after delivery did the first check take place? IF LESS THAN ONE DAY, RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS.	HOURS . . 1 ☐☐ DAYS . . . . . 2 ☐☐ WEEKS . . 3 ☐☐ DON'T KNOW 998		
444	Who checked on your health at that time? PROBE FOR MOST QUALIFIED PERSON.	HEALTH PERSONNEL DOCTOR . . . . . 11 ANM/NURSE/ MIDWIFE/LHV . . . . 12 OTHER HEALTH PERSONNEL . . . . 13 OTHER PERSON DAI (TBA) . . . . 21 OTHER _____ 96 (SPECIFY) (SKIP TO 459)		
445	In the two months after you were discharged, did any health personnel, anganwadi worker, or traditional birth attendant [dai] check on your health?	YES . . . . . 1 (SKIP TO 449) NO . . . . . 2 (SKIP TO 459)	YES . . . . . 1 (SKIP TO 461) NO 2	YES . . . . . 1 (SKIP TO 461) NO 2

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
446	Why didn't you deliver in a health facility? PROBE: Any other reason? RECORD ALL MENTIONED.	COSTS TOO MUCH . . . . A FACILITY NOT OPEN B TOO FAR/ NO TRANSPORTATION . C DON'T TRUST FACILITY/POOR QUALITY SERVICE . D NO FEMALE PROVIDER AT FACILITY . E HUSBAND/FAMILY DID NOT ALLOW . F NOT NECESSARY . . . . G NOT CUSTOMARY . . H OTHER _____ X (SPECIFY)		
447	At the time of delivery of (NAME) were the following done? a. Was a disposable delivery kit used? b. Was the baby immediately wiped dry and then wrapped without being bathed? c. Was a clean blade used to cut the cord?	YES NO DK DDK USED . . 1 2 8 WIPE AND WRAP . . 1 2 8 BLADE 1 2 8		
448	In the two months after (NAME) was born, did any health personnel, anganwadi worker, or a traditional birth attendant check on your health?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 455)	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
449	How many hours, days or weeks after delivery did the first check take place? IF LESS THAN ONE DAY, RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS.	HOURS . . 1 ☐☐ DAYS . . . . . 2 ☐☐ WEEKS . . 3 ☐☐ DON'T KNOW 998		
450	Who checked on your health at that time? PROBE FOR MOST QUALIFIED PERSON.	HEALTH PERSONNEL DOCTOR . . . . . 11 ANM/NURSE/ MIDWIFE/LHV . . . . 12 OTHER HEALTH PERSONNEL . . . . 13 OTHER PERSON DAI (TBA) . . . . . 21 OTHER _____ 96 (SPECIFY)		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
451	Where did this first check take place? IF UNABLE TO DETERMINE IF A HOSPITAL, HEALTH CENTRE, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	HOME YOUR HOME . . . . . 11 PARENTS' HOME . . . . 12 OTHER HOME . . . . . 13 PUB. MED. SECTOR GOVT./MUNIC. HOSPITAL . . . . . 21 GOVT. DISP. . . . . 22 UHC/UHP/UFWC . . . . 23 CHC/RUR. HOSP/ PHC . . . . . 24 SUB-CENTRE . . . . . 25 ANGANWADI/ICDS CENTRE . . . . . 26 OTHER PUB. SECT. HEALTH FACILITY . . . . . 27 NGO/TRUST HOSP./ CLINIC . . . . . 31 PVT. MED. SECTOR PVT. HOSP./ MATERNITY HOME/CLINIC . . . . 41 OTHER PVT. SECT. HEALTH FACILITY . . . . . 42 OTHER _____ 96 (SPECIFY)		
452	CHECK 445:	YES → (SKIP TO 459) NOT ASKED		
453	Was the health of (NAME) also checked at this time?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 455)		
454	Was this the first time the health of (NAME) was checked?	YES . . . . . 1 (SKIP TO 459) NO . . . . . 2 (SKIP TO 456)		
455	In the two months after (NAME) was born, did any health personnel or a traditional birth attendant check on his/her health?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 459) DON'T KNOW 8		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
456	How many hours, days or weeks after the birth of (NAME) did the first check take place? IF LESS THAN ONE DAY, RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS.	HRS AFTER BIRTH . . . . . 1 [ ][ ] DAYS AFTER BIRTH . . . . . 2 [ ][ ] WKS AFTER BIRTH . . . . . 3 [ ][ ] DON'T KNOW 998		
457	Who checked on (NAME)'s health at that time? PROBE FOR MOST QUALIFIED PERSON.	HEALTH PERSONNEL DOCTOR . . . . . 11 ANM/NURSE/ MIDWIFE/LHV . . . . 12 OTHER HEALTH PERSONNEL . . . . 13 OTHER PERSON DAI (TBA) . . . . . 21 OTHER _____ 96 (SPECIFY)		
458	Where did this first check of (NAME) take place? IF UNABLE TO DETERMINE IF A HOSPITAL, HEALTH CENTRE, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	HOME YOUR HOME . . . . . 11 PARENTS' HOME 12 OTHER HOME . . . . . 13 PUB. MED. SECTOR GOVT./MUNIC. HOSPITAL . . . . . 21 GOVT. DISP. . . . . 22 UHC/UHP/UFWC 23 CHC/RUR. HOSP./ PHC . . . . . 24 SUB-CENTRE . . . . . 25 ANGANWADI/ICDS CENTRE . . . . . 26 OTHER PUB. SECT. HEALTH FACILITY . . . . . 27 NGO/TRUST HOSP./ CLINIC . . . . . 31 PVT. MED. SECTOR PVT. HOSP./ MATERNITY HOME/CLINIC . . . . 41 OTHER PVT. SECT. HEALTH FACILITY . . . . . 42 OTHER _____ 96 (SPECIFY)		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
459	In the first two months after delivery, did you have: a) Massive vaginal bleeding? b) Very high fever?	YES . . . . . 1 NO . . . . . 2 YES . . . . . 1 NO 2		
460	Has your menstrual period returned since the birth of (NAME)?	YES . . . . . 1 (SKIP TO 462) NO . . . . . 2 (SKIP TO 463)		
461	Did your period return between the birth of (NAME) and your next pregnancy?		YES . . . . . 1 NO . . . . . 2 (SKIP TO 465)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 465)
462	For how many months after the birth of (NAME) did you not have a period?	MONTHS . . . . ☐☐ DON'T KNOW 98	MONTHS . . . ☐☐ DON'T KNOW 98	MONTHS . . . . ☐☐ DON'T KNOW 98
463	CHECK 227: IS RESPONDENT PREGNANT?	NOT PREG-NANT ☐ PREGNANT OR UNSURE ☐ (SKIP TO 465)		
464	Have you resumed sexual relations since the birth of (NAME)?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 466)		
465	For how many months after the birth of (NAME) did you not have sexual relations?	MONTHS . . . . ☐☐ DON'T KNOW 98	MONTHS . . . ☐☐ DON'T KNOW 98	MONTHS . . . . ☐☐ DON'T KNOW 98
466	Did you ever breastfeed (NAME)?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 473)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 473)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 473)
467	How long after birth did you first put (NAME) to the breast? IF LESS THAN HALF AN HOUR, CIRCLE '000'. IF LESS THAN 24 HOURS, RECORD HOURS. OTHERWISE, RECORD DAYS.	IMMEDIATELY/ WITHIN HALF AN HOUR . . . . . 000 HOURS . . 1 ☐☐ DAYS . . . . . 2 ☐☐		
468	In the first three days after delivery, was (NAME) given anything to drink other than breast milk?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 470)		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
469	What was (NAME) given to drink? Anything else? RECORD ALL LIQUIDS MENTIONED.	MILK (OTHER THAN BREAST MILK) . . A PLAIN WATER . . . . . B SUGAR OR GLUCOSE WATER . . . . C GRIPE WATER . . . . D SUGAR-SALT-WATER SOLUTION . . . . . E FRUIT JUICE . . . . . F INFANT FORMULA . . G TEA . . . . . H HONEY . . . . . I JANAM GHUTTI . . . . J OTHER _____ X (SPECIFY)		
470	CHECK 404: IS CHILD LIVING?	LIVING / DEAD (SKIP TO 472)	LIVING / DEAD (SKIP TO 472)	LIVING / DEAD (SKIP TO 472)
471	Are you still breastfeeding (NAME)?	YES . . . . . 1 (SKIP TO 474) NO 2	YES . . . . . 1 (SKIP TO 476) NO 2	YES . . . . . 1 (SKIP TO 476) NO 2
472	For how many months did you breastfeed (NAME)?	MONTHS . . . . [ ][ ] DON'T KNOW 98	MONTHS . . . [ ][ ] DON'T KNOW . . . 98	MONTHS . . . . [ ][ ] DON'T KNOW . . . 98
473	CHECK 404: IS CHILD LIVING?	LIVING (SKIP TO 476) / DEAD (GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 478)	LIVING (SKIP TO 476) / DEAD (GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 478)	LIVING (SKIP TO 476) / DEAD (GO BACK TO 405 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 478)
474	How many times did you breastfeed last night between sunset and sunrise? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER.	NUMBER OF NIGHT TIME FEEDINGS . [ ][ ]		
475	How many times did you breastfeed yesterday during the daylight hours? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER.	NUMBER OF DAYLIGHT FEEDINGS . [ ][ ]		
476	Did (NAME) drink anything from a bottle with a nipple yesterday or last night?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
477		GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 478.	GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 478.	GO BACK TO 405 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 478.

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
478	CHECK 215 AND 218: HAS AT LEAST ONE CHILD BORN IN 2003 OR LATER AND LIVING WITH HER ☐ → RECORD NAME OF YOUNGEST CHILD LIVING WITH HER (AND CONTINUE WITH 479) _____ (NAME)	DOES NOT HAVE ANY CHILDREN BORN IN 2003 OR LATER AND LIVING WITH HER ☐	→ 501
479	Now I would like to ask you about liquids (NAME FROM 478) drank yesterday during the day or at night. Did (NAME FROM 478) drink:	YES NO DK	
	a. Plain water?	PLAIN WATER 1 2 8	
	b. Commercially produced infant formula?	FORMULA 1 2 8	
	c. Any other milk such as tinned, powdered, or fresh animal milk?	MILK 1 2 8	
	d. Fruit juice?	JUICE 1 2 8	
	e. Tea or coffee?	TEA/COFFEE 1 2 8	
	f. Any other liquids?	OTHER LIQUIDS 1 2 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
480	Now I would like to ask you about the food (NAME FROM 478) ate yesterday during the day or at night, either separately or combined with other foods. Did (NAME FROM 478) eat:	YES NO DK	
	a. Any porridge or gruel?	a 1 2 8	
	b. Any commercially fortified baby food such as Cerelac or Farex?	b 1 2 8	
	c. Any bread, roti, chapati, rice, noodles, biscuits, idli, or any other foods made from grains?	c 1 2 8	
	d. Any pumpkin, carrots, or sweet potatoes that are yellow or orange inside?	d 1 2 8	
	e. Any white potatoes, white yams, cassava, or any other foods made from roots?	e 1 2 8	
	f. Any dark green, leafy vegetables?	f 1 2 8	
	g. Any ripe mangoes, papayas, cantaloupe, or jackfruit?	g 1 2 8	
	h. Any other fruits or vegetables?	h 1 2 8	
	i. Any liver, kidney, heart or other organ meats?	i 1 2 8	
	j. Any chicken, duck or other birds?	j 1 2 8	
	k. Any other meat?	k 1 2 8	
	l. Any eggs?	l 1 2 8	
	m. Any fresh or dried fish or shellfish?	m 1 2 8	
	n. Any foods made from beans, peas, or lentils?	n 1 2 8	
	o. Any nuts?	o 1 2 8	
	p. Any cheese,yogurt or other milk products?	p 1 2 8	
	q. Any food made with oil, fat, ghee or butter?	q 1 2 8	
	r. Any other solid or semi-solid food?	r 1 2 8	
481	CHECK 480: AT LEAST ONE "YES" ☐	NOT A SINGLE "YES" ☐ → 501	
482	How many times did (NAME) eat solid, semisolid, or soft foods other than liquids yesterday during the day or at night? IF 7 OR MORE TIMES, RECORD '7'.	NUMBER OF TIMES . . . . . ☐☐ DON'T KNOW 8	

SECTION 5. IMMUNIZATION, HEALTH, AND WOMEN'S NUTRITION

501	ENTER IN THE TABLE THE LINE NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH IN 2001 OR LATER. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. (IF THERE ARE MORE THAN 3 BIRTHS, USE LAST 2 COLUMNS OF ADDITIONAL QUESTIONNAIRES).			
502	LINE NUMBER FROM 212	LAST BIRTH LINE NUMBER . . . . . ☐☐	NEXT-TO-LAST BIRTH LINE NUMBER . . . . . ☐☐	SECOND-FROM-LAST BIRTH LINE NUMBER . . . . . ☐☐
503	FROM 212 AND 216	NAME _____ LIVING ☐ DEAD ☐ (GO TO 503 IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 553)	NAME _____ LIVING ☐ DEAD ☐ (GO TO 503 IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 553)	NAME _____ LIVING ☐ DEAD ☐ (GO TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE, OR IF NO MORE BIRTHS, GO TO 553)
504	Has (NAME) ever received a vitamin A dose (like this/any of these)? SHOW COMMON AMPULES/SYRUPS/ CAPSULES	YES . . . . . 1 NO . . . . . 2 (SKIP TO 507) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 507) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 507) DON'T KNOW 8
505	How many times has (NAME) received a vitamin A dose? IF 7 OR MORE TIMES, RECORD '7'	TIMES . . . . . ☐ DON'T KNOW 8	TIMES . . . . . ☐ DON'T KNOW 8	TIMES . . . . . ☐ DON'T KNOW 8
506	How many months ago did (NAME) take the last dose?	MONTHS AGO . . ☐☐ DON'T KNOW 98	MONTHS AGO . . ☐☐ DON'T KNOW 98	MONTHS AGO . . ☐☐ DON'T KNOW 98
507	Is (NAME) currently taking iron pills or iron syrup (like this/ any of these)? SHOW COMMON CAPSULES/SYRUPS.	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
508	Has (NAME) taken any drug to get rid of intestinal worms in the past 6 months?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
509	Do you have a card where (NAME'S) vaccinations are written down? IF YES: May I see it please?	YES, SEEN . . . . . 1 (SKIP TO 511) ← YES, NOT SEEN . . . . . 2 (SKIP TO 514) ← NO CARD 3	YES, SEEN . . . . . 1 (SKIP TO 511) ← YES, NOT SEEN . . . . . 2 (SKIP TO 514) ← NO CARD 3	YES, SEEN . . . . . 1 (SKIP TO 511) ← YES, NOT SEEN . . . . . 2 (SKIP TO 514) ← NO CARD 3
510	Did you ever have a vaccination card for (NAME)?	YES . . . . . 1 (SKIP TO 514) ← NO 2	YES . . . . . 1 (SKIP TO 514) ← NO 2	YES . . . . . 1 (SKIP TO 514) ← NO 2

511 (1) COPY VACCINATION DATE FOR EACH VACCINE FROM THE CARD.
(2) WRITE '44' IN 'DAY' COLUMN IF CARD SHOWS THAT A VACCINATION WAS GIVEN, BUT NO DATE IS RECORDED.
(3) IF ONLY PART OF DATE IS SHOWN ON CARD, RECORD '98' OR '9998' FOR 'DON'T KNOW' IN THE COLUMN FOR WHICH INFORMATION IS NOT GIVEN.

	LAST BIRTH DAY	LAST BIRTH MONTH	LAST BIRTH YEAR		NEXT-TO-LAST BIRTH DAY	NEXT-TO-LAST BIRTH MONTH	NEXT-TO-LAST BIRTH YEAR		SECOND-FROM-LAST BIRTH DAY	SECOND-FROM-LAST BIRTH MONTH	SECOND-FROM-LAST BIRTH YEAR
BCG				BCG				BCG			
POLIO 0 (POLIO GIVEN AT BIRTH)				P0				P0			
POLIO 1				P1				P1			
POLIO 2				P2				P2			
POLIO 3				P3				P3			
DPT 1				D1				D1			
DPT 2				D2				D2			
DPT 3				D3				D3			
MEASLES				MEA				MEA			
VITAMIN A (LAST DOSE)				VIT A				VIT A			
VITAMIN A (NEXT-TO-LAST DOSE)				VIT A				VIT A			

NO.	QUESTIONS AND FILTERS	LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST BIRTH
512	CHECK 511:	BCG' TO 'MEASLES' FILLED → (SKIP TO 517) OTHER ↓	BCG' TO 'MEASLES' FILLED → (SKIP TO 517) OTHER ↓	BCG' TO 'MEASLES' FILLED → (SKIP TO 517) OTHER ↓

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
513	Has (NAME) received any vaccinations that are not recorded on this card, including vaccinations received in a Pulse Polio campaign? RECORD 'YES' ONLY IF RESPONDENT MENTIONS BCG, POLIO 0-3, DPT 1-3, AND/OR MEASLES VACCINES.	YES . . . . . 1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 511) (SKIP TO 516) NO . . . . . 2 (SKIP TO 516) DON'T KNOW 8	YES . . . . . 1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 511) (SKIP TO 516) NO . . . . . 2 (SKIP TO 516) DON'T KNOW 8	YES . . . . . 1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 511) (SKIP TO 516) NO . . . . . 2 (SKIP TO 516) DON'T KNOW 8
514	Did (NAME) ever receive any vaccinations to prevent him/her from getting diseases, including vaccinations received in a Pulse Polio campaign?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 518) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 518) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 518) DON'T KNOW 8
515	Please tell me if (NAME) received any of the following vaccinations:			
515A	A BCG vaccination against tuberculosis, that is, an injection in the arm or shoulder that usually causes a scar?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
515B	Polio vaccine, that is, drops in the mouth, including vaccine received in a Pulse Polio campaign?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 515E) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 515E) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 515E) DON'T KNOW 8
515C	Was the first polio vaccine received in the first two weeks after birth or later?	FIRST 2 WEEKS . . . 1 LATER 2	FIRST 2 WEEKS . . . 1 LATER 2	FIRST 2 WEEKS . . . 1 LATER 2
515D	How many times was the polio vaccine received? IF MORE THAN 7, RECORD '7'.	NUMBER OF TIMES . . . . . ☐	NUMBER OF TIMES . . . . . ☐	NUMBER OF TIMES . . . . . ☐
515E	A DPT vaccination, that is, an injection given in the thigh or buttocks, sometimes at the same time as polio drops?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 515G) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 515G) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 515G) DON'T KNOW 8

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
515F	How many times was a DPT vaccination received?	NUMBER OF TIMES . . . . . [ ]	NUMBER OF TIMES . . . . . [ ]	NUMBER OF TIMES . . . . . [ ]
515G	An injection to prevent measles?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
516	CHECK 511 AND 514: ANY VACCINATIONS RECEIVED?	YES NO (SKIP TO 518)	YES NO (SKIP TO 518)	YES NO (SKIP TO 518)
517	Where did (NAME) receive most of his/her vaccinations? IF UNABLE TO DETERMINE IF A HOSPITAL, HEALTH CENTRE, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	PUB. MED. SECTOR GOVT./MUNICIPAL HOSPITAL . . . 11 GOVT. DISP. . . . 12 UHC/UHP/UFWC 13 CHC/RUR. HOSP/ PHC . . . . . 14 SUB-CENTRE . 15 GOVT. MOBILE CLINIC . . . . . 16 CAMP . . . . . 17 ANGANWADI/ICDS CENTRE . . . . . 18 PULSE POLIO . . . 19 OTHER PUBLIC SECT. HEALTH FACILITY . . . . . 20 NGO/TRUST HOSP./ CLINIC . . . . . 31 PVT. MED. SECTOR PVT. HOSPITAL . 41 PVT. DOCTOR/ CLINIC . . . . . 42 PVT. PARAMEDIC 43 VAIDYA/HAKIM/ HOMEOPATH 44 PHARMACY/ DRUGSTORE . 45 OTHER PVT. HEALTH FAC. . 46 OTHER _____ 96 (SPECIFY)	PUB. MED. SECTOR GOVT./MUNICIPAL HOSPITAL . . . 11 GOVT. DISP. . . . 12 UHC/UHP/UFWC 13 CHC/RUR. HOSP/ PHC . . . . . 14 SUB-CENTRE . 15 GOVT. MOBILE CLINIC . . . . . 16 CAMP . . . . . 17 ANGANWADI/ICDS CENTRE . . . . . 18 PULSE POLIO . . . 19 OTHER PUBLIC SECT. HEALTH FACILITY . . . . . 20 NGO/TRUST HOSP./ CLINIC . . . . . 31 PVT. MED. SECTOR PVT. HOSPITAL . 41 PVT. DOCTOR/ CLINIC . . . . . 42 PVT. PARAMEDIC 43 VAIDYA/HAKIM/ HOMEOPATH 44 PHARMACY/ DRUGSTORE . 45 OTHER PVT. HEALTH FAC. . 46 OTHER _____ 96 (SPECIFY)	PUB. MED. SECTOR GOVT./MUNICIPAL HOSPITAL . . . 11 GOVT. DISP. . . . 12 UHC/UHP/UFWC 13 CHC/RUR. HOSP/ PHC . . . . . 14 SUB-CENTRE . 15 GOVT. MOBILE CLINIC . . . . . 16 CAMP . . . . . 17 ANGANWADI/ICDS CENTRE . . . . . 18 PULSE POLIO . . . 19 OTHER PUBLIC SECT. HEALTH FACILITY . . . . . 20 NGO/TRUST HOSP./ CLINIC . . . . . 31 PVT. MED. SECTOR PVT. HOSPITAL . 41 PVT. DOCTOR/ CLINIC . . . . . 42 PVT. PARAMEDIC 43 VAIDYA/HAKIM/ HOMEOPATH 44 PHARMACY/ DRUGSTORE . 45 OTHER PVT. HEALTH FAC. . 46 OTHER _____ 96 (SPECIFY)
518	Has (NAME) had diarrhoea in the last 2 weeks?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 532) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 532) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 532) DON'T KNOW 8
519	How long ago did the diarrhoea start? IF LESS THAN ONE WEEK, RECORD NUMBER OF DAYS AGO; OTHERWISE RECORD WEEKS AGO.	NO. OF DAYS AGO 1 [0][ ] NO. OF WEEKS AGO 2 [ ][ ] DON'T KNOW 998	NO. OF DAYS AGO 1 [0][ ] NO. OF WEEKS AGO 2 [ ][ ] DON'T KNOW 998	NO. OF DAYS AGO 1 [0][ ] NO. OF WEEKS AGO 2 [ ][ ] DON'T KNOW 998

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
520	Was there any blood in the stools?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
521	Now I would like to know how much (NAME) was given to drink during the diarrhoea. Was he/she given less than usual to drink, about the same amount, or more than usual to drink? IF LESS, PROBE: Was he/she given much less than usual to drink or somewhat less?	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 NOTHING TO DRINK 5 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 NOTHING TO DRINK 5 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 NOTHING TO DRINK 5 DON'T KNOW 8
522	When (NAME) had diarrhoea, was he/she given less than usual to eat, about the same amount, more than usual, or nothing to eat? IF LESS, PROBE: Was he/she given much less than usual to eat or somewhat less?	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW 8
523	Did you seek advice or treatment for the diarrhoea from any source?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 528) ←	YES . . . . . 1 NO . . . . . 2 (SKIP TO 528) ←	YES . . . . . 1 NO . . . . . 2 (SKIP TO 528) ←

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
524	Where did you seek advice or treatment? Anywhere else? IF UNABLE TO DETERMINE IF A HOSPITAL, HEALTH CENTRE, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL SECTOR, WRITE THE NAME OF THE PLACE(S). _____ (NAME OF PLACE(S)) RECORD ALL SOURCES MENTIONED.	PUB. MED. SECTOR GOVT./MUNICIPAL HOSPITAL . . . A GOVT. DISP. . . . B UHC/UHP/UFWC C CHC/RUR. HOSP/ PHC . . . . . D SUB-CENTRE/ ANM . . . . . E GOVT. MOBILE CLINIC . . . . . F CAMP . . . . . G ANGANWADI/ICDS CENTRE . . . . . H ASHA . . . . . I OTHER PUB. SECT. HEALTH FACILITY . . . . . J NGO/TRUST HOSP./ CLINIC . . . . . K PVT. MED. SECTOR PVT. HOSPITAL . L PVT. DOCTOR/ CLINIC . . . . . M PVT. PARAMEDIC N VAIDYA/HAKIM/ HOMEOPATH O TRADITIONAL HEALER . . . . . P PHARMACY/ DRUGSTORE . Q OTHER PVT. HEALTH FAC. . R OTHER SOURCE SHOP . . . . . S FRIEND/RELATIVE T OTHER _____ X (SPECIFY)	PUB. MED. SECTOR GOVT./MUNICIPAL HOSPITAL . . . A GOVT. DISP. . . . B UHC/UHP/UFWC C CHC/RUR. HOSP/ PHC . . . . . D SUB-CENTRE/ ANM . . . . . E GOVT. MOBILE CLINIC . . . . . F CAMP . . . . . G ANGANWADI/ICDS CENTRE . . . . . H ASHA . . . . . I OTHER PUB. SECT. HEALTH FACILITY . . . . . J NGO/TRUST HOSP./ CLINIC . . . . . K PVT. MED. SECTOR PVT. HOSPITAL . L PVT. DOCTOR/ CLINIC . . . . . M PVT. PARAMEDIC N VAIDYA/HAKIM/ HOMEOPATH O TRADITIONAL HEALER . . . . . P PHARMACY/ DRUGSTORE . Q OTHER PVT. HEALTH FAC. . R OTHER SOURCE SHOP . . . . . S FRIEND/RELATIVE T OTHER _____ X (SPECIFY)	PUB. MED. SECTOR GOVT./MUNICIPAL HOSPITAL . . . A GOVT. DISP. . . . B UHC/UHP/UFWC C CHC/RUR. HOSP/ PHC . . . . . D SUB-CENTRE/ ANM . . . . . E GOVT. MOBILE CLINIC . . . . . F CAMP . . . . . G ANGANWADI/ICDS CENTRE . . . . . H ASHA . . . . . I OTHER PUB. SECT. HEALTH FACILITY . . . . . J NGO/TRUST HOSP./ CLINIC . . . . . K PVT. MED. SECTOR PVT. HOSPITAL . L PVT. DOCTOR/ CLINIC . . . . . M PVT. PARAMEDIC N VAIDYA/HAKIM/ HOMEOPATH O TRADITIONAL HEALER . . . . . P PHARMACY/ DRUGSTORE . Q OTHER PVT. HEALTH FAC. . R OTHER SOURCE SHOP . . . . . S FRIEND/RELATIVE T OTHER _____ X (SPECIFY)
525	CHECK 524:	TWO OR MORE CODES CIRCLED / ONLY ONE CODE CIRCLED (SKIP TO 527)	TWO OR MORE CODES CIRCLED / ONLY ONE CODE CIRCLED (SKIP TO 527)	TWO OR MORE CODES CIRCLED / ONLY ONE CODE CIRCLED (SKIP TO 527)
526	Where did you first seek advice or treatment? USE LETTER CODE FROM 524.	FIRST PLACE . . .	FIRST PLACE . . .	FIRST PLACE . . .
527	How many days after the diarrhoea began did you first seek advice or treatment for (NAME)? IF THE SAME DAY, RECORD '00'.	DAYS	DAYS	DAYS . . . . .

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
528	Does (NAME) still have diarrhoea?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
529	Was he/she given any of the following to drink at any time since he/she started having the diarrhoea:	YES NO DK	YES NO DK	YES NO DK
	a. A fluid made from a special packet called [LOCAL NAME FOR ORS PACKET]?	FLUID FROM ORS PKT . . 1 2 8	FLUID FROM ORS PKT . . 1 2 8	FLUID FROM ORS PKT . . 1 2 8
	b. Gruel made from rice [OR OTHER LOCAL GRAIN]?	GRUEL . . 1 2 8	GRUEL . . 1 2 8	GRUEL . . 1 2 8
530	Was anything (else) given to treat the diarrhoea?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 532) ← DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 532) ← DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 532) ← DON'T KNOW 8
531	What (else) was given to treat the diarrhoea? Anything else? RECORD ALL TREATMENTS GIVEN.	PILL OR SYRUP ANTIBIOTIC . . . . . A ANTIMOTILITY . . . B ZINC . . . . . C OTHER (NOT ANTI-BIOTIC, ANTI-MOTILITY, OR ZINC) . . . . . D UNKNOWN PILL OR SYRUP . . . E INJECTION ANTIBIOTIC . . . . . F NON-ANTIBIOTIC G UNKNOWN INJECTION . . . H INTRAVENOUS (IV) . I HOME REMEDY/ HERBAL MED-ICINE . . . . . J OTHER _____ X (SPECIFY)	PILL OR SYRUP ANTIBIOTIC . . . . . A ANTIMOTILITY . . . B ZINC . . . . . C OTHER (NOT ANTI-BIOTIC, ANTI-MOTILITY, OR ZINC) . . . . . D UNKNOWN PILL OR SYRUP . . . E INJECTION ANTIBIOTIC . . . . . F NON-ANTIBIOTIC G UNKNOWN INJECTION . . . H INTRAVENOUS (IV) . I HOME REMEDY/ HERBAL MED-ICINE . . . . . J OTHER _____ X (SPECIFY)	PILL OR SYRUP ANTIBIOTIC . . . . . A ANTIMOTILITY . . . B ZINC . . . . . C OTHER (NOT ANTI-BIOTIC, ANTI-MOTILITY, OR ZINC) . . . . . D UNKNOWN PILL OR SYRUP . . . E INJECTION ANTIBIOTIC . . . . . F NON-ANTIBIOTIC G UNKNOWN INJECTION . . . H INTRAVENOUS (IV) . I HOME REMEDY/ HERBAL MED-ICINE . . . . . J OTHER _____ X (SPECIFY)
532	Has (NAME) been ill with a fever at any time in the last 2 weeks?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
533	Has (NAME) been ill with a cough at any time in the last 2 weeks?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 536) ← DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 536) ← DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 536) ← DON'T KNOW 8

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
534	When (NAME) had an illness with a cough, did he/she breathe faster than usual with short, rapid breaths or have difficulty breathing?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 537) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 537) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 537) DON'T KNOW 8
535	When (NAME) had this illness, did he/she have a problem in the chest or a blocked or runny nose?	CHEST ONLY . . . 1 NOSE ONLY . . . . . 2 BOTH . . . . . 3 OTHER _____ 6 (SPECIFY) DON'T KNOW . . . . . 8 (SKIP TO 537)	CHEST ONLY . . . 1 NOSE ONLY . . . . . 2 BOTH . . . . . 3 OTHER _____ 6 (SPECIFY) DON'T KNOW . . . . . 8 (SKIP TO 537)	CHEST ONLY . . . 1 NOSE ONLY . . . . . 2 BOTH . . . . . 3 OTHER _____ 6 (SPECIFY) DON'T KNOW . . . . . 8 (SKIP TO 537)
536	CHECK 532: HAD FEVER?	YES NO OR DK (SKIP TO 552)	YES NO OR DK (SKIP TO 552)	YES NO OR DK (SKIP TO 552)
537	How long ago did the (fever/cough) start? IF LESS THAN ONE WEEK, RECORD NUMBER OF DAYS AGO; OTHERWISE RECORD WEEKS AGO.	NO. OF DAYS AGO 1 [0] NO. OF WEEKS AGO 2 [ ] DON'T KNOW 998	NO. OF DAYS AGO 1 [0] NO. OF WEEKS AGO 2 [ ] DON'T KNOW 998	NO. OF DAYS AGO 1 [0] NO. OF WEEKS AGO 2 [ ] DON'T KNOW 998
538	Now I would like to know how much (NAME) was given to drink during the illness with a (fever/cough). Was he/she given less than usual to drink, about the same amount, or more than usual to drink? IF LESS, PROBE: Was he/she given much less than usual to drink or somewhat less?	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 NOTHING TO DRINK 5 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 NOTHING TO DRINK 5 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 NOTHING TO DRINK 5 DON'T KNOW 8
539	When (NAME) had a (fever/cough), was he/she given less than usual to eat, about the same amount, more than usual, or nothing to eat? IF LESS, PROBE: Was he/she given much less than usual to eat or somewhat less?	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW 8

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
540	Did you seek advice or treatment for the illness from any source?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 545) ←	YES . . . . . 1 NO . . . . . 2 (SKIP TO 545) ←	YES . . . . . 1 NO . . . . . 2 (SKIP TO 545) ←
541	Where did you seek advice or treatment? Anywhere else? IF UNABLE TO DETERMINE IF A HOSPITAL, HEALTH CENTRE, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL SECTOR, WRITE THE NAME OF THE PLACE(S). _____ (NAME OF PLACE(S)) RECORD ALL SOURCES MENTIONED.	PUB. MED. SECTOR GOVT./MUNICIPAL HOSPITAL . . . A GOVT. DISP. . . . B UHC/UHP/UFWC C CHC/RUR. HOSP/ PHC . . . . . D SUB-CENTRE/ ANM . . . . . E ANGANWADI/ICDS CENTRE . . . . . F GOVT. MOBILE CLINIC . . . . . G CAMP . . . . . H OTHER PUB. SECT. HEALTH FACILITY . . . . . I ASHA . . . . . J NGO/TRUST HOSP./ CLINIC . . . . . K PVT. MED. SECTOR PVT. HOSPITAL . L PVT. DOCTOR/ CLINIC . . . . . M PVT. PARAMEDIC N VAIDYA/HAKIM/ HOMEOPATH O TRADITIONAL HEALER . . . . . P PHARMACY/ DRUGSTORE . Q OTHER PVT. HEALTH FAC. . R OTHER SOURCE SHOP . . . . . S FRIEND/RELATIVE T OTHER _____ X (SPECIFY)	PUB. MED. SECTOR GOVT./MUNICIPAL HOSPITAL . . . A GOVT. DISP. . . . B UHC/UHP/UFWC C CHC/RUR. HOSP/ PHC . . . . . D SUB-CENTRE/ ANM . . . . . E ANGANWADI/ICDS CENTRE . . . . . F GOVT. MOBILE CLINIC . . . . . G CAMP . . . . . H OTHER PUB. SECT. HEALTH FACILITY . . . . . I ASHA . . . . . J NGO/TRUST HOSP./ CLINIC . . . . . K PVT. MED. SECTOR PVT. HOSPITAL . L PVT. DOCTOR/ CLINIC . . . . . M PVT. PARAMEDIC N VAIDYA/HAKIM/ HOMEOPATH O TRADITIONAL HEALER . . . . . P PHARMACY/ DRUGSTORE . Q OTHER PVT. HEALTH FAC. . R OTHER SOURCE SHOP . . . . . S FRIEND/RELATIVE T OTHER _____ X (SPECIFY)	PUB. MED. SECTOR GOVT./MUNICIPAL HOSPITAL . . . A GOVT. DISP. . . . B UHC/UHP/UFWC C CHC/RUR. HOSP/ PHC . . . . . D SUB-CENTRE/ ANM . . . . . E ANGANWADI/ICDS CENTRE . . . . . F GOVT. MOBILE CLINIC . . . . . G CAMP . . . . . H OTHER PUB. SECT. HEALTH FACILITY . . . . . I ASHA . . . . . J NGO/TRUST HOSP./ CLINIC . . . . . K PVT. MED. SECTOR PVT. HOSPITAL . L PVT. DOCTOR/ CLINIC . . . . . M PVT. PARAMEDIC N VAIDYA/HAKIM/ HOMEOPATH O TRADITIONAL HEALER . . . . . P PHARMACY/ DRUGSTORE . Q OTHER PVT. HEALTH FAC. . R OTHER SOURCE SHOP . . . . . S FRIEND/RELATIVE T OTHER _____ X (SPECIFY)
542	CHECK 541:	TWO OR MORE CODES CIRCLED ☐ ONLY ONE CODE CIRCLED ☐ (SKIP TO 544) ←	TWO OR MORE CODES CIRCLED ☐ ONLY ONE CODE CIRCLED ☐ (SKIP TO 544) ←	TWO OR MORE CODES CIRCLED ☐ ONLY ONE CODE CIRCLED ☐ (SKIP TO 544) ←
543	Where did you first seek advice or treatment? USE LETTER CODE FROM 541.	FIRST PLACE . . . ☐	FIRST PLACE . . . ☐	FIRST PLACE . . . ☐

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
544	How many days after the illness began did you first seek advice or treatment for (NAME)? IF THE SAME DAY, RECORD '00'.	DAYS . . . . . ☐☐	DAYS . . . . . ☐☐	DAYS . . . . . ☐☐
545	Is (NAME) still sick with a (fever/ cough)?	FEVER ONLY . . . . . 1 COUGH ONLY . . . . . 2 BOTH FEVER AND COUGH . . . . . 3 NO, NEITHER . . . . . 4 DON'T KNOW 8	FEVER ONLY . . . . . 1 COUGH ONLY . . . . . 2 BOTH FEVER AND COUGH . . . . . 3 NO, NEITHER . . . . . 4 DON'T KNOW 8	FEVER ONLY . . . . . 1 COUGH ONLY . . . . . 2 BOTH FEVER AND COUGH . . . . . 3 NO, NEITHER . . . . . 4 DON'T KNOW 8
546	At any time during the illness, did (NAME) take any drugs for the illness?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 552) ← DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 552) ← DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 552) ← DON'T KNOW 8
547	What drugs did (NAME) take? Any other drugs? RECORD ALL MENTIONED.	ANTIMALARIAL DRUGS CHLOROQUINE . A PRIMAQUINE . . . B SP/FANSIDAR . . . C COMBINATION WITH ARTEMISININ . D OTHER ANTI-MALARIAL . . . E UNKNOWN ANTI-MALARIAL . . . F ANTIBIOTIC DRUG . G OTHER DRUGS ASPIRIN . . . . . H ACETA-MINOPHEN . . . I IBUPROFEN . . . J OTHER _____ X (SPECIFY) UNKNOWN DRUG . Z	ANTIMALARIAL DRUGS CHLOROQUINE . . A PRIMAQUINE . .. . B SP/FANSIDAR . .. . C COMBINATION WITH ARTEMISININ . . D OTHER ANTI-MALARIAL . . . E UNKNOWN ANTI-MALARIAL . . . F ANTIBIOTIC DRUG . G OTHER DRUGS ASPIRIN . . . . . H ACETA-MINOPHEN . . . I IBUPROFEN . . . J OTHER _____ X (SPECIFY) UNKNOWN DRUG . Z	ANTIMALARIAL DRUGS CHLOROQUINE . . A PRIMAQUINE . .. . B SP/FANSIDAR . .. . C COMBINATION WITH ARTEMISININ . . D OTHER ANTI-MALARIAL . . . E UNKNOWN ANTI-MALARIAL . . . F ANTIBIOTIC DRUG . G OTHER DRUGS ASPIRIN . . . . . H ACETA-MINOPHEN . . . I IBUPROFEN . . . J OTHER _____ X (SPECIFY) UNKNOWN DRUG . Z
548	CHECK 547: ANY CODE A-G CIRCLED?	YES ☐ NO ☐ (SKIP TO 552) ←	YES ☐ NO ☐ (SKIP TO 552) ←	YES ☐ NO ☐ (SKIP TO 552) ←
549	Did you already have (NAME OF DRUG FROM 547) at home when the child became ill? IF YES, CIRCLE CODE FOR THAT DRUG. ASK SEPARATELY FOR EACH ANTIMALARIAL OR ANTIBIOTIC DRUG GIVEN IN 547.	ANTIMALARIAL DRUGS CHLOROQUINE . A PRIMAQUINE . . . B SP/FANSIDAR . C COMBINATION WITH ARTEMISININ . D OTHER ANTI-MALARIAL . . . E UNKNOWN ANTI-MALARIAL . . . F ANTIBIOTIC DRUG . G NONE OF THEM AT HOME . . . . . Y	ANTIMALARIAL DRUGS CHLOROQUINE . . A PRIMAQUINE . .. . B SP/FANSIDAR . .. . C COMBINATION WITH ARTEMISININ . . D OTHER ANTI-MALARIAL . . . E UNKNOWN ANTI-MALARIAL . . . F ANTIBIOTIC DRUG . G NONE OF THEM AT HOME . . . . . Y	ANTIMALARIAL DRUGS CHLOROQUINE . A PRIMAQUINE . . . B SP/FANSIDAR . C COMBINATION WITH ARTEMISININ . D OTHER ANTI-MALARIAL . . . E UNKNOWN ANTI-MALARIAL . . . F ANTIBIOTIC DRUG . G NONE OF THEM AT HOME . . . . . Y

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
550	CHECK 547: ANY CODE A-F CIRCLED?	YES ☐ NO ☐ (SKIP TO 552)	YES ☐ NO ☐ (SKIP TO 552)	YES ☐ NO ☐ (SKIP TO 552)
551	How long after the fever started, did (NAME) first take (DRUG(S) FROM 547 A-F)?	SAME DAY . . . . . 1 NEXT DAY . . . . . 2 TWO DAYS AFTER FEVER . . . . . 3 THREE DAYS AFTER FEVER . . . . . 4 FOUR OR MORE DAYS AFTER FEVER . . . . . 5 DON'T KNOW 8	SAME DAY . . . . . 1 NEXT DAY . . . . . 2 TWO DAYS AFTER FEVER . . . . . 3 THREE DAYS AFTER FEVER . . . . . 4 FOUR OR MORE DAYS AFTER FEVER . . . . . 5 DON'T KNOW 8	SAME DAY . . . . . 1 NEXT DAY . . . . . 2 TWO DAYS AFTER FEVER . . . . . 3 THREE DAYS AFTER FEVER . . . . . 4 FOUR OR MORE DAYS AFTER FEVER . . . . . 5 DON'T KNOW 8
552		GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 553.	GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 553.	GO TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 553.

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
553	CHECK 215 AND 218, ALL ROWS: NUMBER OF CHILDREN BORN IN 2001 OR LATER LIVING WITH THE RESPONDENT ONE OR MORE ☐ (↓) NONE ☐ → 556		
554	The last time (NAME OF YOUNGEST CHILD) passed stools, what was done to dispose of the stools?	CHILD USED TOILET OR LATRINE . . . 01 PUT/RINSED INTO TOILET OR LATRINE . . . . . 02 PUT/RINSED INTO DRAIN OR DITCH . . . . . 03 THROWN INTO GARBAGE . . . . . 04 BURIED . . . . . 05 LEFT IN THE OPEN . . . . . 06 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	
555	CHECK 529(a), ALL COLUMNS: NO CHILD RECEIVED FLUID FROM ORS PACKET ☐ (↓) ANY CHILD RECEIVED FLUID FROM ORS PACKET ☐ → 557		
556	Have you ever heard of a special product called [LOCAL NAME FOR ORS PACKET] you can get for the treatment of diarrhoea? IF SHE HAS NEVER HEARD OF ORS, SHOW GOVERNMENT AND COMMERCIAL ORS PACKETS AND ASK: Have you ever seen a packet like one of these before?	YES . . . . . 1 NO 2	
557	Now I would like to ask you some questions about medical care for you yourself. Many different factors can prevent women from getting medical advice or treatment for themselves. When you are sick and want to get medical advice or treatment, is each of the following a big problem, a small problem, or no problem?	BIG PROB-LEM / SMALL PROB-LEM / NO PROB-LEM	
	a. Getting permission to go?	PERMISSION . . . 1 2 3	
	b. Getting money needed for treatment?	GETTING MONEY 1 2 3	
	c. The distance to the health facility?	DISTANCE 1 2 3	
	d. Having to take transport?	TAKING TRANSPORT . 1 2 3	
	e. Finding someone to go with you?	FINDING SOMEONE . . . 1 2 3	
	f. Concern that there may not be a female health provider?	NO FEMALE PROVIDER . . . 1 2 3	
	g. Concern that there may not be any health provider?	NO PROVIDER . 1 2 3	
	h. Concern that there may be no drugs available?	NO DRUGS 1 2 3	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
558	How often do you yourself consume the following food items: daily, weekly, occasionally, or never?	DAILY WEEKLY OCC. NEVER	
	a. Milk or curd?	a. 1 2 3 4	
	b. Pulses or beans?	b. 1 2 3 4	
	c. Dark green leafy vegetables?	c. 1 2 3 4	
	d. Fruits?	d. 1 2 3 4	
	e. Eggs?	e. 1 2 3 4	
	f. Fish?	f. 1 2 3 4	
	g. Chicken or meat?	g. 1 2 3 4	
559	Now I would like to ask you some questions about any injections you have had in the last 12 months. Have you had an injection for any reason in the last 12 months? IF YES: How many injections have you had? IF NUMBER OF INJECTIONS IS GREATER THAN 90, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTIONS . . . ☐☐ NONE 00	→564
560	CHECK 559: ONE INJECTION ☐ → Was this injection administered by a doctor, a nurse, a pharmacist, a dentist, or any other health worker? IF YES, RECORD '01'. MORE THAN ONE INJECTION ☐ → Among these injections, how many were administered by a doctor, a nurse, a pharmacist, a dentist, or any other health worker? IF NUMBER OF INJECTIONS IS GREATER THAN 90, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTIONS . . . . . ☐☐ NONE 00	→564

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
561	The last time you had an injection given to you by a health worker, where did you go to get the injection? IF UNABLE TO DETERMINE IF A HOSPITAL, HEALTH CENTRE, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	PUBLIC MEDICAL SECTOR GOVT./MUNICIPAL HOSPITAL . . . 11 GOVT. DISPENSARY . . . . . 12 UHC/UHP/UFWC . . . . . 13 CHC/RURAL HOSPITAL/PHC . . . . . 14 SUB-CENTRE . . . . . 15 GOVT. MOBILE CLINIC . . . . . 16 CAMP . . . . . 17 ANGANWADI/ICDS CENTRE . . . . . 18 OTHER PUBLIC MEDICAL SECTOR . . . . . 19 NGO OR TRUST HOSPITAL/CLINIC . 21 PRIVATE MEDICAL SECTOR PVT. HOSPITAL . . . . . 31 PVT. DOCTOR/CLINIC . . . . . 32 PVT. PARAMEDIC . . . . . 33 VAIDYA/HAKIM/HOMEOPATH . . . 34 PHARMACY/DRUGSTORE . . . . . 35 OTHER PRIVATE MEDICAL SECTOR . . . . . 36 OTHER PLACE SHOP . . . . . 41 AT HOME . . . . . 42 OTHER _____ 96 (SPECIFY)	
562	Did the person who gave you that injection take the syringe and needle from a new, unopened package?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 564
563	As far as you know, was the needle sterilized?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
564	Have you ever had a blood transfusion?	YES . . . . . 1 NO 2	
565	Do you currently smoke cigarettes or bidis?	YES . . . . . 1 NO 2	→ 567
566	In the last 24 hours, how many cigarettes or bidis did you smoke?	CIGARETTES/BIDIS	
567	Do you currently smoke or use tobacco in any other form?	YES . . . . . 1 NO 2	→ 569
568	In what other form do you currently smoke or use tobacco? Any other form? RECORD ALL MENTIONED.	CIGAR/PIPE . . . . . A PAAN MASALA . . . . . B GHUTKA . . . . . C OTHER CHEWING TOBACCO . . . . . D SNUFF . . . . . E OTHER _____ X (SPECIFY)	
569	Do you drink alcohol?	YES . . . . . 1 NO 2	→ 571

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
570	How often do you drink alcohol: almost every day, about once a week or less often?	ALMOST EVERY DAY . . . . . 1 ABOUT ONCE A WEEK . . . . . 2 LESS OFTEN 3	
571	Have you ever heard of an illness called tuberculosis or TB?	YES . . . . . 1 NO 2	→ 575
572	How does tuberculosis spread from one person to another? PROBE: Any other ways? RECORD ALL MENTIONED.	THROUGH THE AIR WHEN COUGHING OR SNEEZING . . . . . A THROUGH SHARING UTENSILS . . . . . B THROUGH TOUCHING A PERSON WITH TB . . . . . C THROUGH FOOD . . . . . D THROUGH SEXUAL CONTACT . . . . . E THROUGH MOSQUITO BITES . . . . . F OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
573	Can tuberculosis be cured?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
574	If a member of your family got tuberculosis, would you want it to remain a secret from the neighbours or not?	YES, REMAIN A SECRET . . . . . 1 NO . . . . . 2 DON'T KNOW/NOT SURE/ DEPENDS 8	
575	Do you currently have :	YES NO DON'T KNOW a. Diabetes? DIABETES . . . . . 1 2 8 b. Asthma? ASTHMA . . . . . 1 2 8 c. Goiter or any other thyroid disorder? GOITER/THYROID . 1 2 8	
576	CHECK 215: ANY LIVE BIRTH IN 2000 OR LATER? YES ☐ ↓ NO ☐ → 601		

SECTION 5A. UTILIZATION OF ICDS SERVICES

577	ENTER IN THE TABLE THE LINE NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH IN 2000 OR LATER. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. (IF THERE ARE MORE THAN 5 BIRTHS, USE ADDITIONAL QUESTIONNAIRES).					
578	LINE NUMBER FROM 212	LAST BIRTH LINE NUMBER ☐☐	NEXT-TO-LAST BIRTH LINE NUMBER ☐☐	SECOND-FROM-LAST BIRTH LINE NUMBER ☐☐	THIRD-FROM-LAST BIRTH LINE NUMBER ☐☐	FOURTH-FROM-LAST BIRTH LINE NUMBER ☐☐
579	FROM 212 AND 216	NAME _____ LIVING ☐ DEAD ☐ (GO TO 587)	NAME _____ LIVING ☐ DEAD ☐ (GO TO 587)	NAME _____ LIVING ☐ DEAD ☐ (GO TO 587)	NAME _____ LIVING ☐ DEAD ☐ (GO TO 587)	NAME _____ LIVING ☐ DEAD ☐ (GO TO 587)
580	During the last 12 months, has (NAME) received any benefits from the anganwadi or ICDS centre? IF NO, PROBE: Any benefits such as supplementary food, growth monitoring, immunizations, health check-ups or education?	YES . 1 NO . . . . . 2 (GO TO 587)	YES . 1 NO . . . . . 2 (GO TO 587)	YES . 1 NO . . . . . 2 (GO TO 587)	YES . 1 NO . . . . . 2 (GO TO 587)	YES . 1 NO . . . . . 2 (GO TO 587)
581	In the last 12 months, how often has (NAME) received food from the anganwadi/ICDS centre? IF CHILD RECEIVES TAKE-HOME RATIONS FOR DAILY CONSUMPTION WEEKLY OR MONTHLY CODE '1'.	NOT AT ALL . . . . . 0 ALMOST DAILY . 1 AT LEAST ONCE A WEEK . . . . . 2 AT LEAST ONCE A MONTH . . . . 3 LESS OFTEN . . . 4 DON'T KNOW . . . 8	NOT AT ALL . . . . . 0 ALMOST DAILY . 1 AT LEAST ONCE A WEEK . . . . . 2 AT LEAST ONCE A MONTH . . . . 3 LESS OFTEN . . . 4 DON'T KNOW . . . 8	NOT AT ALL . . . . . 0 ALMOST DAILY . 1 AT LEAST ONCE A WEEK . . . . . 2 AT LEAST ONCE A MONTH . . . . 3 LESS OFTEN . . . 4 DON'T KNOW . . . 8	NOT AT ALL . . . . . 0 ALMOST DAILY . 1 AT LEAST ONCE A WEEK . . . . . 2 AT LEAST ONCE A MONTH . . . . 3 LESS OFTEN . . . 4 DON'T KNOW . . . 8	NOT AT ALL . . . . . 0 ALMOST DAILY . 1 AT LEAST ONCE A WEEK . . . . . 2 AT LEAST ONCE A MONTH . . . . . 3 LESS OFTEN . . . . 4 DON'T KNOW . . . 8
582	In the last 12 months, how often has (NAME) had a health check-up from the anganwadi/ICDS centre?	NOT AT ALL . . . . . 0 AT LEAST ONCE A MONTH . . . . 1 LESS OFTEN . . . 2 DON'T KNOW . . 8	NOT AT ALL . . . . . 0 AT LEAST ONCE A MONTH . . . . 1 LESS OFTEN . . . 2 DON'T KNOW . . 8	NOT AT ALL . . . . . 0 AT LEAST ONCE A MONTH . . . . 1 LESS OFTEN . . . 2 DON'T KNOW . . . 8	NOT AT ALL . . . . . 0 AT LEAST ONCE A MONTH . . . . 1 LESS OFTEN . . . 2 DON'T KNOW . . . 8	NOT AT ALL . . . . . 0 AT LEAST ONCE A MONTH . . . . . 1 LESS OFTEN . . . . 2 DON'T KNOW . . 8
583	In the last 12 months, has (NAME) received any immunizations through the anganwadi/ ICDS centre?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW . . 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW . . 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW . . 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW . . 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW . . 8
584	In the last 12 months, how often did (NAME) go to the anganwadi/ICDS centre for early childhood care or for preschool: regularly, occasionally, or not at all?	REG. . . . . 1 OCC. . . . . 2 NOT AT ALL . . . 3 DON'T KNOW . . 8	REG. . . . . 1 OCC. . . . . 2 NOT AT ALL . . . 3 DON'T KNOW . . 8	REG. . . . . 1 OCC. . . . . 2 NOT AT ALL . . . 3 DON'T KNOW . . 8	REG. . . . . 1 OCC. . . . . 2 NOT AT ALL . . . 3 DON'T KNOW . . 8	REG. . . . . 1 OCC. . . . . 2 NOT AT ALL . . . . 3 DON'T KNOW . . 8

	NAME FROM 212	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____	THIRD-FROM-LAST BIRTH NAME _____	FOURTH-FROM-LAST BIRTH NAME _____
585	In the last 12 months, how often has (NAME's) weight been measured by the anganwadi/ICDS centre?	NOT AT ALL . . . . 0 (GO TO 587) AT LEAST ONCE A MONTH . . . 1 AT LEAST ONCE IN 3 MONTHS 2 LESS OFTEN . . 3 DON'T KNOW . . 8 (GO TO 587)	NOT AT ALL . . . . 0 (GO TO 587) AT LEAST ONCE A MONTH . . . 1 AT LEAST ONCE IN 3 MONTHS 2 LESS OFTEN . . 3 DON'T KNOW . . 8 (GO TO 587)	NOT AT ALL . . . . 0 (GO TO 587) AT LEAST ONCE A MONTH . . . 1 AT LEAST ONCE IN 3 MONTHS 2 LESS OFTEN . . 3 DON'T KNOW . . 8 (GO TO 587)	NOT AT ALL . . . . 0 (GO TO 587) AT LEAST ONCE A MONTH . . . 1 AT LEAST ONCE IN 3 MONTHS 2 LESS OFTEN . . 3 DON'T KNOW . . 8 (GO TO 587)	NOT AT ALL . . . . 0 (GO TO 587) AT LEAST ONCE A MONTH . . . . 1 AT LEAST ONCE IN 3 MONTHS 2 LESS OFTEN . . . 3 DON'T KNOW . . 8 (GO TO 587)
586	After (NAME) was weighed, did you ever receive counselling from the anganwadi/ICDS worker or ANM?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW . . 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW . . 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW . . 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW . . 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW . 8
587	When you were pregnant with (NAME), did you receive any benefits from the anganwadi/ICDS centre?	YES . . . . . 1 NO . . . . . 2 (GO TO 589)	YES . . . . . 1 NO . . . . . 2 (GO TO 589)	YES . . . . . 1 NO . . . . . 2 (GO TO 589)	YES . . . . . 1 NO . . . . . 2 (GO TO 589)	YES . . . . . 1 NO . . . . . 2 (GO TO 589)
588	Did you receive any of the following benefits:	YES NO	YES NO	YES NO	YES NO	YES NO
	a. Supplementary food?	1 2	1 2	1 2	1 2	1 2
	b. Health check-ups?	1 2	1 2	1 2	1 2	1 2
	c. Health and nutrition education?	1 2	1 2	1 2	1 2	1 2
589	When you were breastfeeding (NAME) did you receive any benefits from the anganwadi/ICDS centre?	YES . . . . . 1 NO . . . . . 2 (GO TO 591) DID NOT BREASTFEED . . 3	YES . . . . . 1 NO . . . . . 2 (GO TO 591) DID NOT BREASTFEED . . 3	YES . . . . . 1 NO . . . . . 2 (GO TO 591) DID NOT BREASTFEED . . 3	YES . . . . . 1 NO . . . . . 2 (GO TO 591) DID NOT BREASTFEED . . 3	YES . . . . . 1 NO . . . . . 2 (GO TO 591) DID NOT BREASTFEED . . 3
590	Did you receive any of the following benefits:	YES NO	YES NO	YES NO	YES NO	YES NO
	a. Supplementary food?	1 2	1 2	1 2	1 2	1 2
	b. Health check-ups?	1 2	1 2	1 2	1 2	1 2
	c. Health and nutrition education?	1 2	1 2	1 2	1 2	1 2
591		GO TO 579 IN NEXT COLUMN; OR IF NO MORE BIRTHS, GO TO 601.	GO TO 579 IN NEXT COLUMN; OR IF NO MORE BIRTHS, GO TO 601.	GO TO 579 IN NEXT COLUMN; OR IF NO MORE BIRTHS, GO TO 601.	GO TO 579 IN NEXT COLUMN; OR IF NO MORE BIRTHS, GO TO 601.	GO TO 579 IN FIRST COLUMN OF ADDITIONAL QUESTIONNIARE; OR IF NO MORE BIRTHS, GO TO 601.

SECTION 6. SEXUAL LIFE

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
601	CHECK 316 AND 317: HAS NOT HAD SEXUAL INTERCOURSE (316 = 2 OR 317 = 00) → 618 HAS HAD SEXUAL INTERCOURSE ↓		
	READ TO RESPONDENTS Now I need to ask you some more questions about relationships and sexual life. Once again, let me assure you that your answers are completely confidential. If we should come to any question that you don't want to answer, just let me know and I will skip to the next question.		
602	CHECK 105: 15-24 YEARS OLD ↓ 25-49 YEARS OLD → 606		
603	How old was the person you first had sexual intercourse with?	AGE OF PARTNER . . . . . [ ][ ] DON'T KNOW 98	→ 605
604	Would you say this person was ten or more years older than you?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
605	The first time you had sexual intercourse, was a condom used?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/DON'T REMEMBER . . . 8	
606	When was the last time you had sexual intercourse? IF LESS THAN 12 MONTHS, ANSWER MUST BE RECORDED IN DAYS, WEEKS, OR MONTHS AGO. IF 12 MONTHS OR MORE, ANSWER MUST BE RECORDED IN YEARS AGO.	DAYS AGO . . . . . 1 [ ][ ] WEEKS AGO . . . . . 2 [ ][ ] MONTHS AGO . . . . . 3 [ ][ ] YEARS AGO . . . . . 4 [ ][ ]	→ 608 → 617

NO.	QUESTIONS AND FILTERS	LAST SEXUAL PARTNER	SECOND-TO-LAST SEXUAL PARTNER
607	When was the last time you had sexual intercourse with this other person?		DAYS AGO . . . . . 1 WEEKS AGO . . . . 2 MONTHS AGO . . . 3
608	The last time you had sexual intercourse (with this other person), was a condom used?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 610)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 610)
609	Did you use a condom every time you had sexual intercourse with this person in the last 12 months?	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
610	What was this person's relationship to you?	HUSBAND . . . . . 01 (SKIP TO 615) LIVE-IN PARTNER . . . . . 02 BOYFRIEND NOT LIVING WITH RESPONDENT . . . . . 03 OTHER FRIEND . . . . . 04 RELATIVE . . . . . 05 CASUAL ACQUAINTANCE . . . . . 06 SEX WORKER CLIENT . . . . . 07 OTHER _____ 96 (SPECIFY)	HUSBAND . . . . . 01 (SKIP TO 616) LIVE-IN PARTNER . . . . . 02 BOYFRIEND NOT LIVING WITH RESPONDENT . . . . . 03 OTHER FRIEND . . . . . 04 RELATIVE . . . . . 05 CASUAL ACQUAINTANCE . . . . . 06 SEX WORKER CLIENT . . . . . 07 OTHER _____ 96 (SPECIFY)
611	For how long (have you had/did you have) a sexual relationship with this person? IF ONLY HAD SEXUAL RELATIONS WITH THIS PERSON ONCE, RECORD '01' DAYS.	DAYS . . . . . 1 MONTHS . . . . . 2 YEARS 3	DAYS . . . . . 1 MONTHS . . . . . 2 YEARS 3
612	CHECK 105:	15-24 YEARS OLD 25-49 YEARS OLD (SKIP TO 615)	15-24 YEARS OLD 25-49 YEARS OLD (SKIP TO 616)
613	How old is this person?	AGE OF PARTNER . . . . . (SKIP TO 615) DON'T KNOW 98	AGE OF PARTNER . . . . . (SKIP TO 616) DON'T KNOW 98
614	Would you say this person is ten or more years older than you?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
615	Apart from this person, have you had sexual intercourse with any other person in the last 12 months?	YES . . . . . 1 (GO BACK TO 607 IN NEXT COLUMN) NO . . . . . 2 (SKIP TO 617)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
616	In total, with how many different people have you had sexual intercourse in the last 12 months? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF PARTNERS IN LAST 12 MONTHS . . . . . ☐☐ DON'T KNOW 98	
617	In total, with how many different people have you had sexual intercourse in your lifetime? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF PARTNERS IN LIFETIME . . . . . ☐☐ DON'T KNOW 98	
618	Do you know of a place where a person can get condoms?	YES . . . . . 1 NO 2	→ 701
619	Where is that? Any other place? IF UNABLE TO DETERMINE IF A HOSPITAL, HEALTH CENTRE, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL SECTOR, WRITE THE NAME OF THE PLACE(S). _____ (NAME OF PLACE(S)) RECORD ALL SOURCES MENTIONED.	PUBLIC MEDICAL SECTOR GOVT./MUNICIPAL HOSPITAL . . . A GOVT. DISPENSARY . . . . . B UHC/UHP/UFWC . . . . . C CHC/RURAL HOSPITAL/PHC . . . . . D SUB-CENTRE/ANM . . . . . E GOVT. MOBILE CLINIC . . . . . F CAMP . . . . . G ANGANWADI/ICDS CENTRE . . . . . H ASHA . . . . . I OTHER COMMUNITY BASED WORKER . . . . . J OTHER PUBLIC MEDICAL SECTOR _____ K (SPECIFY) NGO OR TRUST HOSPITAL/ CLINIC . . . . . L PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC/ DOCTOR . . . . . M PRIVATE PARAMEDIC . . . . . N VAIDYA/HAKIM/HOMEOPATH . . . . . O TRADITIONAL HEALER . . . . . P PHARMACY/DRUGSTORE . . . . . Q DAI (TBA) . . . . . R OTHER PRIVATE MEDICAL SECTOR _____ S (SPECIFY) RATION SHOP . . . . . T OTHER SHOP . . . . . U VENDING MACHINE . . . . . V OTHER _____ X (SPECIFY)	
620	If you wanted to, could you yourself get a condom?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE 8	

SECTION 7. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
701	CHECK 301: NEVER MARRIED ☐ → 714 OTHER ☐ ↓		
702	CHECK 330/330A: CODE 'A' OR CODE 'B' CIRCLED ☐ → 714 OTHER ☐ ↓		
703	CHECK 227: NOT PREGNANT OR UNSURE ☐ ↓ Now I have some questions about the future. Would you like to have (a/another) child, or would you prefer not to have any (more) children? PREGNANT ☐ ↓ Now I have some questions about the future. After the child you are expecting now, would you like to have another child, or would you prefer not to have any more children?	HAVE (A/ANOTHER) CHILD . . . . . 1 NO MORE/NONE . . . . . 2 → 705 SAYS SHE CAN'T GET PREGNANT . . . 3 → 714 UNDECIDED/DON'T KNOW: AND PREGNANT . . . . . 4 → 711 AND NOT PREGNANT OR UNSURE . . . . . 5 → 709	
704	CHECK 227: NOT PREGNANT OR UNSURE ☐ ↓ How long would you like to wait from now before the birth of (a/another) child? PREGNANT ☐ ↓ After the birth of the child you are expecting now, how long would you like to wait before the birth of another child?	MONTHS . . . . . 1 ☐☐ YEARS . . . . . 2 ☐☐ SOON/NOW . . . . . 993 → 709 SAYS SHE CAN'T GET PREGNANT 994 → 714 OTHER _____ 996 → 709 (SPECIFY) DON'T KNOW 998	
705	CHECK 227: NOT PREGNANT OR UNSURE ☐ ↓ PREGNANT ☐ → 711		
706	CHECK 329: USING A CONTRACEPTIVE METHOD? NOT ASKED ☐ ↓ NOT CURRENTLY USING ☐ ↓ CURRENTLY USING ☐ → 714		
707	CHECK 704: NOT ASKED ☐ ↓ 24 OR MORE MONTHS OR 02 OR MORE YEARS ☐ ↓ 00-23 MONTHS OR 00-01 YEAR ☐ → 711		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
708	CHECK 703: WANTS TO HAVE A/ANOTHER CHILD → You have said that you do not want (a/another) child soon, but you are not using any method to avoid pregnancy. Can you tell me why you are not using a method? WANTS NO MORE/ NONE → You have said that you do not want any (more) children, but you are not using any method to avoid pregnancy. Can you tell me why you are not using a method? PROBE: Any other reason? RECORD ALL REASONS MENTIONED.	NOT CURRENTLY MARRIED . . . . . A FERTILITY-RELATED REASONS NOT HAVING SEX . . . . . B INFREQUENT SEX . . . . . C MENOPAUSAL/HYSTERECTOMY . D SUBFECUND/INFECUND . . . . . E POSTPARTUM AMENORRHEIC . . . F BREASTFEEDING . . . . . G FATALISTIC/UP TO GOD . . . . . H OPPOSITION TO USE RESPONDENT OPPOSED . . . . . I HUSBAND OPPOSED . . . . . J OTHERS OPPOSED . . . . . K RELIGIOUS PROHIBITION . . . . . L LACK OF KNOWLEDGE KNOWS NO METHOD . . . . . M KNOWS NO SOURCE . . . . . N METHOD-RELATED REASONS HEALTH CONCERNS . . . . . O FEAR OF SIDE EFFECTS . . . . . P LACK OF ACCESS/TOO FAR . . . . . Q COSTS TOO MUCH . . . . . R INCONVENIENT TO USE . . . . . S INTERFERES WITH BODY'S NORMAL PROCESSES . . . . . T DON'T LIKE EXISTING METHODS . . U OTHER _____ (SPECIFY) X DON'T KNOW . . . . . Z	
709	CHECK 329: USING A CONTRACEPTIVE METHOD? NOT ASKED NO, NOT CURRENTLY USING YES, CURRENTLY USING → 714		
710	Do you think you will use a contraceptive method to delay or avoid pregnancy in the next 12 months?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 712
711	Do you think you will use a contraceptive method to delay or avoid pregnancy at any time in the future?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 713
712	Which contraceptive method would you prefer to use?	FEMALE STERILIZATION . . . . . 01 MALE STERILIZATION . . . . . 02 PILL . . . . . 03 IUD/LOOP . . . . . 04 INJECTABLES . . . . . 05 IMPLANTS . . . . . 06 CONDOM/NIRODH . . . . . 07 FEMALE CONDOM . . . . . 08 DIAPHRAGM . . . . . 09 FOAM/JELLY . . . . . 10 RHYTHM METHOD . . . . . 11 WITHDRAWAL . . . . . 12 OTHER _____ (SPECIFY) 96 UNSURE 98	→ 714

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
713	What is the main reason that you think you will not use a contraceptive method at any time in the future?	FERTILITY-RELATED REASONS INFREQUENT SEX/NO SEX . . . . . 11 MENOPAUSAL/HYSTERECTOMY 12 SUBFECUND/INFECUND . . . . . 13 FATALISTIC . . . . . 14 WANTS AS MANY CHILDREN AS POSSIBLE . . . . . 15 OPPOSITION TO USE RESPONDENT OPPOSED . . . . . 21 HUSBAND OPPOSED . . . . . 22 OTHERS OPPOSED . . . . . 23 RELIGIOUS PROHIBITION . . . . . 24 LACK OF KNOWLEDGE KNOWS NO METHOD . . . . . 31 KNOWS NO SOURCE . . . . . 32 METHOD-RELATED REASONS HEALTH CONCERNS . . . . . 41 FEAR OF SIDE EFFECTS . . . . . 42 LACK OF ACCESS/TOO FAR . . . . . 43 COSTS TOO MUCH . . . . . 44 INCONVENIENT TO USE . . . . . 45 INTERFERES WITH BODY'S NORMAL PROCESSES . . . . . 46 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	
714	CHECK 216: HAS LIVING CHILDREN / NO LIVING CHILDREN If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be? If you could choose exactly the number of children to have in your whole life, how many would that be? PROBE FOR A NUMERIC RESPONSE.	NONE . . . . . 00 NUMBER . . . . . ☐☐ OTHER _____ 96 (SPECIFY)	→ 716 → 716
715	How many of these children would you like to be boys, how many would you like to be girls and for how many would the sex not matter?	BOYS GIRLS EITHER NUMBER ☐☐ ☐☐ ☐☐ OTHER _____ 96 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
716	In the last few months have you heard or seen any message about family planning:	YES NO	
	a. On the radio?	RADIO 1 2	
	b. On the television?	TELEVISION 1 2	
	c. In a newspaper or magazine?	NEWSPAPER OR MAGAZINE 1 2	
	d. On a wall painting or hoarding?	WALL PAINTING OR HOARDING . 1 2	
717	CHECK 301: CURRENTLY MARRIED ☐ OTHER ☐ → 723		
718	CHECK 330/330A: CODE 'B' OR 'G' OR 'L' CIRCLED ☐ → 720 NO CODE CIRCLED ☐ → 722 OTHER ☐		
719	Does your husband know that you are using a method of family planning?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 721
720	Would you say that using contraception is mainly your decision, mainly your husband's decision, or did you both decide together?	MAINLY RESPONDENT . . . . . 1 MAINLY HUSBAND . . . . . 2 JOINT DECISION . . . . . 3 OTHER 6	
721	CHECK 330/330A: CODE 'A' OR CODE 'B' CIRCLED ☐ → 723 OTHER ☐		
722	Do you think your husband wants the same number of children that you want, or does he want more or fewer than you want?	SAME NUMBER . . . . . 1 MORE CHILDREN . . . . . 2 FEWER CHILDREN . . . . . 3 DON'T KNOW 8	
723	Husbands and wives do not always agree on everything. Please tell me if you think a wife is justified in refusing to have sex with her husband when:	YES NO DON'T KNOW	
	a. She knows her husband has a sexually transmitted disease.	HAS STD 1 2 8	
	b. She knows her husband has sex with other women.	OTHER WOMEN 1 2 8	
	c. She is tired or not in the mood.	TIRED/NOT IN MOOD . 1 2 8	

SECTION 8. HUSBAND'S BACKGROUND AND WOMAN'S WORK

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
801	CHECK 301: CURRENTLY MARRIED OR MARRIED, GAUNA NOT PERFORMED NEVER MARRIED → 806 OTHER → 803		
802	How old was your husband on his last birthday?	AGE IN COMPLETED YEARS ☐☐	
803	Did your (last) husband ever attend school?	YES . . . . . 1 NO 2	→ 805
804	What was the highest standard he completed?	STANDARD . . . . . ☐☐ DON'T KNOW 98	
805	CHECK 801: CURRENTLY MARRIED OR MARRIED, GAUNA NOT PERFORMED What is your husband's occupation? That is, what kind of work does he mainly do? OTHER What was your (last) husband's occupation? That is, what kind of work did he mainly do?	_____ ☐☐ _____ _____	
806	Aside from your own housework, have you done any work in the last seven days?	YES . . . . . 1 NO 2	→ 810
807	As you know, some women take up jobs for which they are paid in cash or kind. Others sell things, have a small business or work on the family farm or in the family business. In the last seven days, have you done any of these things or any other work?	YES . . . . . 1 NO 2	→ 810
808	Although you did not work in the last seven days, do you have any job or business from which you were absent for leave, illness, vacation, maternity leave or any other such reason?	YES . . . . . 1 NO 2	→ 810
809	Have you done any work in the last 12 months?	YES . . . . . 1 NO 2	→ 817
810	What is your occupation, that is, what kind of work do you mainly do?	_____ ☐☐ _____ _____	
811	CHECK 810: WORKS IN AGRICULTURE DOES NOT WORK IN AGRICULTURE → 813		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
812	Do you work mainly on your own land, on family land, or on land that you rent from someone else, or do you work on someone else's land?	OWN LAND . . . . . 1 FAMILY LAND . . . . . 2 RENTED LAND . . . . . 3 SOMEONE ELSE'S LAND 4	
813	Do you do this work for a member of your family, for someone else, or are you self-employed?	FOR FAMILY MEMBER . . . . . 1 FOR SOMEONE ELSE . . . . . 2 SELF-EMPLOYED 3	
814	Do you usually work at home or away from home?	HOME . . . . . 1 AWAY 2	
815	Do you usually work throughout the year, or do you work seasonally, or only once in a while?	THROUGHOUT THE YEAR . . . . . 1 SEASONALLY/PART OF THE YEAR . . . 2 ONCE IN A WHILE 3	
816	Are you paid in cash or kind for this work, or are you not paid at all?	CASH ONLY . . . . . 1 CASH AND KIND . . . . . 2 IN KIND ONLY . . . . . 3 NOT PAID 4	
817	CHECK 301: CURRENTLY MARRIED ☐ ↓ OTHER ☐ →		823
818	CHECK 816: CODE '1' OR '2' CIRCLED ☐ ↓ OTHER ☐ →		821
819	Who decides how the money you earn will be used: mainly you, mainly your husband, or you and your husband jointly?	RESPONDENT . . . . . 1 HUSBAND . . . . . 2 RESPONDENT AND HUSBAND JOINTLY . . . . . 3 OTHER 6	
820	Would you say that the money that you earn is more than what your husband earns, less than what he earns, or about the same?	MORE THAN HUSBAND . . . . . 1 LESS THAN HUSBAND . . . . . 2 ABOUT THE SAME . . . . . 3 HUSBAND HAS NO EARNINGS . . . . . 4 DON'T KNOW 8	→ 822
821	Who decides how your husband's earnings will be used: mainly you, mainly your husband, or you and your husband jointly?	RESPONDENT . . . . . 1 HUSBAND . . . . . 2 RESPONDENT AND HUSBAND JOINTLY . . . . . 3 HUSBAND HAS NO EARNINGS . . . . . 4 OTHER 6	
822	Who usually makes the following decisions: mainly you, mainly your husband, you and your husband jointly, or someone else?	RESPONDENT = 1 HUSBAND = 2 RESPONDENT & HUSBAND JOINTLY = 3 SOMEONE ELSE = 4 OTHER RESPONSE= 6	
	a. Decisions about health care for yourself?	a. 1 2 3 4 6	
	b. Decisions about making major household purchases?	b. 1 2 3 4 6	
	c. Decisions about making purchases for daily household needs?	c. 1 2 3 4 6	
	d. Decisions about visits to your family or relatives?	d. 1 2 3 4 6	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
823	Do you have any money of your own that you alone can decide how to use?	YES . . . . . 1 NO 2	
824	Are you usually allowed to go to the following places alone, only with someone else, or not at all?	ALONE / WITH SOMEONE ELSE ONLY / NOT AT ALL a. To the market? MKT . . . . . 1 2 3 b. To the health facility? HEALTH . . . . . 1 2 3 c. To places outside this (village/community)? OUT 1 2 3	
825	Do you have a bank or savings account that you yourself use?	YES . . . . . 1 NO 2	
826	Do you know of any programmes in this area that give loans to women to start or expand a business of their own?	YES . . . . . 1 NO 2	→ 828
827	Have you yourself ever taken a loan, in cash or in kind, from any of these programmes, to start or expand a business?	YES . . . . . 1 NO 2	
828	PRESENCE OF OTHERS AT THIS POINT (PRESENT AND LISTENING, PRESENT BUT NOT LISTENING, OR NOT PRESENT)	PRES./ LISTEN. / PRES./ NOT LISTEN. / NOT PRES. CHILDREN < 10 . . . . . 1 2 3 HUSBAND . . . . . 1 2 3 OTHER MALES . . . . . 1 2 3 OTHER FEMALES . . . 1 2 3	
829	Sometimes a husband is annoyed or angered by things that his wife does. In your opinion, is a husband justified in hitting or beating his wife in the following situations:	YES / NO / DON'T KNOW a. If she goes out without telling him? GOES OUT . . . . . 1 2 8 b. If she neglects the house or the children? NEGL. CHILDREN . 1 2 8 c. If she argues with him? ARGUES . . . . . 1 2 8 d. If she refuses to have sex with him? REFUSES SEX . . . 1 2 8 e. If she doesn't cook food properly? POOR COOKING . . . 1 2 8 f. If he suspects her of being unfaithful? UNFAITHFUL . . . . . 1 2 8 g. If she shows disrespect for in-laws? DISRESPECT 1 2 8	

SECTION 9. HIV/AIDS AND OTHER SEXUALLY TRANSMITTED INFECTIONS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
901	Now I would like to talk about something else. Have you ever heard of an illness called AIDS?	YES . . . . . 1 NO 2	→ 927
902	From which sources of information have you learned about AIDS? Any other source? RECORD ALL MENTIONED.	RADIO . . . . . A TELEVISION . . . . . B CINEMA . . . . . C NEWSPAPERS/MAGAZINES . . . . . D POSTERS/HOARDINGS . . . . . E EXHIBITION/MELA . . . . . F HEALTH WORKERS . . . . . G ADULT EDUC. PROGRAMME . . . . . H RELIGIOUS LEADERS . . . . . I POLITICAL LEADERS . . . . . J SCHOOL/TEACHERS . . . . . K COMMUNITY MEETINGS . . . . . L HUSBAND . . . . . M FRIENDS/RELATIVES . . . . . N WORK PLACE . . . . . O OTHER _____ X (SPECIFY)	
903	In your opinion, can people reduce their chances of getting HIV/AIDS by having just one uninfected sex partner who has no other sex partners?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
904	In your opinion, can people get HIV/AIDS from mosquito bites?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
905	In your opinion, can people reduce their chances of getting HIV/AIDS by using a condom every time they have sex?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
906	In your opinion, can people get HIV/AIDS by sharing food with a person who has AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
907	In your opinion, can people get HIV/AIDS by hugging someone who has AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
908	In your opinion, can people reduce their chance of getting HIV/AIDS by abstaining from sexual intercourse?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
909	Is there anything else a person can do to avoid or reduce the chances of getting HIV/AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 911

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
910	What can a person do? Anything else? RECORD ALL WAYS MENTIONED.	ABSTAIN FROM SEX . . . . . A USE CONDOMS . . . . . B LIMIT SEX TO ONE PARTNER/STAY FAITHFUL TO ONE PARTNER . . . C LIMIT NUMBER OF SEXUAL PARTNERS . . . . . D AVOID SEX WITH SEX WORKERS . E AVOID SEX WITH PERSONS WHO HAVE MANY PARTNERS . . . . . F AVOID SEX WITH HOMOSEXUALS . G AVOID SEX WITH PERSONS WHO INJECT DRUGS . . . . . H AVOID BLOOD TRANSFUSIONS . . . I USE BLOOD ONLY FROM RELATIVES . . . . . J AVOID INJECTIONS . . . . . K USE ONLY NEW/STERILIZED NEEDLES . . . . . L AVOID IV DRIP . . . . . M AVOID SHARING RAZORS/BLADES . N AVOID KISSING . . . . . O AVOID MOSQUITO BITES . . . . . P OTHER _____ W (SPECIFY) OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
911	Is it possible for a healthy-looking person to have HIV/AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
912	Can HIV/AIDS be transmitted from a mother to her baby?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 914
913	Are there any special medications that a doctor or a nurse can give to a woman infected with HIV/AIDS to reduce the risk of transmitting HIV/AIDS to the baby?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
914	Have you heard about special antiretroviral drugs (USE LOCAL NAME(S)) that people infected with HIV/AIDS can get from a doctor or a nurse to help them live longer?	YES . . . . . 1 NO 2	
915	I don't want to know the results, but have you ever been tested to see if you have HIV/AIDS?	YES . . . . . 1 NO 2	→ 920
916	When was the last time you were tested?	LESS THAN 12 MONTHS AGO . . . . . 1 12-23 MONTHS AGO . . . . . 2 2 OR MORE YEARS AGO 3	
917	The last time you had the test, did you yourself ask for the test, was it offered to you and you accepted, was it required, or was it done without your consent?	ASKED FOR THE TEST . . . . . 1 OFFERED AND ACCEPTED . . . . . 2 REQUIRED . . . . . 3 WITHOUT CONSENT 4	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
918	I don't want to know the results, but did you get the results of the test?	YES . . . . . 1 NO 2	
919	Where was the test done? IF UNABLE TO DETERMINE IF A HOSPITAL, HEALTH CENTRE, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	PUBLIC MEDICAL SECTOR GOVT./MUNICIPAL HOSPITAL . . . . . 11 GOVT. DISPENSARY . . . . . 12 UHC/UHP/UFWC . . . . . 13 CHC/RURAL HOSP./PHC . . . . . 14 SUB-CENTRE . . . . . 15 GOVT. MOBILE CLINIC . . . . . 16 VCT CLINIC . . . . . 17 STI CLINIC . . . . . 18 OTHER PUBLIC MEDICAL SECTOR _____ 19 (SPECIFY) NGO OR TRUST HOSPITAL/ CLINIC . . . . . 21 PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR . . . . . 31 VCT CLINIC . . . . . 32 STI CLINIC . . . . . 33 OTHER PRIVATE MEDICAL SECTOR _____ 34 (SPECIFY) OTHER _____ 96 (SPECIFY)	→ 922
920	Do you know of a place where people can go to get tested for HIV/AIDS?	YES . . . . . 1 NO 2	→ 922
921	Where is that? Any other place? IF UNABLE TO DETERMINE IF A HOSPITAL, HEALTH CENTRE, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S)) RECORD ALL PLACES MENTIONED.	PUBLIC MEDICAL SECTOR GOVT./MUNICIPAL HOSPITAL . . . . . A GOVT. DISPENSARY . . . . . B UHC/UHP/UFWC . . . . . C CHC/RURAL HOSP./PHC . . . . . D SUB-CENTRE . . . . . E GOVT. MOBILE CLINIC . . . . . F VCT CLINIC . . . . . G STI CLINIC . . . . . H OTHER PUBLIC MEDICAL SECTOR _____ I (SPECIFY) NGO OR TRUST HOSPITAL/ CLINIC . . . . . J PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR . . . . . K VCT CLINIC . . . . . L STI CLINIC . . . . . M OTHER PRIVATE MEDICAL SECTOR _____ N (SPECIFY) OTHER _____ X (SPECIFY)	
922	Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had HIV/AIDS?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
923	If a member of your family got infected with HIV/AIDS, would you want it to remain a secret or not?	YES, REMAIN A SECRET . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
924	If a relative of yours became sick with the HIV/AIDS, would you be willing to care for her or him in your own household?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
925	In your opinion, if a female teacher has HIV/AIDS but is not sick, should she be allowed to continue teaching in the school?	SHOULD BE ALLOWED . . . . . 1 SHOULD NOT BE ALLOWED . . . . . 2 DK/NOT SURE/DEPENDS 8	
926	In your opinion, if a male teacher has HIV/AIDS but is not sick, should he be allowed to continue teaching in the school?	SHOULD BE ALLOWED . . . . . 1 SHOULD NOT BE ALLOWED . . . . . 2 DK/NOT SURE/DEPENDS 8	
927	CHECK 901: HEARD ABOUT HIV/AIDS → Apart from AIDS, have you heard about other infections that can be transmitted through sexual contact? NOT HEARD ABOUT HIV/AIDS → Have you heard about infections that can be transmitted through sexual contact?	YES . . . . . 1 NO 2	
928	CHECK 316 AND 317: HAS HAD SEXUAL INTERCOURSE HAS NOT HAD SEXUAL INTERCOURSE (316 = 2 OR 317 = 00)		→ 936
929	CHECK 927: HEARD ABOUT OTHER SEXUALLY TRANSMITTED INFECTIONS? YES NO		→ 931
930	Now I would like to ask you some questions about your health in the last 12 months. During the last 12 months, have you had a disease which you got through sexual contact?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
931	Sometimes women experience a bad smelling abnormal genital discharge. During the last 12 months, have you had a bad smelling abnormal genital discharge?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
932	Sometimes women have a genital sore or ulcer. During the last 12 months, have you had a genital sore or ulcer?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
933	CHECK 930, 931, AND 932: AT LEAST ONE 'YES' OTHER		→ 936
934	The last time you had (PROBLEM FROM 930/931/932), did you seek any kind of advice or treatment?	YES . . . . . 1 NO 2	→ 936

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
935	Who did you see? Anyone else? RECORD ALL PERSONS SEEN.	PUBLIC MEDICAL SECTOR GOVT. DOCTOR . . . . . A PUBLIC HEALTH NURSE . . . . . B ANM/LHV . . . . . C MALE MPW/SUPERVISOR . . . . . D ANGANWADI WORKER . . . . . E VILLAGE HEALTH GUIDE . . . . . F ASHA . . . . . G OTHER PUBLIC SECTOR HEALTH WORKER _____ H (SPECIFY) NGO WORKER . . . . . I PRIVATE MEDICAL SECTOR PRIVATE DOCTOR . . . . . J PRIVATE NURSE . . . . . K COMPOUNDER/PHARMACIST . . . L VAIDYA/HAKIM/HOMEOPATH . . . . . M DAI (TBA) . . . . . N TRADITIONAL HEALER . . . . . O OTHER PRIVATE SECTOR HEALTH WORKER . . . . . P OTHER _____ X (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
936	Now I would like to ask your opinion about family life education for children. For each of the following, please tell me whether or not it should be taught in school, and if yes, at what age the topic should first be taught.	936B: At what age should boys first be taught this topic in school?	
936A	First we will talk about boys. Should boys be taught in school about_____ ?		

			AT AGE				
			<10	10-12	13-15	16 OR OLDER	DK
a. Moral values	YES 1 → NO 2	a.	1	2	3	4	8
b. Changes in boys' bodies at puberty	YES 1 → NO 2	b.	1	2	3	4	8
c. Changes in girls' bodies at puberty, including menstruation	YES 1 → NO 2	c.	1	2	3	4	8
d. Sex and sexual behaviour	YES 1 → NO 2	d.	1	2	3	4	8
e. Contraception	YES 1 → NO 2	e.	1	2	3	4	8
f. HIV/AIDS	YES 1 → NO 2	f.	1	2	3	4	8
g. Condom use to avoid sexually transmitted diseases	YES 1 → NO 2	g.	1	2	3	4	8

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
936C	Now let us talk about girls. Should girls be taught in school about_____ ?	936D: At what age should girls first be taught this topic in school?	

			AT AGE				
			<10	10-12	13-15	16 OR OLDER	DK
a. Moral values	YES 1 → NO 2	a.	1	2	3	4	8
b. Changes in boys' bodies at puberty	YES 1 → NO 2	b.	1	2	3	4	8
c. Changes in girls' bodies at puberty, including menstruation	YES 1 → NO 2	c.	1	2	3	4	8
d. Sex and sexual behaviour	YES 1 → NO 2	d.	1	2	3	4	8
e. Contraception	YES 1 → NO 2	e.	1	2	3	4	8
f. HIV/AIDS	YES 1 → NO 2	f.	1	2	3	4	8
g. Condom use to avoid sexually transmitted diseases	YES 1 → NO 2	g.	1	2	3	4	8

SECTION 10. HOUSEHOLD RELATIONS

1000 CHECK FRONT COVER: WOMAN SELECTED FOR THIS SECTION?

YES ☐ → NO ☐ → 1028

1001 CHECK FOR PRESENCE OF OTHERS:

DO NOT CONTINUE UNTIL EFFECTIVE PRIVACY IS ENSURED.

PRIVACY OBTAINED . . . . . 1 → PRIVACY NOT POSSIBLE . . . . . 2 → 1027

READ TO THE RESPONDENT

Now I would like to ask you questions about some other important aspects of a woman's life. I know that some of these questions are very personal. However, your answers are crucial for helping to understand the condition of women in India. Let me assure you that your answers are completely confidential and will not be told to anyone and no one else will know that you were asked these questions.

1002 CHECK 301 AND 308:

CURRENTLY MARRIED ☐ → | FORMERLY MARRIED (1003 TO 1013: READ IN PAST TENSE) ☐ → | MARRIED MORE THAN ONCE (1003 TO 1013: REFER TO CURRENT/LAST HUSBAND ONLY) ☐ → | NEVER MARRIED OR MARRIED, GAUNA NOT PERFORMED ☐ → 1014

1003 First, I am going to ask you about some situations which happen to some women. Please tell me if these apply to your relationship with your (last) husband.

		YES	NO	DK
a. He (is/was) jealous or angry if you (talk/talked) to other men.	JEALOUS	1	2	8
b. He frequently (accuses/accused) you of being unfaithful.	ACCUSES	1	2	8
c. He (does/did) not permit you to meet your female friends.	NOT MEET FRIENDS	1	2	8
d. He (tries/tried) to limit your contact with your family.	NO FAMILY	1	2	8
e. He (insists/insisted) on knowing where you (are/were) at all times.	WHERE YOU ARE	1	2	8
f. He (does/did) not trust you with any money.	MONEY	1	2	8

1004A Now if you will permit me, I need to ask some more questions about your relationship with your (last) husband.

CHECK 301: ASK ONLY **IF RESPONDENT IS NOT A WIDOW**

1004B How often did this happen during the last 12 months: often, only sometimes, or not at all?

(Does/did) your (last) husband ever:

			OFTEN	SOME-TIMES	NOT AT ALL
a.	Say or do something to humiliate you in front of others?	YES 1 → NO 2	a. 1	2	3
b.	Threaten to hurt or harm you or someone close to you?	YES 1 → NO 2	b. 1	2	3
c.	Insult you or make you feel bad about yourself?	YES 1 → NO 2	c. 1	2	3

NO.	QUESTIONS AND FILTERS		CODING CATEGORIES				SKIP
1005A	(Does/did) your (last) husband ever do any of the following things to you:		1005B	CHECK 301: ASK ONLY **IF RESPONDENT IS NOT A WIDOW** How often did this happen during the last 12 months: often, only sometimes, or not at all?			
				OFTEN	SOME-TIMES	NOT AT ALL	
	a. Slap you?	YES 1 → NO 2	a.	1	2	3	
	b. Twist your arm or pull your hair?	YES 1 → NO 2	b.	1	2	3	
	c. Push you, shake you, or throw something at you?	YES 1 → NO 2	c.	1	2	3	
	d. Punch you with his fist or with something that could hurt you?	YES 1 → NO 2	d.	1	2	3	
	e. Kick you, drag you or beat you up?	YES 1 → NO 2	e.	1	2	3	
	f. Try to choke you or burn you on purpose?	YES 1 → NO 2	f.	1	2	3	
	g. Threaten or attack you with a knife, gun, or any other weapon?	YES 1 → NO 2	g.	1	2	3	
	h. Physically force you to have sexual intercourse with him even when you did not want to?	YES 1 → NO 2	h.	1	2	3	
	i. Force you to perform any sexual acts you did not want to?	YES 1 → NO 2	i.	1	2	3	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1006	CHECK 1005A (a-i): AT LEAST ONE 'YES' ☐ NOT A SINGLE 'YES' ☐ → 1009		
1007	How long after you first got married to your (last) husband did (this/any of these things) first happen? IF LESS THAN ONE YEAR, RECORD '00'.	NUMBER OF YEARS . . . . . ☐☐ BEFORE MARRIAGE 95	
1008	Did the following ever happen as a result of what your (last) husband did to you at any time:	YES NO	
	a. You had cuts, bruises or aches?	CUTS/BRUISES 1 2	
	b. You had severe burns?	SEVERE BURNS 1 2	
	c. You had eye injuries, sprains, dislocations, or minor burns?	EYE INJURIES, SPRAINS DISLOCATIONS, ETC. . . . 1 2	
	d. You had deep wounds, broken bones, broken teeth, or any other serious injury?	OTHER SERIOUS INJURY . . . 1 2	
1009	Have you ever hit, slapped, kicked, or done anything else to physically hurt your (last) husband at times when he was not already beating or physically hurting you?	YES . . . . . 1 NO . . . . . 2 → 1012	
1010	CHECK 301: RESPONDENT IS NOT A WIDOW ☐ RESPONDENT IS A WIDOW ☐ → 1012		
1011	In the last 12 months, how often have you done this to your husband: often, only sometimes, or not at all?	OFTEN . . . . . 1 SOMETIMES . . . . . 2 NOT AT ALL 3	
1012	Does (did) your husband drink alcohol?	YES . . . . . 1 NO . . . . . 2 → 1014	
1013	How often does (did) he get drunk: often, only sometimes, or never?	OFTEN . . . . . 1 SOMETIMES . . . . . 2 NEVER 3	
1014	CHECK 301: ☐ NEVER MARRIED OR MARRIED, GAUNA NOT PERFORMED ☐ EVER MARRIED From the time you were 15 years old has anyone ever hit, slapped, kicked, or done anything else to hurt you physically? From the time you were 15 years old has anyone other than your (current/last) husband hit, slapped, kicked, or done anything else to hurt you physically?	YES . . . . . 1 NO . . . . . 2 REFUSED TO ANSWER/ NO ANSWER . . . . . 3 → 1017	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1015	Who has hurt you in this way? Anyone else? RECORD ALL MENTIONED.	MOTHER/STEP-MOTHER . . . . . A FATHER/STEP-FATHER . . . . . B SISTER/BROTHER . . . . . C DAUGHTER/SON . . . . . D OTHER RELATIVE . . . . . E FORMER HUSBAND/PARTNER . . . . . F CURRENT BOYFRIEND . . . . . G FORMER BOYFRIEND . . . . . H MOTHER-IN-LAW . . . . . I FATHER-IN-LAW . . . . . J OTHER IN-LAW . . . . . K TEACHER . . . . . L EMPLOYER/SOMEONE AT WORK . . . . M POLICE/SOLDIER . . . . . N OTHER _____ X (SPECIFY)	
1016	In the last 12 months, how often have you been hit, slapped, kicked, or physically hurt by this/these person(s): often, only sometimes, or not at all?	OFTEN . . . . . 1 SOMETIMES . . . . . 2 NOT AT ALL 3	
1017	At any time in your life, as a child or as an adult, has anyone ever forced you in any way to have sexual intercourse or perform any other sexual acts?	YES . . . . . 1 NO . . . . . 2 REFUSED TO ANSWER/ NO ANSWER 3	→ 1021
1018	How old were you the first time you were forced to have sexual intercourse or perform any other sexual acts?	AGE IN COMPLETED YEARS . . . . . ☐☐ DON'T KNOW 98	
1019	Who was the person who was forcing you at that time?	CURRENT HUSBAND . . . . . 01 FORMER HUSBAND . . . . . 02 CURRENT/FORMER BOYFRIEND . . . . 03 FATHER . . . . . 04 STEP-FATHER . . . . . 05 OTHER RELATIVE . . . . . 06 IN-LAW . . . . . 07 OWN FRIEND/ACQUAINTANCE . . . . . 08 FAMILY FRIEND . . . . . 09 TEACHER . . . . . 10 EMPLOYER/SOMEONE AT WORK . . . . 11 POLICE/SOLDIER . . . . . 12 PRIEST/RELIGIOUS LEADER . . . . . 13 STRANGER . . . . . 14 OTHER _____ 96	
1020	CHECK 301: ☐ NEVER MARRIED OR MARRIED, GAUNA NOT PERFORMED ☐ EVER MARRIED In the last 12 months has anyone forced you to have sexual intercourse or perform any other sexual acts against your will? In the last 12 months, has anyone other than your (current/last) husband forced you to have sexual intercourse or perform any other sexual acts against your will?	YES . . . . . 1 NO . . . . . 2 REFUSED TO ANSWER/ NO ANSWER 3	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1021	CHECK 1005A (a-i), 1014, AND 1017: AT LEAST ONE 'YES' ☐ ↓ NOT A SINGLE 'YES' ☐ →		1025
1022	Thinking about what you yourself have experienced among the different things we have been talking about, have you ever tried to seek help to stop the person(s) from doing this to you again?	YES . . . . . 1 NO 2	→ 1024
1023	From whom have you sought help to stop this? Anyone else? RECORD ALL MENTIONED.	OWN FAMILY . . . . . A HUSBAND'S FAMILY . . . . . B CURRENT/LAST HUSBAND . . . . . C CURRENT/FORMER BOYFRIEND . . . . D FRIEND . . . . . E NEIGHBOUR . . . . . F RELIGIOUS LEADER . . . . . G DOCTOR/MEDICAL PERSONNEL . . . . H POLICE . . . . . I LAWYER . . . . . J SOCIAL SERVICE ORGANIZATION . . K OTHER _____ X (SPECIFY)	→ 1025
1024	Have you ever told any one else about this?	YES . . . . . 1 NO 2	
1025	As far as you know, did your father ever beat your mother?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	

THANK THE RESPONDENT FOR HER COOPERATION AND REASSURE HER ABOUT THE CONFIDENTIALITY OF HER ANSWERS. FILL OUT THE QUESTIONS BELOW WITH REFERENCE TO THE HOUSEHOLD RELATIONS MODULE ONLY.

			YES ONCE	YES, MORE THAN ONCE	NO
1026	DID YOU HAVE TO INTERRUPT THIS SECTION OF THE INTERVIEW BECAUSE SOME ADULT WAS TRYING TO LISTEN, OR CAME INTO THE ROOM, OR INTERFERED IN ANY OTHER WAY?	HUSBAND	1	2	3
		OTHER MALE ADULT	1	2	3
		FEMALE ADULT	1	2	3

1027	INTERVIEWER'S COMMENTS / EXPLANATION FOR NOT COMPLETING THE DOMESTIC VIOLENCE MODULE _____ _____ _____		
1028	RECORD THE TIME.	HOUR . . . . . ☐☐ MINUTES . . . . . ☐☐	

INTERVIEWER'S OBSERVATIONS

TO BE FILLED IN AFTER COMPLETING INTERVIEW

COMMENTS ABOUT RESPONDENT:

COMMENTS ON SPECIFIC QUESTIONS:

ANY OTHER COMMENTS:

SUPERVISOR'S OBSERVATIONS

NAME OF SUPERVISOR: _____ DATE: _____

EDITOR'S OBSERVATIONS

NAME OF EDITOR: _____ DATE: _____

INSTRUCTIONS:

ONLY ONE CODE SHOULD APPEAR IN ANY BOX.
FOR COLUMNS 1 AND 3, ALL MONTHS SHOULD BE FILLED IN.

INFORMATION TO BE CODED FOR EACH COLUMN

COL. 1: BIRTHS, PREGNANCIES, CONTRACEPTIVE USE
- B BIRTHS
- P PREGNANCIES
- T TERMINATIONS

- 0 NO METHOD
- 1 FEMALE STERILIZATION
- 2 MALE STERILIZATION
- 3 PILL
- 4 IUD/LOOP
- 5 INJECTABLES
- 6 IMPLANTS
- 7 CONDOM/NIRODH
- 8 FEMALE CONDOM
- 9 DIAPHRAGM
- J FOAM OR JELLY
- L RHYTHM METHOD
- M WITHDRAWAL
- X OTHER _____ (SPECIFY)

COL.2: ULTRASOUND CONDUCTED DURING PREGNANCY
- Y YES
- N NO

COL. 3: MARRIAGE
- X MARRIED
- N MARRIED, GAUNA NOT PERFORMED
- 0 NOT MARRIED

COL. 4: DISCONTINUATION OF CONTRACEPTIVE USE
- 0 INFREQUENT SEX/HUSBAND AWAY
- 1 METHOD FAILED/BECAME PREGNANT WHILE USING
- 2 WANTED TO BECOME PREGNANT
- 3 HUSBAND/PARTNER DISAPPROVED
- 4 WANTED MORE EFFECTIVE METHOD
- 5 HEALTH CONCERNS/PROBLEMS
- 6 SIDE EFFECTS
- 7 LACK OF ACCESS/TOO FAR
- 8 COSTS TOO MUCH
- 9 INCONVENIENT TO USE
- F FATALISTIC
- A DIFFICULT TO GET PREGNANT/MENOPAUSAL
- D MARITAL DISSOLUTION/SEPARATION
- L LACK OF SEXUAL SATISFACTION
- M CREATED MENSTRUAL PROBLEM
- G GAINED WEIGHT
- N DID NOT LIKE METHOD
- P LACK OF PRIVACY FOR USE
- X OTHER _____ (SPECIFY)
- Z DON'T KNOW

				1	2		3	4			
	12	DEC	01						01	DEC	
	11	NOV	02						02	NOV	
	10	OCT	03						03	OCT	
	09	SEP	04						04	SEP	
2	08	AUG	05						05	AUG	2
0	07	JUL	06						06	JUL	0
0	06	JUN	07						07	JUN	0
6	05	MAY	08						08	MAY	6
	04	APR	09						09	APR	
	03	MAR	10						10	MAR	
	02	FEB	11						11	FEB	
	01	JAN	12						12	JAN	
	12	DEC	13						13	DEC	
	11	NOV	14						14	NOV	
	10	OCT	15						15	OCT	
	09	SEP	16						16	SEP	
2	08	AUG	17						17	AUG	2
0	07	JUL	18						18	JUL	0
0	06	JUN	19						19	JUN	0
5	05	MAY	20						20	MAY	5
	04	APR	21						21	APR	
	03	MAR	22						22	MAR	
	02	FEB	23						23	FEB	
	01	JAN	24						24	JAN	
	12	DEC	25						25	DEC	
	11	NOV	26						26	NOV	
	10	OCT	27						27	OCT	
	09	SEP	28						28	SEP	
2	08	AUG	29						29	AUG	2
0	07	JUL	30						30	JUL	0
0	06	JUN	31						31	JUN	0
4	05	MAY	32						32	MAY	4
	04	APR	33						33	APR	
	03	MAR	34						34	MAR	
	02	FEB	35						35	FEB	
	01	JAN	36						36	JAN	
	12	DEC	37						37	DEC	
	11	NOV	38						38	NOV	
	10	OCT	39						39	OCT	
	09	SEP	40						40	SEP	
2	08	AUG	41						41	AUG	2
0	07	JUL	42						42	JUL	0
0	06	JUN	43						43	JUN	0
3	05	MAY	44						44	MAY	3
	04	APR	45						45	APR	
	03	MAR	46						46	MAR	
	02	FEB	47						47	FEB	
	01	JAN	48						48	JAN	
	12	DEC	49						49	DEC	
	11	NOV	50						50	NOV	
	10	OCT	51						51	OCT	
	09	SEP	52						52	SEP	
2	08	AUG	53						53	AUG	2
0	07	JUL	54						54	JUL	0
0	06	JUN	55						55	JUN	0
2	05	MAY	56						56	MAY	2
	04	APR	57						57	APR	
	03	MAR	58						58	MAR	
	02	FEB	59						59	FEB	
	01	JAN	60						60	JAN	
	12	DEC	61						61	DEC	
	11	NOV	62						62	NOV	
	10	OCT	63						63	OCT	
	09	SEP	64						64	SEP	
2	08	AUG	65						65	AUG	2
0	07	JUL	66						66	JUL	0
0	06	JUN	67						67	JUN	0
1	05	MAY	68						68	MAY	1
	04	APR	69						69	APR	
	03	MAR	70						70	MAR	
	02	FEB	71						71	FEB	
	01	JAN	72						72	JAN	

NATIONAL FAMILY HEALTH SURVEY, INDIA 2005-2006 (NFHS- 3)
MAN'S QUESTIONNAIRE [STATE NAME]

CONFIDENTIAL
For research purposes only

IDENTIFICATION

STATE _____ ☐☐

DISTRICT _____

TEHSIL/TALUK _____

CITY/TOWN/VILLAGE _____

MEGA CITY/LARGE CITY/SMALL CITY/LARGE TOWN/SMALL TOWN/RURAL . . . . . ☐
(MEGA CITY=1, LARGE CITY=2, SMALL CITY=3, LARGE TOWN =4, SMALL TOWN=5, RURAL=6)

PSU NUMBER . . . . . ☐☐☐

HOUSEHOLD NUMBER . . . . . ☐☐☐☐

NAME AND LINE NUMBER OF MAN _____

ADDRESS OF HOUSEHOLD _____

_____

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE				DAY ☐☐
				MONTH ☐☐
				YEAR ☐☐☐☐
INTERVIEWER'S NAME				INT. NUMBER ☐☐☐
RESULT*				RESULT CODE ☐
NEXT VISIT: DATE				TOTAL NUMBER OF VISITS ☐
TIME				

*RESULT CODES:

1	COMPLETED	4	REFUSED	7	OTHER _____
2	NOT AT HOME	5	PARTLY COMPLETED		(SPECIFY)
3	POSTPONED	6	INCAPACITATED		

NATIVE LANGUAGE OF RESPONDENT** ☐☐

** LANGUAGE CODES:

01 ASSAMESE	06 KANNADA	11 MARATHI	16 TAMIL
02 BENGALI	07 KASHMIRI	12 NEPALI	17 TELUGU
03 ENGLISH	08 KONKANI	13 ORIYA	18 URDU
04 GUJARATI	09 MALAYALAM	14 PUNJABI	19 OTHER _____
05 HINDI	10 MANIPURI	15 SINDHI	(SPECIFY)

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
NAME _____	NAME _____		
DATE _____ ☐☐☐	DATE _____ ☐☐☐	☐☐	☐☐

SECTION 1. RESPONDENT'S BACKGROUND

INTRODUCTION AND INFORMED CONSENT

Namaste. My name is _____ and I am working with (NAME OF ORGANIZATION). We are conducting a national survey about the health of men, women and children. We would very much appreciate your participation in this survey. Several different health-related topics will be discussed including use of health services, the quality of health care, marital and sexual relationships, and infectious diseases.This information will help the government to assess health and information needs and to better plan health services. The survey usually takes about 30 minutes to complete. Whatever information you provide will be kept strictly confidential and will not be shown to other persons.

Participation in this survey is voluntary and if you choose to participate, you may withdraw at any time. However, we hope that you will take part in this survey since your participation is important.

At this time, do you want to ask me anything about the survey?

ANSWER ANY QUESTIONS AND ADDRESS RESPONDENT'S CONCERNS.

In case you need more information about the survey, you may contact the person listed on the card that has already been given to your household.

May I begin the interview now?

Signature of interviewer: _____ Date: _____

RESPONDENT AGREES TO BE INTERVIEWED 1 ↓ RESPONDENT DOES NOT AGREE TO BE INTERVIEWED 2 → END

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	RECORD THE TIME.	HOUR . . . . . ☐☐ MINUTES . . . . . ☐☐	
102	How long have you been living continuously in (NAME OF CURRENT PLACE OF RESIDENCE)? IF LESS THAN ONE YEAR, RECORD '00' YEARS.	YEARS . . . . . ☐☐ ALWAYS . . . . . 95 VISITOR 96	→ 104
103	Just before you moved here, did you live in a city, in a town, or in the countryside?	CITY . . . . . 1 TOWN . . . . . 2 COUNTRYSIDE 3	
104	In the last 12 months, on how many separate occasions have you traveled away from your home community for at least one night?	NUMBER OF TRIPS AWAY . . ☐☐ NONE 00	→ 106
105	In the last 12 months, have you been away from your home community for more than 1 month at a time?	YES . . . . . 1 NO 2	
106	In what month and year were you born?	MONTH . . . . . ☐☐ DON'T KNOW MONTH . . . . . 98 YEAR . . . . . ☐☐☐☐ DON'T KNOW YEAR 9998	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
107	How old were you at your last birthday? COMPARE AND CORRECT 106 AND/OR 107 IF INCONSISTENT.	AGE IN COMPLETED YEARS ☐☐	
108	Have you ever attended school?	YES . . . . . 1 NO 2	→ 111
109	What is the highest standard you completed?	STANDARD . . . . . ☐☐	
110	CHECK 109: STANDARD 0-5 ☐ ↓ STANDARD 6 AND ABOVE ☐ →		114
111	Now I would like you to read this sentence to me. SHOW A SENTENCE FROM THE LITERACY CARD TO RESPONDENT. IF RESPONDENT CANNOT READ WHOLE SENTENCE, PROBE: Can you read any part of the sentence to me?	CANNOT READ AT ALL . . . . . 1 ABLE TO READ ONLY PARTS OF SENTENCE . . . . . 2 ABLE TO READ WHOLE SENTENCE . 3 NO CARD WITH REQUIRED LANGUAGE _____ 4 (SPECIFY LANGUAGE) BLIND/VISUALLY IMPAIRED 5	
112	Have you ever participated in a literacy programme or any other programme that involves learning to read or write (not including primary school)?	YES . . . . . 1 NO 2	
113	CHECK 111: CODE '2', '3' OR '4' CIRCLED ☐ ↓ CODE '1' OR '5' CIRCLED ☐ →		115
114	Do you read a newspaper or magazine almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEEK . . . . . 3 NOT AT ALL 4	
115	Do you listen to the radio almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEEK . . . . . 3 NOT AT ALL 4	
116	Do you watch television almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEEK . . . . . 3 NOT AT ALL 4	
117	Do you usually go to a cinema hall or theatre to see a movie at least once a month?	YES . . . . . 1 NO 2	
118	What is your religion?	HINDU . . . . . 01 MUSLIM . . . . . 02 CHRISTIAN . . . . . 03 SIKH . . . . . 04 BUDDHIST/NEO-BUDDHIST . . . . . 05 JAIN . . . . . 06 JEWISH . . . . . 07 PARSI/ZOROASTRIAN . . . . . 08 NO RELIGION . . . . . 09 OTHER _____ 96 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
119	What is your caste or tribe?	CASTE _____ (SPECIFY) 1 TRIBE _____ (SPECIFY) 2 NO CASTE/TRIBE . . . . . 3 DON'T KNOW 8	→ 121
120	Do you belong to a scheduled caste, a scheduled tribe, other backward class, or none of these?	SCHEDULED CASTE . . . . . 1 SCHEDULED TRIBE . . . . . 2 OBC . . . . . 3 NONE OF THEM 4	
121	Have you done any work in the last seven days?	YES . . . . . 1 NO 2	→ 125
122	Although you did not work in the last seven days, do you have any job or business from which you were absent for leave, illness, vacation, or any other such reason?	YES . . . . . 1 NO 2	→ 125
123	Have you done any work in the last 12 months?	YES . . . . . 1 NO 2	→ 125
124	What have you been doing for most of the time over the last 12 months?	GOING TO SCHOOL/STUDYING . . . . . 1 LOOKING FOR WORK . . . . . 2 RETIRED . . . . . 3 UNABLE TO WORK/ILL/ HANDICAPPED . . . . . 4 HOUSEWORK/CHILDCARE . . . . . 5 OTHER _____ (SPECIFY) 6	→ 201
125	What is your occupation, that is, what kind of work do you mainly do?	_____ ☐☐ _____ _____	
126	CHECK 125: WORKS IN AGRICULTURE ☐ → DOES NOT WORK IN AGRICULTURE ☐		→ 128
127	Do you work mainly on your own land, on family land, or on land that you rent from someone else, or do you work on someone else's land?	OWN LAND . . . . . 1 FAMILY LAND . . . . . 2 RENTED LAND . . . . . 3 SOMEONE ELSE'S LAND 4	
128	Are you paid in cash or kind for this work, or are you not paid at all?	CASH ONLY . . . . . 1 CASH AND KIND . . . . . 2 IN KIND ONLY . . . . . 3 NOT PAID 4	

SECTION 2. REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
201	Now I would like to ask about any children you have had during your life. I am interested only in the children that are biologically yours. Have you ever fathered any children with any woman?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 206
202	Do you have any sons or daughters that you have fathered who are now living with you?	YES . . . . . 1 NO 2	→ 204
203	How many sons live with you? And how many daughters live with you? IF NONE, RECORD '00'.	SONS AT HOME . . . . . [ ][ ] DAUGHTERS AT HOME . . . . . [ ][ ]	
204	Do you have any sons or daughters you have fathered who are alive but do not live with you?	YES . . . . . 1 NO 2	→ 206
205	How many sons are alive but do not live with you? And how many daughters are alive but do not live with you? IF NONE, RECORD '00'.	SONS ELSEWHERE . . . . . [ ][ ] DAUGHTERS ELSEWHERE . . [ ][ ]	
206	Have you ever fathered a son or a daughter who was born alive but later died? IF NO, PROBE: Any baby who cried or showed signs of life but did not survive?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 208
207	How many boys have died? And how many girls have died? IF NONE, RECORD '00'.	BOYS DEAD . . . . . [ ][ ] GIRLS DEAD . . . . . [ ][ ]	
208	(In addition to the children that you have just told me about), do you have: a. Any other living sons or daughters who are biologically your children but who are not legally yours or do not have your last/family name? b. Any other sons or daughters who died who were biologically your children but who were not legally yours or did not have your last/family name? NO TO BOTH → OTHER → PROBE AND CORRECT 201-207 AS NECESSARY.		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
209	SUM ANSWERS TO 203, 205, AND 207, AND ENTER TOTAL. IF NONE, RECORD '00'.	TOTAL CHILDREN	
210	CHECK 209: HAS HAD MORE THAN ONE CHILD HAS HAD ONLY ONE CHILD → 213 HAS NOT HAD ANY CHILDREN → 301		
211	Do the children that you have fathered all have the same biological mother?	YES . . . . . 1 NO 2	→ 213
212	In all, how many women have you fathered children with?	NUMBER OF WOMEN	
213	How old were you when your (first) child was born?	AGE IN YEARS	
214	How many years old is your (youngest) living child?	AGE IN YEARS . . . . . NO LIVING CHILD 95	

SECTION 3. CONTRACEPTION AND MALE INVOLVEMENT

301	Now I would like to talk about family planning - the various ways or methods that a couple can use to delay or avoid a pregnancy. Which ways or methods have you heard about? FOR METHODS NOT MENTIONED SPONTANEOUSLY, ASK: Have you ever heard of (METHOD)? CIRCLE CODE 1 IN 301 FOR EACH METHOD MENTIONED SPONTANEOUSLY. THEN PROCEED DOWN COLUMN 301, READING THE NAME AND DESCRIPTION OF EACH METHOD NOT MENTIONED SPONTANEOUSLY. CIRCLE CODE 1 IF METHOD IS RECOGNIZED, AND CODE 2 IF NOT RECOGNIZED. THEN, FOR METHODS 02, 06, 08, AND 09, ASK 302 IF 301 HAS CODE 1 CIRCLED.		302 Have you ever used (METHOD)?
01	FEMALE STERILIZATION Women can have an operation to avoid having any more children.	YES . . . . . 1 NO 2	
02	MALE STERILIZATION Men can have an operation to avoid having any more children.	YES . . . . . 1 NO . . . . . 2 →	Have you ever had an operation to avoid having any more children? YES . . . . . 1 NO 2
03	PILL Women can take a pill every day or every week to avoid becoming pregnant.	YES . . . . . 1 NO 2	
04	IUD OR LOOP Women can have a loop or coil placed inside them by a doctor or a nurse.	YES . . . . . 1 NO 2	
05	INJECTABLES Women can have an injection by a health provider that stops them from becoming pregnant for one or more months.	YES . . . . . 1 NO 2	
06	CONDOM OR NIRODH Men can put a rubber sheath on their penis before sexual intercourse.	YES . . . . . 1 NO . . . . . 2 →	YES . . . . . 1 NO 2
07	FEMALE CONDOM Women can place a sheath in their vagina before sexual intercourse.	YES . . . . . 1 NO 2	
08	RHYTHM METHOD Every month that a woman is sexually active, she can avoid pregnancy by not having sexual intercourse on the days of the month she is most likely to get pregnant.	YES . . . . . 1 NO . . . . . 2 →	YES . . . . . 1 NO 2
09	WITHDRAWAL Men can be careful and pull out before climax.	YES . . . . . 1 NO . . . . . 2 →	YES . . . . . 1 NO 2
10	EMERGENCY CONTRACEPTION Women can take pills up to three days after sexual intercourse to avoid becoming pregnant.	YES . . . . . 1 NO 2	
11	Have you heard of any other ways or methods that women or men can use to avoid pregnancy?	YES . . . . . 1 _____ (SPECIFY) _____ (SPECIFY) NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
303	CHECK 302 (02) RESPONDENT IS STERILIZED YES ☐ NO ☐ → 310		
304	Now I would like to talk about when you were sterilized. In what facility did the sterilization take place? IF UNABLE TO DETERMINE IF A HOSPITAL, HEALTH CENTRE, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	PUBLIC MEDICAL SECTOR GOVT./MUNICIPAL HOSPITAL . . . 11 GOVT. DISPENSARY . . . . . 12 UHC/UHP/UFWC . . . . . 13 CHC/RURAL HOSPITAL/PHC . . . 14 SUB-CENTRE . . . . . 15 GOVT. MOBILE CLINIC . . . . . 16 CAMP . . . . . 17 OTHER PUBLIC SECTOR HEALTH FACILITY . . . . . 18 NGO OR TRUST HOSPITAL/CLINIC . 21 PRIVATE MEDICAL SECTOR PVT. HOSPITAL . . . . . 31 PVT. DOCTOR/CLINIC . . . . . 32 PVT. MOBILE CLINIC . . . . . 33 OTHER PRIVATE HEALTH FACILITY . . . . . 34 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	
305	In what month and year was the sterilization performed?	MONTH . . . . . ☐☐ YEAR . . . . . ☐☐☐☐	
306	Before your sterilization operation, were you told that you would not be able to have any (more) children because of the operation?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
307	How would you rate the care you received during and immediately after the operation: very good, all right, not so good, or bad?	VERY GOOD . . . . . 1 ALL RIGHT . . . . . 2 NOT SO GOOD . . . . . 3 BAD 4	
308	How much did you pay in total for the sterilization, including any consultation you may have had?	COST . . . Rs. ☐☐☐☐☐ FREE . . . . . 99995 DON'T KNOW 99998	
309	Do you regret that you had the sterilization?	YES . . . . . 1 NO 2	
310	In the last few months have you heard or seen any message about family planning:	YES NO	
	a. On the radio?	RADIO 1 2	
	b. On the television?	TELEVISION 1 2	
	c. In a newspaper or magazine?	NEWSPAPER OR MAGAZINE 1 2	
	d. On a wall painting or hoarding?	WALL PAINTING/HOARDING . 1 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
311	Now I would like to ask you about a woman's risk of pregnancy. From one menstrual period to the next, are there certain days when a woman is more likely to become pregnant if she has sexual relations?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 313
312	Is this time just before her period begins, during her period, right after her period has ended, or halfway between two periods?	JUST BEFORE HER PERIOD BEGINS . . . . . 1 DURING HER PERIOD . . . . . 2 RIGHT AFTER HER PERIOD HAS ENDED . . . . . 3 HALFWAY BETWEEN TWO PERIODS . . . . . 4 OTHER _____ 6 (SPECIFY) DON'T KNOW 8	
313	Do you think that a woman who is breastfeeding her baby can become pregnant?	YES . . . . . 1 NO . . . . . 2 DEPENDS . . . . . 3 DON'T KNOW 8	
314	I will now read you some statements about contraception. Please tell me if you agree or disagree with each one. a. Contraception is women's business and a man should not have to worry about it. b. Women who use contraception may become promiscuous.	AGREE / DISAGREE / DK CONTRACEPTION WOMEN'S BUSINESS 1 2 8 WOMAN MAY BECOME PROMISCUOUS . . . 1 2 8	
315	CHECK 301 (06) KNOWS MALE CONDOM YES ☐ NO ☐ → 317		
316	If a male condom is used correctly, do you think that it protects against pregnancy most of the time, only sometimes, or not at all?	MOST OF THE TIME . . . . . 1 SOMETIMES . . . . . 2 NOT AT ALL . . . . . 3 DON'T KNOW/UNSURE 8	
317	Do you know of a place where you can obtain a method of family planning?	YES . . . . . 1 NO 2	→ 319

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
318	Where is that? Any other place? IF UNABLE TO DETERMINE IF A HOSPITAL, HEALTH CENTRE, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL SECTOR, WRITE THE NAME OF THE PLACE(S). _____ (NAME OF PLACE(S)) RECORD ALL PLACES MENTIONED.	PUBLIC MEDICAL SECTOR GOVT./MUNICIPAL HOSPITAL . . . A GOVT. DISPENSARY . . . . . B UHC/UHP/UFWC . . . . . C CHC/RURAL HOSPITAL/PHC . . . D SUB-CENTRE/ANM . . . . . E GOVT. MOBILE CLINIC . . . . . F CAMP . . . . . G ANGANWADI/ICDS CENTRE . . . H ASHA . . . . . I OTHER COMMUNITY-BASED WORKER . . . . . J OTHER PUBLIC MEDICAL SECTOR . . . . . K NGO OR TRUST HOSPITAL/CLINIC . L PRIVATE MEDICAL SECTOR PVT. HOSPITAL . . . . . M PVT. DOCTOR/CLINIC . . . . . N PVT. MOBILE CLINIC . . . . . O VAIDYA/HAKIM/HOMEOPATH . . . P TRADITIONAL HEALER . . . . . Q PHARMACY/DRUGSTORE . . . . . R DAI (TBA) . . . . . S OTHER PRIVATE MEDICAL SECTOR . . . . . T OTHER SOURCE SHOP . . . . . U FRIEND/RELATIVE . . . . . V OTHER _____ X (SPECIFY)	
319	In the last 3 months, have you visited a health facility or camp for any reason for yourself (or for your children)?	YES . . . . . 1 NO 2	→ 326
320	What type of health facility did you visit most recently for yourself (or for your children)? IF UNABLE TO DETERMINE IF A HOSPITAL, HEALTH CENTRE, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	PUBLIC MEDICAL SECTOR GOVT./MUNICIPAL HOSPITAL . . . 11 GOVT. DISPENSARY . . . . . 12 UHC/UHP/UFWC . . . . . 13 CHC/RURAL HOSPITAL/PHC 14 SUB-CENTRE . . . . . 15 GOVT. MOBILE CLINIC . . . . . 16 CAMP . . . . . 17 ANGANWADI/ICDS CENTRE . . . 18 OTHER PUBLIC SECTOR HEALTH FACILITY . . . . . 19 NGO OR TRUST HOSPITAL/CLINIC . 21 PRIVATE MEDICAL SECTOR PVT. HOSPITAL . . . . . 31 CLINIC/PVT. MOBILE CLINIC . . . 32 PHARMACY/DRUGSTORE . . . . . 33 OTHER PRIVATE SECTOR HEALTH FACILITY . . . . . 34 OTHER _____ 96 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
321	What service did you go for? Any other service? RECORD ALL MENTIONED.	FAMILY PLANNING . . . . . A IMMUNIZATION . . . . . B DISEASE PREVENTION . . . . . C MEDICAL TREATMENT FOR SELF . D TREATMENT FOR CHILD . . . . . E TREATMENT FOR OTHER PERSON . F GROWTH MONITORING OF CHILD . G HEALTH CHECK-UP . . . . . H OTHER _____ X (SPECIFY)	
322	How long did you have to wait before you received the service you went for?	MINUTES . . . . . 1 ☐☐ HOURS . . . . . 2 ☐☐ NO WAIT AT ALL . . . . . 995 DID NOT RECEIVE SERVICE . . . 996	▸ 325
323	Was the person who provided the service to you responsive to your problems and needs?	YES . . . . . 1 NO 2	
324	Did she/he respect your need for privacy if you needed it?	YES . . . . . 1 NO . . . . . 2 SAYS PRIVACY NOT NEEDED . . . 3	
325	Would you say that the health facility/camp was very clean, somewhat clean, or not clean?	VERY CLEAN . . . . . 1 SOMEWHAT CLEAN . . . . . 2 NOT CLEAN 3	
326	CHECK 214: (YOUNGEST) CHILD IS AGE 0-3 ☐ ↓ OTHER ☐		→ 401
327	What is the name of your (youngest) child? WRITE NAME OF (YOUNGEST) CHILD AND ENTER THE LINE NUMBER OF THE CHILD FROM THE HOUSEHOLD QUESTIONNAIRE. IF CHILD IS NOT LISTED IN THE HOUSEHOLD SCHEDULE, WRITE '00' IN THE BOXES FOR THE LINE NUMBER.	_____ (NAME OF (YOUNGEST) CHILD) LINE NUMBER OF (YOUNGEST) CHILD FROM THE HOUSEHOLD SCHEDULE . ☐☐	
328	When (NAME)'s mother was pregnant with (NAME), did she have any antenatal check-ups?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 330 → 331
329	Were you ever present during any antenatal check-up?	PRESENT . . . . . 1 NOT PRESENT 2	→ 331
330	What was the main reason why (NAME)'s mother did not have any antenatal check-up?	HE DID NOT THINK IT WAS NECESSARY/DID NOT ALLOW . 01 FAMILY DID NOT THINK IT NECESSARY/DID NOT ALLOW . 02 CHILD'S MOTHER DID NOT WANT CHECK-UP . . . . . 03 HAS HAD CHILDREN BEFORE . . . 04 COSTS TOO MUCH . . . . . 05 TOO FAR/NO TRANSPORTATION . 06 NO FEMALE HEALTH WORKER AVAILABLE . . . . . 07 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
331	At any time when (NAME)'s mother was pregnant with (NAME), did any health provider or health worker ever tell you about the following signs of pregnancy complications?	YES NO	
	a. Vaginal bleeding?	BLEEDING 1 2	
	b. Convulsions?	CONVULSIONS 1 2	
	c. Prolonged labour?	PROLONGED LABOUR . . 1 2	
332	Were you ever told what to do if (NAME)'s mother had any pregnancy complication?	YES . . . . . 1 NO 2	
333	At any time during the pregnancy did any health provider or health worker speak to you about:	YES NO	
	a. The importance of delivering the baby in a hospital or health facility?	DELIVERY ADVICE 1 2	
	b. The importance of proper nutrition for the mother during pregnancy?	NUTRITION ADVICE 1 2	
	c. Family planning or delaying your next child?	FAMILY PLANNING 1 2	
334	Was (NAME) born in a hospital or any other health facility?	HOSPITAL/HEALTH FACILITY . . . . . 1 SOMEWHERE ELSE 2	→ 337
335	When (NAME)'s mother was pregnant with (NAME), did anyone explain to you the importance of the following:	YES NO	
	a. The need for the mother to breastfeed the baby immediately after delivery?	BREASTFEEDING 1 2	
	b. The need to keep the baby warm immediately after birth?	BABY WARM 1 2	
	c. The need for cleanliness at the time of delivery?	CLEANLINESS 1 2	
	d. The need for a new or unused blade to cut the cord?	CLEAN BLADE 1 2	
336	What was the main reason why (NAME)'s mother did not deliver in a hospital or health facility?	COSTS TOO MUCH . . . . . 01 FACILITY NOT OPEN . . . . . 02 TOO FAR/NO TRANSPORTATION . 03 DON'T TRUST FACILITY/POOR QUALITY SERVICE . . . . . 04 NO FEMALE PROVIDER . . . . . 05 NOT THE FIRST CHILD . . . . . 06 CHILD'S MOTHER DID NOT THINK IT WAS NECESSARY . . . 07 HE DID NOT THINK IT NECESSARY/ DID NOT ALLOW . . . . . 08 FAMILY DID NOT THINK IT WAS NECESSARY/DID NOT ALLOW . 09 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	
337	When a child has diarrhoea, how much should he or she be given to drink: more than usual, the same amount as usual, less than usual, or should he or she not be given anything to drink at all?	MORE THAN USUAL . . . . . 1 ABOUT THE SAME . . . . . 2 LESS THAN USUAL . . . . . 3 NOTHING TO DRINK . . . . . 4 DON'T KNOW 8	

SECTION 4. MARRIAGE AND SEXUAL LIFE

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
401	What is your current marital status?	CURRENTLY MARRIED . . . . . 1 MARRIED, GAUNA NOT PERFORMED . . . . . 2 WIDOWED . . . . . 3 DIVORCED . . . . . 4 SEPARATED . . . . . 5 DESERTED . . . . . 6 NEVER MARRIED 7	→ 407 → 414
402	Do you currently have one wife or more than one wife? IF ONLY ONE WIFE, RECORD '01' . IF MORE THAN ONE, ASK: How many wives do you currently have?	NUMBER OF WIVES	
403	WRITE THE LINE NUMBERS FROM THE HOUSEHOLD QUESTIONNAIRE FOR EACH WIFE. IF A WIFE IS NOT LISTED IN THE HOUSEHOLD SCHEDULE, RECORD '00' IN THE LINE NUMBER BOXES. THE NUMBER OF LINES FILLED IN MUST BE EQUAL TO THE NUMBER OF WIVES. (IF RESPONDENT HAS MORE THAN FOUR WIVES, USE SPACE AT THE BOTTOM OF THE PAGE.) CHECK 402: ONLY ONE WIFE ↓ — Please tell me the name of your wife. MORE THAN ONE WIFE ↓ — Please tell me the name of each of your wives, starting with the one you married first. WIFE NUMBER — NAME 1 _____ 2 _____ 3 _____ 4 _____	LINE NUMBER IN HOUSEHOLD QUESTIONNAIRE	
404	Are you living with your wife/wives now, or is she/are they staying elsewhere?	LIVING WITH WIFE/AT LEAST ONE WIFE . . . . . 1 NOT LIVING WITH WIFE/ANY WIVES . . 2	→ 406
405	For how long have you not been living with your wife/ any of your wives? IF LESS THAN 1 YEAR, RECORD MONTHS; OTHERWISE RECORD COMPLETED YEARS.	MONTHS . . . . . 1 YEARS 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
406	CHECK 402: ONLY ONE WIFE Have you ever been married to any woman other than your current wife? MORE THAN ONE WIFE Have you ever been married to any other woman in addition to those you have told me about?	YES . . . . . 1 NO 2	→ 408
407	Have you been married once or more than once?	ONCE . . . . . 1 MORE THAN ONCE 2	→ 409 → 409A
408	CHECK 402 AND 406: 402=01 AND 406='2' OTHER		→ 409A
409	In what month and year did you get married?	MONTH . . . . . ☐☐ DON'T KNOW MONTH 98	
409A	Now I would like to ask about when you married your first wife. In what month and year was that?	YEAR . . . . . ☐☐☐☐ DON'T KNOW YEAR 9998	→ 411
410	How old were you when you (first) got married?	AGE . . . . . ☐☐	
411	CHECK 401: MARRIED, GAUNA NOT PERFORMED OTHER		→ 414
412	CHECK 402 AND 406 AND, IF 402 AND 406 NOT ASKED, CHECK 407: MARRIED ONLY ONCE (402=01 AND 406='2') OR (407='1') In what month and year did you start living with your wife? MARRIED MORE THAN ONCE (402>01 OR 406='1') OR (407='2') Now I would like to ask about when you started living with your first wife. In what month and year was that?	MONTH . . . . . ☐☐ DON'T KNOW MONTH . . . . . 98 YEAR . . . . . ☐☐☐☐ DON'T KNOW YEAR 9998	→ 415
413	How old were you when you first started living with her?	AGE . . . . . ☐☐	→ 415

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
414	CHECK FOR THE PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY. Now I need to ask you some questions about sexual life in order to gain a better understanding of some family life issues. Let me assure you again that your answers are completely confidential and will not be told to anyone. If you do not want to answer, just let me know and I will skip to the next question. Have you ever had sexual intercourse?	YES . . . . . 1 NO 2	→ 416
415	CHECK FOR THE PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY. (Now I need to ask you some questions about sexual life in order to gain a better understanding of some family life issues. Let me assure you again that your answers are completely confidential and will not be told to anyone. If you do not want to answer, just let me know and I will skip to the next question.) How old were you when you had sexual intercourse for the very first time?	NEVER HAD SEXUAL INTERCOURSE . . . . . 00 AGE IN YEARS . . . . . [ ][ ] FIRST TIME WHEN STARTED LIVING WITH (FIRST) WIFE 95	→ 446 → 418 → 418
416	CHECK 401: NEVER MARRIED ☐ OTHER ☐		→ 446
417	Do you intend to wait until you get married to have sexual intercourse for the first time?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE 8	→ 446
418	The first time you had sexual intercourse, was a condom used?	YES . . . . . 1 NO 2	
419	When was the last time you had sexual intercourse? IF LESS THAN 12 MONTHS, ANSWER MUST BE RECORDED IN DAYS, WEEKS, OR MONTHS. IF 12 MONTHS (ONE YEAR) OR MORE, ANSWER MUST BE RECORDED IN YEARS.	DAYS AGO . . . . . 1 [ ][ ] WEEKS AGO . . . . . 2 [ ][ ] MONTHS AGO . . . . . 3 [ ][ ] YEARS AGO . . . . . 4 [ ][ ]	→ 421 → 434

		LAST SEXUAL PARTNER	SECOND-TO-LAST SEXUAL PARTNER	THIRD-TO-LAST SEXUAL PARTNER
420	When was the last time you had sexual intercourse with this person?		DAYS AGO . 1 WEEKS AGO . 2 MONTHS AGO . 3 ☐☐	DAYS AGO . 1 WEEKS AGO . 2 MONTHS AGO . 3 ☐☐
421	The last time you had sexual intercourse (with this second/third person), was a condom used?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 423)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 423)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 423)
422	Did you use a condom every time you had sexual intercourse with this person in the last 12 months?	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
423	What was this person's relationship to you?	WIFE . . . . . 01 (SKIP TO 428) LIVE-IN PARTNER . 02 GIRLFRIEND NOT LIVING WITH RESPONDENT . 03 OTHER FRIEND . . . 04 RELATIVE . . . . . 05 CASUAL ACQUAINTANCE . . 06 SEX WORKER . 07 OTHER _____ 96 (SPECIFY)	WIFE . . . . . 01 (SKIP TO 428) LIVE-IN PARTNER . 02 GIRLFRIEND NOT LIVING WITH RESPONDENT . 03 OTHER FRIEND . . . 04 RELATIVE . . . . . 05 CASUAL ACQUAINTANCE . . 06 SEX WORKER . 07 OTHER _____ 96 (SPECIFY)	WIFE . . . . . 01 (SKIP TO 429) LIVE-IN PARTNER . 02 GIRLFRIEND NOT LIVING WITH RESPONDENT . 03 OTHER FRIEND . . . 04 RELATIVE . . . . . 05 CASUAL ACQUAINTANCE . . 06 SEX WORKER . 07 OTHER _____ 96 (SPECIFY)
424	For how long (have you had/did you have) a sexual relationship with this person? IF ONLY HAD SEXUAL RELATIONS WITH THIS PERSON ONCE, RECORD '01' DAYS.	DAYS . 1 MONTHS 2 YEARS 3 ☐☐	DAYS . 1 MONTHS 2 YEARS 3 ☐☐	DAYS . 1 MONTHS 2 YEARS 3 ☐☐
425	CHECK 107:	AGE 15-24 / AGE 25-54 ☐ (SKIP TO 428)	AGE 15-24 / AGE 25-54 ☐ (SKIP TO 428)	AGE 15-24 / AGE 25-54 ☐ (SKIP TO 429)
426	How old is this person?	AGE OF PARTNER . ☐☐ (SKIP TO 428) DON'T KNOW 98	AGE OF PARTNER . ☐☐ (SKIP TO 428) DON'T KNOW 98	AGE OF PARTNER . ☐☐ (SKIP TO 429) DON'T KNOW 98
427	Would you say this person is ten or more years older than you?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
428	Apart from [this person/these two people], have you had sexual intercourse with any other person in the last 12 months?	YES . . . . . 1 (GO BACK TO 420 IN NEXT COLUMN) NO . . . . . 2 (SKIP TO 430)	YES . . . . . 1 (GO BACK TO 420 IN NEXT COLUMN) NO . . . . . 2 (SKIP TO 430)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
429	In total, with how many different people have you had sex in the last 12 months? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF PARTNERS . . . ☐☐ DON'T KNOW 98	
430	CHECK 423, ALL COLUMNS: NO PARTNERS ARE SEX WORKERS ☐ ↓ AT LEAST ONE PARTNER IS A SEX WORKER ☐ →		434
431	In the last 12 months, did you pay anyone in exchange for sex?	YES . . . . . 1 NO 2	→ 434
432	The last time you paid someone in exchange for sex, was a condom used?	YES . . . . . 1 NO 2	→ 434
433	Was a condom used every time you paid someone in exchange for sex in the last 12 months?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
434	In total, with how many different people have you had sex in your lifetime? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF PARTNERS . . . ☐☐ DON'T KNOW 98	
435	CHECK 421, COLUMN 1 (CONDOM USE WITH LAST SEXUAL PARTNER): YES ☐ ↓ NO, BLANK ☐ →		442
436	You told me that the last time you had intercourse you used a condom. What brand of condom did you use the last time?	BRANCH NAME _____ (SPECIFY) ☐☐☐ DON'T KNOW 998	
437	Who obtained the condom: you, your partner, or someone else?	MAN HIMSELF . . . . . 1 PARTNER . . . . . 2 SOMEONE ELSE 3	→ 441
438	How many condoms did you get the last time?	NUMBER . . . . . ☐☐ DON'T KNOW 98	
439	The last time you obtained condoms, how much did you pay in total, including the cost of the method and any consultation you may have had?	COST . . . . . Rs. ☐☐☐ FREE . . . . . 995 DON'T KNOW 998	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
440	From where did you obtain the condom the last time? IF UNABLE TO DETERMINE IF A HOSPITAL, HEALTH CENTRE, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	PUBLIC MEDICAL SECTOR GOVT./MUNICIPAL HOSPITAL . . . 11 GOVT. DISPENSARY . . . . . 12 UHC/UHP/UFWC . . . . . 13 CHC/RURAL HOSPITAL/PHC . . . . . 14 SUB-CENTRE/ANM . . . . . 15 GOVT. MOBILE CLINIC . . . . . 16 CAMP . . . . . 17 ANGANWADI WORKER . . . . . 18 ASHA . . . . . 19 OTHER COMMUNITY BASED WORKER . . . . . 20 OTHER PUBLIC MEDICAL SECTOR . . . . . 21 NGO OR TRUST HOSPITAL/CLINIC . 31 PRIVATE MEDICAL SECTOR PVT. HOSPITAL/CLINIC/ DOCTOR . . . . . 41 PVT. PARAMEDIC . . . . . 42 VAIDYA/HAKIM/HOMEOPATH . . . 43 TRADITIONAL HEALER . . . . . 44 PHARMACY/DRUGSTORE . . . . . 45 DAI (TBA) . . . . . 46 OTHER PRIVATE MEDICAL SECTOR . . . . . 47 OTHER SOURCE RATION SHOP . . . . . 51 OTHER SHOP . . . . . 52 WIFE . . . . . 53 FRIEND/RELATIVE . . . . . 54 VENDING MACHINE . . . . . 55 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	
441	This last time you used a condom, did you use it to avoid pregnancy, to avoid a sexually transmitted disease, or for some other reason? PROBE: Any other reason? RECORD ALL MENTIONED.	AVOID PREGNANCY . . . . . A AVOID STD . . . . . B SOME OTHER REASON C	
442	CHECK 302 (02): RESPONDENT EVER STERILIZED NO ☐ YES ☐ → 445		
443	The last time you had sex did you or your partner use any method (other than a condom) to avoid or prevent a pregnancy?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 445

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
444	What method did you or your partner use? PROBE: Did you use any other method to prevent pregnancy? RECORD ALL MENTIONED.	FEMALE STERILIZATION . . . . . A PILL . . . . . B IUD/LOOP . . . . . C INJECTABLES . . . . . D IMPLANTS . . . . . E FEMALE CONDOM . . . . . F DIAPHRAGM . . . . . G FOAM/JELLY . . . . . H RHYTHM METHOD . . . . . I WITHDRAWAL . . . . . J OTHER _____ X (SPECIFY)	
445	CHECK 421, ALL COLUMNS, AND 432: OTHER ☐ ↓ ANY 'YES' ☐ → 501		
446	Do you know of a place where a person can get condoms?	YES . . . . . 1 NO . . . . . 2 → 501	
447	Where is that? Any other place? IF UNABLE TO DETERMINE IF A HOSPITAL, HEALTH CENTRE, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL SECTOR, WRITE THE NAME OF THE PLACE(S). _____ (NAME OF PLACE(S)) RECORD ALL SOURCES MENTIONED.	PUBLIC MEDICAL SECTOR GOVT./MUNICIPAL HOSPITAL . . . A GOVT. DISPENSARY . . . . . B UHC/UHP/UFWC . . . . . C CHC/RURAL HOSPITAL/PHC . . . . . D SUB-CENTRE/ANM . . . . . E GOVT. MOBILE CLINIC . . . . . F CAMP . . . . . G ANGANWADI/ICDS CENTRE . . . . . H ASHA . . . . . I OTHER COMMUNITY-BASED WORKER . . . . . J OTHER PUBLIC MEDICAL SECTOR _____ K SPECIFY NGO OR TRUST HOSPITAL/CLINIC . L PRIVATE MEDICAL SECTOR PVT. HOSPITAL/CLINIC/ DOCTOR . . . . . M PVT. PARAMEDIC . . . . . N VAIDYA/HAKIM/HOMEOPATH . . . O TRADITIONAL HEALER . . . . . P PHARMACY/DRUGSTORE . . . . . Q DAI (TBA) . . . . . R OTHER PRIVATE MEDICAL SECTOR . . . . . S OTHER SOURCE RATION SHOP . . . . . T OTHER SHOP . . . . . U VENDING MACHINE . . . . . V OTHER _____ X (SPECIFY)	
448	If you wanted to, could you yourself get a condom?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE 8	

SECTION 5. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
501	CHECK 401: CURRENTLY MARRIED ☐ NEVER MARRIED ☐ OTHER ☐		→ 506 → 503
502	CHECK 402: HAS ONE WIFE ☐ Is your wife currently pregnant? HAS MORE THAN ONE WIFE ☐ Are any of your wives currently pregnant?	YES . . . . . 1 NO . . . . . 2 UNSURE 3	
503	CHECK 302(02): EVER STERILIZED? NO ☐ YES ☐		→ 506
504	CHECK 502: YES, PREGNANT ☐ Now I have some questions about the future. After the child(ren) your wife/wives is/are expecting now, would you like to have another child or would you prefer not to have any more children at all? NOT PREGNANT, UNSURE,OR NOT ASKED ☐ Now I have some questions about the future. Would you like to have (a/another) child, or would you prefer not to have any (more) children at all?	HAVE A/ANOTHER CHILD . . . . . 1 NO MORE/NONE . . . . . 2 WIFE/WIVES ALL INFECUND/ STERILIZED . . . . . 3 RESPONDENT INFECUND . . . . . 4 UNDECIDED/DON'T KNOW 8	→ 506
505	How long would you like to wait from now before the birth of (a/another) child?	MONTHS . . . . . 1 ☐☐ YEARS . . . . . 2 ☐☐ SOON/NOW . . . . . 993 OTHER _____ 996 (SPECIFY) DON'T KNOW 998	
506	CHECK 203 AND 205: HAS LIVING CHILDREN ☐ If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be? NO LIVING CHILDREN ☐ If you could choose exactly the number of children to have in your whole life, how many would that be?	NONE . . . . . 00 NUMBER . . . . . ☐☐ OTHER _____ 96 (SPECIFY)	→ 601 → 601
507	How many of these children would you like to be boys, how many would you like to be girls, and for how many would the sex not matter?	BOYS GIRLS EITHER NUMBER ☐☐ ☐☐ ☐☐ OTHER _____ 96 (SPECIFY)	

SECTION 6. SELECTED HEALTH AND NUTRITION ISSUES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
601	How often do you yourself consume the following food items: daily, weekly, occasionally, or never?	DAILY WEEKLY OCC. NEVER	
	a. Milk or curd?	a. 1 2 3 4	
	b. Pulses or beans?	b. 1 2 3 4	
	c. Dark green leafy vegetables?	c. 1 2 3 4	
	d. Fruits?	d. 1 2 3 4	
	e. Eggs?	e. 1 2 3 4	
	f. Fish?	f. 1 2 3 4	
	g. Chicken or meat?	g. 1 2 3 4	
602	Now I would like to ask you some questions about any injections you have had in the last 12 months. Have you had an injection for any reason in the last 12 months? IF YES: How many injections have you had? IF NUMBER OF INJECTIONS IS GREATER THAN 90, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTIONS . . . ☐☐ NONE . . . . . 00 →	607
603	CHECK 602: ONE INJECTION ☐ → Was this injection administered by a doctor, a nurse, a pharmacist, a dentist, or any other health worker? IF YES, RECORD '01'. MORE THAN ONE INJECTION ☐ → Among these injections, how many were administered by a doctor, a nurse, a pharmacist, a dentist, or any other health worker? IF NUMBER OF INJECTIONS IS GREATER THAN 90, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTIONS . . . ☐☐ NONE . . . . . 00 →	607

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
604	The last time you had an injection given to you by a health worker, where did you go to get the injection? IF UNABLE TO DETERMINE IF A HOSPITAL, HEALTH CENTRE, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	PUBLIC MEDICAL SECTOR GOVT./MUNICIPAL HOSPITAL . . . 11 GOVT. DISPENSARY . . . . . 12 UHC/UHP/UFWC . . . . . 13 CHC/RURAL HOSPITAL/PHC . . . . . 14 SUB-CENTRE . . . . . 15 GOVT. MOBILE CLINIC . . . . . 16 CAMP . . . . . 17 ANGANWADI/ICDS CENTRE . . . . . 18 OTHER PUBLIC MEDICAL SECTOR . . . . . 19 NGO OR TRUST HOSPITAL/CLINIC . 21 PRIVATE MEDICAL SECTOR PVT. HOSPITAL . . . . . 31 PVT. DOCTOR/CLINIC . . . . . 32 PVT. PARAMEDIC . . . . . 33 VAIDYA/HAKIM/HOMEOPATH . . . 34 PHARMACY/DRUGSTORE . . . . . 35 OTHER PRIVATE MEDICAL SECTOR . . . . . 36 OTHER PLACE SHOP . . . . . 41 AT HOME . . . . . 42 OTHER _____ 96 (SPECIFY)	
605	Did the person who gave you that injection take the syringe and needle from a new, unopened package?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 607
606	As far as you know, was the needle sterilized?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
607	Have you ever had a blood transfusion?	YES . . . . . 1 NO 2	
608	Do you currently smoke cigarettes or bidis?	YES . . . . . 1 NO 2	→ 610
609	In the last 24 hours, how many cigarettes or bidis did you smoke? IF NONE, RECORD '00'.	CIGARETTES/BIDIS	
610	Do you currently smoke or use tobacco in any other form?	YES . . . . . 1 NO 2	→ 612
611	In what other form do you currently smoke or use tobacco? Any other form? RECORD ALL MENTIONED.	CIGAR/PIPE . . . . . A PAAN MASALA . . . . . B GHUTKA . . . . . C OTHER CHEWING TOBACCO . . . . . D SNUFF . . . . . E OTHER _____ X (SPECIFY)	
612	Do you drink alcohol?	YES . . . . . 1 NO 2	→ 614

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
613	How often do you drink alcohol: almost every day, about once a week, or less often?	ALMOST EVERY DAY . . . . . 1 ABOUT ONCE A WEEK . . . . . 2 LESS OTHEN 3	
614	Have you ever heard of an illness called tuberculosis or TB?	YES . . . . . 1 NO 2	→ 618
615	How does tuberculosis spread from one person to another? Any other ways? RECORD ALL MENTIONED.	THROUGH THE AIR WHEN COUGHING OR SNEEZING . . . . . A THROUGH SHARING UTENSILS . . . B THROUGH TOUCHING A PERSON WITH TB . . . . . C THROUGH FOOD . . . . . D THROUGH SEXUAL CONTACT . . . . . E THROUGH MOSQUITO BITES . . . . . F OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
616	Can tuberculosis be cured?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
617	If a member of your family got tuberculosis, would you want it to remain a secret or not?	YES, REMAIN A SECRET . . . . . 1 NO . . . . . 2 DON'T KNOW/NOT SURE/ DEPENDS 8	
618	Do you currently have:		

		YES	NO	DON'T KNOW
a. Diabetes?	DIABETES	1	2	8
b. Asthma?	ASTHMA	1	2	8
c. Goiter or another thyroid disorder?	GOITER/THYROID .	1	2	8

SECTION 7. ATTITUDES TOWARDS GENDER ROLES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
701	In a couple, who do you think should have the greater say in each of the following decisions: the husband, the wife or both equally:	HUS-BAND = 1; WIFE = 2; BOTH EQUAL-LY = 3; DON'T KNOW/ DEPENDS = 8	
	a. Making major household purchases?	a. 1 2 3 8	
	b. Making purchases for daily household needs?	b. 1 2 3 8	
	c. Deciding about visits to the wife's family or relatives?	c. 1 2 3 8	
	d. Deciding what to do with the money the wife earns from her work?	d. 1 2 3 8	
	e. Deciding how many children to have?	e. 1 2 3 8	
702	Sometimes a husband is annoyed or angered by things that his wife does. In your opinion, is a husband justified in hitting or beating his wife in the following situations:	YES = 1; NO = 2; DON'T KNOW = 8	
	a. If she goes out without telling him?	GOES OUT 1 2 8	
	b. If she neglects the house or the children?	NEGL. CHILDREN . . . 1 2 8	
	c. If she argues with him?	ARGUES 1 2 8	
	d. If she refuses to have sex with him?	REFUSES SEX 1 2 8	
	e. If she doesn't cook food properly?	POOR COOKING . . . 1 2 8	
	f. If he suspects her of being unfaithful?	UNFAITHFUL 1 2 8	
	g. If she shows disrespect for in-laws?	DISRESPECT 1 2 8	
703	When a wife knows her husband has a sexually transmitted disease, is she justified in asking that they use a condom?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
704	Please tell me if you think a wife is justified in refusing to have sex with her husband when:	YES = 1; NO = 2; DON'T KNOW = 8	
	a. She knows her husband has a sexually transmitted disease.	HAS STD 1 2 8	
	b. She knows her husband has sex with other women.	OTHER WOMEN 1 2 8	
	c. She is tired or not in the mood.	TIRED/NOT IN MOOD . 1 2 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
705	Do you think that if a woman refuses to have sex with her husband when he wants her to, he has the right to:	YES NO DON'T KNOW	
	a. Get angry and reprimand her?	ANGRY 1 2 8	
	b. Refuse to give her money or other means of financial support?	REFUSE SUPPORT . . . 1 2 8	
	c. Use force and have sex with her even if she doesn't want to?	USE FORCE 1 2 8	
	d. Go and have sex with another woman?	SEX WITH OTHER WOMEN 1 2 8	
706	CHECK 401: CURRENTLY MARRIED ☐ OTHER ☐ → 712		
707	(Is your wife/Are any of your wives) currently employed for cash?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW . . . . . 8 → 711	
708	Who decides how the money your wife earns will be used: mainly you, mainly your wife, or you and your wife jointly?	RESPONDENT . . . . . 1 WIFE . . . . . 2 RESPONDENT AND WIFE JOINTLY . 3 OTHER 6	
709	CHECK 128: CODE 1 OR 2 CIRCLED ☐ OTHER ☐ → 712		
710	Would you say that the money you earn is more than what your wife earns, less than what she earns, or about the same?	MORE THAN WIFE . . . . . 1 LESS THAN WIFE . . . . . 2 ABOUT THE SAME . . . . . 3 DON'T KNOW 8	
711	Who decides how your earnings will be used: mainly you, mainly your wife, or you and your wife jointly?	RESPONDENT . . . . . 1 WIFE . . . . . 2 RESPONDENT AND WIFE JOINTLY . 3 OTHER 6	
712	As far as you know, did your father ever beat your mother?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	

SECTION 8. HIV/AIDS AND OTHER SEXUALLY TRANSMITTED INFECTIONS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
801	Now I would like to talk about something else. Have you ever heard of an illness called AIDS?	YES . . . . . 1 NO 2	→ 827
802	From which sources of information have you learned about AIDS? Any other source? RECORD ALL MENTIONED.	RADIO . . . . . A TELEVISION . . . . . B CINEMA . . . . . C NEWSPAPERS/MAGAZINES . . . . . D POSTERS/HOARDINGS . . . . . E EXHIBITION/MELA . . . . . F HEALTH WORKERS . . . . . G ADULT EDUC. PROGRAMME . . . . . H RELIGIOUS LEADERS . . . . . I POLITICAL LEADERS . . . . . J SCHOOL/TEACHERS . . . . . K COMMUNITY MEETINGS . . . . . L WIFE . . . . . M FRIENDS/RELATIVES . . . . . N WORK PLACE . . . . . O OTHER _____ X (SPECIFY)	
803	In your opinion, can people reduce their chances of getting HIV/AIDS by having just one uninfected sex partner who has no other sex partners?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
804	In your opinion, can people get HIV/AIDS from mosquito bites?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
805	In your opinion, can people reduce their chances of getting HIV/AIDS by using a condom every time they have sex?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
806	In your opinion, can people get HIV/AIDS by sharing food with a person who has AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
807	In your opinion, can people get HIV/AIDS by hugging someone who has AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
808	In your opinion, can people reduce their chance of getting HIV/AIDS by abstaining from sexual intercourse?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
809	Is there anything else a person can do to avoid or reduce the chances of getting HIV/AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 811

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
810	What can a person do? Anything else? RECORD ALL WAYS MENTIONED.	ABSTAIN FROM SEX . . . . . A USE CONDOMS . . . . . B LIMIT SEX TO ONE PARTNER/STAY FAITHFUL TO ONE PARTNER . . . . . C LIMIT NUMBER OF SEXUAL PARTNERS . . . . . D AVOID SEX WITH SEX WORKERS . . . E AVOID SEX WITH PERSONS WHO HAVE MANY PARTNERS . . . . . F AVOID SEX WITH HOMOSEXUALS . . . G AVOID SEX WITH PERSONS WHO INJECT DRUGS . . . . . H AVOID BLOOD TRANSFUSIONS . . . . . I USE BLOOD ONLY FROM RELATIVES . . . . . J AVOID INJECTIONS . . . . . K USE ONLY NEW/STERILIZED NEEDLES . . . . . L AVOID IV DRIP . . . . . M AVOID SHARING RAZORS/BLADES . . . N AVOID KISSING . . . . . O AVOID MOSQUITO BITES . . . . . P OTHER _____ (SPECIFY) W OTHER _____ (SPECIFY) X DON'T KNOW . . . . . Z	
811	Is it possible for a healthy-looking person to have HIV/AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
812	Can HIV/AIDS be transmitted from a mother to her baby?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 814
813	Are there any special medications that a doctor or a nurse can give to a woman infected with HIV/AIDS to reduce the risk of transmitting HIV/AIDS to the baby?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
814	Have you heard about special antiretroviral drugs (USE LOCAL NAME(S)) that people infected with HIV/AIDS can get from a doctor or a nurse to help them live longer?	YES . . . . . 1 NO 2	
815	I don't want to know the results, but have you ever been tested to see if you have HIV/AIDS?	YES . . . . . 1 NO 2	→ 820
816	When was the last time you were tested?	LESS THAN 12 MONTHS AGO . . . . . 1 12 - 23 MONTHS AGO . . . . . 2 2 OR MORE YEARS AGO 3	
817	The last time you had the test, did you yourself ask for the test, was it offered to you and you accepted, was it required, or was it done without your consent?	ASKED FOR THE TEST . . . . . 1 OFFERED AND ACCEPTED . . . . . 2 REQUIRED . . . . . 3 WITHOUT CONSENT 4	
818	I don't want to know the results, but did you get the results of the test?	YES . . . . . 1 NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
819	Where was the test done? IF UNABLE TO DETERMINE IF A HOSPITAL, HEALTH CENTRE, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	PUBLIC MEDICAL SECTOR GOVT./MUNICIPAL HOSPITAL . . . . . 11 GOVT. DISPENSARY . . . . . 12 UHC/UHP/UFWC . . . . . 13 CHC/RURAL HOSP./PHC . . . . . 14 SUB-CENTRE . . . . . 15 GOVT. MOBILE CLINIC . . . . . 16 VCT CLINIC . . . . . 17 STI CLINIC . . . . . 18 OTHER PUBLIC MEDICAL SECTOR _____ 19 (SPECIFY) NGO OR TRUST HOSPITAL/ CLINIC . . . . . 21 PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR . . . . . 31 VCT CLINIC . . . . . 32 STI CLINIC . . . . . 33 OTHER PRIVATE MEDICAL SECTOR _____ 34 (SPECIFY) OTHER _____ 96 (SPECIFY)	→ 822
820	Do you know of a place where people can go to get tested for HIV/AIDS?	YES . . . . . 1 NO 2	→ 822
821	Where is that? Any other place? IF UNABLE TO DETERMINE IF A HOSPITAL, HEALTH CENTRE, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL SECTOR, WRITE THE NAME OF THE PLACE(S). _____ (NAME OF PLACE(S)) RECORD ALL PLACES MENTIONED.	PUBLIC MEDICAL SECTOR GOVT./MUNICIPAL HOSPITAL . . . . . A GOVT. DISPENSARY . . . . . B UHC/UHP/UFWC . . . . . C CHC/RURAL HOSP./PHC . . . . . D SUB-CENTRE . . . . . E GOVT. MOBILE CLINIC . . . . . F VCT CLINIC . . . . . G STI CLINIC . . . . . H OTHER PUBLIC MEDICAL SECTOR _____ I (SPECIFY) NGO OR TRUST HOSPITAL/ CLINIC . . . . . J PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR . . . . . K VCT CLINIC . . . . . L STI CLINIC . . . . . M OTHER PRIVATE MEDICAL SECTOR _____ N (SPECIFY) OTHER _____ X (SPECIFY	
822	Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had HIV/AIDS?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
823	If a member of your family got infected with HIV/AIDS, would you want it to remain a secret or not?	YES, REMAIN A SECRET . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
824	If a relative of yours became sick with the virus that causes AIDS, would you be willing to care for her or him in your own household?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
825	In your opinion, if a female teacher has HIV/AIDS but is not sick, should she be allowed to continue teaching in the school?	SHOULD BE ALLOWED . . . . . 1 SHOULD NOT BE ALLOWED . . . . . 2 DK/NOT SURE/DEPENDS 8	
826	In your opinion, if a male teacher has HIV/AIDS but is not sick, should he be allowed to continue teaching in the school?	SHOULD BE ALLOWED . . . . . 1 SHOULD NOT BE ALLOWED . . . . . 2 DK/NOT SURE/DEPENDS 8	
827	Some men are circumcised. Are you circumcised?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
828	CHECK 801: HEARD ABOUT AIDS ☐ → Apart from AIDS, have you heard about other infections that can be transmitted through sexual contact? NOT HEARD ABOUT AIDS ☐ → Have you heard about infections that can be transmitted through sexual contact?	YES . . . . . 1 NO 2	
829	CHECK 414 AND 415: HAS HAD SEXUAL INTERCOURSE ☐ HAS NOT HAD SEXUAL INTERCOURSE (414='2' OR 415='00') ☐ →		837
830	CHECK 828 : HEARD ABOUT OTHER SEXUALLY TRANSMITTED INFECTIONS? YES ☐ NO ☐ →		832
831	Now I would like to ask you some questions about your health in the last 12 months. During the last 12 months, have you had a disease which you got through sexual contact?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
832	Sometimes men experience an abnormal discharge from their penis. During the last 12 months, have you had an abnormal discharge from your penis?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
833	Sometimes men have a sore or ulcer on or near their penis. During the last 12 months, have you had a sore or ulcer on or near your penis?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
834	CHECK 831, 832, AND 833 : AT LEAST ONE YES ☐ ↓ OTHER ☐ →		837
835	The last time you had (PROBLEM FROM 831/832/833), did you seek any kind of advice or treatment?	YES . . . . . 1 NO 2	→ 837
836	Who did you see? Anyone else? RECORD ALL PERSONS SEEN.	PUBLIC MEDICAL SECTOR GOVT. DOCTOR . . . . . A PUBLIC HEALTH NURSE . . . . . B MALE MPW/SUPERVISOR . . . . . C VILLAGE HEALTH GUIDE . . . . . D ASHA . . . . . E OTHER PUBLIC SECTOR HEALTH WORKER _____ F (SPECIFY) NGO WORKER . . . . . G PRIVATE MEDICAL SECTOR PRIVATE DOCTOR . . . . . H PRIVATE NURSE . . . . . I COMPOUNDER/PHARMACIST . . . . J STI CLINIC . . . . . K VAIDYA/HAKIM/HOMEOPATH . . . . . L TRADITIONAL HEALER . . . . . M OTHER PRIVATE SECTOR HEALTH WORKER . . . . . N OTHER _____ X (SPECIFY)	
837	Now I would like to ask your opinion about family life education for children. For each of the following, please tell me whether or not it should be taught in school, and if yes, at what age the topic should first be taught.		
837A	First we will talk about boys. Should boys be taught in school about_____?	837B: At what age should boys first be taught this topic in school?	

		AT AGE				
		<10	10-12	13-15	16 OR OLDER	DK
a. Moral values	YES 1 → / NO 2	a. 1	2	3	4	8
b. Changes in boys bodies at puberty	YES 1 → / NO 2	b. 1	2	3	4	8
c. Changes in girls bodies at puberty, including menstruation	YES 1 → / NO 2	c. 1	2	3	4	8
d. Sex and sexual behaviour	YES 1 → / NO 2	d. 1	2	3	4	8
e. Contraception	YES 1 → / NO 2	e. 1	2	3	4	8
f. HIV/AIDS	YES 1 → / NO 2	f. 1	2	3	4	8
g. Condom use to avoid sexually transmitted diseases	YES 1 → / NO 2	g. 1	2	3	4	8

NO.	QUESTIONS AND FILTERS		CODING CATEGORIES	SKIP
837C	Now let us talk about girls. Should girls be taught in school about_____?		837D: At what age should girls first be taught this topic in school?	

			AT AGE				
			<10	10-12	13-15	16 OR OLDER	DK
a.	Moral values	YES 1 → NO 2	a. 1	2	3	4	8
b.	Changes in boys bodies at puberty	YES 1 → NO 2	b. 1	2	3	4	8
c.	Changes in girls bodies at puberty, including menstruation	YES 1 → NO 2	c. 1	2	3	4	8
d.	Sex and sexual behaviour	YES 1 → NO 2	d. 1	2	3	4	8
e.	Contraception	YES 1 → NO 2	e. 1	2	3	4	8
f.	HIV/AIDS	YES 1 → NO 2	f. 1	2	3	4	8
g.	Condom use to avoid sexually transmitted diseases	YES 1 → NO 2	g. 1	2	3	4	8

838	RECORD THE TIME.	HOUR . . . . . MINUTES	

INTERVIEWER'S OBSERVATIONS

TO BE FILLED IN AFTER COMPLETING INTERVIEW

COMMENTS ABOUT RESPONDENT:

COMMENTS ON SPECIFIC QUESTIONS:

ANY OTHER COMMENTS:

SUPERVISOR'S OBSERVATIONS

NAME OF SUPERVISOR: _____ DATE: _____

EDITOR'S OBSERVATIONS

NAME OF EDITOR: _____ DATE: _____

PSU INFORMATION FORM

STATE_____ ☐☐

PAGE _____ OF _____ PAGES

DISTRICT	TEHSIL/TALUK	CITY/TOWN/VILLAGE	CITY SIZE/ RURAL AREA*	PSU NUMBER	ALTITUDE	PSU COVERAGE BY ANGANWADI/ICDS CENTRE AND YEAR ESTABLISHED (IF YES)
_____	_____	_____	☐	☐☐☐	METRES..... ☐☐☐☐ < 1,000 METRES.....9995	YES...1 NO...2 YEAR ☐☐☐☐
_____	_____	_____	☐	☐☐☐	METRES..... ☐☐☐☐ < 1,000 METRES.....9995	YES...1 NO...2 YEAR ☐☐☐☐
_____	_____	_____	☐	☐☐☐	METRES..... ☐☐☐☐ < 1,000 METRES.....9995	YES...1 NO...2 YEAR ☐☐☐☐
_____	_____	_____	☐	☐☐☐	METRES..... ☐☐☐☐ < 1,000 METRES.....9995	YES...1 NO...2 YEAR ☐☐☐☐
_____	_____	_____	☐	☐☐☐	METRES..... ☐☐☐☐ < 1,000 METRES.....9995	YES...1 NO...2 YEAR ☐☐☐☐
_____	_____	_____	☐	☐☐☐	METRES..... ☐☐☐☐ < 1,000 METRES.....9995	YES...1 NO...2 YEAR ☐☐☐☐
_____	_____	_____	☐	☐☐☐	METRES..... ☐☐☐☐ < 1,000 METRES.....9995	YES...1 NO...2 YEAR ☐☐☐☐

* CODES FOR CITY SIZE/RURAL AREA

MEGA CITY=1, LARGE CITY=2, SMALL CITY=3, LARGE TOWN=4, SMALL TOWN=5, RURAL=6

NAME OF SUPERVISOR_____ ☐☐

PSU INFORMATION FORM (ONLY FOR 8 SPECIFIED CITIES)**

STATE_____ ☐☐

PAGE _____ OF _____ PAGES

DISTRICT	TEHSIL/TALUK	CITY/TOWN/VILLAGE	CITY SIZE/ RURAL AREA*	PSU NUMBER	ALTITUDE	PSU COVERAGE BY ANGANWADI/ICDS CENTRE AND YEAR ESTABLISHED (IF YES)	IS PSU IN SLUM AREA ACCORDING TO: CENSUS?		IS PSU IN SLUM AREA ACCORDING TO: SUPERVISOR?	
							YES	NO	YES	NO
_____	_____	_____	☐	☐☐☐	METRES…… ☐☐☐☐ < 1,000 METRES……9995	YES…1 NO…2 YEAR ☐☐☐☐	1	2	1	2
_____	_____	_____	☐	☐☐☐	METRES…… ☐☐☐☐ < 1,000 METRES……9995	YES…1 NO…2 YEAR ☐☐☐☐	1	2	1	2
_____	_____	_____	☐	☐☐☐	METRES…… ☐☐☐☐ < 1,000 METRES……9995	YES…1 NO…2 YEAR ☐☐☐☐	1	2	1	2
_____	_____	_____	☐	☐☐☐	METRES…… ☐☐☐☐ < 1,000 METRES……9995	YES…1 NO…2 YEAR ☐☐☐☐	1	2	1	2
_____	_____	_____	☐	☐☐☐	METRES…… ☐☐☐☐ < 1,000 METRES……9995	YES…1 NO…2 YEAR ☐☐☐☐	1	2	1	2
_____	_____	_____	☐	☐☐☐	METRES…… ☐☐☐☐ < 1,000 METRES……9995	YES…1 NO…2 YEAR ☐☐☐☐	1	2	1	2
_____	_____	_____	☐	☐☐☐	METRES…… ☐☐☐☐ < 1,000 METRES……9995	YES…1 NO…2 YEAR ☐☐☐☐	1	2	1	2

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NAME OF SUPERVISOR_____ ☐☐

**Chennai, Delhi, Hyderabad, Indore, Kolkata, Meerut, Mumbai, Nagpur

India 2005-06

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Volume II

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For additional information on NFHS-3, visit www.nfhsindia.org.
For related information, visit www.iipsindia.org or www.mohfw.nic.in.