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## 2005-06 NATIONAL FAMILY HEALTH SURVEY (NFHS-3)

The 2005-06 National Family Health Survey (NFHS-3) is the third in the NFHS series of surveys. The first NFHS was conducted in 1992-93, and the second (NFHS-2) was conducted in 1998-99. All three NFHS surveys were conducted under the stewardship of the Ministry of Health and Family Welfare (MOHFW), Government of India. The MOHFW designated the International Institute for Population Sciences (IIPS), Mumbai, as the nodal agency for the surveys. Funding for NFHS-3 was provided by the United States 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. Assistance for the HIV component of the survey was provided by the National AIDS Control Organization (NACO) and the National AIDS Research Institute, Pune (NARI).

NFHS-3 interviewed 124,385 women age 15-49 and 74,369 men age 15-54 to obtain information on population, health, and nutrition in India and each of its 29 states. The survey is based on a sample of households that is representative at the national and state levels. The survey provides trend data on key indicators and includes information on several new topics, such as HIV/AIDS-related behaviour, attitudes toward family life education for girls and boys, use of Integrated Child Development Scheme (ICDS) services, men's involvement in maternal care, and health insurance. For the first time, NFHS-3 provides information on men and unmarried women. In addition, HIV prevalence is measured at the national level and for selected states. The NFHS-3 fieldwork was conducted in two phases by 18 research organizations between November 2005 and August 2006.



## HOUSEHOLD CHARACTERISTICS

### Household composition

One-third of India's households are in urban areas, with two-thirds in rural areas. Half of the households have four or fewer members. Fourteen percent of households are headed by women.

The vast majority of households have household heads who are Hindu (82%) or Muslim (13%). An additional 3 percent of households are headed by Christians, 2 percent by Sikhs, and 2 percent by those of other religions.

Nineteen percent of households belong to a scheduled caste, 8 percent belong to a scheduled tribe, and 40 percent belong to other backward classes (OBC). Only one-third of India's households do not belong to the scheduled castes, scheduled tribes, or other backward classes.

More than one-third of India's population (35%) is under age 15; only 5 percent is age 65 and over. Among children under 18 years of age, 5 percent have experienced the death of one or both parents. In all, 83 percent of children under 18 years of age live with both parents, and 13 percent live with one parent.

### Housing (electricity, water, toilet facilities)

Sixty-eight percent of households (56% of rural households and 93% of urban households) have electricity, up from 60 percent at the time of NFHS-2. Fifty-five percent of households have no toilet facilities, down from 64 percent at the time of NFHS-2. Three-fourths of rural households have no toilet facilities.

Eighty-eight percent of households use an improved source of drinking water (95% of urban households and 85% of rural households), but only 25 percent have water piped into their dwelling, yard, or plot. One-third of households treat their drinking water to make it potable; half of those that treat their water strain the water through a cloth, and almost one-third boil the water.

### Wealth index

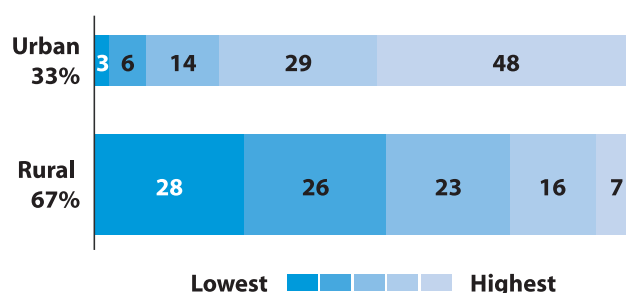
The wealth index is constructed by combining information on 33 household assets and housing characteristics such as ownership of consumer items, type of dwelling, source of water, and availability of electricity into a single wealth index. The household population is divided into five equal groups of 20 percent each (quintiles) at the national level from 1 (lowest, poorest) to 5 (highest, wealthiest).

Twenty-eight percent of the rural population is in the lowest wealth quintile, in contrast to the urban areas, where only 3 percent of the population is in the lowest quintile.



### Wealth Index

*Percentage of households in urban and rural areas and percent distribution of households*





## EDUCATION

### Current school attendance among children

Only 83 percent of primary-school age children (6-10 years) attend school (88% in urban areas and 81% in rural areas). School attendance drops to 75 percent for children age 11-14 years and is only 41 percent

for children age 15-17 years.

Among children age 6-10 years, there is no gender disparity in school attendance in urban areas, but school attendance in rural areas is higher for boys (84%) than for girls (79%).

At older ages too (11-14 years and 15-17 years), in urban areas, gender disparity in school attendance in favour of boys remains small (2 percentage points or less); but, in rural areas, it is pronounced and increases with age.

### Education levels

Forty-one percent of women and 18 percent of men age 15-49 have never been to school. More than one-third of men (35%) have completed 10 or more years of education, but only 22 percent of women have attained that level of education.

### Attitudes toward family life education in school

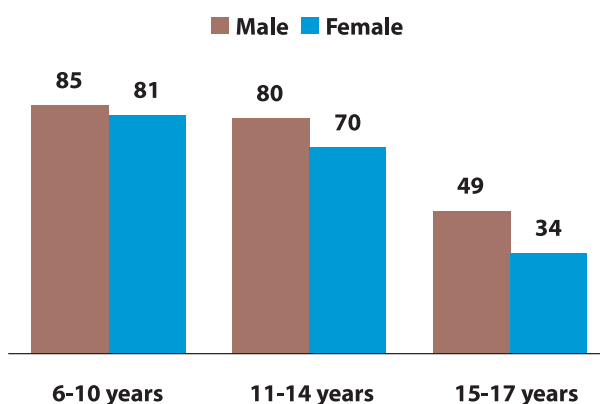
Virtually all Indian adults agree that children should be taught moral values in school. Most Indian adults also think children should learn about the changes in their own bodies during puberty; fewer adults think children should learn about puberty-related changes in the bodies of the opposite sex.

Men and women differ somewhat on whether they think that children should be taught in school about contraception. Just under half (49%) of women think girls should learn about contraception, compared with 65 percent of men. Both women and men (42% and 64%, respectively) are slightly less likely to think contraception should be part of boys' school education.

Most men and women believe information on HIV/AIDS should be part of the school curriculum. More than 8 in 10 men think boys and girls should learn about HIV/AIDS, compared with 63 percent of women. More than 60 percent of men say that both boys and girls should be taught about sex and sexual behaviour in school, but slightly less than half of women feel that this is an appropriate topic for school children.

### Are there gender differentials in children's current school attendance?

#### Percentage of children attending school by age



## FERTILITY

### Age at first marriage

The median age at first marriage among women is 17.2 years. Men get married more than six years later, at a median age of 23.4 years. Almost half (46%) of women age 18-29 years got married before the legal minimum age of 18. More than one-quarter (27%) of men age 21-29 years got married before the legal minimum age of 21. Women and men living in urban areas and those with higher levels of education marry later than their rural and less educated counterparts.

### Fertility levels

At current fertility levels, a woman in India will have an average of 2.7 children in her lifetime. Fertility decreased by 0.5 children between NFHS-1 and NFHS-2; it decreased less rapidly—by 0.2 children—between NFHS-2 and NFHS-3.

Fertility rates are at or below the replacement level of 2.1 children per woman in 10 states: Delhi, Himachal Pradesh, Punjab, Sikkim, Goa, Maharashtra, Andhra Pradesh, Karnataka, Kerala, and Tamil Nadu. Several other states are close to replacement-level fertility. In contrast, fertility rates are highest in Bihar and Uttar Pradesh, where at current fertility levels, a woman would have about four children during her lifetime.

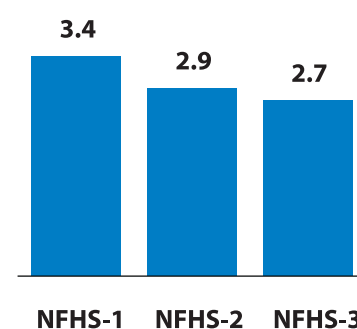
Fertility in rural areas is 3.0 children per woman, much higher than in urban areas where the replacement level fertility rate of 2.1 children per woman has been achieved. The greatest differentials in fertility are by wealth and education. At current fertility rates, women in the lowest wealth quintile will have two children more than women in the highest wealth quintile.

Fertility rates are higher for women in disadvantaged groups (3.1 children per woman among scheduled tribes, 2.9 among scheduled castes, and 2.8 among other backward classes), compared with women who are not in any of these groups (2.4).

The total fertility rate for Muslims (3.1) is slightly higher than the rate for Hindus (2.7), but this difference has been cut in half since NFHS-2 because the fertility of Muslims fell more rapidly than the fertility of Hindus in the seven years between NFHS-2 and NFHS-3.

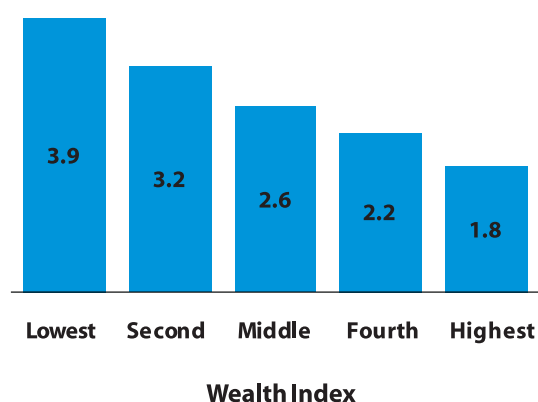
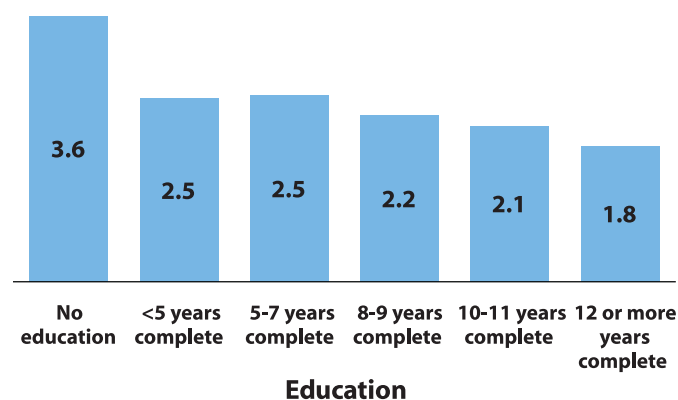
### Fertility trends

*Total fertility rate  
(children per woman)*



### How does fertility vary with education and household wealth?

*Total fertility rate*



## Teenage pregnancy

Among young women age 15-19, 16 percent have already begun childbearing. Young women in rural areas are more than twice as likely to be mothers as young women in urban areas. In Jharkhand, West Bengal, and Bihar, at least one in four teenage women have begun childbearing. These statistics reflect the fact that the majority of women in India marry during their teens.

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***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.***

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## Birth intervals

The median interval between births in India is 31 months. Eleven percent of births take place within 18 months of the last birth, and 28 percent occur within 24 months. More than 60 percent occur within three years. Research shows that waiting at least three years between children reduces the risk of infant mortality.

## Fertility preferences

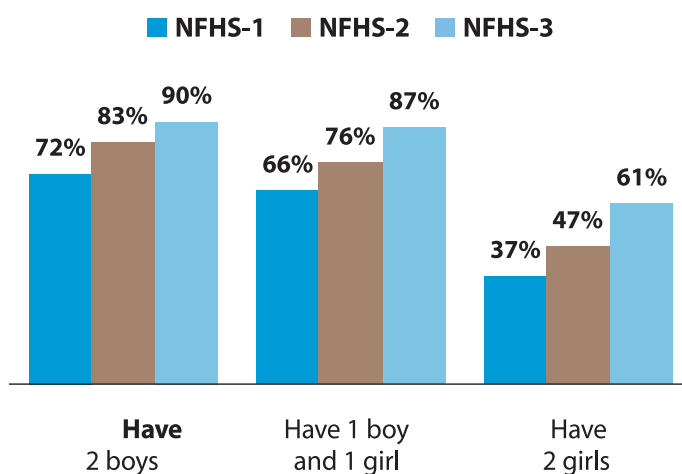
Seventy-one percent of adults either want no more children, are already themselves sterilized, or have a spouse who is sterilized. Among those who do want another child, about half would like to wait at least two years. Two-thirds of women and men consider the ideal family size to be two children or less.

Many Indians show a strong preference for sons. About one in five women and men want more sons than daughters, but only 2-3 percent want more daughters than sons. However, most men and women would like to have at least one son and at least one daughter.

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. 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.

## How does son preference affect women's desire for children?

*Currently married women with two children who want no more children*



## FAMILY PLANNING

### Knowledge of family planning methods

Knowledge of contraception is almost universal in India. Female sterilization is the most widely known method. Indians are less likely to know about temporary contraceptive methods. The government family

planning programme promotes three temporary methods: the pill, the IUD, and condoms. Of these three methods, women are most likely to know about the pill (85%) and men are most likely to know about condoms (93%).

Knowledge of sterilization has been high since NFHS-1, but knowledge of temporary contraceptive methods has increased substantially since NFHS-1. Among currently married women, 87 percent now know about the pill, for example, compared with only 66 percent in NFHS-1 and 80 percent in NFHS-2. Women in Delhi, Manipur, and Uttar Pradesh are most likely to know about temporary methods, while at the other end of the spectrum, less than 70% of women in Andhra Pradesh, Karnataka, and Nagaland know about the pill; less than half in Andhra Pradesh and Karnataka know about condoms.

### Contraceptive use

The contraceptive prevalence rate among currently married women is 56 percent, up from 48 percent in NFHS-2. Contraceptive use is highest in Himachal Pradesh (73%) and West Bengal (71%) and lowest in Meghalaya (24%). Female sterilization accounts for two-thirds of contraceptive use.

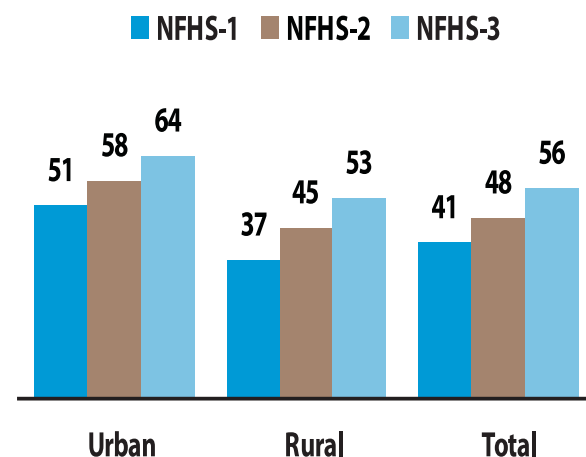
Muslim women are less likely to use contraceptives (46%) than women of other religions (58% among Hindus and 58-75% among other religious groups). Women from the lowest wealth quintile and scheduled-tribe women are less likely to use family planning methods than most other women.

Women in India are more likely to use contraception if they already have a son. For example, 77 percent of women with two sons but no daughters use a method of family planning, compared with 53 percent of women with two daughters but no sons.

Female sterilization, which accounted for 71 percent of contraceptive use in NFHS-2, now accounts for 66 percent of contraceptive use. Female sterilization is by far the most common method in Andhra Pradesh, Karnataka, and Tamil Nadu, where 55-63 percent of currently married women have been sterilized, compared with 37 percent nationally. More than half of women who get sterilized have the operation before they reach 26 years of age. Early sterilization is particularly common in Andhra Pradesh, where the median age of sterilization is just 23 years.

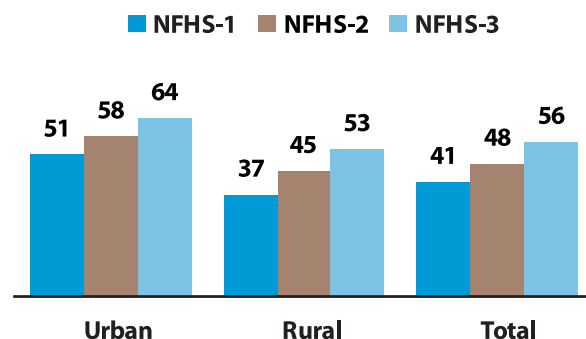
### How many women use family planning?

Percentage of currently married women



### How many women use family planning?

Percentage of currently married women





The most commonly used spacing methods are condoms and the rhythm method (each used by 5% of currently married women). In general, better-educated and wealthier women are more likely to use spacing methods, and female sterilization is more common among less-educated women.

Eighty-four percent of sterilized women had the operation in a government facility, usually in a government or municipal hospital, whereas most users of IUDs had their IUD insertion in the private medical sector. 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. Most pill users (62%) and a substantial proportion of condom users (44%) use social marketing brands.

Discontinuation rates for temporary methods are quite high. About half of the users of pills and injectables discontinue use within the first year after they adopted the method, and discontinuation is also quite high for condoms (45%). One-year discontinuation rates are also substantial for users of the rhythm method (32%) and withdrawal (35%), the methods with the highest failure rates.

### Intentions to use

Most married women who are not using contraception plan to do so in the future (62%). However, only about one-fourth of them prefer to use a modern temporary method; 64 percent prefer female sterilization.

### Informed choice

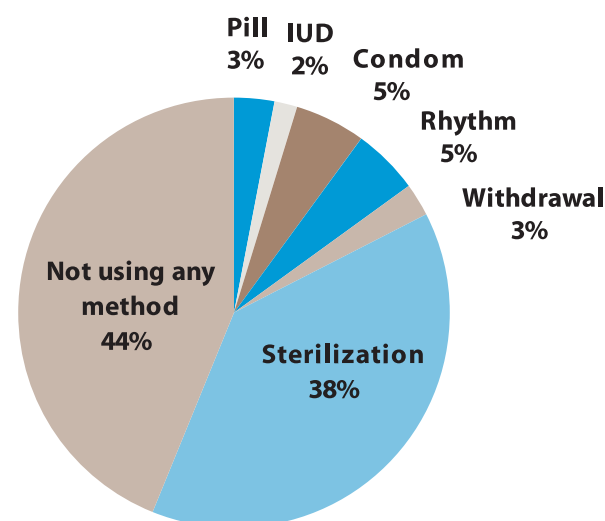
Women who know about several contraceptive methods and their side effects can make better choices about what method they prefer. Only about one-third of modern contraceptive users were told by the health worker about the side effects of their method, and one-quarter were told what to do if those side effects occurred. Fewer than 3 in 10 were told about other methods they could use. Women in urban areas were more likely to get this kind of information than women in rural areas.

### Unmet need

Unmet need for family planning is defined as the percentage of currently married women who either want to space their next birth or stop childbearing entirely but are not using contraception.

## What contraceptive methods do women use?

*Currently married women who use specific methods*



According to this definition, 13 percent of married women have unmet need for family planning, down from 20 percent in NFHS-1 and 16 percent in NFHS-2. Currently, 82 percent of the demand for family planning is being met, up from 67 percent in NFHS-1 and 75 percent in NFHS-2.

## Exposure to family planning messages

Most women (61%) have recently seen or heard a family planning message in the media (radio, television, newspaper, magazine, wall painting, or hoarding). Younger women, urban women, women with more education, and women in the higher wealth quintiles are more likely to have been exposed to family planning messages in the media. Men are much more likely than women to have been exposed to family planning messages; 92 percent have recently seen or heard a family planning message in the media.

### Men's attitudes

Most men in India reject the idea that contraception is women's business and a man should not have to worry about it (78%) and reject the idea that women using contraception may become promiscuous (84%). However, 49 percent of men incorrectly believe that women who are breastfeeding cannot become pregnant. Two-thirds of men know that a condom, if used correctly, protects against pregnancy most of the time.



## INFANT AND CHILD MORTALITY

The infant mortality rate in India is steadily decreasing; infant mortality is currently estimated at 57 deaths before the age of one year per 1,000 live births, down from the NFHS-2 estimate of 68 and the NFHS-1 estimate of 79. However, more than 1 in 18 children still die within the first year of life, and 1 in 13 die before reaching age five.

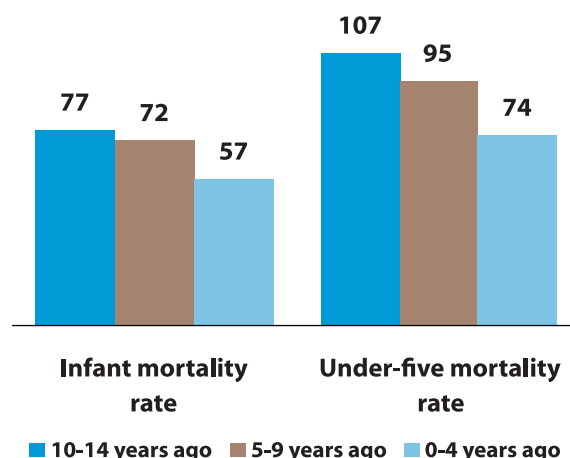
After the first month of life and before they are five years old, girls in India face a higher mortality risk than boys. Children born to mothers under age 20 or over age 40 are more likely to die in infancy than children born to mothers in the prime childbearing ages. Infant mortality is 77 per 1,000 for teenage mothers, compared with 50 for mothers age 20-29.

Having children too close together is especially risky. Children born less than two years after a previous birth are at a nearly three times greater risk of death than children whose mothers waited three years between births.

Infant mortality in rural areas is 50 percent higher than in urban areas. 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. In addition, children from scheduled castes and scheduled tribes are at greater risk of dying than other children.

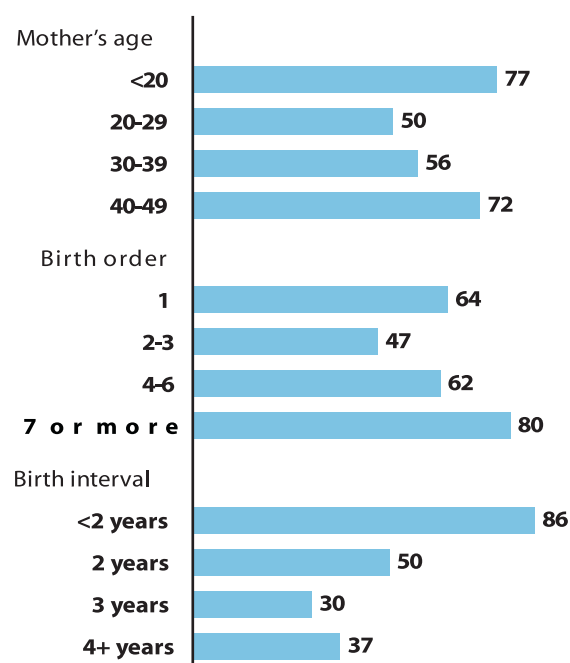
### Infant and child mortality rates over time

Deaths per 1,000 live births



### High-risk births have higher mortality rates

Deaths in the first year of life per 1,000 live births



Infant mortality rates are highest in Uttar Pradesh, Chhattisgarh, and Madhya Pradesh, where about 70 children in 1,000 die in their first year of life, and lowest in Kerala and Goa, with 15 infant deaths per 1,000 live births.

### Perinatal mortality

Perinatal mortality, 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. Mothers with no education and mothers in the lowest wealth quintile are twice as likely to lose their children in late pregnancy and during the first few days of life as mothers who have 12 or more years of education and mothers in the highest wealth quintile. Perinatal mortality is 45 percent higher in rural areas than in urban areas. Birth intervals also have a very strong effect on perinatal mortality. For births that take place less than 15 months after a previous birth, the perinatal mortality rate is 71 per 1,000, compared with only 30-31 per 1,000 when the birth interval is at least 27 months.

## CHILD HEALTH

### Vaccination of children

Less than half (44%) of children 12-23 months are fully vaccinated against the six major childhood illnesses: tuberculosis, diphtheria, pertussis, tetanus, polio, and measles. However, most children are at least partially vaccinated: only 5 percent have received no vaccinations at all.

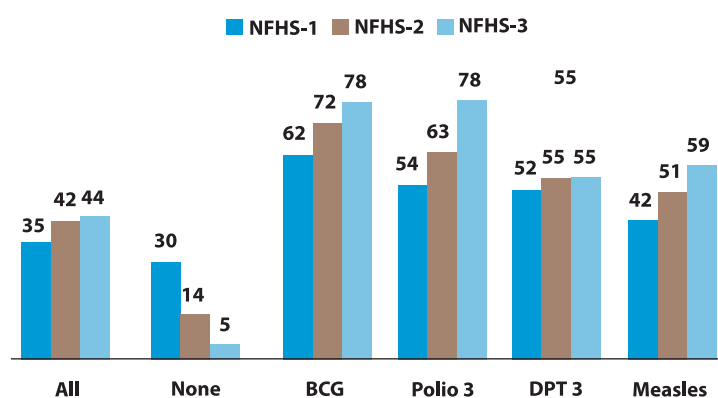
Seventy-eight percent of children have received a BCG vaccination, and the same percentage have received at least the recommended three doses of polio vaccine. However, only 59 percent have been vaccinated against measles, and only 55 percent have received all the recommended doses of DPT. Less than one-third of children are fully vaccinated against the six major childhood diseases 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.

The DPT and polio vaccines are given in a series. Many children receive the first dose but do not finish the series. Between the first and third doses, the dropout rate for DPT is 27 percent, and the dropout rate for polio is 16 percent.

There was very little improvement in full vaccination coverage between NFHS-2 (42%) and NFHS-3 (44%). The largest improvement was for polio vaccinations (63% to 78%), undoubtedly as a result of the Pulse Polio Campaign, but 22 percent of children still have not received three

#### Trends in vaccination coverage

Percentage of children 12-23 months who have received specific vaccinations



doses of polio vaccine, despite attempts to eradicate the disease in India. There has also been an improvement in the coverage of BCG and measles vaccination, but the proportion of children who received three doses of DPT vaccine did not change at all between NFHS-2 and NFHS-3.

### There was very little improvement in full vaccination coverage between NFHS-2 and NFHS-3.

The overall picture masks substantial variations in trends in vaccination coverage among the states. Several states, such as

Bihar, Chhattisgarh, Jharkhand, Sikkim, and West Bengal, have witnessed a substantial increase in vaccination coverage, while vaccination coverage has actually worsened substantially in other states, such as Andhra Pradesh, Gujarat, Maharashtra, Punjab, and Tamil Nadu.

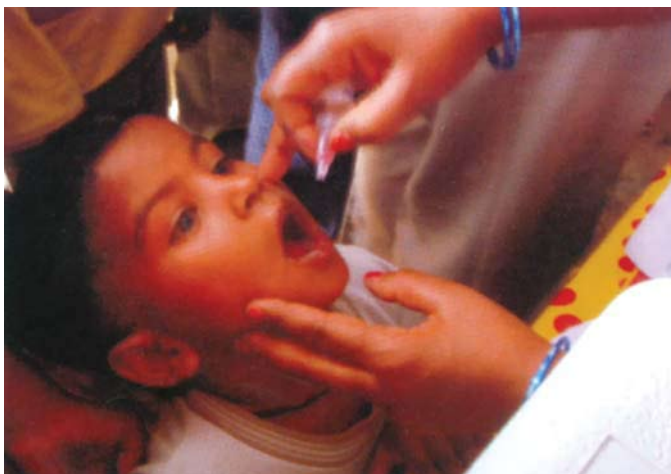
Children in urban areas, children of educated mothers, children in wealthier households, and children not belonging to a scheduled caste, scheduled tribe, or other backward class are more likely than other children to receive all vaccinations. Boys are also slightly more likely than girls to be fully vaccinated (45% of boys, compared with 42% of girls).

## Childhood illnesses

In the two weeks before the survey, 6 percent of children under age five had symptoms of an acute respiratory infection (cough and short, rapid breathing that was chest-related and not due to a blocked or runny nose). Of these children, 69 percent were taken to a health facility or health provider.

Fifteen percent of children were reported to have had fever in the two weeks preceding the survey; 71 percent of these children were taken to a health facility or provider for treatment, and 8 percent received antimalarial drugs.

Overall, 9 percent of children had diarrhoea in the two weeks preceding the survey. Among these children, 60 percent were taken to a health facility. Thirty-nine percent were treated with some kind of oral rehydration therapy (ORT), including 26 percent who were treated with a solution prepared from oral rehydration salt (ORS) packets and 20 percent who were given gruel. More than one-quarter of children with diarrhoea did not receive any type of treatment at all. Sixteen percent received antibiotics, which are not recommended for treating childhood diarrhoea.



Children should receive more fluids than usual during diarrhoeal illness, but in India only 10 percent received more liquids than normal. Almost 4 in 10 children with diarrhoea received less to drink than normal, which can increase the risk of dehydration.

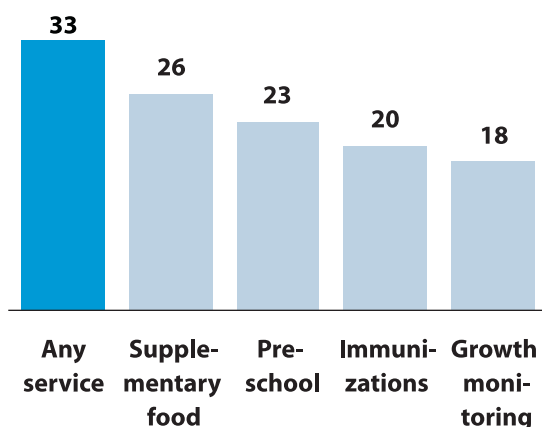
## Integrated Child Development Scheme (ICDS)

The ICDS programme provides nutrition and health services for children under age 6 years and pregnant or breastfeeding women, as well as preschool activities for children age 3-6 years. These services are provided through community-based *anganwadi* centres. Among the 81 percent of children under six who are in areas covered by an *anganwadi* centre, one-third receive services of some kind from the

centre. The most common services children receive are supplementary food (26% of children under 6) and preschool (23% of children age 3-6). One-fifth of children receive vaccinations and growth monitoring services at the *anganwadi* centre.

### How many children receive *anganwadi* centre services?

Percentage of age-eligible children in areas covered by an *anganwadi* centre



Children age 2-3 years are slightly more likely to be taken to the *anganwadi* centre than younger and older children. Mothers with no education and mothers who have completed high school are least likely to take advantage of the services offered at *anganwadi* centres. Mothers from scheduled tribes are more likely to take their children to the *anganwadi* centre than women from other groups; one-half of age-eligible children from scheduled tribes in areas covered by an *anganwadi* centre receive some kind of service.

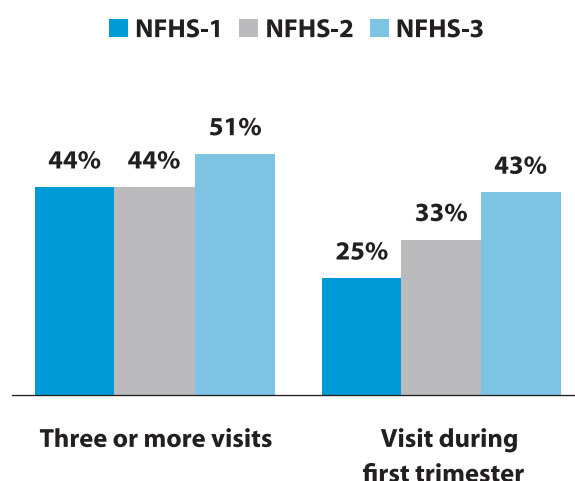


## MATERNAL HEALTH

### Antenatal care

Among mothers who gave birth in the five years preceding the survey, almost three-quarters received antenatal care from a health professional (50% from a doctor and 24% from other health personnel). Younger women were more likely than older women to receive antenatal care, as were women with more education and women having their first child. More than one in five mothers received no antenatal care. Almost two-thirds of women in Bihar did not receive any antenatal care.

### Are mothers getting timely, appropriate antenatal care?



Less than half of women received antenatal care during the first trimester of pregnancy, as is recommended. Another 22 percent had their first visit during the fourth or fifth month of pregnancy. Just over half of mothers had three or more antenatal care visits; urban women were much more likely to receive three or more visits than women in rural areas.

For 65 percent of births, mothers received iron and folic acid supplements, but only 23 percent consumed them for the recommended 90 days or more. Three in four mothers received two or more doses of tetanus toxoid vaccine. Only 4 percent took a deworming drug during pregnancy.

An ultrasound test was performed during 24 percent of pregnancies. Women with at least 12 years of education were eight times as likely to have an ultrasound test as women with no education. Only 4 percent of births among women in the lowest wealth quintile had an ultrasound test, compared with 62 percent among women in the highest wealth quintile. Pregnant women with no living son are much more likely to have an ultrasound test. An examination of the sex of children born when there was an ultrasound test during pregnancy provides clear evidence of the use of ultrasound testing for sex determination, leading to sex-selective abortions when couples want to have a son.

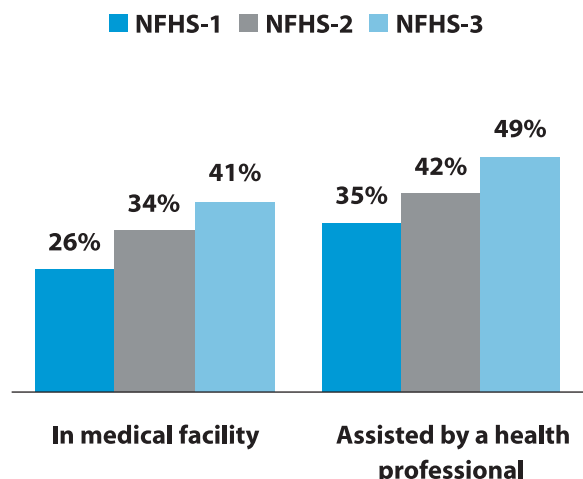
### Male involvement in antenatal care

Almost half of men with a child under three said they were present during at least one antenatal checkup received by the child's mother; only 37 percent were told what to do if the mother had a major complication of pregnancy. Men under age 20 were less likely to go to an antenatal care visit than older men, as were fathers with four or more children, fathers with no education, and those in the lowest wealth quintile.

### Delivery care

Three out of every five births in India take place at home; only two in five births take place in a health facility. However, the percentage of births in a health facility has increased steadily since NFHS-1. Home births are more common among women who received no antenatal checkups, older women, women

## Are babies being delivered safely?



In 92 percent of home births, a clean blade was used to cut the cord, as is recommended, but only 45 percent of home births followed the recommendation that the baby be immediately wiped dry and then wrapped without being bathed first.

Less than half of births took place with assistance from a health professional, and more than one-third were delivered by a traditional birth attendant. The remaining 16 percent were delivered by a relative or other untrained person. A disposable delivery kit (DDK) was used for only one in five home births.

### Male involvement in delivery care

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%). Younger fathers were much less likely than older fathers to be provided this information.

### Postnatal care

Early postnatal care for a mother helps safeguard her health and can reduce maternal mortality. Only 37 percent of mothers had a postnatal checkup within 2 days of birth, as is recommended; most women receive no postnatal care at all. Postnatal care is most common following births in a medical facility; however, about one in five births in medical facilities were not followed by a postnatal checkup of the mother. Only 15 percent of home births were followed by a postnatal checkup.

with no education, women in the lowest wealth quintile, and women with more than three previous births. Women who gave birth at home were asked why they did not deliver in a health facility; by far the most common reason was that they simply felt it was not necessary (72%). One in four women said delivery in a health facility is too expensive.

Kerala and Goa outperform all other states in terms of delivery care, with nearly all deliveries taking place in medical institutions. Institutional deliveries are also very common in Tamil Nadu (88%). By contrast, only 12-20 percent of births are delivered in medical institutions in Nagaland, Chhattisgarh, Jharkhand, and Bihar.



## ADULT HEALTH AND HEALTH CARE

### Tuberculosis

Nationwide, 418 persons per 100,000 are estimated to have medically treated tuberculosis, based on reports from household respondents. People who cook with solid fuels such as wood, charcoal, dung cakes, straw, shrubs, grass, or agricultural crop waste are more likely to have tuberculosis than people who use electricity or gas for cooking. Tuberculosis is more common in the East (except for Orissa) and Northeast than in other areas of the country.

Most respondents have heard of tuberculosis (85% of women and 92% of men), but even among people who have heard of tuberculosis, only about half know that it can be spread through the air by

coughing or sneezing. About half of women and men have misconceptions about how TB is spread.

### Diabetes, asthma, and goitre

According to self reports, more than two percent of women and men age 35-49 suffer from diabetes. Prevalence of diabetes increases with age and household wealth status. Less than two percent of adults suffer from asthma (1,600 persons per 100,000). The prevalence of goitre or other thyroid disorders is 2.5 times higher for women than for 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.



### Tobacco and alcohol use

Over half of men (57%) and 11 percent of women use some form of tobacco, including 9 percent of pregnant women. Tobacco use is more common in rural areas (61% of men and 13% of women) and among those with less education.

Women and men are more likely to use tobacco than to drink alcohol. Just under one-third of men and 2 percent of women drink alcohol; Muslims, Jains, and young men age 15-19 are least likely to drink alcohol.

### Source of health care

For most households, the private medical sector is the main source of health care (70% of urban households and 63% of rural households). Wealthier households are less likely to use the public medical

sector than households in the lower quintiles of the wealth index. Among households that do not use government health facilities, the main reasons given for not doing so are poor quality of care (58%), lack of a nearby facility (47%), and long waiting times (25%).

### Health insurance

Despite the emergence of a number of health insurance programmes and health schemes, only 5 percent of households report that they have any kind of insurance that covers at least one member of the household. Three types of programmes dominate: the Employee State Insurance Scheme (ESIS), a variety of private commercial health insurance schemes, and the Central Government Health Scheme (CGHS). Health insurance is about five times as common in urban areas as in rural areas.



## BREASTFEEDING, NUTRITION, AND ANAEMIA

### Infant feeding

Although breastfeeding is nearly universal in India, only 46 percent of children under 6 months are exclusively breastfed, as WHO recommends. In addition, only 55 percent are put to the breast within the first day of life, which means many infants are deprived of the highly nutritious first milk (colostrum) and the antibodies it contains. However, mothers in India breastfeed for an average of 25 months, which is slightly longer than the minimum of 24 months recommended by WHO for most children.

It is recommended that nothing be given to children other than breast milk even in the first three days when the milk has not begun to flow regularly. However, more than half of children are given something other than breast milk during that period.

WHO offers three recommendations for infant and young child feeding (IYCF) practices for those 6-23 months old: continued breastfeeding or feeding with appropriate calcium-rich foods if not breastfed; feeding solid or semi-solid food for a minimum number of times per day according to age and breastfeeding status; and, including foods from a minimum number of food groups per day according to breastfeeding status. Less than half of children age 6-23 months are fed the recommended minimum times per day and about one-third are fed from the minimum number of food groups. However, only 21 percent are fed according to all three recommended practices.

### Children's nutritional status

Almost half of children under age five are stunted, or too short for their age, which indicates that they have been undernourished for some time. Twenty percent are wasted, or too thin for their height, which may result from inadequate recent food intake or a recent illness. Forty-three percent are underweight, which takes into account both chronic and acute undernutrition. More than half of children under age five are underweight in Madhya Pradesh, Jharkhand, and Bihar.

Even during the first six months of life, when most babies are breastfed, 20-30 percent of children are undernourished according to each of these three measures. Children in rural areas are more likely to be undernourished, but even in urban areas, almost two in five children suffer from chronic undernutrition. Girls and boys are equally likely to be undernourished.

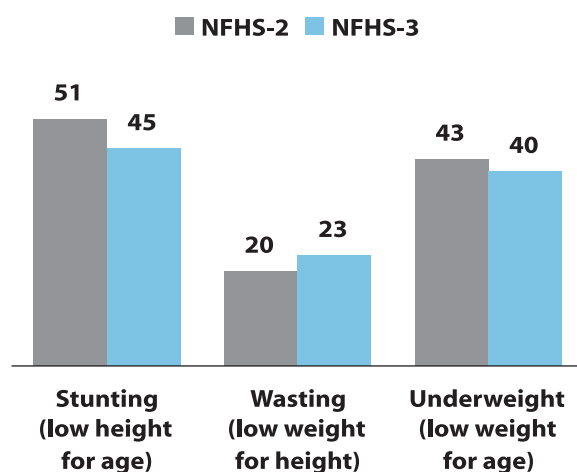
Children's nutritional status in India has improved slightly since NFHS-2 by some measures but not by all measures. Children under age three (the age group for which nutritional status data are available in NFHS-2) are less likely to be too short for their age today than they were seven years ago, which means chronic undernutrition is less widespread, but they are slightly more likely to be too thin for their height, which means acute undernutrition is still a major problem in India.

### Adults' nutritional status

Adults in India suffer from a dual burden of malnutrition; more than one-third of adults are too thin, and more than 10 percent are overweight or obese. Only 57 percent of men and 52 percent of women are at a healthy weight for their height.

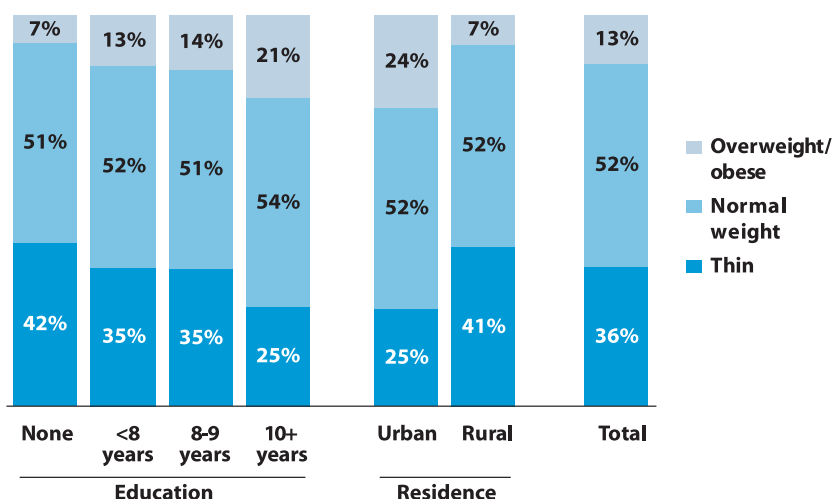
### Trends in children's nutritional status

Percentage of children under age three years



Note: Nutritional status estimates are based on the 2006 WHO International Reference Population.

## How many women are at a healthy weight for their height?



Undernutrition is particularly serious in rural areas, in the lower wealth quintiles, among scheduled tribes and scheduled castes, and among those with no education. Overweight and obesity are most common in older adults, those in urban areas, the well-educated, and those in the highest wealth quintile. Because population groups that are less likely to be too thin are the same groups that are more likely to be overweight or obese, the percentage suffering from either of these two nutritional problems is fairly constant (just under 50% for women and more than 40% for men) across all groups, regardless of their educational attainment, wealth index, religion, caste/tribe, age, residence, or marital status.

More than two out of five women are too thin in Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, and Orissa; similar proportions of men are too thin in Tripura, Madhya Pradesh, and Rajasthan. Overweight or obesity is most common among adults in Punjab, Kerala, and Delhi.



## Micronutrients

Vitamin A deficiency can cause eye damage and a higher risk of dying from measles, diarrhoea, or malaria. The Government of India recommends that children under three years receive vitamin A supplements every six months, starting at age 9 months. However, only one-quarter of lastborn children age 12-35 months were given a vitamin A supplement in the past six months, and only 47 percent of children age 6-35 months ate vitamin A-rich foods the day before the survey.

Eating foods rich in iron and taking iron supplements can prevent anaemia. Only 15 percent of children age 6-35 months ate iron-rich foods in the day and night before the survey, and only 5 percent of children age 6-59 months were given iron supplements in the week before the survey.

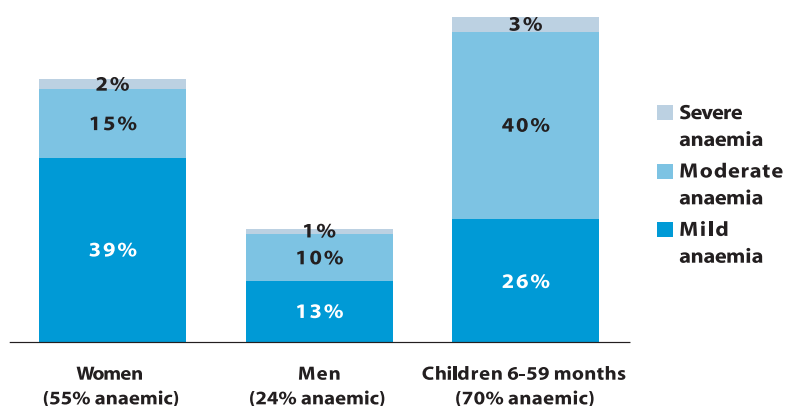
## Iodized salt

Using iodized salt prevents iodine deficiency, which can lead to miscarriage, goitre, and mental retardation. Just over half of households in India (51%) were using sufficiently iodized salt at the time of the survey. This is slightly higher than the percentage observed during NFHS-2 (49%). Use of iodized salt varies greatly by region; it is highest in the Northeast Region and in some states in the North Region. However, a nationwide ban on noniodized salt took effect just as the NFHS-3 fieldwork was being completed, so the effects of the new law could not be determined by the survey.

## Anaemia

Anaemia is a major health problem in India, especially among women and children. Anaemia can result in maternal mortality, weakness, diminished physical and mental capacity, increased morbidity from infectious diseases, perinatal mortality, premature delivery, low birth weight, and (in children) impaired cognitive performance, motor development, and scholastic achievement. Among children between the ages of 6 and 59 months, the great majority—70 percent—are anaemic. This includes 26 percent who are mildly anaemic, 40 percent who are moderately anaemic and 3 percent who suffer from severe anaemia. Boys and girls are equally likely to have anaemia. Children of mothers who have anaemia are much more likely to be anaemic. Although anaemia levels vary somewhat according to background characteristics, anaemia among children is widespread in every group and every state in India. More than half of children are anaemic even if their mother has 12 or more years of education or is in the highest wealth quintile.

### Anaemia among women, men, and children



More than half of women in India—55 percent—have anaemia, including 39 percent with mild anaemia, 15 percent with moderate anaemia, and 2 percent with severe anaemia.

Anaemia is particularly high for women with no education, women from scheduled tribes, and women in the two lowest wealth quintiles. Women who are breastfeeding or pregnant are also more likely to have anaemia.

Anaemia is more widespread among both women and children than it was seven years ago at the time of NFHS-2, having risen almost 5 percentage points since then in both groups.

One-fourth of men are anaemic, with men under 20 and over 40 more likely to suffer from anaemia. About two in five widowed men, scheduled-tribe men, and men belonging to the lowest wealth quintile are anaemic.

Men and women who smoke are more likely to have anaemia than non-smokers

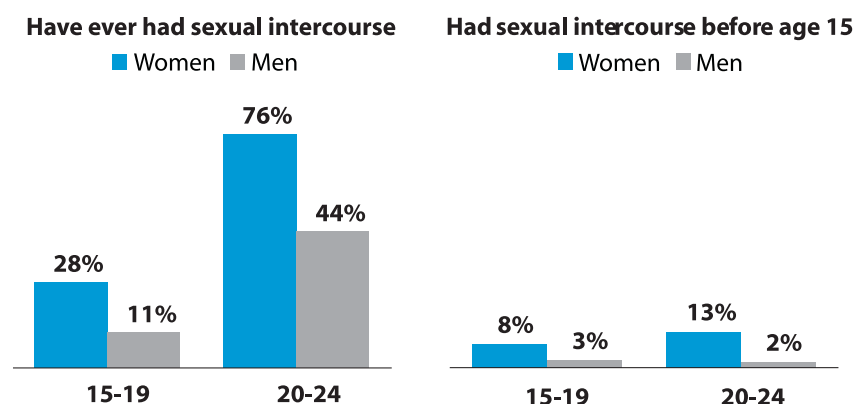


## SEXUAL BEHAVIOUR

NFHS-3 included questions on respondents' sexual behaviour. Respondents were asked about their age at first sex, their current and previous sexual partners, and condom use. Additionally, men were asked whether they had paid for sex in the past year. These questions are sensitive and subject to reporting bias, so the results should be interpreted with caution.

Most women have had sexual intercourse by the time they are 18 years of age, while first sexual intercourse for most men typically occurs when they are about 23 years. Among youth 15-24 years of age, women are much more likely than men to have ever had sex. The earlier age at sexual intercourse for women than men is a consequence of the fact that in India first sexual intercourse largely occurs within marriage and women marry at younger ages than men.

### Sexual behaviour among youth



### Higher-risk sex and multiple sex partners

Higher-risk sex is sexual intercourse with someone who is neither a spouse nor a cohabiting partner. Among those who have ever had sex, only 0.2 percent of women and 5 percent of men reported having had higher-risk sex in the past year. Even fewer respondents said they had had multiple sex partners in the past year (0.1% of women and 2% of men). Respondents most likely to report having had higher-risk sex were youth age 15-19; women and men from scheduled castes and scheduled tribes; women from Tripura, Mizoram, and Nagaland; and men from Nagaland, Arunachal Pradesh, and Sikkim.

### Use of condoms during higher-risk sex

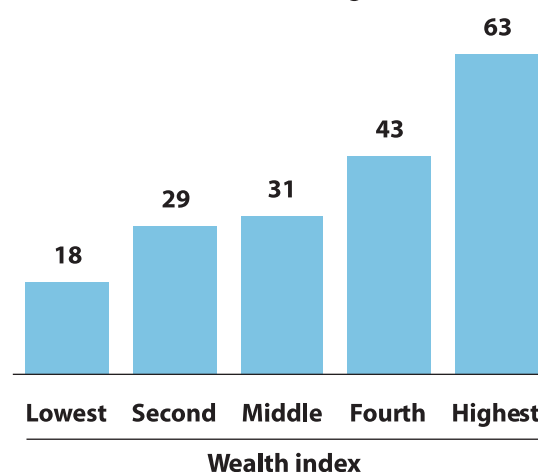
Among women reporting they had higher-risk sex, 15 percent said they had used a condom the last time they had higher-risk sex. Men who had higher-risk sex were more than twice as likely to report condom use (38%). Condom use during higher-risk sex is more common among urban residents, never-married women and men, those having regular media exposure, those with at least 8 years of schooling, and those in the highest wealth quintile.

### Paid sex

Less than 1 percent of men said they had paid for sex in the past year. Three-fifths of these men said they used a condom the last time they had paid sex. Engaging in paid sex was more common among men who were away from home often or for long periods, men not living with their spouse, urban men, men with regular media exposure, and men who were divorced, separated, or widowed.

### How does wealth affect condom use during higher-risk sex?

Percentage of men engaging in higher-risk sex who used a condom at last higher-risk sex



## HIV/AIDS

### Awareness of AIDS

Only 61 percent of women in India have heard of AIDS. Even in urban areas, only 83 percent know about AIDS. Young women age 15-24 are only somewhat more likely (65%) than older women to have heard of AIDS. More women know about AIDS now than in the late 1990s; among ever-married women interviewed in NFHS-2, 40 percent knew about AIDS, compared with 57 percent of ever-married women in NFHS-3.

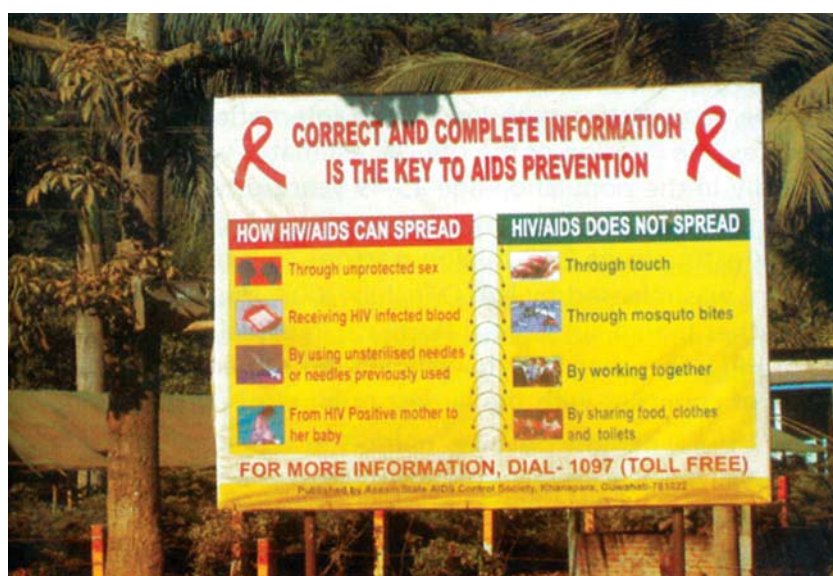
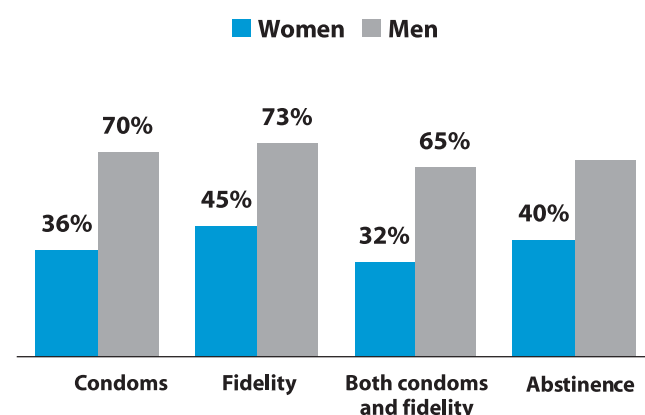
Men are much more likely than women to know about AIDS. Nationwide, 84 percent of men have heard of AIDS, including 95 percent in urban areas.

### Knowledge of prevention and transmission

Men are much more likely than women to know how HIV is transmitted and how to keep from getting it. For example, even among those with no education, one in three men know that consistent use of condoms helps prevent HIV/AIDS, compared with only one in eight women.

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

### Do people know how to prevent HIV/AIDS?



### HIV-related stigma

About three-fourths of adults in India would be willing to take care of a family member with HIV/AIDS in their home, and a similar proportion say that a female teacher who has HIV/AIDS but is not sick should be allowed to continue teaching. Fewer adults say that they are comfortable buying fresh vegetables from a shopkeeper with HIV/AIDS (60% of women and 63% of men). About two in three adults say that if a family member got infected with HIV/AIDS, they would not want to keep it a secret.

## HIV testing prior to NFHS-3

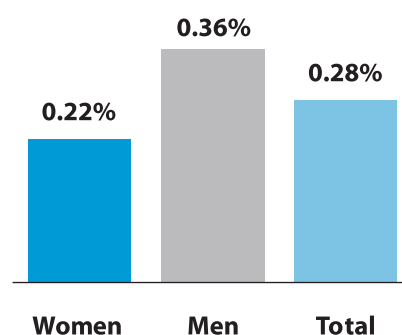
Only 3 percent of women and 4 percent of men age 15-49 have ever been tested for HIV. The proportion of women and men who have been tested for HIV but who did not get their test results is very low. The proportion of women who have ever been tested for HIV and got the results of the test ranges from only 0.2 percent in Rajasthan to 15 percent in Goa. Coverage of prior HIV testing among men reveals a similar variation across states, with a minimum in Rajasthan, Uttar Pradesh, and Meghalaya (1% each) and a maximum in Goa (14%).

## HIV prevalence

Nationally, 0.28 percent of adults age 15-49 are infected with HIV, including 0.35 percent in urban areas and 0.25 percent in rural areas. In general, more educated adults are less likely to have HIV, but prevalence does not vary by wealth quintiles.

Men are more likely than women to be HIV-positive. Youth 15-24 are least likely to be HIV-positive (0.10%). NFHS-3 estimated HIV prevalence separately for six states. The HIV prevalence rates for those states are in the table at the right.

## HIV prevalence in India



Manipur	1.13%
Andhra Pradesh	0.97%
Karnataka	0.69%
Maharashtra	0.62%
Tamil Nadu	0.34%
Uttar Pradesh	0.07%

***The new official national estimate of HIV is less than half the 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.***

Among these states, HIV prevalence is highest in Manipur (1.1%) and Andhra Pradesh (1.0%). Tamil Nadu, which has been designated as one of the six high HIV prevalence states by the National AIDS Control Organization (NACO), should no longer be included in that group because its HIV prevalence rate is only slightly higher than the national average.

In mid-2007, NACO undertook an exercise, in consultation with Indian and international experts in HIV estimation, to revise the official HIV estimates. The revision of the official estimates was done 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% 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 official national estimate of HIV is less than half the 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.



## WOMEN'S EMPOWERMENT

### Employment and financial independence

Forty-three percent of currently married women were employed in the last year (compared with 99% of currently married men); about one-quarter of these women received no payment for their work, and 12 percent were paid only in kind. Among married women who work and are paid in cash, more than 80 percent decide how their earnings will be spent, either alone or together with their husbands; however, one in six have no say in how their earnings are spent.

### Decision making

Married women were asked who makes decisions on their own health care, making large household purchases, making household purchases for daily household needs, and visiting their own family or relatives.

Only 37 percent of currently married women participate in making all four of these decisions. Women in nuclear households and women who are employed for cash are more likely to participate in



these household decisions. Other groups of women who are more likely to participate in all four decisions are women in urban areas, those with 10 or more years of education, Christians, those who are 30-49 years old, and those in the highest wealth quintile.

Women's participation in decision making is highest in all of the states in the Northeast Region except Tripura, as well as in Delhi, Tamil Nadu, Kerala, and Goa.

### Freedom of movement

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. Women are least likely to have freedom to travel outside their own village or community (38%) and most likely to be allowed to go to the market alone (51%). Urban women, older women, and women in nuclear households have more freedom of movement than other women.

### Gender role attitudes

More than half of women in India—54 percent—believe it is justifiable for a husband to beat his wife under some circumstances. Women are most likely to say wife-beating is justified if a woman shows disrespect for her in-laws (41%) or if she neglects the house or children (35%). Men are only slightly less likely to agree; 51 percent say wife-beating is justified in some circumstances, including 37 percent who believe disrespect for in-laws is justification for wife-beating.

More than three-quarters of women believe a woman is justified in refusing to have sex with her husband if she knows he has a sexually transmitted disease, if she knows he has intercourse with other women, or if she is tired or not in the mood. An even larger proportion of men say that a wife is justified in refusing to have sex with her husband in each of these circumstances.

## DOMESTIC VIOLENCE

Among women age 15-49, 34 percent have ever experienced physical violence, and 9 percent have ever experienced sexual violence. In all, 35 percent of women in India have experienced physical or sexual violence, including 40 percent of ever-married women.

### Spousal violence

One in three ever-married women report having been slapped by their husband; between 12 and 15 percent report having their arms twisted, being pushed, shaken, kicked, dragged, or beaten up, or having something thrown at them. Ten percent report that their husbands have physically forced them to have sex. One in seven ever-married women have suffered physical injuries as a result of spousal violence. Women whose mothers were beaten by their fathers are twice as likely to be in abusive marriages themselves. For most women who have ever experienced spousal violence, the violence first occurred within the first two years of their marriage.



### Controlling behaviours

Controlling behaviours are risk factors for domestic violence. Ever-married women were asked whether their husband does any of the following: 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 contact with her family; insists on knowing where she is at all times; and does not trust her with any money. Most women say their husbands display none of these controlling behaviours, and 12 percent say their husbands display three or more.

### Help seeking

Only one in four women who have ever experienced violence have sought help to end the violence. Two out of three women have neither sought help nor told anyone about the violence. Among women who experienced only sexual violence, only 12 percent have ever told anyone or sought help. Abused women most often seek help from their own families. Very few women seek help from any institutional source such as the police or social service organizations.