



SECTION-3

**Status of Health and
Family Welfare
among Scheduled Tribes**





Section-3 : Status of Health and Family Welfare among Scheduled Tribes

- In India, the essential data/information on health and family welfare, needed for policy and programme purposes and on important emerging health and family welfare issues is obtained through the National Family Health Survey (NFHS). The NFHS is a large-scale, multi-round survey conducted in a representative sample of households throughout India, under the stewardship of the Ministry of Health and Family Welfare and obtains information on fertility, infant and child mortality, practices of family planning, maternal and child health, reproductive health, nutrition, anaemia, utilization and quality of health and family planning services.
 - Till date, three rounds of the NFHS have been conducted - in 1992-93, 1998-99 and 2005-2006. The NFHS-4 is proposed to be implemented in 2014-15. Therefore the last obtained social group wise data on health parameters is from 2005-06. Though DLHS-3 conducted in 2007-08, also gives some micro level data district and state-wise, it has been less used for policy purpose. However this data is also very old.
 - The results of NFHS-3 are presented here and include issues of child related mortality, reproductive health, high-risk sexual behaviour, tuberculosis, malaria, health insurance coverage and accessibility to health care.
- ### A. Infant and Child Mortality
- Infant Mortality Rate (IMR) is defined as the number of infant deaths in a year per 1,000 live births during the year. Child mortality is defined as the number of deaths of children under five years of age but above one year of age in a given year per one thousand children in this age group.
 - Neo-natal Mortality Rate is the number of deaths within one month of birth in a given year per 1000 live births in that year and Post-natal Mortality Rate is the number of deaths of children between 28 days and one year of age in a given year per 1000 total live births in the same year. Peri-natal Mortality Rate includes late foetal deaths (28 weeks gestation & more) and early neonatal deaths (first week) in one year per 1000 live births in the same year.
 - As per NFHS-3 estimates, the under-five mortality rate and the child Mortality rate are much higher for STs than any other social group/ castes at all childhood ages (95.7 and 35.8 respectively). However, it is found that STs have a lower infant mortality rate (62.1) than SCs (66.4) but higher than OBCs (56.6). Even the pre-natal mortality rate for STs (40.6) is lower than other social group/ castes (Table 3.1 and 3.2).



Some of the key health indicators as per NFHS-3 (2005-06) in the country are:

S3.1: Key health indicators as per NFHS-3 (2005-06)			
	SC	ST	Total
Infant Mortality	66.4	62.1	57.0
Neo-natal Mortality	46.3	39.9	39.0
Pre- natal Mortality	55.0	40.6	48.5
Child Mortality	23.2	35.8	18.4
Under five Mortality	88.1	95.7	74.3
ANC Checkup	74.2	70.5	77.1
Percentage Institutional Deliveries	32.9	17.7	38.7
Childhood vaccination (full immunization)	39.7	31.3	43.5

Source: National Family Health Survey (NFHS) 2005-06

■ According to Census 2001, the Infant mortality (IMR) and the under 5 mortality rate (U5MR) for STs is highest in Madhya Pradesh (110 and 169 respectively per 1000 live births) followed by Arunachal Pradesh (104 and 158 respectively per 1000 live births). There is a significant gap in the IMR and U5MR in rural and urban areas in almost all states and UTs. Compared at country level, the IMR and Under 5 Mortality among STs is much higher than to that of SCs (ST- IMR 84 and U5MR 123 and SC – IMR 77 and U5MR 111) (Table 3.3 and 3.4).

B. Maternal Mortality & Maternal Health

■ Maternal mortality has been an area of concern for all countries across the globe. According to UN figures, at present, India tops the rate of maternal deaths worldwide. The present maternal mortality rate (MMR) of India is 212

per one lakh live births, whereas the country's target was to achieve 200 maternal deaths per lakh of live births by 2007 and to reduce it to 109 per lakh of live births by 2015 (as set by the Millennium Development Goals (MDG) of the United Nations in 2000).

- The RGI gives estimates on fertility and mortality using the Sample Registration System (SRS). The Verbal Autopsy instruments are administered for the deaths reported under the SRS on a regular basis to yield cause-specific mortality profile in the country. However these estimates are not categorized by Social groups.
- The latest Bulletin of RGI titled “**Special Bulletin on Maternal Mortality in India 2007-09**” released in June 2011, provides the levels of maternal mortality for the period 2007-09.



S3.2: Maternal Mortality Ratio (MMR), Maternal Mortality Rate & Life Time Risk 2007-09

No.	India & Major States	Sample Female Population	Live Births	Maternal Deaths	Maternal Mortality Ratio (MMR)	95% Confidence Intervals (CI)	Maternal Mortality Rate	Life-time Risk
1	Andhra Pradesh	340,520	23,003	31	134	(87-182)	9.1	0.3%
2	Assam	174,250	12,303	48	390	(280-500)	27.5	1.0%
3	Bihar	331,294	38,096	100	261	(210-313)	30.1	1.0%
4	Chhattisgarh	323,937	33,041	89	269	(213-325)	27.4	1.0%
5	Gujarat	280,969	24,435	36	148	(100-196)	12.8	0.4%
6	Haryana	165,619	14,594	22	153	(90-217)	13.5	0.5%
7	Jharkhand	331,294	38,096	100	261	(210-313)	30.1	1.0%
8	Karnataka	376,272	22,889	41	178	(124-233)	10.8	0.4%
9	Kerala	287,854	14,624	12	81	(35-127)	4.1	0.1%
10	Maharashtra	323,812	21,715	23	104	(61-146)	6.9	0.2%
11	Madhya Pradesh	323,937	33,041	89	269	(213-325)	27.4	1.0%
12	Orissa	272,797	20,616	53	258	(189-327)	19.5	0.7%
13	Punjab	193,705	12,691	22	172	(100-244)	11.3	0.4%
14	Rajasthan	241,249	27,277	87	318	(251-384)	35.9	1.2%
15	Tamil Nadu	388,462	22,262	22	97	(56-138)	5.6	0.2%
16	Uttar Pradesh	484,847	54,039	194	359	(308-409)	40.0	1.4%
17	Uttarakhand	484,847	54,039	194	359	(308-409)	40.0	1.4%
18	West Bengal	476,579	30,291	44	145	(102-188)	9.2	0.3%
19	Others	101,625	64,535	104	160	(130-191)	10.2	0.4%
	India	5,678,691	436,411	926	212	(198-226)	16.3	0.6%

Source: Special Bulletin on MMR, June 2011- Registrar General of India

Life Time Risk = $1 - (1 - \{\text{Maternal Mortality Rate} / 100000\})^{35}$. It is the probability that at least one women of reproductive age (15-49) will die due to child birth or puerperium.

MMR = Maternal Death * 100,000 / Live Births

■ The Maternal Mortality Ratio (MMR) presented above as reported in the Bulletin has been derived as the proportion of maternal deaths per 1,00,000 live births reported under the SRS. Besides, the 95% Confidence Intervals (95% CI) of the estimates based on the calculated Standard Error (SE) have also been presented. In addition, estimates of Maternal

Mortality Rate viz. maternal deaths to women in the ages 15-49 per lakh of women in that age group, and the life time risk have been presented. The life time risk is defined as the probability that at least one women of reproductive age (15-49) will die due to child birth or puerperium assuming that chance of death is uniformly distributed across the entire reproductive span.



- Antenatal Care (ANC) refers to pregnancy-related health care, which is usually provided by a doctor, an ANM, or another health professional, to monitor a pregnancy for signs of complications, detection and treating of pre-existing and concurrent problems of pregnancy, and provides advice and counselling on preventive care, diet during pregnancy, delivery care, postnatal care, and related issues.
- As per the estimates of NFHS-3, the likelihood of having received care from a doctor is lowest for scheduled tribe mothers (only 32.8 percent compared to all India total of 50.2 percent and 42 percent for Schedule Caste). (Table 3.5)
- The percentage of Scheduled Tribe women consuming Iron Folic Acid (IFA) for at least 90 days and who took a drug for intestinal parasites during their pregnancy was only 17.6 and 3.7, respectively (Table 3.6).
- Among ST women who received antenatal care for their most recent birth, only 32.4 percent of ST mothers (lowest among all social groups) received advice about where to go if they experienced pregnancy complications. (Table 3.7)
- Only 17.7 percent of births to ST mothers are delivered in health facilities compared with 51% of births to mothers in category 'others'. (See Table below)
- Though Obstetric care from a trained provider during delivery is recognized as critical for the reduction of maternal and neonatal mortality, only 17.1% of births to ST women were assisted by a doctor, compared with 47.4% of births to women, who do not belong to a SC, ST, or OBC category ('others'). (See S3.3 below).

S3.3: Delivery care									
<i>(Figures in percentages)</i>									
Social Groups	Place of delivery (Health Institution/ Facility)				Person providing assistance during delivery				
	Public sector	Private sector	Own home	Delivered through health facility	Doctor	Mid-wife/ ANM/ Nurse/ LHV	Relatives/ Friends	Dai/ TBA	Delivered by a skilled provider
ST	11.6	5.8	70.9	17.7	17.1	7.0	23.0	50.2	25.4
SC	19.4	13.4	56.8	32.9	29.4	10.4	20.7	37.7	40.6
OBC	16.1	21.1	51.8	37.7	33.8	11.7	15.5	37.1	46.7
Others	21.8	28.7	40.5	51.0	47.4	9.3	11.3	30.4	57.8
Total	18.0	20.2	51.3	38.7	35.2	10.3	16.2	36.5	46.6

Source: NFHS-3, 2005-06, M/o H&FW, GOI



C. Child Health

■ Universal immunization of children against the six vaccine-preventable diseases (namely, tuberculosis, diphtheria, whooping cough, tetanus, polio, and measles) is crucial for reducing infant and child mortality. Children between 12-23 months 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 vaccination card or reported by the mother ('either source'), only 31.3 percent of ST children were found to be fully vaccinated as compared to 53.8 percent belonging to 'Others'. 11.5% of ST children have no vaccinations at all. (See S3.4 below)

S3.4: Vaccinations of children 12-23 months (Figures in percentages)		
Social Groups	All basic vaccinations	No vaccinations
ST	31.3	11.5
SC	39.7	5.4
OBC	40.7	3.9
Others	53.8	4.3
Total	43.5	5.1

Source: NFHS-3, 2005-06, M/o H&FW, GOI

■ Among ST children who suffered from diarrhoea in the two weeks preceding the survey, only 29.3 percent of them did not receive any treatment at all. Only 61.4 percent of all ST women and 64

percent of ST women with recent births knew about ORS packets. (Table 3.12 & 3.13)

■ 49.9 percent of scheduled-tribe children received services at an anganwadi centre and 33.1 percent of ST children received any immunization through an anganwadi centre in the past 12 months. (See S3.5 below)

S3.5: Utilization of ICDS by children (Figures in percentages)				
Social Groups	Children (0-71 months) getting facilities from Anganwadi Centre (AWC)		Frequency of going to an AWC for early childhood care/ preschool education	
	Children (0-71 age) receiving any services from an AWC	Children (0-71 age) received any immunizations from an AWC	Regularly	Occasionally
ST	49.9	33.1	16.0	14.4
SC	36.1	21.4	15.8	9.7
OBC	30.3	20.5	12.9	7.5
Others	28.3	13.3	13.4	8.1
Total	32.9	20.0	14.0	8.8

Source: NFHS-3, 2005-06, M/o H&FW, GOI

D. Morbidity and Health Care

■ Despite being a curable disease, TB is still a stigmatizing illness, mainly due to people's ignorance of its etiology and transmission. 40.2 percent of ST women and 44.3 percent of ST men who have heard of TB mentioned coughing or sneezing as a mode of transmission for TB. Half of the ST men who heard of



TB (50.5 percent) have misconception about transmission of TB (Table 3.17 & 3.18)

- With respect to the correct knowledge of transmission of TB, ST men & women were no different from other social groups. 13.7 percent women and 17 percent men who had heard of TB, said that they would want the TB positive status of a family member to remain a secret.
- Results in NFHS-3 about health problems of diabetes, asthma, goitre or any other thyroid disorders among women and men age 15-49 per 100,000 show that the number of people with asthma is high among both ST women and men as compared to SCs and OBCs. (1,749 per 100,000 for women and 1,973 per 100,000 for men). (Table 3.19)
- As with diabetes, scheduled tribe women and men exhibit lower prevalence than other social groups. The prevalence of

goitre and other thyroid diseases was high among ST women as compared to ST men (753 per 100, 000 for women and 567 per 100,000 for men).

- Tobacco use is associated with a wide range of major diseases, including several types of cancers and heart and lung diseases. According to NFHS-3 findings, the percentage of ST women and men age 15-49, who use any kind of tobacco is highest when compared to any other social group (26.3 percent for women and 71.2 percent for men) (Table 3.20)
- NFHS-3 finds that among all social groups, drinking is common among half (49.9 percent) of the ST men and 14.1 percent of ST women. (Table 3.21 & 3.22)
- Only 2.6% of ST households have a member with health insurance, the lowest among all social groups, as seen from S3.6 below.

S3.6: Health Insurance Coverage and Accessibility to Health Care				
<i>(Figures in percentages)</i>				
Social Groups	Households covered by a health scheme or health insurance	Problem in accessing medical advice or treatment		
		Distance to health facility	Concern that no drugs available	At least one problem in accessing health care
ST	2.6	44.0	35.8	67.0
SC	3.3	27.3	24.2	50.4
OBC	3.8	26.0	22.8	47.4
Others	7.8	18.5	18.7	38.2
Total	4.9	25.2	22.9	46.6

Source: NFHS-3, 2005-06, M/o H&FW, GOI



- Only 27 percent of ST women visited a health facility or camp for themselves or their children in the three months preceding the survey and majority of them reported that the health care provider was responsive to their problems and needs. (Table 3.24)
- The ST women were found to be mostly prevented from getting medical treatment from a health facility for themselves, due to distance (44 percent reporting it). 28.4 percent of ST women report concern that no female provider will be available as being a big problem compared to 18.7 percent of total women. (Table 3.26)

E. Fertility

- Age at first marriage has a profound impact on childbearing because women who marry early have on an average a longer period of exposure to pregnancy and a greater number of lifetime births.
- Among ST women age 20-49, the median age at first marriage is 16.5yrs and among age 25-49 years, it is 16.3yrs. The increase in the median age at first marriage is proceeding at a very slow pace, and a considerable proportion of women still marry below the legal minimum age of 18 (Table 3.27).
- Almost all ST men marry before attaining the minimum age at marriage for men (21 years) set by the Child Marriage Registration Act of 1978. The proportion of ST men who are married

by age 20yrs has decreased steadily in recent years. (Table 3.28)

F. Family Planning

- 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 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.
- 61.8 percent of currently married ST women have a demand for family planning, of which only 77.5 percent have a met need for contraception. (Table 3.29).

G. HIV - AIDS Knowledge: Knowledge, Attitude & Behavior

- Though Government of India has been using mass media extensively, especially electronic media, to increase awareness of AIDS and its prevention in the population, the percentage of ST men & women who have heard about AIDS is far below the general population. (38.6 percent of ST women and 63.9 percent of ST men compared to 60.9 percent women and 82.9 percent men in general population). (Table 3.30 and 3.31).



- Television is by far the most common source of information on AIDS, reported by 61.9 percent ST women and 64.8 percent ST men who have heard of AIDS. The next most frequently reported sources after television are radio (35.4 percent of ST women and 54.2 percent of men) and friends/relatives (37.7 percent of ST women and 46.7 percent of men). (Table 3.30 and 3.31)
- The HIV prevalence rate among the STs is 0.25 percent compared to all India figure of 0.28 percent. (Table 3.33).
- Among STs only 1.3 percent of women and 1.4 percent of men have ever been tested for HIV. The 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 0.1 percent among women and men, respectively). (Table 3.34)
- The 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.
- Among STs, only 8 percent of women and 20 percent of men have a comprehensive knowledge of HIV/AIDS. 10 of 100 ST women and 24 of 100 ST men rejected the misconceptions

that HIV/AIDS cannot be transmitted by mosquito bites, by hugging someone who has AIDS and by sharing food with a person who has AIDS. (Table 3.35 and 3.36)

- 27.6 percent of ST women and 44.5 percent of ST men know that HIV/AIDS can be transmitted from a mother to her baby. However, only 11 percent of ST women and 12.7 percent of ST men know that the risk of HIV transmission from an infected mother to her baby can be reduced by the mother taking special drugs.

H. Nutritional status of ST Women, Men & Children

- NFHS-3 collected information on two indicators of nutritional status - height and body mass index (BMI) - for women age 15-49 and men age 15-54. 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 centimeters (cm). A cutoff point of 145 cm is used for NFHS-3.
- The height and weight measurements in NFHS-3 were used to calculate the BMI. The BMI is defined as weight in kilograms divided by height in metres squared (kg/m^2). This 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 under-nutrition and a BMI of 25 or above indicates overweight or obesity

- The percentage of ST women below 145 cm is second highest (12.7 percent)

among all social groups. Chronic energy deficiency is usually indicated by a BMI of less than 18.5 and among ST woman, 46.6 percent have a BMI below 18.5, indicating a high prevalence of nutritional deficiency (Table 3.37)

S3.7: Nutritional status of women			
<i>(Figures in percentage)</i>			
Social Groups	Mean Body Mass Index in kg/m ²		
	<18.5 (total thin)	17.0-18.4 (mildly thin)	<17.0 (moderately/ severely thin)
ST	46.6	25.3	21.2
SC	41.1	22.6	18.5
OBC	35.7	20.0	15.7
Others	29.4	16.3	13.1
Total	35.6	19.7	15.8

Source: NFHS-3, 2005-06, M/o H&FW, GOI

- The mean body mass index is similar for ST men (19.3) and women (19.1) age 15-49. 41.3 percent of men age 15-49 are thin, compared with 46.6 percent of women. The patterns of thinness for ST men are similar to the patterns for women. (Table 3.38)

- NFHS-3 also measured anaemia in women and men, using the same equipment and procedures used to measure anaemia among children. 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 non-pregnant 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).

- ST men and women are found to be highly anaemic among all social groups. 68.5 percent of women and 39.6 percent of men whose haemoglobin level was tested were found to be anaemic. 44.8 percent of ST women are mildly anaemic, 21.3 percent moderately anaemic and 2.4 percent severely anaemic. (Table 3.39)



S3.8: Prevalence of anemia in women (Figures in percentages)			
Social Groups	Anemia status by hemoglobin level		
	Mild (10.0 - 11.9 g/dl)	Moderate (7.0-9.9 g/dl)	Any anemia (<12.0 g/dl)
ST	44.8	21.3	68.5
SC	39.3	16.8	58.3
OBC	38.2	14.5	54.4
Others	37.0	12.9	51.3
Total	38.6	15.0	55.3

Source: NFHS-3, 2005-06, M/o H&FW, GOI

- High prevalence of nutritional deficiency and chronic energy deficiency are observed among the ST women indicating nutritional problem being more serious for this category.

Micronutrient intake among Children and their nutritional status

- Micronutrient deficiency is a serious contributor to childhood morbidity and mortality. Vitamin A is an essential micronutrient for the immune system and plays an important role in maintaining the epithelial tissue in the body. 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.
- Among all social groups, the percentage of ST children were lowest in consuming foods rich in vitamin A in the day or night preceding the survey (43.8 percent). Only 21 percent of ST children age 12-35months received vitamin A

supplements in the six months before the survey. This figure drops further, to only 14.6 percent, among children age 6-59 months. (Table 3.41)

- Children belonging to STs have the poorest nutritional status on almost every measure and the high prevalence of wasting in this group is of particular concern.
- 76.8 percent of children belonging to ST category are anemic, including 26.3% who are mildly anemic, 47.2% are moderately anemic and above 3.3% are severely anemic. ST children top among all social groups, as far as “any anemia” prevailing among them is concerned. (See Table S3.9 below)

S3.9: Prevalence of anaemia in children aged 6-59 months (Figures in percentages)				
Social Groups	Anemia status by hemoglobin 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)
ST	26.3	47.2	3.3	76.8
SC	24.9	43.7	3.6	72.2
OBC	26.7	40.5	3.0	70.3
Others	26.9	34.8	2.1	63.8
Total	26.3	40.2	2.9	69.5

Source: NFHS-3, 2005-06, M/o H&FW, GOI

Women & Men’s food consumption

- 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 (daily, weekly, occasionally, or never).

- Women and men from Scheduled Tribes have a relatively poor diet that is particularly deficient in fruits and milk or curd. 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.

- Milk or curd is consumed weekly by 33.5 percent and 41.8 percent of ST women and ST men respectively. Consumption of fruits is less common among STs. 72.6 percent of women do not consume fruits even once a week. (Table 3.42 and 3.43).
