DLHS -2

Maharashtra

Reproductive and Child Health

District Level Household Survey
2002-04

स्वर्ण जयंती वर्ष

GOLDEN JUBILEE YEAR
1956-2006

International Institute for
Population Sciences,
(Deemed University)
Mumbai – 400 088

सत्यमेव जयते
Government of India

Ministry of Health & Family
Welfare, Government of India,
New Delhi – 110 011

CORT
CENTRE FOR OPERATIONS RESEARCH & TRAINING

Centre for Operations Research
and Training,
Vadodara - 390 007

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PREFACE AND ACKNOWLEDGEMENT

Government of India had launched the Reproductive and Child Health (RCH) program to ensure that couples have access to adequate information and services for reproductive health care. As a first step, family planning target has been withdrawn and an effort is being made to provide a package of reproductive services at different levels of health care centres.

Monitoring of the services is also being improved. New indicators are being added to assess quality of services and provision of an integrated reproductive health care service. The District Level Household Survey (DLHS) was initiated by Government of India and financed by the World Bank covering all the districts in the country. For the second time, district level estimates will be available for most of the critical reproductive health indicators. These important initiatives are certainly quite satisfying for all those who are concerned with taking ICPD reproductive health agenda ahead. The project is being coordinated by International Institute for Population Sciences, Mumbai and implemented by a number of consulting agencies.

For the purpose of data collection, uniform questionnaires, sampling design and field procedures were used throughout the country. The survey thus provided comparable data for all the districts in the state. The present report provides salient findings of Maharashtra and covered all the districts. The findings of selected indicators of reproductive and child health services from the state of Maharashtra are presented in the report.

It is believe that the data generated through the survey will meet the requirements of the Programme Administrators and Policy Makers for making effective interventions for providing quality services and achieving multiple objectives.

The DLHS-RCH could not have been successfully completed without cooperation and support from innumerable sources at various stages of the project. Although, it is not possible to acknowledge everyone involve in the survey, several organizations and individuals deserve special mention.

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Prof. M. M. Gandotra **September 2006**
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KEY INDICATORS, MAHARASHTRA

DISTRICT LEVEL HOUSEHOLD SURVEY- REPRODUCTIVE AND CHILD HEALTH, (DLHS-RCH),MAHARASHTRA 2002-04

Sample size	
Households surveyed	3,6429
Currently married women age 15-44	2,7053
Husband's of eligible women	1,6357
Characteristics of households	
Percent rural	63.4
Percent Hindu	81.8
Percent Muslim	8.5
Percent other religion (Buddhist)	8.3
Percent scheduled caste	14.2
Percent scheduled tribe	17.2
Percent with electricity	83.6
Percent with flush toilet	26.4
Percent with no toilet facility	58.3
Percent living in *Kachcha* houses	30.5
Percent living in *Pucca* houses	24.1
Percent with low standard of living	41.1
Percent with high standard of living	26.5
Percent with iodized salt (15+ppm)	46.9
Characteristics of currently married women age 15-44 years	
Percent below age 30	51.5
Percent with age at first cohabitation below age 18.	54.1
Percent illiterate	35.0
Percent having 10 or more years of schooling	22.3
Percent with illiterate husband	18.7
Percent with husband 10+ years of schooling	38.1
Marriage	
Mean age at marriage for boys	24.6
Mean age marriage for girls	19.1
Percent of boys married below age 21	12.4
Percent of girls married below age 18	21.1
Fertility	
Mean children ever born women age 40-44 years	3.5
Percent of births of order 3 and above[1]	32.4
Current use of family planning method	
Any method	63.3
Any modern method	60.8
Pill	2.9
IUD	2.5
Condom	4.9
Female sterilization	48.3
Male sterilization	2.0
Any traditional method	2.4
Rhythm/safe period	1.7
Withdrawal	0.6
Unmet need for family planning	
Percent with unmet need for spacing	5.5
Percent with unmet need for limiting	7.1
Percent with total unmet need	12.6
Maternal care[2]	
Percent of women received antenatal check-ups	92.9
Antenatal check-up at home	2.8
Antenatal check-up in first trimester	51.7
Three or more visit for ANC	72.0
Two or more tetanus toxoid injections	79.4
Adequate Iron folic acid tablets/syrup[3]	28.1
Full antenatal check-up[4]	23.6
Delivery characteristics[2]	
Delivery at home	41.7
Delivery at government health institutions	24.1
Delivery at private health institutions	33.8
Delivery attendant by skilled persons[5]	62.6
Child health	
Percent of children whose mother squeezed out milk from her breast[6]	54.9
Percent of children[7] with diarrhoea[8] who received ORS	42.0
Percentage of women whose child[7] with pneumonia[8] sought treatment	78.1
Percent of children who received vaccinations[9]	
BCG	96.2
DPT (3 injections)	88.2
Polio (3 drops)	80.2
Measles	85.4
All vaccinations[10]	70.9
No vaccination at all	2.2
Percentage of women who had	
Pregnancy complication[2]	46.8
Delivery complication[2]	74.1
Post delivery complication[2]	35.4
Symptoms of RTI/STI	42.2
Problems of vaginal discharge	11.6
Menstruation related problem	17.5
Awareness of RTI/STI and HIV/AIDS	
Percent of women who have heard of RTI/STI	37.5
Percent of women who have heard of HIV/AIDS	75.2
Utilization of government health services	
Antenatal care	40.1
Treatment for pregnancy complication	31.0
Treatment for post-delivery complication	24.4
Treatment for vaginal discharge	21.3
Treatment for children with diarrhoea	22.2
Treatment for children with pneumonia	16.0
Quality of family planning services	
Percent non-users ever advised to adopt the family planning method	20.2
Percent users told about side effects of method	24.0
Percent users who received follow-up services	29.0
Characteristics of husband of eligible women	
Percent of husband knowing NSV	41.9
Percent of men who have heard of RTI/STI	42.6
Percent of men who have heard of HIV/AIDS	86.3
Percentage who had any symptoms of RTI/STI	5.1
Sought treatment for RTI/STI	54.0

[1] For births in past three years, [2] For live/still births during three years preceding the survey, [3] 100 or more IFA tablets/Syrup, [4] A minimum of three visits for ANC, at least one TT injections and 100 or more IFA tablets/syrup, [5] Either institutional delivery or home delivery assisted by Doctor/ANM/nurse, [6] Children age below 3 years, [7] Last but one living children below age 3 years, [8] Last two weeks preceding the survey, [9] Last but one living children (age 12-23 months) born during three years preceding the survey. [10] BCG, three injections of DPT, three drops of polio and measles.

SALIENT FINDINGS

For the assessment of district level Reproductive and Child Health indicators, Government of India proposed to undertake district level household surveys through non-governmental agencies on an annual basis. The District Level Household Survey (DLHS) was the result of government's initiative. In Maharashtra, Centre for Operations Research and Training (CORT), was entrusted the work of carrying out the survey. The survey for Phase-1 of the DLHS covering 18 districts of the state was conducted during May 2002 to August 2002. The survey for Phase-2 covering the remaining 17 districts of the state was carried out during April 2004 to September 2004. The focus of the survey was on: i) Coverage on ante natal care (ANC) and immunization services, ii) Extent of safe deliveries, iii) Contraceptive prevalence rate and unmet need for family planning, iv) Awareness about RTI/STI and HIV/AIDS and v) Utilization of government health services and users' satisfaction. The salient findings of the survey are presented here.

For both the phases together, the data was collected from 36,429 households in Maharashtra. From these households, 27,053 eligible women (usual resident or visitors who stayed in the sample household the night before the interview, currently married aged 15-44 years whose marriage was consummated) and 1,6357 husbands of eligible women were interviewed.

Of the total households interviewed in Maharashtra, nearly 37 percent were from urban areas. There were 82 percent Hindu households, nine percent Muslim, seven percent Buddhist and remaining came under other category in the sample. Around one-third of the households belonged to either scheduled castes or scheduled tribes. About 31 percent of the households lived in *Kachcha*, 45 percent in Semi-*pucca* and 24 percent in *pucca* houses. Little more than two-fifth (41 percent) of the households belonged to low socio economic status.

About 74 percent of population aged seven and above are literate. Percent literate among females is 64 where as it is 83 for males. Proportion of non-literate is much higher among the older cohort compared to the younger ones. About 35 percent of eligible women in the state are non-literate, and 22 percent have completed 10 or more years of schooling. As regards distribution of non-literate women, lesser proportion of younger women's below age 30 are illiterate compared to older women age 30 and above. Similarly the proportion of non-literate husbands is more in the age group of 35 years and above.

The reporting of the marriages during three years prior to survey gives the mean age at marriage among the boys and girls in the state as 24.6 and 19.1 years respectively. Twelve percent of boys and 21 percent of girls in the state got married before attaining the minimum legal age at marriage of 21 and 18 years respectively. The proportion of boys getting married below the legal minimum age ranges from about two percent in Bhandara and Chandrapur to 30 percent in Nandurbar district. In case of girls the proportion getting married below the legal minimum age varies from a lowest one percent in Mumbai to highest 51 percent in Jalna district.

About 47 percent of the households use cooking salt that is iodized at the recommended level of 15 parts per million or higher level of iodine content whereas 43 percent of households used salts that are not iodized at all. Lowest proportion of households (8 percent) in Mumbai is using non-iodized salt whereas in Amravati the highest proportion of households (77 percent) used non-iodized salt. While only in five districts Jalgaon (62 percent), Pune and Thane (70 percent each), Mumbai (82 percent), and Mumbai (Suburban) (88 percent), more than 60 percent of households consume adequately iodized salt.

On an average, women on the verge of completion of reproductive period have given birth to 3.5 children. The completed fertility in the states varies from a lowest of 2.7 children ever born per women in Mumbai to the highest of 4.7 children in Latur.

The share of births of order 3 and above in the total births that occurred three years prior to survey is 32 percent. In most of the districts, proportion of higher order births is quite high, ranging from the lowest of about 16 percent in Satara, to the highest of about 48 percent in Latur and Nandurbar.

The data collected on the utilization of ANC services for the women who had their last live/still birth during three years prior to survey shows that the ANC coverage in the state is high as 93 percent of the women received at least one ante-natal care during pregnancy. Only three percent of the women during their pregnancy were visited by health worker at their residence to provide ANC services. Around two-fifth of the women visited private and government health facilities each to receive ANC services. The percentage of women who got some kind of ANC during pregnancy ranges between 82 percent in Nashik to almost all the women in Sindhudurg. In 28 out of 35 districts, more than 90 percent women got some antenatal care.

Though 93 percent of the women in Maharashtra received ANC, only 83, 73 and 83 percent women had check-up of weight, blood pressure and abdomen respectively. About 85 percent women received Iron and Folic Acid (IFA) tablets/syrup and 91 percent got at least one TT injection. A full package of ANC including minimum three ANC visits, at least one TT injection and 100 or more IFA tablets/syrup was received by 23 percent of women.

Minimum three ANC and timing of first check up is crucial for maternal and child care. In Maharashtra 52 percent of women got ANC in the first trimester and 72 percent had minimum three antenatal check-ups. Extent of ANC in first trimester varies from a minimum of 29 percent in Nashik to the maximum of 72 percent in Ratnagiri and Satara. In Nashik, only 51 percent of women had minimum three ANCs whereas in Sindhudurg, Mumbai, Kolhapur, and Ratnagiri districts about 90 percent women had got minimum of three ANCs.

About 58 percent of the total deliveries in Maharashtra were conducted in the health institutions; 7 percentages point up from RCH Round I. The majority (34 percent) of the institutional deliveries were conducted in private institutions as against government institution (24 percent). About 42 percent of the total deliveries took place at home, and out of total home deliveries only 11 percent were assisted by either a doctor or nurse/ ANM. So overall, 63 percent of the deliveries, more from the RCH Round I (56 percent), in the state were safe delivery. The extent of institutional deliveries varies from the highest of 89 percent in Mumbai (Suburban) to the lowest of 21 percent in Gadchiroli. Safe deliveries were on the similar pattern in all the districts. The percent of the institutional deliveries increases substantially with women's education and economic status.

In Maharashtra, 47, 74 and 35 percent of the women experienced pregnancy, delivery and post delivery complications respectively. Around 73 percent of the women sought treatment for the pregnancy and 64 percent sought for post-delivery complications. The pregnancy complication varies from the lowest of 30 percent in Mumbai to the highest of 77 percent in Akola. The incidence of all the three types of complications seems to be linked with each other. In the districts where the incidence of pregnancy complications is high, the incidence of delivery and post-delivery complications is also high.

In most of the districts and the state as a whole, the practice of breast-feeding is almost universal. However, the practice of initiation of breastfeeding within two hours of birth of the child is not common. In Maharashtra, only 44 percent women started breastfeeding the child within two hours of birth and 39 percent started after one day of birth. There is great deal of variation in the pattern of breastfeeding across the districts. In Dhule district only 21 percent of the women breastfed the child within two hours of birth while in the districts of Amravati and Mumbai these percentages are highest at 61 percent each.

In Maharashtra 96, 88, 80 and 85 percent of the children received the BCG vaccine, three doses of DPT, Polio and measles vaccine respectively. There is 16 percentage points drop from BCG to Polio 3. It means that large number of children that have contact with services providers are missed out of subsequent services. The complete schedule of immunization including BCG, three doses of DPT and Polio each and measles was received by 71 percent of the children, whereas two percent of the children did not receive a single vaccination under routine programme. About 72 percent of the children received supplementation of at least one dose of vitamin A and only eight percent children received IFA tablets/liquid for iron supplementation.

The extent of complete immunization consisting of BCG, three injections of DPT, three doses of Polio and measles is the lowest in Gadchiroli (28 percent) and highest in Ratnagiri and Kolhapur (99 percent each). In 24 districts more that two-third of the children received complete immunization.

In Maharashtra, 70 percent of the women were aware of diarrhoea management and 44 percent were aware of Oral Rehydration Salt (ORS). During the two-week period prior to survey, children of 17 percent of the women suffered from diarrhoea. And 42 percent women treated diarrhoea among children by giving ORS. In comparison with awareness about diarrhoea management, the awareness about danger signs of pneumonia is quite low. Only 31 percent of the women reported awareness about danger signs of pneumonia. Twenty-six percent of the women reported that their children suffered from cough, cold and difficulty in breathing in two-week period prior to survey and 78 percent sought treatment.

The knowledge of family planning methods is almost universal in almost all the districts of Maharashtra. However, the knowledge of any spacing method is low, but the proportion *per se* is quite high (86 percent). The knowledge of any modern methods is also universal in most of the districts, though the knowledge of all modern methods is only 57 percent. The proportion knowing all modern methods (males and females' sterilization, IUD, oral pills and condom) varies from 13 percent in Gadchiroli to 88 percent in Mumbai and Mumbai (Suburban) each.

In DLHS, knowledge about No-scalpel vasectomy has been asked to husbands of eligible women. About 42 percent of the husbands were aware of no-scalpel vasectomy in the state. The proportion of husbands knowing No-scalpel vasectomy varies from 18 percent in Gadchiroli to about 67 percent in Bhandara district.

The contraceptive prevalence rate (any methods) in the state is 63 percent, 4 percentage point up from RCH Round I, comprising of prevalence of 60 percent of modern methods. Half of the couples adopted sterilization. The percent user of the two male methods, sterilization and condom is only seven percent. There has been positive association between contraceptive use and place of residence, female education, and economic development. The highest contraceptive prevalence is in Wardha (74 percent) followed by Kolhapur, Nagpur, and Bhandara (70-72 percent) and lowest is in Nanded (55 percent).

In Maharashtra, a total of 13 percent of women are found to have unmet need for family planning, with slightly more for limiting than for spacing. The total unmet need varies from seven percent in Kolhapur to 22 percent in Ahmadnagar followed by 20 percent in Sindhudurg.

Only 14 percent of the women in the state reported that either ANM/LHV or health worker visited them at their residence at least once in the past three months. More than 85 percent of women who were visited by ANM felt that ANM had given them sufficient time to discuss health-related matters and services.

In eight of the districts of Maharashtra, less than 10 percent of the women reported the visit of ANM/LHV to their residence. In the 11 districts 10-15 percent of the women reported visits of ANM/LHV and in the remaining more than 15 percent of the women reported visit of ANM/LHV.

It has been observed that in three months period prior to survey, 24 percent of the eligible women who were required to consult health facility visited any of the government health facilities. Very small proportion (3-14 percent) of the women who visited the health facility rated facility as excellent. On the other hand, those women who did not visit the government health facility reported “poor quality of services”, “medicine not given or bad quality”, “non-conveniently located”, “doctors/health workers do not examine properly”, or “time is not suited” as the reasons.

The district level variation in the utilization of the government health facilities ranges from 13 percent in Washim to 67 percent in Gadchiroli. A large percentage of women, who visited to private health facilities (73 percent), range from 32 percent in Gadchiroli to more than 80 percent in Solapur, Thane, Mumbai (Suburban) and Sangli.

In Maharashtra 38 and 75 percent of women are aware of RTI/STI and HIV/AIDS respectively. The corresponding level of awareness among husbands of eligible women is 43 and 86 percent. The percentage of women who are aware of RTI/STI and HIV/AIDS is lowest in Gadchiroli 11 and 23 percent respectively and highest level of awareness for RTI/STI and HIV/AIDS was found in Bhandara (68 percent) and Satara (96 percent) district respectively. Similarly awareness level of husbands of eligible women of RTI/STI and HIV/AIDS are lowest in Gadchiroli (15 and 36 percent respectively) and awareness of RTI/STI is highest in Sindhudurg (70 percent) and for HIV/AIDS it is highest in Sangli and

Mumbai (98 percent each). Out of 35, in 19 districts the awareness of HIV/AIDS is below state figure for women and in 16 districts for husbands of eligible women.

About 42 percent of women and five percent of husbands of eligible women in the state reported having at least one symptoms of RTI/STI. The prevalence of RTI/STI for women is lowest in Kolhapur (15 percent) and highest in Wardha and Amravati (67 percent each) and for men it is lowest in Raigarh, Ratnagiri, Mumbai and Kolhapur (1 percent each) while highest in Akola, Bhandara, Ahmadnagar and Bid (10 percent each). However in Mumbai (Suburban), none of the husbands of eligible women reported any symptom of RTI/STI. About 12 percent of women reported vaginal discharge with low in Kolhapur and Pune (6 percent each) to highest in Jalna and Dhule (23 percent each). Around two-fifth of women sought treatment for vaginal discharge problem and 54 percent of husbands sought treatment with at least one symptoms of RTI/STI. It may be noted that in most of the districts a higher proportion of men compared to women sought treatment for their reproductive health problems.

CHAPTER I

INTRODUCTION

1.1 Background and Objectives of the Survey

The Reproductive and Child Health (RCH) programme launched by Government of India (GoI) in 1996-97 envisages to provide quality services and achieve multiple objectives. It ushered a positive paradigm shift from method-oriented, target-based activity to providing client-centred, demand-driven quality services. Also, efforts are made to reorient provider's attitude at grassroots level and to strengthen the services at outreach levels.

The new approach requires decentralization of planning, monitoring and evaluation of the services. The district being the basic nucleus of planning and implementation of the RCH programme, Government of India has been interested in generating district level data on utilization of the services provided by government health facilities, other than that based on service statistics. It is also of interest to assess people's perceptions on quality of services. Therefore, it was decided to undertake District Level Household Survey (DLHS) under the RCH programme in the country.

The Round I of RCH survey was conducted during the year 1998–99 in two phases (each phase covered half of the districts from all states/union territories) in 504 districts for which International Institute for Population Sciences (IIPS), Mumbai was designated as the nodal agency.

In Round II, survey was completed during 2002-04 in 593 districts as per the 2001 Census. In DLHS-RCH, information about RCH has been collected using a slightly modified questionnaire. In Round II, some new dimensions, such as test of cooking salt to assess the consumption of salt fortified with iodine, collection of blood of children, adolescents and pregnant women to assess the level of anaemia, and measurement of weight of children to assess the nutritional status, were incorporated.

The main focus of the DLHS-RCH has been on the following aspects:

- Coverage of ANC and immunization services
- Proportion of safe deliveries
- Contraceptive prevalence rates
- Unmet need for family planning
- Awareness about RTI/ STI and HIV/AIDS
- Utilization of government health services and users' satisfaction.

For the purpose of conducting DLHS-RCH, all the states and the union territories were grouped into 16 regions. A total of twelve research organizations including Population Research Centres (PRCs) were involved in conducting the survey in 16 regions with IIPS as the nodal agency. Centre for Operations Research and Training (CORT) was appointed as regional research organization to conduct this survey, covering all districts of Maharashtra.

1.2 Survey Design

In Round II, a systematic, multi-stage stratified sampling design was adopted. In each district, 40 Primary Sampling Units (PSUs – Villages/Urban Frame Size) were selected with probability proportional to size (PPS) using the 1991 Census data. All the villages were stratified according to population size, and female literacy was used for implicit arrangement within each strata. The number of PSUs in rural and urban areas was decided on the basis of percent of urban population in the district. However, a minimum of 12 urban PSUs were selected in each district in case the percent urban was low. The target sample size in each district was set at 1,000 complete residential households from 40 selected PSUs. In the second stage, within each PSU, 28 residential households were selected with Circular Systematic Random Sampling (CSRS) procedure after house listing. In order to take care of non-response due to various reasons, sample was inflated by 10 percent (i.e. 1,100 households).

For selecting the urban sample, the National Sample Survey Organization (NSSO) provided the list of selected urban frame size (UFS) blocks in the district. The UFS blocks were made available separately for each district for urban areas. The maps of selected blocks were obtained from the NSSO field office located in each state/union-territory.

But in each state, in two districts, the PSUs that were surveyed in Round I of DLHS-RCH (also known as RHS-RCH) were also selected for survey in Round II. This was done in order to measure the changes more accurately. Two districts, one with the highest proportion of safe delivery and another with the lowest proportion of safe delivery among those surveyed during Round I of the survey were selected for this purpose. In all other districts, fresh sample of PSUs were selected.

1.3 House Listing and Sample Selection

The household listing operation was carried out in each of the selected PSU segment prior to the data collection that provided the necessary frame for selecting the households. The household listing operation also involved preparation of location map and layout sketch map of the structures and recording the details of the households in these structures in each selected PSU. This exercise was carried out by independent teams, each comprising of one lister, one mapper and one supervisor under the overall guidance and monitoring of the survey coordinator of households of the selected regional agencies.

A complete listing of households was carried out in villages with households up to 300. In case of villages with more than 300 households but less than or equal to 600 households, two segments of more or less same size were formed and one segment was selected at random and household listing was carried out. In case of villages with more than 600 households, segments each of about 150 households were formed and two segments were selected for listing using the systematic random sampling method.

Small villages with less than 50 households were linked with a nearest village. After combining it with the nearest village, the same sampling procedure was adopted as mentioned above. For the urban PSUs, the selected UFS blocks needed no segmentation as they were of almost equal size and contained less than 300 households.

No replacement was made if selected household was absent during data collection. However, if a PSU was inaccessible, a replacement PSU with similar characteristics was selected by the IIPS and provided to the regional agency for survey.

1.4 Questionnaire

DLHS-RCH collected information on various indicators pertaining to RCH that would assist policymakers and programme managers to formulate and implement the goals set for RCH programmes. The International Institute for Population Sciences (IIPS), Mumbai, the Nodal Agency for DLHS–RCH project has made necessary modifications in the two Questionnaires: Households Questionnaire and Women's Questionnaire and added three more Questionnaires i.e., Husband's Questionnaire, Village Questionnaire and Health Questionnaire, in consultation with MoHFW and World Bank. These Questionnaires were discussed and finalized in training cum workshop organized at IIPS during the first week of November 2001.

These modified questionnaires were canvassed during the round II of the DLHS–RCH survey, taking into consideration the views of all the regional agencies involved. The house–listing teams, the interviewers and the supervisors for the main survey were given rigorous training based on the manuals developed for the purpose by the Nodal Agency.

All the questionnaires were bilingual, with questions in both regional and English language. The Details of questionnaires are as follows:

Household Questionnaire: The household questionnaire lists all usual residents in each sample household including visitors who stayed in the household the night before the interview. For each listed household member, the survey collected basic information on age, sex, and marital status, relationship to the head of the household, education and the prevalence /incidence of tuberculosis, blindness and malaria. Information was also collected on the main source of drinking water, type of toilet facility, source of lighting, type of cooking fuel, religion and caste of household head and ownership of other durable goods in the household. In addition, a test was conducted to assess if the household used cooking salt that has been fortified with iodine. Besides, details of marriages and deaths which happen to usual residents within reference period were collected. Efforts were also made to get information about maternal deaths.

Women Questionnaire: Women questionnaire is designed to collect information from currently married women age 15 – 44 years who are usual residents of the sample household or visitors who stayed in the sample household the night before the interview. The women questionnaire covered the following sections:

Section I: Background characteristics: In this section, information collected was on age, education status and birth and death history of biological children including still birth, induced and spontaneous abortions.

Section II: Antenatal, natal and post natal care: In this section, the questionnaire collected information only from the women who had live birth, still birth, spontaneous or induced abortion during last three years preceding the survey date. The information on whether women received antenatal and postpartum care, who attended the delivery and the nature of complications during pregnancy for recent births were also collected.

Section III: Immunization and childcare: This section gave information about feeding practices, the length of breastfeeding, immunization coverage and recent occurrence of diarrhoea, and pneumonia for young children (below age 3 years).

Section IV: Contraception: This section provided information on knowledge and use of specific family planning methods. Questions were included about reasons for non use, intentions about future use, desire for additional child, sex preference for next child etc.

Section V: Assessment of quality of government health services and client satisfaction. In this section, the questions are targeted to assess the quality of family planning and health services provided by Government health facilities. The information were also collected about the rating of Government health facilities and staffs and reasons for not visiting to government health facilities by eligible woman.

Section VI: Awareness about RTI/STI and HIV/AIDS: In this section the information were collected about women's knowledge of RTI/STI, source of knowledge, awareness of mode of transmission, curability, symptoms and treatment seeking behaviour. Awareness about HIV/AIDS, source of knowledge, awareness of mode of transmission and prevention etc were canvassed.

Husband Questionnaire: In DLHS-RCH, round II, husband questionnaire was used to collect information from husbands of eligible women about age, education status, knowledge and source of knowledge of RTI/STI and HIV/AIDS, reported symptoms of RTI/STI and male participation. Apart from these information, desire for children, reasons for not using F.P. methods, future intention to use F.P. methods and knowledge about no scalpel vasectomy (NSV) was also collected.

Health Questionnaire: In DLHS-RCH, round II, a health questionnaire is included. The information collected were on weight of children age 0–71 months old and the blood sample to assess the haemoglobin levels of children age 0–71 months old, adolescents 10–19 years old and pregnant eligible women. This information is useful for assessing the levels of nutrition prevailing in the population and prevalence of anaemia among women, adolescent girls and children.

Village Questionnaire: A village questionnaire is also added in this round of DLHS. The information collected on the availability and accessibility of various facilities in the village especially on accessibility to education and health facilities.

1.5 Fieldwork and Sample Coverage

The fieldwork for RCH Round II was done in two phases. During Phase I, 18 districts were covered from May 2002 to October 2002 and remaining 17 districts were covered during Phase II from April 2004 to September 2004.

In the two rounds, a total of 36,429 thousand households were covered from the state of Maharashtra. From these surveyed households, 27,052 currently married women (aged 15-44 years) and 16,357 husbands of eligible women were interviewed.

1.6 Data processing

All the five types of completed questionnaires were brought to the headquarter of CORT and data were processed using microcomputers. The process consisted of office editing of questionnaires, data entry, data cleaning and tabulation. Data cleaning included validation, range and consistency checks. For both data entry and tabulation of the data, IIPS developed the software package. The district and state level reports were prepared by CORT for Maharashtra whereas national report was prepared by the nodal agency.

1.7 Sample Weights

In generating district level demographic indicator sample weight for household, women and husband, weight have been used and these for a particular district are based on three selection probabilities f_1^i, f_2^i and f_3^i pertaining to i^{th} PSU of the district. These probabilities are defined as

f_1^i = Probability of selection of ith PSU in a district

$$= \frac{(n_r * H_i)}{H}$$

Where, n_r is the number of rural PSU to be selected in a district, H_i refers to the number of household in the ith PSU and $H = \sum H_i$, total number of household in a district.

f_2^i = Probability of selecting segment (s) from segmented PSU (in case the ith selected PSU is segmented)

= (Number of segments selected after segmentation of PSU) / (number of segment created a PSU)

The value of f_2^i is to be equal to one for un-segmented PSU.

f_3^i = probability of selecting a household from the total listed households of a PSU or in segment(s) of a PSU

$$= \frac{28 * HR_i}{HL_i}$$

Where HR_i is the household response rate of the ith sampled PSU and HL_i is the number of households listed in i^{th} PSU in a district.

For urban PSU, f_1^i is computed either as the ratio of number of urban PSUs to be included from the district to the total number of UFS blocks of the district or as the ratio of urban population of the selected PSU to the total urban population of the district.

The probability of selecting a household from the district works out as;

$$f^i = \left(f_1^i * f_2^i * f_3^i\right)$$

The non-normalized household weight for the ith PSU of the district is, $w^i = \frac{1}{f^i}$, while the normalized weight used in the generation of district indicators as

$$n_i^d = \frac{\sum_i n_i}{\sum_i n_i * w^i} * w^i, \text{ i= 1,2,3……40.}$$

Where n_i is the number of households interviewed in the ith PSU. The weight for women and husband are computed in the similar manner after multiplication of expression for f^i by the corresponding response rate. State weights for households, women and husbands are further derived from the district weights n_i^d for the ith psu in d[th] district using external control so that for sample results do not deviate from the corresponding information about the population.

Let, $n_s = \sum_i n_i^d$ and $N_I = \sum_i N_i^d$, denote the number of households in the sample and census of a particular state, then state level households weights are worked out as;

$$n_i^s = n_i^d * \frac{\left(n_i^d / n_s\right)}{\left(N_i^d / N_{sc}\right)}$$

, where n_i^d household sample in i[th] district, n_s is the total sample in the state, N_i^d is the census population in the ith district and N_{sc} is the census population in the state.

These households' weights are controlled for rural-urban separately. Considering sample and census currently married women in 15-44 years and married males above 15 years for specified state by districts and rural-urban residence, state level women and husbands' weights are obtained for estimation of state level indicators.

1.8 Sample Implementation

Table 1.1 shows the period of fieldwork, number of households interviewed and household's response rates. A total of 36,429 households are interviewed, nearly two-thirds were rural. The overall household response rate – the number of households interviewed per 100 occupied households – was 99 percent. The household response rate was more than 96 percent in every district.

Table 1.1 NUMBER OF HOUSEHOLDS INTERVIEWED
Month and year of fieldwork and number of households interviewed by district, Maharashtra, 2002-04

State/District	Month and year of field work		Number of households interviewed			Response rate
	From	To	Total	Rural	Urban	
State	-	-	36,429	23,111	13,318	99.4
State-phase I	05/2002	10/2002	-	-	-	-
State-phase II	04/2004	09/2004	-	-	-	-
Ahmadnagar	08/2002	08/2002	951	660	291	96.4
Amravati	07/2002	08/2002	1,047	688	359	99.8
Aurangabad	06/2002	09/2002	1,008	638	370	98.8
Bid	09/2002	10/2002	1,072	752	320	99.6
Buldana	07/2002	08/2002	1,042	732	310	99.6
Chandrapur	06/2002	07/2002	1,005	683	322	99.6
Gadchiroli	05/2002	06/2002	921	845	76	99.4
Jalgaon	09/2002	09/2002	1,031	728	303	99.0
Nagpur	05/2002	06/2002	983	338	645	98.9
Nanded	08/2002	09/2002	1,028	727	301	99.8
Nashik	09/2002	10/2002	1,022	613	409	99.6
Osmanabad	09/2002	09/2002	1,064	746	318	99.7
Pune	08/2002	09/2002	905	402	503	96.3
Sangli	09/2002	09/2002	1,004	702	302	99.4
Satara	08/2002	09/2002	993	701	292	98.8
Sindhudurg	10/2002	10/2002	1,027	945	82	99.5
Thane	10/2002	10/2002	991	282	709	98.7
Wardha	07/2002	07/2002	1,033	727	306	99.6
Akola	05/2004	05/2004	1,043	653	390	99.8
Bhandara	04/2004	04/2004	1,072	748	324	99.9
Dhule	07/2004	07/2004	1,088	764	324	100.0
Gondiya	04/2004	04/2004	1,063	745	318	99.7
Hingoli	05/2004	06/2004	1,068	752	316	99.9
Jalna	06/2004	07/2004	1,096	772	324	99.7
Kolhapur	07/2004	08/2004	1,104	777	327	99.9
Latur	06/2004	06/2004	1,091	764	327	99.9
Mumbai	09/2004	09/2004	1,061	0	1,061	99.2
Mumbai (Suburban)	09/2004	09/2004	1,089	0	1,089	99.8
Nandurbar	07/2004	07/2004	1,098	777	321	99.8
Parbhani	05/2004	06/2004	1,065	722	343	99.7
Raigarh	08/2004	08/2004	1,109	778	331	100.0
Ratnagiri	08/2004	08/2004	1,091	761	330	100.0
Solapur	07/2004	07/2004	1,088	731	357	99.9
Washim	05/2004	05/2004	1,059	743	316	99.9
Yavatmal	05/2004	05/2004	1,017	715	302	99.3

Note: Table based on unweighted cases.

In the interviewed households, interviews were completed with 27,052 currently married women who are the usual member of the household or stayed night before the household interview and 16,357 husbands of eligible women were also interviewed (Table 1.2). The number of completed interviews per 100 identified eligible women and husbands in the households with completed interviews were 82 and 53 percent respectively. The variation in the women's response rate by district was highest in Wardha (90 percent) and lowest in Ahmadnagar and Sangli (73 percent each), similarly husband's response rate was found to be highest in Nandurbar (67 percent) and lowest in Thane (38 percent).

Table 1.2 NUMBER OF WOMEN AND HUSBANDS INTERVIEWED

Number of women and husbands interviewed by district, Maharashtra, 2002-04

State/District	Number of women interviewed			Response rate	Number of husbands interviewed			Response rate
	Total	Rural	Urban		Total	Rural	Urban	
State	27,052	17,194	9,858	82.2	16,357	11,007	5,350	52.8
Ahmadnagar	731	508	223	73.1	401	296	105	44.8
Amravati	768	501	267	85.0	465	330	135	54.7
Aurangabad	784	464	320	82.4	354	246	108	38.6
Bid	928	651	277	83.2	512	370	142	49.0
Buldana	850	571	279	87.9	521	362	159	58.5
Chandrapur	744	505	239	88.6	492	337	155	61.8
Gadchiroli	627	565	62	79.7	456	427	29	61.4
Jalgaon	758	519	239	82.1	367	276	91	42.8
Nagpur	684	261	423	83.7	391	176	215	50.2
Nanded	841	588	253	81.0	491	343	148	51.5
Nashik	765	446	319	82.7	396	251	145	44.0
Osmanabad	833	574	259	78.9	484	344	140	48.9
Pune	670	307	363	78.8	355	183	172	44.6
Sangli	721	489	232	72.9	357	247	110	38.5
Satara	732	511	221	76.1	403	278	125	44.9
Sindhudurg	614	563	51	78.5	373	345	28	50.5
Thane	735	228	507	83.7	325	105	220	38.1
Wardha	732	504	228	90.0	471	328	143	61.8
Akola	756	465	291	81.2	489	321	168	56.7
Bhandara	781	557	224	88.5	550	414	136	64.9
Dhule	817	552	265	83.6	537	379	158	56.9
Gondia	735	522	213	83.8	492	378	114	58.5
Hingoli	924	647	277	81.8	594	415	179	56.1
Jalna	966	674	292	84.7	692	502	190	64.6
Kolhapur	858	614	244	85.1	585	436	149	61.3
Latur	928	645	283	84.5	501	356	145	49.2
Mumbai	585	0	585	75.0	307	0	307	40.5
Mumbai (Suburban)	660	0	660	80.5	418	0	418	52.1
Nandurbar	889	643	246	86.9	656	490	166	66.7
Parbhani	902	595	307	82.1	550	389	161	53.9
Raigarh	648	433	215	78.0	450	314	136	56.2
Ratnagiri	649	421	228	83.7	402	263	139	55.2
Solapur	794	527	267	81.3	468	332	136	51.3
Washim	870	618	252	82.1	536	396	140	55.8
Yavatmal	773	526	247	84.9	516	378	138	61.7

Note: Table based on unweighted cases.

1.9 Basic Demographic Profile of the State

Before presenting the survey result, the basic demographic features of Maharashtra and its districts (as per census, 2001) are presented here.

The state of Maharashtra, located in the western part of the country with about 97 million population in 2001, is the second largest state in India in terms of population. The geographical location of the state is quite unique. The western part of Maharashtra is edged by the Arabian sea. In the east it is bordered by Chhatisgarh, in the north it has Madhya Pradesh and Gujarat states and Andhra Pradesh and Karnataka are situated in the southern part of the state. The state is consisted of 35 districts, 349 sub-districts (Blocks) and 43,722 villages. The urban areas of the state comprise 251 towns during 2001. Mumbai is the capital of the state, and it is also a commercial capital of India.

According to 2001 census the population of Maharashtra is 96.8 million out of which 50.3 millions are males and 46.4 millions are females. The rural and urban breakup of the population shows that 58 percent of the population was enumerated in rural areas and 42 percent in urban areas. Keeping pace with the national average, Maharashtra has recorded a sharp decline in the decadal growth rate from 25.7 percent in 1981-91 to 22.7 percent during 1991-2001. Among the districts, Thane with 54.9 percent has the highest decadal growth rate whereas Sindhudurg with 3.6 percent has the lowest decadal growth rate of total population during 1991-2001.

Table 1.3 BASIC DEMOGRAPHIC INDICATOR
Basic demographic indicator of India, state and districts, Census 2001

India/state/district	Population (in thousand)	Percentage urban	Percentage decadal growth rate[1]	Sex ratio[2]	Percentage literate 7+		
					Male	Female	Persons
India	**1,028,737**	**28.0**	**21.5**	**933**	**75.3**	**53.7**	**64.8**
Maharashtra	**96,878**	**42.4**	**22.7**	**922**	**86.0**	**67.0**	**76.9**
Ahmadnagar	4,088	19.9	21.20	941	86.21	64.88	75.82
Akola	1,629	38.5	20.51	938	89.22	73.82	81.77
Amravati	2,606	34.5	18.45	940	89.28	76.21	82.96
Aurangabad	2,921	37.5	31.93	919	85.07	61.28	73.63
Bhandara	1,136	15.5	11.20	982	89.11	68.11	78.68
Bid	2,160	17.9	18.54	927	80.69	55.38	68.48
Buldana	2,226	21.2	18.03	946	87.17	64.55	76.14
Chandrapur	2,078	32.1	17.26	961	83.19	62.56	73.07
Dhule	1,709	26.1	16.01	945	81.9	61.76	72.08
Gadchiroli	970	6.9	23.25	976	69.72	50.64	60.29
Gondia	1,200	11.9	10.49	1,005	89.54	67.89	78.65
Hingoli	987	15.6	19.76	953	81.11	51.96	66.86
Jalgaon	3,680	28.6	15.44	932	86.53	64.95	76.06
Jalna	1,612	19.1	18.17	952	79.17	49.25	64.52
Kolhapur	3,515	29.8	17.59	949	87.67	66.38	77.23
Latur	2,078	23.6	23.95	934	83.63	60.28	72.34
Mumbai	3,327	100.0	4.79	774	89.95	82.71	86.82
Mumbai (Suburban)	8,588	100.0	27.20	826	92.65	80.39	87.14
Nagpur	4,051	64.3	23.25	933	90.25	77.65	84.18
Nanded	2,868	24.0	23.08	943	81.14	55.12	68.52
Nandurbar	1,309	15.4	23.21	975	66.32	45.55	56.06
Nashik	4,988	38.8	29.51	924	85.19	64.16	75.1
Osmanabad	1,472	15.7	15.35	930	82.03	57.55	70.24
Parbhani	1,491	31.8	15.31	957	80.58	52.98	67.04
Pune	7,224	58.1	30.58	917	88.55	72.32	80.78
Raigarh	2,206	24.2	20.89	975	86.4	68.06	77.32
Ratnagiri	1,696	11.3	9.87	1,135	86.28	65.98	75.35
Sangli	2,582	24.5	16.85	957	86.25	66.88	76.7
Satara	2,797	14.2	14.10	995	88.45	68.71	78.52
Sindhudurg	862	9.5	3.55	1,077	90.21	71.67	80.52
Solapur	3,855	31.8	19.32	937	82.28	60.07	71.5
Thane	8,129	72.6	54.86	857	86.06	75	81
Wardha	1,231	26.3	15.30	936	87.7	72.8	80.5
Washim	1,020	17.5	18.25	939	86.01	61.32	74.03
Yavatmal	2,460	18.6	18.46	942	84.47	63.01	74.06

Note: Source: Primary Census Abstract, Series 20, Census of India, 2001. [1] 1991-2001, [2] Females per 1,000 males.

Percentage of both Scheduled Caste and Schedule Tribe population in total population of 2001 are 10.2 percent and 8.9 percent respectively. Highest proportion of Schedule Caste population has been recorded in Bhandara district (17.8 percent) and that of Schedule Tribe

in Nandurbar (65.5 percent) whereas Ratnagiri has the lowest proportion of Scheduled Caste (1.4 percent) and Kolhapur, Mumbai, and Sindhudurg has the lowest proportion of Scheduled Tribe (0.6 percent each). With a population density of 314 per sq. km., Maharashtra ranks 17th among the states and union territories in India and this figure is almost same with the all India density of 325 persons per square km. Among the districts, Mumbai has the highest density (48,215 person/sq. km.) and Gadchiroli has the lowest (67 person/sq. km).

The sex ratio of the total population in the state has declined since 1991 Census from 934 to 922 per 1000 males. Ratnagiri has recorded the highest sex ratio (1135) followed by Sindhudurg (1077) and Gondia (1005) while Mumbai has the lowest sex ratio (774) within the state.

The literacy rate in the state has improved from 65 percent in 1991 to 77 percent in 2001 and it is higher than the national average of 65 percent. Among the districts, Mumbai has the highest literacy rate of 87 percent and Nandurbar has the lowest literacy rate of 56 percent. The male literacy for the state is 86 percent and the female literacy rate is 67 percent. Both the rates have increased from 1991 census to 2001 census.

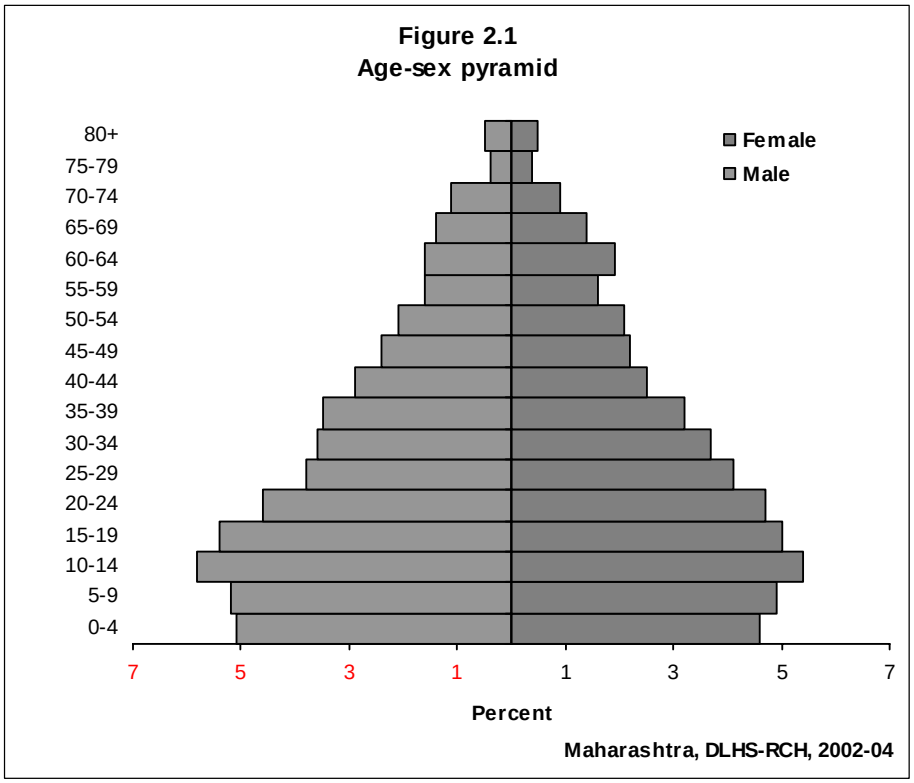
CHAPTER II

BACKGROUND CHARACTERISTICS OF HOUSEHOLD

This chapter provides a socio-economic and demographic profile of households interviewed in the District Level Household Survey-Reproductive and Child Health. Facilities and services such as Health, Education and Communication available in the representative sampled village are also presented here. The *de facto* procedure of enumeration is adopted in order to include every individual staying in the sampled Primary Sampling Units (PSU), either a village or an urban area, the night before the survey. The objective of adopting the *de facto* method is to avoid duplication of persons who are in transit.

2.1 Age–Sex Structure

The age-sex distribution of sampled household population classified by residence is presented in Table 2.1. The percent distribution is based on sampled *de facto* population of 180,027 persons of whom 64 percent lived in the rural areas of Maharashtra. The state of Maharashtra depicts a young and growing population with 31 percent below the age of 15 years (Figure 2.1). There are more children below 15 years recorded in rural areas (32 percent) compared to those in urban areas (28 percent).



The overall sex ratio of 104 males per 100 females is recorded for the *de facto* population. The sex ratio is more skewed, 107 in favour of males in urban areas compared to 103 in rural areas.

Table 2.1 HOUSEHOLD POPULATION BY AGE AND SEX

Percent distribution of the household population by age and by residence and sex, Maharashtra, 2002-04

Age	Total			Rural			Urban		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
< 1	1.9	1.9	1.8	2.0	2.1	1.9	1.6	1.6	1.7
1-4	7.8	8.1	7.6	8.3	8.7	7.9	6.9	7.0	6.9
5-9	10.1	10.1	10.1	10.6	10.6	10.6	9.2	9.2	9.1
10-14	11.2	11.4	11.0	11.5	11.7	11.2	10.7	10.8	10.5
15-19	10.4	10.5	10.3	10.4	10.4	10.3	10.5	10.6	10.3
20-24	9.3	9.1	9.5	8.7	8.3	9.0	10.4	10.3	10.4
25-29	7.9	7.5	8.3	7.4	7.1	7.8	8.8	8.3	9.2
30-34	7.3	7.1	7.5	6.9	6.6	7.2	8.0	7.9	8.0
35-39	6.7	6.8	6.5	6.4	6.6	6.1	7.3	7.3	7.3
40-44	5.4	5.7	5.1	5.0	5.3	4.8	6.1	6.3	5.8
45-49	4.6	4.7	4.5	4.4	4.5	4.4	4.9	5.0	4.9
50-54	4.2	4.1	4.3	4.0	3.8	4.2	4.6	4.8	4.4
55-59	3.2	3.2	3.2	3.2	3.1	3.3	3.2	3.2	3.1
60-64	3.5	3.2	3.8	3.9	3.6	4.3	2.8	2.7	3.0
65-69	2.8	2.7	2.9	3.1	3.1	3.2	2.3	2.1	2.4
70-74	2.0	2.2	1.8	2.3	2.6	2.0	1.5	1.5	1.5
75-79	0.8	0.8	0.7	0.8	0.9	0.8	0.7	0.7	0.7
80+	1.0	0.9	1.0	1.1	1.1	1.0	0.7	0.7	0.8
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of persons	1,80,027	91,871	88,155	1,15,121	58,340	56,781	64,906	33,530	31,374
Sex ratio[1]	104	NA	NA	103	NA	NA	107	NA	NA

Note: Table is based on the *de facto* population, i.e. persons who stayed in the household the night before the interview (including both usual resident and visitors).
NA: Not applicable. [1] Male per 100 females.

2.2 Household Characteristics

The percent distribution of 36,429 households surveyed in the state of Maharashtra by selected characteristics of the household head and the number of usual household members are shown in Table 2.2. This is based on *de jure*, the usual resident population. More than 90 percent of household heads are male invariant of place of resident while only nine percent are female-headed households. About 69 percent of household heads are in the 30-59 years age group. The median age of household heads is 47 years for the state as a whole, which is more or less the same in rural (47 years) and urban areas (46 years). Eight percent of household heads are younger than 30 years and 24 percent are at least 60 years old or above. Majority of the household heads are Hindu (82 percent), nine percent are Muslim, and seven percent belongs to Buddhist religion. Hindus constitute a higher proportion of population in rural areas (88 percent) than in urban areas (71 percent). Only 17 percent of the urban households are Muslim, but in rural areas it is much lower at four percent.

Fourteen percent of the households in Maharashtra belong to schedule caste, 17 percent to schedule tribe, 27 percent to other backward classes while 41 percent of the households are headed by other castes not under schedule caste, schedule tribe and other backward classes. The proportion of schedule caste, schedule tribe or other backward class is more in rural areas (15, 23, and 30 percent respectively) than urban areas (14, 7, and 22 percent respectively). The overall state average household size is 4.9 persons. The rural-urban differential in average household size is 5.0 in rural areas and 4.8 in urban areas.

Table 2.2 HOUSEHOLD CHARACTERISTICS

Percent distribution of the household head by selected characteristics of the household head and household size, according to residence, Maharashtra, 2002-04

Characteristic	Total	Residence	
		Rural	Urban
Sex of the household head			
Male	91.4	92.0	90.3
Female	8.6	8.0	9.7
Age of the household head			
< 30	7.7	7.8	7.5
30-44	37.6	36.7	39.2
45-59	30.9	29.3	33.5
60+	23.9	26.2	19.8
Median age of the household head	46.7	47.1	46.1
Religion of the household head			
Hindu	81.8	87.8	71.2
Muslim	8.5	3.9	16.6
Christian	1.1	0.2	2.7
Sikh	0.3	0.0	0.8
Buddhist	7.1	7.6	6.2
Jain	1.0	0.4	2.2
Zoroastrian	0.0	0.0	0.1
Other	0.2	0.1	0.3
Caste/tribe of the household head			
Scheduled caste	14.3	14.7	13.8
Scheduled tribe	17.2	22.9	7.4
Other backward class	26.8	29.7	21.7
Other #	40.9	32.1	56.1
Don't know	0.8	0.6	1.0
Number of usual members			
1	2.8	3.1	2.2
2	8.4	8.9	7.4
3	11.3	10.0	13.4
4	20.9	18.5	25.0
5	21.7	21.9	21.3
6	14.7	15.7	12.9
7	8.4	9.2	7.1
8	4.6	5.0	3.7
9+	7.3	7.6	6.9
Mean household size	4.9	5.0	4.8
Total percent	100.0	100.0	100.0
Number of households	36,429	23,111	13,318

Note: Table is based on the *de jure* population
Higher caste (Not belonging to a scheduled caste, a scheduled tribe and an other backward class)

2.3 Educational Level

The educational background of household population in Maharashtra presented in this section is based on *de facto* household population. Level of literacy and years of schooling, according to age, sex and residence are shown in Table 2.3.

Table 2.3 EDUCATIONAL LEVEL OF THE HOUSEHOLD POPULATION

Percent distribution of household population age 7 and above by literacy level and years of schooling, according to age , residence and sex, Maharashtra, 2002-04

Age	Non-literate	Literate but no schooling	Years of schooling 1-5	6-8	9-10	11 or more	Missing	Total Percent	Number of persons
					Total				
					Male				
7-9	11.6	0.2	87.4	0.4	0.0	0.0	0.3	100.0	5,666
10-14	4.4	0.1	42.4	47.8	5.0	0.0	0.3	100.0	10,477
15-19	6.0	0.0	8.2	22.1	39.3	24.3	0.0	100.0	9,654
20-29	9.1	0.1	8.8	14.0	28.3	39.8	0.0	100.0	15,231
30-39	18.1	0.2	13.9	14.0	25.2	28.7	0.0	100.0	12,773
40-49	23.0	0.2	17.9	15.1	23.1	20.6	0.0	100.0	9,486
50+	37.5	0.4	21.9	12.9	14.4	12.8	0.0	100.0	15,803
Total	17.1	0.2	23.3	18.4	20.6	20.3	0.1	100.0	79,091
					Female				
7-9	12.1	0.3	86.9	0.5	0.0	0.0	0.2	100.0	5,459
10-14	6.1	0.0	40.2	47.6	5.7	0.0	0.2	100.0	9,671
15-19	11.4	0.0	8.5	23.5	35.9	20.7	0.0	100.0	9,081
20-29	25.8	0.1	10.5	17.5	22.7	23.4	0.0	100.0	15,696
30-39	43.2	0.2	14.1	16.4	14.0	12.2	0.0	100.0	12,351
40-49	50.1	0.1	15.8	14.4	10.5	9.1	0.0	100.0	8,537
50+	74.8	0.3	10.3	6.3	4.6	3.7	0.0	100.0	15,645
Total	36.2	0.1	20.6	18.0	14.0	11.0	0.0	100.0	76,439
					Total				
7-9	11.9	0.3	87.2	0.5	0.0	0.0	0.2	100.0	11,125
10-14	5.2	0.1	41.4	47.7	5.3	0.0	0.3	100.0	20,148
15-19	8.6	0.0	8.4	22.8	37.7	22.5	0.0	100.0	18,735
20-29	17.6	0.1	9.7	15.8	25.4	31.5	0.0	100.0	30,927
30-39	30.4	0.2	14.0	15.2	19.7	20.6	0.0	100.0	25,124
40-49	35.8	0.1	16.9	14.8	17.2	15.2	0.0	100.0	18,023
50+	56.1	0.4	16.1	9.6	9.5	8.3	0.0	100.0	31,448
Total	26.5	0.2	22.0	18.2	17.4	15.7	0.1	100.0	1,55,530

Note: Table is based on *de facto* population.

Contd.

Table 2.3 indicates that, about 27 percent of the population aged seven and above are illiterate. The proportion of illiterates is 36 percent for females compared to 17 percent for males. The proportion of illiterates is much higher among the older cohorts compared to the younger ones. For both males and females, going by expected trend, the level of literacy is higher in the younger population than in the older age groups with the exception of the youngest age group of 7-9 years (Figure 2.2).

Table 2.3 EDUCATIONAL LEVEL OF THE HOUSEHOLD POPULATION

Percent distribution of household population age 7 and above by literacy level and years of schooling, according to age , residence and sex, Maharashtra, 2002-04

Age	Non-literate	Literate but no schooling	Years of schooling 1-5	6-8	9-10	11 or more	Missing	Total Percent	Number of persons
					RURAL				
					Male				
7-9	14.1	0.3	84.8	0.5	0.0	0.0	0.3	100.0	3,790
10-14	5.4	0.0	43.7	46.4	4.2	0.0	0.2	100.0	6,849
15-19	7.4	0.0	9.1	22.6	39.6	21.3	0.0	100.0	6,092
20-29	12.2	0.0	10.4	14.1	29.0	34.2	0.0	100.0	8,969
30-39	24.7	0.2	17.4	14.7	22.7	20.3	0.0	100.0	7,667
40-49	31.1	0.2	22.1	16.4	19.1	11.1	0.0	100.0	5,698
50+	48.4	0.4	24.6	12.5	9.2	4.8	0.0	100.0	10,587
Total	22.6	0.2	26.0	18.6	18.3	14.2	0.1	100.0	49,650
					Female				
7-9	14.4	0.3	84.8	0.3	0.0	0.0	0.2	100.0	3,640
10-14	8.2	0.0	43.2	44.3	4.1	0.0	0.1	100.0	6,384
15-19	14.9	0.0	10.7	24.8	35.5	14.1	0.0	100.0	5,843
20-29	34.4	0.1	12.8	18.6	20.9	13.2	0.0	100.0	9,545
30-39	56.5	0.1	15.5	15.4	8.7	3.9	0.0	100.0	7,551
40-49	64.3	0.1	16.2	12.9	4.8	1.7	0.0	100.0	5,179
50+	87.1	0.1	8.1	3.5	0.8	0.4	0.0	100.0	10,657
Total	45.2	0.1	21.6	16.9	10.9	5.1	0.0	100.0	48,798
					Total				
7-9	14.2	0.3	84.8	0.4	0.0	0.0	0.3	100.0	7,430
10-14	6.8	0.0	43.4	45.4	4.2	0.0	0.2	100.0	13,232
15-19	11.1	0.0	9.8	23.7	37.6	17.7	0.0	100.0	11,935
20-29	23.7	0.1	11.7	16.4	24.8	23.4	0.0	100.0	18,514
30-39	40.5	0.1	16.5	15.0	15.7	12.2	0.0	100.0	15,218
40-49	46.9	0.2	19.3	14.7	12.3	6.7	0.0	100.0	10,876
50+	67.8	0.3	16.3	8.0	5.0	2.6	0.0	100.0	21,243
Total	33.8	0.1	23.8	17.8	14.6	9.7	0.0	100.0	98,449

Contd.

About 87 percent of males as well females in this age group had 1-5 years of schooling. About 23 percent of males have had education for 1-5 years. Females are also not far behind compared to their male counterparts in this category with a corresponding share of 21 percent. Lesser proportion of females are found in higher education of 9-10 years (14 percent) and 11 or more years (11 percent) compared to the males having corresponding figures of 21 percent and 20 percent respectively. A very few of males and females are found to be literate without any formal schooling.

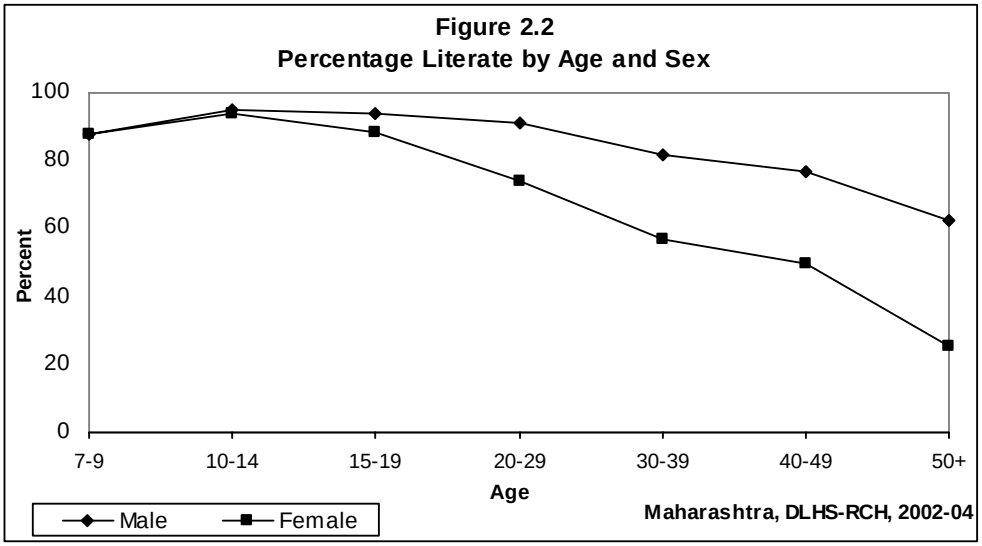


Table 2.3 EDUCATIONAL LEVEL OF THE HOUSEHOLD POPULATION

Percent distribution of household population age 7 and above by literacy level and years of schooling, according to age , residence and sex, Maharashtra, 2002-04

Age	Non-literate	Literate but no schooling	Years of schooling 1-5	6-8	9-10	11 or more	Missing	Total Percent	Number of persons
					URBAN				
					Male				
7-9	6.6	0.2	92.8	0.2	0.0	0.0	0.2	100.0	1,876
10-14	2.4	0.2	40.0	50.4	6.4	0.0	0.6	100.0	3,629
15-19	3.6	0.0	6.8	21.2	38.9	29.5	0.0	100.0	3,562
20-29	4.5	0.1	6.5	13.8	27.3	47.8	0.0	100.0	6,262
30-39	8.2	0.3	8.5	12.9	28.9	41.2	0.0	100.0	5,106
40-49	10.8	0.2	11.7	13.2	29.2	34.8	0.0	100.0	3,789
50+	15.5	0.5	16.4	13.5	25.2	28.9	0.0	100.0	5,217
Total	7.7	0.2	18.9	18.1	24.5	30.5	0.1	100.0	29,441
					Female				
7-9	7.7	0.2	91.1	0.8	0.0	0.0	0.2	100.0	1,819
10-14	2.1	0.1	34.6	54.2	8.8	0.0	0.2	100.0	3,287
15-19	5.1	0.0	4.7	21.1	36.6	32.5	0.0	100.0	3,238
20-29	12.4	0.0	7.0	16.0	25.4	39.3	0.0	100.0	6,151
30-39	22.3	0.3	11.8	18.1	22.4	25.2	0.0	100.0	4,799
40-49	28.3	0.0	15.1	16.8	19.3	20.5	0.0	100.0	3,358
50+	48.7	0.5	15.0	12.2	12.7	10.9	0.0	100.0	4,988
Total	20.2	0.2	18.8	19.9	19.5	21.4	0.0	100.0	27,641
					Total				
7-9	7.2	0.2	91.9	0.5	0.0	0.0	0.2	100.0	3,695
10-14	2.3	0.1	37.4	52.2	7.6	0.0	0.4	100.0	6,916
15-19	4.3	0.0	5.8	21.2	37.8	30.9	0.0	100.0	6,800
20-29	8.4	0.1	6.7	14.9	26.4	43.6	0.0	100.0	12,413
30-39	15.0	0.3	10.1	15.4	25.8	33.4	0.0	100.0	9,906
40-49	19.0	0.1	13.3	14.9	24.6	28.1	0.0	100.0	7,147
50+	31.7	0.5	15.7	12.9	19.1	20.1	0.0	100.0	10,205
Total	13.7	0.2	18.9	19.0	22.1	26.1	0.1	100.0	57,081

An examination of the educational attainment by place of residence revealed that the urban-rural differential was quite pronounced. In urban areas, only 14 percent of the total population is illiterate in comparison with 34 percent of the rural population. The number of illiterate females that live in rural areas of Maharashtra accruing a share as high as 45 percent, while illiterate rural males is only 23 percent. Prevalence of illiterate is much less in urban areas with figures of 20 percent and eight percent non-literate females and males respectively. A contrasting feature of rural-urban difference in educational level is that in rural areas majority of people had 1-5 years of schooling (24 percent), and those who had 11 or more years of schooling was just 10 percent, whereas in urban areas 26 percent of people had 11 or more years of schooling.

2.4 Marital Status of the Household Population

The DLHS, collected information on the marital status of all household members aged 10 years and above. Table 2.4 shows the percent distribution of household population by marital status distribution of *de facto* household population by age and sex. One-fourth of females in the age group 15-19 years, followed by 74 percent in the age group 20-24 years, and 90 percent in the age group 25-29 years, are currently married. The proportion of never married is 33 percent in the state, and it is higher for males (40 percent) than for females (27 percent).

The proportion of never married among males declines with increasing age and reaches lower by the time they are in the age group 30-44 years. But in the case of females, this stage comes early by the age group 25-29 years. The proportions of divorced, separated or widowed is eight percent in the state and limited to the older ages. More than half (57 percent) of women aged 60 years or above are widowed /divorced /separated compared to only 14 percent of men. Among the *de facto* population aged 10 years and above, 58 percent of males and 60 percent of females are currently married.

Table 2.4 MARITAL STATUS OF THE HOUSEHOLD POPULATION

Percent distribution of the household population aged 10 years and above by marital status, according to age and sex , Maharashtra, 2002-04

	Marital status					
Age	Never married	Currently married	Married, g*auna* not performed	Widowed/ divorced/ Separated	Total Percent	Number of persons
			Male			
10-14	99.0	0.8	0.1	0.1	100.0	10,477
15-19	98.4	1.5	0.1	0.0	100.0	9,654
20-24	77.2	21.9	0.3	0.6	100.0	8,314
25-29	29.8	68.9	0.1	1.2	100.0	6,917
30-44	3.6	94.9	0.1	1.4	100.0	17,986
45-59	0.7	96.4	0.0	2.9	100.0	10,974
60+	0.8	85.5	0.1	13.6	100.0	9,102
Total	39.7	57.5	0.1	2.7	100.0	73,425
			Female			
10-14	98.9	0.9	0.1	0.1	100.0	9,671
15-19	74.1	24.8	0.3	0.8	100.0	9,081
20-24	23.4	74.4	0.1	2.1	100.0	8,381
25-29	6.0	89.9	0.3	3.8	100.0	7,315
30-44	1.5	89.4	0.2	8.9	100.0	16,881
45-59	0.8	81.4	0.3	17.5	100.0	10,624
60+	0.4	41.9	0.3	57.4	100.0	9,027
Total	26.9	60.1	0.2	12.8	100.0	70,980
			Total			
10-14	98.9	0.8	0.1	0.1	100.0	20,148
15-19	86.6	12.8	0.2	0.4	100.0	18,735
20-24	50.2	48.2	0.2	1.4	100.0	16,695
25-29	17.6	79.7	0.2	2.5	100.0	14,232
30-44	2.6	92.2	0.2	5.0	100.0	34,868
45-59	0.7	89.0	0.2	10.1	100.0	21,598
60+	0.6	63.8	0.2	35.4	100.0	18,130
Total	33.4	58.8	0.2	7.6	100.0	1,44,405

Note: Table is based on *de facto* population

2.5 Marriage

Marriage in the household is an important event that reflects the socio-cultural practices of the communities surveyed in DLHS. This section outlines the marriages ceremonies during the three years period prior to the survey. Mean age at marriage by sex and percentage of total marriages which are below legal age at marriage, 21 years for boys and 18 years for girls by resident at the state and at district levels are shown in Table 2.5.

Mean age at marriage for boys and girls in Maharashtra are 25 years and 19 years respectively. The corresponding figures in rural areas are 24 years and 19 years and in urban areas are 26 years and 21 years respectively. On the whole, as far as Maharashtra is concerned, both boys and girls seem to oblige the legal age marriage, the average age at marriage being 25 years for boys and 19 years for girls. However, 12 percent of boys and 21

percent girls got married below the corresponding specified legal age at marriage. The proportion is much higher in the rural areas compared to the urban areas of the state.

When it comes to district level variation in mean age at marriage, it is highest in Bhandara, Sindhudurg and Wardha, about 27 years for boys and for girls it is highest (22 years) in Mumbai, Mumbai (suburban), and Sindhudurg. The mean age at marriage for boys is found to be above the legal age at marriage in all the districts whereas in case of girls, in the districts of Bid, Hingoli, Jalna, Latur, and Parbhani, it is below the legal age at marriage.

Table 2.5 MARRIAGE

Mean age at marriage and percentage of marriages below legal at marriage by sex and by districts, Maharashtra, 2002-04

Place of residence/ District	Mean age at marriage		Percentage of marriage below legal age at marriage	
	Boy	Girl	Boy (<21)	Girl (<18)
State – Total	24.6	19.1	12.4	21.1
State – Rural	24.0	18.5	14.9	24.3
State – Urban	25.6	20.6	7.4	13.3
District				
Ahmadnagar	24.5	18.4	8.7	35.8
Akola	25.1	20.1	8.4	13.6
Amravati	26.2	20.4	6.2	8.2
Aurangabad	23.5	18.3	19.8	31.5
Bhandara	26.5	20.4	1.7	2.0
Bid	22.6	17.8	27.1	41.3
Buldana	24.4	18.9	12.9	21.1
Chandrapur	25.9	20.3	2.3	4.1
Dhule	24.4	18.6	14.3	29.5
Gadchiroli	23.1	18.9	23.3	19.2
Gondiya	25.8	21.4	4.6	2.6
Hingoli	23.1	17.5	20.1	43.4
Jalgaon	23.5	18.7	13.6	15.8
Jalna	23.2	17.5	18.9	51.1
Kolhapur	24.7	19.0	6.8	13.6
Latur	24.0	17.8	15.4	40.3
Mumbai	25.5	22.1	7.5	1.4
Mumbai (Suburban)	26.1	21.8	9.4	6.8
Nagpur	26.4	21.2	4.4	6.2
Nanded	24.2	18.1	13.9	26.4
Nandurbar	22.9	18.6	29.6	30.6
Nashik	23.3	18.4	24.0	25.8
Osmanabad	24.5	18.5	10.5	27.2
Parbhani	22.7	17.3	28.0	48.9
Pune	24.2	19.3	11.4	17.5
Raigarh	25.2	20.4	4.5	6.3
Ratnagiri	26.2	21.3	2.5	4.2
Sangli	25.1	18.6	7.1	16.5
Satara	25.4	19.4	5.1	8.1
Sindhudurg	26.5	22.1	3.9	2.4
Solapur	24.6	18.5	12.9	33.8
Thane	25.5	20.0	7.8	15.3
Wardha	26.6	20.2	6.7	5.4
Washim	24.5	18.8	12.4	19.8
Yavatmal	25.2	19.3	4.9	12.8

Note: Table based on *de jure* population.
Reference period: - January 1st, 1999 to survey date for phase-1, and January 1st, 2001 to survey date for phase-2.

It is also found that, the percentage of girls who were married below the legal age at marriage was the highest in Jalna (51 percent) and the lowest in Mumbai (1 percent). In six

out of 35 districts more than 35 percent of the girls were marrying below the legal age at marriage (see Map-1). In the case of boys, marriages below the legal age at marriage are the highest in Nandurbar district (30 percent) and lowest in Bhandara and Chandrapur (2 percent each).

2.6 Morbidity Rates

The DLHS-RCH has collected information on the morbidity status relating to blindness, tuberculosis and malaria of the *de jure* members of the household. Table 2.6 provides prevalence rates.

Table 2.6 MORBIDITY RATES
Prevalence of blindness, tuberculosis, and malaria, according to place of residence, Maharashtra, 2002-04.

Morbidity	Total	Residence	
		Rural	Urban
Prevalence rate of blindness			
Male			
Partial	7,277	7,900	6,170
Complete	253	315	143
Night blindness	172	225	79
Female			
Partial	9,684	10,456	8,272
Complete	307	381	172
Night blindness	195	255	85
Persons			
Partial	8,449	9,152	7,184
Complete	279	347	157
Night blindness	183	240	81
Prevalence rate of tuberculosis			
Male	235	274	166
Female	200	216	169
Person	218	246	167
Prevalence rate of malaria[1]			
Male	1,241	1,553	698
Female	1,397	1,737	782
Person	1,317	1,643	740

Note: All the rates refer to *de jure* population. Prevalence rate per 100, 000 population
Reference period: - January 1st, 1999 to survey date for phase-1, and January 1st, 2001 to survey date for phase-2.
[1] Last two weeks prior to the survey

Partial, Complete and Night Blindness

The overall prevalence of partial blindness is 8,449 per 100,000 population in the state and is higher in rural areas (9,152 per 100,000) than in urban areas (7,184 per 100,000). It is more among females (9,684 per 100,000) than males (7,277 per 100,000). The prevalence of complete blindness is 279 per 100,000 population with a rural-urban differential of 347 in rural against 157 per 100,000 in urban areas. Sex differential is also observed in complete blindness. The prevalence of night blindness due to vitamin A deficiency is 183 per 100,000 population, and is much higher in rural areas (240) than in urban areas (81).

Tuberculosis

The prevalence of tuberculosis is 218 per 100,000 population, with rural areas having a higher prevalence of 246 compared to 167 per 100,000 in urban areas. The prevalence of TB is more among males (235 per 100,000) than among females (200 per 100,000).

Malaria

In the DLHS-RCH, household respondents were asked to state whether any member of their household suffered from malaria (characterized by recurrent fever with shivering) any time during the two weeks prior the survey. In the state of Maharashtra, 1,317 persons per 100,000 population were reported to have suffered from malaria. Rural residents are more than two times more likely to suffer from malaria (1,643 per 100,000) than urban residents (740 per 100,000). The reported prevalence of malaria is higher for females than for males.

2.7 Morbidity Rates by Districts

Table 2.7 shows the prevalence of blindness, tuberculosis and malaria in the districts of Maharashtra. The prevalence of partial blindness varies considerably among the districts the lowest being 1,405 per 100,000 in Mumbai (Suburban) and the highest, 18,977 per 100,000 in Wardha.

Table 2.7 MORBIDITY RATES BY DISTRICTS
Prevalence of blindness, tuberculosis, and malaria, by district, Maharashtra, 2002-04

District	Prevalence[1] of morbidity			
	Partial blindness	Complete blindness	Tuberculosis	Malaria[2]
Ahmadnagar	5,938	759	171	1,500
Akola	6,496	220	238	854
Amravati	15,076	504	430	2,361
Aurangabad	14,577	315	185	1,996
Bhandara	8,295	318	278	1,383
Bid	7,932	240	360	2,028
Buldana	15,341	150	357	1,073
Chandrapur	13,417	256	384	1,787
Dhule	6,471	104	224	1,050
Gadchiroli	9,093	760	514	1,793
Gondiya	3,676	194	311	1,365
Hingoli	6,603	199	165	1,112
Jalgaon	16,685	149	93	2,690
Jalna	5,314	289	187	1,658
Kolhapur	3,605	134	95	2,356
Latur	6,624	295	186	1,138
Mumbai	1,601	39	135	352
Mumbai (Suburban)	1,405	114	152	234
Nagpur	11,305	365	263	841
Nanded	13,166	223	257	2,079
Nandurbar	2,954	71	265	1,821
Nashik	13,151	202	129	1,336
Osmanabad	7,194	508	203	921
Parbhani	5,413	623	294	1,477
Pune	5,296	412	217	816
Raigarh	3,786	116	155	1,001
Ratnagiri	5,972	214	43	2,099
Sangli	7,133	116	96	745
Satara	6,152	341	208	878
Sindhudurg	12,182	492	164	321
Solapur	6,977	89	71	878
Thane	11,918	108	303	572
Wardha	18,977	449	257	1,483
Washim	5,045	209	348	1,595
Yavatmal	7,064	242	121	1,923
Maharashtra	8,449	279	218	1,317

Note: All the rates refer to *de jure* population. [1] Prevalence rate per 100, 000 population. Reference period: - January 1st, 1999 to survey date for phase-1, and January 1st, 2001 to survey date for phase-2. [2] Last two weeks prior to the survey

The prevalence rate of complete blindness ranges from 39 per 100,000 in Mumbai to 759 per 100,000 in Ahmadnagar. Inter-district variations are also substantial for tuberculosis and malaria.

The prevalence rate of tuberculosis is the highest in Gadchiroli district (514 per 100,000 population) and it is lowest in Ratnagiri (43 per 100,000). In the case of malaria, the prevalence rate is highest in Jalgaon (2,690 per 100,000) and lowest in Mumbai (Suburban) (234 per 100,000).

2.8 Housing Characteristics

This section describes the availability of basic amenities in the state. Table 2.8 presents the percent distribution of households by selected housing characteristics. About 84 percent of the households in Maharashtra have electricity connection and it is higher in urban areas (97 percent) than in rural areas (76 percent).

As regards household source of drinking water 63 percent of the households get drinking water through taps, while 19 percent drink water from hand pumps/ bore-wells, and 16 percent drink water from uncovered wells. About 93 percent of households in urban areas get piped water for drinking, whereas in rural areas only 45 percent of the households have such provision.

When it comes to sanitation facility, only 26 percent of the households have flush toilets, while four percent have pit based toilets or latrines, 12 percent depend on shared toilets or public / community toilet and 58 percent of the households have no toilet facility at all. There is a large rural-urban difference; 84 percent of rural households have no toilet facility, compared to just 14 percent of urban households.

DLHS-RCH has also collected data on type of fuel used in the households for cooking. Thirty-six percent of the households used liquid petroleum/gas or electricity for cooking in Maharashtra. More than half (55 percent) of households rely on woods, and eight percent on kerosene. The use of liquid petroleum gas/electricity for cooking is reported more in urban areas (74 percent), and use of firewood for cooking are reported more in rural areas (81 percent).

There is considerable variation in the quality of housing. On the basis of building material, type of floor, walls and roof, households are categorised to have been living into *kachcha*, semi-*pucca* and *pucca* houses. About 31 percent of the households are living in *kachcha* houses, 45 percent in semi *pucca* houses and 24 percent in *pucca* houses. Nearly half of urban households live in *pucca* houses compared to only 10 percent of rural households.

The possession of consumer durable goods is an indication of a household's socio-economic status. Table 2.8 shows that majority of the households in the state own an electric fan (62 percent), television (51 percent), bicycles (35 percent) and radio/transistor (33 percent).

Table 2.8 HOUSING CHARACTERISTICS

Percent distribution of the household by housing characteristics and percentage of households owing selected durable goods, according to residence, Maharashtra, 2002-04

Housing characteristic	Total	Residence	
		Rural	Urban
Electricity			
Yes	83.6	76.0	96.9
No	16.4	24.0	3.1
Source of drinking water			
Tap inside	39.1	19.9	72.5
Tap shared public	23.5	25.3	20.2
Hand pump/ bore well	18.6	26.5	5.1
Well covered	0.8	1.1	0.2
Well uncovered	16.3	24.8	1.5
River	0.4	0.7	0.0
Pond	0.0	0.1	0.0
Spring	0.4	0.6	0.0
Other	0.8	1.0	0.5
Sanitation facility			
Own flush toilet	26.4	10.2	54.5
Own pit toilet / latrine	3.7	3.6	3.8
Shared toilet of any type	1.7	0.7	3.4
Public / community toilet	9.9	1.5	24.6
No toilet facility	58.3	84.0	13.6
Main type of fuel used for cooking			
Liquid petroleum gas/ electricity	36.2	14.5	73.8
Kerosene	7.5	3.6	14.4
Wood	55.4	81.1	10.8
Other	0.9	0.8	0.9
Type of house			
Kachcha	30.5	42.3	10.0
Semi - *pucca*	45.4	48.1	40.7
Pucca	24.1	9.5	49.3
Household assets			
Fan	61.5	44.2	91.6
Radio/transistor	33.1	24.0	49.0
Sewing machine	17.5	9.8	30.7
Television	50.8	33.9	80.1
Telephone	19.8	9.2	38.3
Bicycle	35.1	33.1	38.5
Motor cycle/ scooter	15.5	9.4	26.2
Car / Jeep	2.5	0.8	5.5
Tractor	0.9	1.2	0.3
Standard of living index			
Low	41.1	60.4	7.6
Medium	32.4	30.1	36.2
High	26.5	9.4	56.2
Number of households	36,429	23,111	13,318

Other durable goods found in the surveyed households are telephone (20 percent), sewing machine (18 percent), and motorcycle or scooter (16 percent). Car/jeep and tractor are owned by three and one percent of households respectively in Maharashtra. Ownership of all these items except tractor is more among the urban households than among the rural households.

Considering household amenities, such as, source of drinking water, type of house, source of lighting, fuel for cooking, toilet facility and ownership of durable goods a composite measure, standard of living index (SLI) is made for classification of households. The standard of living index is calculated by adding the following scores;

Source of drinking water: 3 for Tap (own), 2 for Tap (shared), 1 for hand pump and well, and 0 for other;

Type of house: 4 for *pucca*, 2 for semi-*pucca*, and 0 for *kachcha*;

Source of lighting: 2 for electricity, 1 for kerosene, and 0 for other;

Fuel for cooking: 2 for LPG gas/electricity, 1 for kerosene and 0 for other;

Toilet facility: 4 for own flush toilet, 2 for own pit toilet, 2 for shared toilet and 0 for no toilet;

Ownership for items: 4 each for car and tractor, 3 each for television, telephone and motorcycle/scooter, and 2 each for fan, radio/transistor, sewing machine and bicycle.

The total of the scores may vary from the lowest of a 0 to maximum of 40. On the basis of total score, households are divided into three categories as;

a) Low – if total score is less than or equal to 9,
b) Medium – if total score is greater than 9 but less than or equal to 19 and
c) High – if total score is greater than 19.

As per the standard of living index, 41 percent of the households come under the low standard of living category, 32 percent of households to medium standard of living, and 27 percent of the households to high standard of living.

The proportion of sample households with high standard of living is comparatively higher in urban areas (56 percent) than in rural areas (9 percent), and the proportion of households with a low standard of living is much higher in rural households (60 percent) than in urban households (8 percent) in the state of Maharashtra.

2.9 Housing Characteristics by Districts

The 35 districts in Maharashtra are not uniform in terms of basic amenities and possession of consumer durables. Table 2.9 presents an inter-district comparison of housing characteristics. Gadchiroli is the only district in Maharashtra which has electricity in 41 percent of the households, while in the remaining district more than 70 percent of the household are electrified. On the other hand the households with electricity is highest in both Mumbai and Mumbai (suburban), where almost all the households have electricity. More than two-third of the households used piped water or water from a hand pump for drinking in most districts except for Jalna (62 percent), Raigarh (60 percent), Sindhudurg (29 percent), Washim (65 percent) and Yavatmal (61 percent).

Largely the districts in Maharashtra, except Mumbai and Mumbai (Suburban) have inadequate toilet facility. In 28 out of 35 districts, less than half of the households have toilet facilities and it is least in Gadchiroli district (12 percent).

In Mumbai the percentage of households using liquid petroleum gas/electricity for cooking is about 84 percent and in the rest of the districts, it is relatively low ranging between 7 to 64 percent. The percentage of households living in *pucca* houses is quite low in most of

the districts of Maharashtra. In 30 of the 35 districts, less than 30 percent of the households live in *pucca* houses. Mumbai and Thane are the only districts where more than half of the households live in *pucca* houses.

Table 2.9 HOUSING CHARACTERISTICS BY DISTRICT
Selected housing characteristics by district, Maharashtra, 2002-04

Districts	Percentage of households: With electricity	With drinking water[1]	With toilet facility	Using Liquid petroleum gas/ electricity	Living in *pucca* house
Ahmadnagar	74.5	69.7	29.5	36.1	25.2
Akola	82.5	86.5	44.7	29.1	23.7
Amravati	73.9	89.1	40.4	25.1	21.3
Aurangabad	82.8	89.6	37.1	33.2	29.4
Bhandara	82.8	82.4	46.4	29.1	29.0
Bid	84.6	85.8	18.0	17.7	15.8
Buldana	77.0	72.7	24.7	21.7	18.2
Chandrapur	73.9	68.8	35.5	30.1	25.4
Dhule	87.6	96.9	20.8	30.4	11.5
Gadchiroli	40.7	66.8	12.2	6.5	6.5
Gondiya	73.0	70.9	38.8	20.8	17.2
Hingoli	86.6	76.6	17.1	13.7	8.8
Jalgaon	84.1	96.1	30.7	32.4	23.9
Jalna	89.2	61.7	17.0	16.9	8.1
Kolhapur	92.4	93.3	52.1	41.1	19.0
Latur	86.4	83.4	22.0	15.9	16.3
Mumbai	99.7	99.9	98.0	83.8	55.2
Mumbai (Suburban)	99.3	99.9	98.6	84.5	46.5
Nagpur	90.6	92.2	67.8	52.0	41.2
Nanded	74.6	88.0	27.6	16.9	14.0
Nandurbar	81.1	88.2	28.6	28.1	12.3
Nashik	72.5	73.8	32.0	35.0	17.0
Osmanabad	73.5	92.7	19.5	14.5	19.5
Parbhani	83.3	81.5	25.8	21.1	19.7
Pune	89.8	91.2	61.5	55.7	35.4
Raigarh	86.6	60.0	44.2	39.3	17.2
Ratnagiri	92.2	63.4	50.1	37.2	18.6
Sangli	91.5	84.9	40.6	31.4	21.4
Satara	87.7	92.5	34.7	42.6	23.0
Sindhudurg	93.9	29.0	37.5	18.7	8.7
Solapur	79.2	87.5	28.1	32.6	12.2
Thane	95.5	88.6	75.9	64.1	53.7
Wardha	82.4	74.5	34.6	28.3	18.5
Washim	86.6	65.0	34.3	24.5	19.8
Yavatmal	73.7	60.7	26.6	22.2	15.1
Maharashtra	83.6	82.0	41.7	36.2	24.1

Note [1] That is piped or from a hand pump/bore well/well covered

2.10 Iodization of Salt

Consumption of salt fortified with iodine is recommended to avoid miscarriages, brain disorders, cretinism and retarded psychomotor development. As per the Prevention of Food Adulteration Act, 1988, the minimum iodine content of edible salt is 30 parts per million (PPM) at the manufacturing level.

In the DLHS-RCH survey, each interviewer was provided with a test kit to measure the level of iodine content of salt consumed by the surveyed households. The test results (Table 2.10) are classified by degree of ionization of salt and categorised by background characteristics. It is observed that a less than half (47 percent) of households used salt that

contained a minimum recommended 15 ppm or higher level of iodine content whereas 43 percent of households used salt that is not iodized at all and another nine percent used salt, which was inadequately iodized.

Percentage of households using non-iodized salt in rural areas (57 percent) is almost three times higher compared to that in urban areas (19 percent). In rural areas, 11 percent of households against seven percent in urban areas used inadequately iodized salt. Number of households using non-iodized or inadequately iodized salt is closely associated with the educational level of the household head. Nearly three-fourths of households headed by persons who had more than 10 years of schooling reported the use of adequately iodized salts compared to only 27 percent in case of non-literate. Consumption of adequately iodised salt among households of other caste is 60 percent, followed by other backward class households (44 percent) and scheduled caste (42 percent), and only 26 percent among the households of scheduled tribe.

Table 2.10 IODIZATION OF SALT

Percent distribution of household heads by degree of Iodization of salt, according to selected background characteristics, Maharashtra, 2002-04

Background characteristic	Not Iodised	7ppm	15+ppm	Other[1]	Total percent	Number of households
Place of Residence						
Rural	56.7	10.5	31.4	1.4	100.0	23,111
Urban	18.5	6.5	74.0	1.1	100.0	13,318
Education of the household heads						
Non-literate	59.8	11.3	27.3	1.7	100.0	11,230
0-9@ years	46.3	9.7	42.9	1.2	100.0	14,894
10 and above	19.0	5.7	74.3	1.0	100.0	10,305
Religion of household head						
Hindu	43.8	9.0	45.9	1.3	100.0	29,782
Muslim	37.5	9.1	52.4	1.0	100.0	3,108
Christian	18.9	3.9	76.9	0.3	100.0	404
Sikh	8.3	6.4	82.0	3.3	100.0	109
Buddhist	47.8	11.4	39.4	1.4	100.0	2,573
Jain	9.1	3.3	86.1	1.5	100.0	372
Other	18.0	3.1	78.8	0.0	100.0	80
Caste/tribe of the household head#						
Scheduled caste	45.7	11.1	41.9	1.4	100.0	5,227
Scheduled tribe	63.0	9.5	25.9	1.6	100.0	6,281
Other backward class	44.6	9.7	44.1	1.6	100.0	9,753
Other	31.8	7.7	59.5	1.0	100.0	14,895
Standard of living index						
Low	66.3	11.1	20.9	1.7	100.0	14,972
Medium	38.6	9.6	50.6	1.3	100.0	11,788
High	11.3	5.1	82.9	0.7	100.0	9,669
Total	42.7	9.0	46.9	1.3	100.0	36,429

Note: PPM: Parts per million
@ Literate persons with no years of schooling are also included. # Total number of cases may not add upto N due to do not know and missing cases. [1] Includes salt not at home, salt not tested, refused and missing cases.

Differential in the consumption of properly iodized salt is more pronounced when analysed by religion of the household head and standard of living index. Percentage of households using adequately iodized salt is only 39 percent among Buddhist households, whereas the corresponding figures for Hindu, Muslim and other religions households are 46 percent, 52 percent and more than 75 percent respectively. Again, households with low standard of living are more likely to use non-iodized or inadequately iodized salt compared to households with medium or high standard of living index. Two-third of households with low

standard of living used non-iodized salt whereas only 11 percent households with a high standard of living fall in this category. The number of households with a high standard of living using adequately iodized salt is almost four times of those with a low standard of living.

2.11 Iodization of Salt by Districts

Table 2.11 shows district level variation in the percent distribution of households by level of iodization of salt used in the households. Mumbai (Suburban) has the lowest proportion of households (8 percent) using non-iodized salt, whereas Amravati has the highest proportion of households (77 percent) using non-iodized salt. Percentage of households using inadequately iodized salt is the highest in Gadchiroli (29 percent) and the lowest in Nashik (3 percent). About 47 percent of the households in the state used adequately iodized salt, the highest being in the district of Mumbai (Suburban) (88 percent). Less than 30 percent of the households in Amravati (17 percent), Gadchiroli and Nanded (29 percent each), Nandurbar (27 percent), Washim and Yavatmal (24 percent each) were using adequately iodized salt (see Map-2).

Table 2.11 IDOIZATION OF SALT BY DISTRICT

Percent distribution of household heads by degree of iodization of salt by district, Maharashtra, 2002-04

District	Not iodized	7ppm	15+ppm	Other[1]
Ahmadnagar	41.4	6.5	51.7	0.4
Akola	48.1	6.8	43.8	1.3
Amravati	76.7	5.8	17.0	0.5
Aurangabad	31.4	9.1	56.9	2.5
Bhandara	46.5	12.3	40.0	1.2
Bid	55.8	4.3	38.8	1.1
Buldana	36.8	11.4	51.1	0.7
Chandrapur	45.2	13.5	37.8	3.5
Dhule	52.2	7.4	39.8	0.6
Gadchiroli	40.5	28.7	28.8	2.0
Gondiya	43.1	21.0	35.5	0.4
Hingoli	54.5	10.2	34.3	1.0
Jalgaon	30.1	5.4	62.2	2.3
Jalna	31.5	13.5	54.1	0.9
Kolhapur	50.5	5.0	43.2	1.2
Latur	53.2	15.1	30.2	1.6
Mumbai	13.2	4.1	81.9	0.9
Mumbai (Suburban)	8.1	3.5	88.1	0.3
Nagpur	45.1	20.5	34.1	0.3
Nanded	48.5	19.3	29.4	2.8
Nandurbar	67.6	4.4	26.7	1.4
Nashik	55.6	2.6	38.7	3.0
Osmanabad	60.3	6.8	32.0	0.9
Parbhani	62.2	6.5	30.3	1.0
Pune	19.3	10.0	70.0	0.7
Raigarh	58.7	7.9	32.5	0.9
Ratnagiri	40.4	8.5	50.7	0.5
Sangli	36.5	13.0	49.7	0.8
Satara	34.5	6.1	57.6	1.8
Sindhudurg	49.0	5.0	43.6	2.4
Solapur	47.1	15.4	36.5	1.1
Thane	24.0	4.5	69.9	1.7
Wardha	51.1	12.2	34.8	1.9
Washim	65.8	9.2	23.5	1.5
Yavatmal	67.0	7.9	24.2	0.9
Maharashtra	42.7	9.0	46.9	1.3

Note: PPM: Parts per million. [1] Includes salt not at home, salt not tested, refused and missing cases

2.12 Availability of Facility and Services to the Rural Population

The DLHS-RCH collected information about surveyed village from knowledgeable persons such as, the '*Sarpanch*' or '*Pradhan*', (village head) or other village officials or other persons including 'teacher' in the villages on health and educational facilities and other services available in the village. One important aspect was on the distance of the village, from various types of education facilities, including primary school, middle school, secondary school, higher secondary school, college, *Gurujee* scheme and '*Madarsa*'. Further information on the distance of the village, from various types of health facility, including sub-centres, primary health centres (PHCs), community health centres/Rural Hospitals (CHCs/RHs), Government dispensary, hospital, private clinic or hospitals and health facilities of Indian system of Medicine (ISM).

Table 2.12 gives the distance of surveyed villages from an education facility. The unit of analysis is usual residents of rural population. Almost all the rural residents (99 percent) (the *de jure* rural population) in the state live in villages that have a primary school, 73 percent live in villages with middle school and 45 percent of the rural population live in villages with secondary schools. Higher secondary schools are available for 15 percent of the rural population. About 12 percent each of the rural population live in villages, which have *Madarassas and Gurujee Scheme*. Only three percent of the surveyed villages have a college. As regards the distribution of educational institutions within 5 kilometres distance from of the village, it can be seen that, 17 percent of the villages have middle school, 30 percent have secondary school, 22 percent have higher secondary school and nine percent have a college within this distance. For 65 percent of the villages, the college is more than 10 kilometres away and higher secondary school is available at this distance for 38 percent of the villages.

Table 2.12 DISTANCE FROM THE NEAREST EDUCATION FACILITY

Percent distribution of rural household population by distance from the nearest education facility, Maharashtra, 2002-04

Education facility	Within village	Distance from the village: < 5 km	5-9 km	10+ km	Don't know/ missing	Total percent
Primary School	99.2	0.6	0.2	0.0	0.0	100.0
Middle School	73.3	17.2	5.9	2.7	0.8	100.0
Secondary School	44.5	30.1	14.0	9.6	1.7	100.0
Higher Secondary School	15.3	21.6	24.1	37.6	1.5	100.0
College	3.3	8.7	20.0	65.4	2.5	100.0
Gurujee Scheme	11.6	6.9	1.5	2.2	77.9	100.0
Madarsa	11.9	12.0	6.2	25.9	43.9	100.0

Note: Table based on rural *de jure* population

Table 2.13 summarises the availability of health facilities within the surveyed villages and provides information on the distance between the villages and the nearest health facility. About 38 percent of the rural population live in villages with Sub-centres. Only 14 percent of the rural household population live in a village with a primary health centre, though the proportion of villages having facilities of either Sub-centre or primary health centre is 44 percent. The proportion of rural population with other government health facilities is less than five percent. About 41 percent of the villages have private clinics, eight percent have private hospitals and six percent have Indian System of Medicine.

The proportion of rural population located within a distance of 5-9 kilometres from health facilities are 18 percent for sub-centres, 31 percent for primary health centres, 15 percent for CHCs/RHs., 14 percent for a Government dispensary, eight percent for Government hospitals, 15 percent for private clinic, 19 percent for private hospitals and 10

percent for ISM health facilities. For more than 60 percent the government dispensary (65 percent), CHC/RH (72 percent) and government hospitals (74 percent), is beyond 10 kilometres from surveyed villages.

Table 2.13 DISTANCE FROM THE NEAREST HEALTH FACILITY
Percent distribution of rural household population by distance from the nearest health facility, Maharashtra, 2002-04

Health facility	Within village	Distance from the village: < 5 km	5-9 km	10+ km	Don't know/ missing	Total percent
		Rural household population				
Sub-centre	38.1	29.7	17.9	11.6	2.7	100.0
Primary health centre	14.0	21.7	30.6	31.3	2.5	100.0
Either sub-centre or PHC	44.4	29.6	16.3	8.5	1.2	100.0
Community health centre/ Referral hospital	3.1	6.9	14.5	72.0	3.5	100.0
Government dispensary	3.5	8.0	13.6	64.9	10.0	100.0
Government hospital	1.9	3.0	7.7	73.8	13.7	100.0
Private clinic	40.7	19.7	15.0	22.2	2.4	100.0
Private hospital	7.6	9.6	19.0	59.7	4.1	100.0
ISM health facility	6.3	7.3	9.9	59.4	17.0	100.0

Note: Table based on rural de jure population

Table 2.14 shows the proportion of rural residents in the state that live in the villages with various health services. Almost all (98 percent) of rural residents live in villages that have an *anganwadi*, (a nursery school for children age 3-6 years) and at the same time 93 percent of rural households live in villages with *anganwadi* workers (*Anganwadi* workers provide integrated child development services) are available.

More than half (55 percent) of the rural residents live in villages that have a private doctor, 47 percent live in villages with a visiting doctor, 11 percent with a homeopathy doctor, 11 percent with a village health guide, 46 percent with a trained birth attendant and six percent with a traditional healer. Little less than two-thirds of the rural residents live in villages that have a *Dai* (*Dai* provides the services for the delivery).

Table 2.14 AVAILABILITY OF SERVICES
Percentage of rural residents living in villages that have selected services, Maharashtra, 2002-04

Services	Percentage of rural residents
Anganwadi centre	98.1
Anganwadi worker	92.8
Private doctor	54.8
Visiting doctor	47.1
Homeopathic doctor	11.3
Village health guide	11.3
Trained birth attendant	46.1
Traditional healer	6.4
Dai	62.0

Note: Table based on rural *de jure* population

2.13 Availability of Education Facility and Health Services by Districts

Table 2.15 shows the availability of education and health facilities for the rural population within the surveyed villages by districts in Maharashtra. Except in the districts of Amravati, Gadchiroli, Raigarh, Sangli, Sindhudurg and Yavatmal all the rural population have access to primary schools. About 38 percent of the rural population in the state have sub-centres within the village, with the highest coverage of 60 percent in Sangli and the lowest of 14 percent of the population in Akola.

In Thane district, no PHC was found in the surveyed villages. Highest availability of PHCs within the village is found in Dhule (32 percent). In none of the districts all the households in the rural area have access to at least one government health facility including sub-centre, primary health centre, community health centre or referral hospital, government hospital and government dispensary within the village.

Table 2.15 AVAILABILITY OF FACILITY AND SERVICES BY DISTRICT

Selected facility and services of rural household population within village by district, Maharashtra, 2002-04

	Percentage of rural household population with:						
Districts	Primary or middle school	Sub-centre	PHCs	Any govern-ment health facility[1]	Doctor[2]	TBA[3]	Angan-wadi worker
Ahmadnagar	100.0	46.7	13.6	49.7	83.9	45.3	57.7
Akola	100.0	13.7	27.0	40.7	73.7	40.9	91.2
Amravati	96.6	36.5	8.1	51.3	82.3	60.7	100.0
Aurangabad	100.0	50.5	5.7	58.7	62.1	34.1	100.0
Bhandara	100.0	40.4	13.4	47.7	85.1	77.9	95.8
Bid	100.0	42.5	9.3	43.8	71.9	36.5	83.1
Buldana	100.0	33.5	15.6	37.2	81.4	42.3	89.2
Chandrapur	100.0	37.3	7.3	50.2	77.3	44.1	100.0
Dhule	100.0	32.0	32.2	59.2	93.2	54.2	100.0
Gadchiroli	88.9	53.0	23.2	63.9	60.8	36.2	85.9
Gondiya	100.0	35.6	7.0	35.6	73.1	70.5	100.0
Hingoli	100.0	41.8	14.5	41.8	86.3	36.5	95.7
Jalgaon	100.0	42.9	10.3	45.0	100.0	57.8	100.0
Jalna	100.0	39.0	16.1	39.0	72.7	52.5	90.1
Kolhapur	100.0	38.8	8.1	50.1	80.0	59.0	97.6
Latur	100.0	29.7	20.5	45.9	51.7	47.8	96.7
Nagpur	100.0	38.3	18.3	48.3	66.9	35.1	100.0
Nanded	100.0	30.3	8.8	39.3	58.8	30.6	91.6
Nandurbar	100.0	38.8	24.0	42.7	71.3	44.7	97.1
Nashik	100.0	37.1	4.3	37.1	66.0	34.3	100.0
Osmanabad	100.0	45.1	25.3	57.8	73.3	59.9	92.6
Parbhani	100.0	28.0	13.2	36.5	59.5	19.2	97.4
Pune	100.0	40.6	25.7	52.7	69.9	70.3	100.0
Raigarh	91.2	20.4	13.4	33.8	37.5	40.6	91.7
Ratnagiri	100.0	39.5	31.2	56.1	57.0	38.4	100.0
Sangli	99.3	59.5	10.5	62.0	89.9	46.9	96.5
Satara	100.0	38.9	15.8	46.8	80.6	30.8	90.3
Sindhudurg	93.9	55.5	28.0	63.5	75.2	75.5	57.5
Solapur	100.0	50.5	19.5	56.1	84.6	41.2	96.3
Thane	100.0	17.5	0.0	25.9	51.7	51.7	100.0
Wardha	100.0	42.8	5.7	44.5	90.5	48.0	84.6
Washim	100.0	19.2	9.9	28.1	72.0	48.0	100.0
Yavatmal	95.0	24.8	9.4	34.2	60.8	36.3	91.1
Maharashtra	99.2	38.1	14.0	46.1	73.1	46.1	92.8

Note: [1] Includes sub-center, primary health center, community health center or referral hospital, government hospital, and government dispensary within the village [2] Either private or visiting doctor [3]Trained birth attendant

All the rural population are visited either by private or by visiting doctors in the surveyed villages of Jalgaon district, whereas less than 60 percent of households fall in this category in Latur, Nanded, Parbhani, Raigarh, Ratnagiri, and Thane districts. Highest numbers of rural population (78 percent) are attended by trained birth assistants in Bhandara, while only 19 percent of rural population, availed themselves of such a provision in Parbhani. Availability of *anganwadi* workers in all the surveyed villages is reported in the districts of Amravati, Aurangabad, Chandrapur, Dhule, Gondia, Jalgaon, Nagpur, Nashik, Pune, Ratnagiri, Thane and Washim.

CHAPTER III

CHARACTERISTICS OF WOMEN, HUSBANDS AND FERTILITY

The Reproductive and Child Health (RCH) programme is targeted towards the underprivileged section of the population, particularly, women and children. The utilization of RCH services provided across the country depends to a large extent on the characteristics of women, their husbands and episodes of pregnancies, miscarriages, abortions, number of children born to them and survival status of children. Age of women, marital duration, educational attainment, social background and living standard are important factors, which influence reproductive and child health. With this in view, the DLHS-RCH data were collected on demographic characteristics, such as current age, age at consummation of marriage and number of pregnancies, live births and surviving children from eligible women respondents of selected representative households. Information regarding household background characteristics was collected using a separate household questionnaire that covered religion and caste of head of household, type of house, source of drinking water and possession of consumer durables. Fertility preference of women in terms of timing and desire for additional children in comparison to the number of living children provides information on the need for reproductive and child health services.

This chapter provides a comprehensive outline of distribution of currently married women by present age, age at consummation of marriage, duration of marriage, complete years of schooling, pregnancy episodes, children ever born and children surviving, along with social and economic characteristics of households the women represent.

3.1 Background Characteristics of Women

The percent distribution of currently married women in the reproductive age group 15-44 years by residence, religion and caste of head of household, economic standard of household and other demographic characteristics are shown in Table 3.1. A sample of 27,053 eligible women represents the state of Maharashtra in DLHS-RCH and nearly two-third of these women are drawn from rural areas. About 63 percent of the currently married women are in the age group of 20-34 years and an equal proportion is observed both for urban and rural areas. Age at consummation of marriage, particularly in rural areas is found to be very low with as many as 64 percent of the women having cohabited before 18 years of age, while it is 38 percent in urban areas. Looking at the distribution of marital duration it is noted that 38 percent of the women across the state are married for more than 15 years.

Among the sample of 27,053 women in Maharashtra, Hindus and Muslims constitute 82 percent and nine percent respectively. About seven percent of women belong to Buddhist. More, Hindu women are found in rural areas (88 percent) than in urban areas (70 percent). About 14 percent of the women belong to scheduled castes, 17 percent to scheduled tribes and 27 percent to other backward classes. Majority of the sample women (41 percent) belong to a general caste other than scheduled caste/tribe and other backward class. In rural areas, there are more women belonging to scheduled tribe and other backward classes than in urban areas, while more women from other castes are found in urban areas. There is a clear rural-urban differential in the educational attainment of women. For the state of Maharashtra, 35 percent of women are non-literate and women of this literacy category constitute 45 percent in rural areas, while it is just 18 percent in urban areas.

Table 3.1 BACKGROUND CHARACTERISTICS OF ELIGIBLE WOMEN

Percent distribution of currently married women aged 15-44 by selected background characteristics, according to residence, Maharashtra, 2002-04

Background characteristic	Total	Residence	
		Rural	Urban
Age group			
15-19	8.5	10.6	4.8
20-24	21.7	23.9	17.9
25-29	21.3	20.6	22.5
30-34	20.2	18.8	22.7
35-39	16.2	15.1	18.1
40-44	12.1	11.1	13.9
Age at consummation of marriage			
Below 18 years	54.1	63.5	37.8
18 years & above	45.9	36.5	62.2
Marital duration			
0-4	21.9	22.3	21.2
5-9	20.7	20.5	21.0
10-14	19.3	18.8	20.2
15+	38.1	38.4	37.6
Religion			
Hindu	81.8	88.3	70.3
Muslim	9.4	4.3	18.3
Christian	0.8	0.2	1.8
Sikh	0.3	0.0	0.7
Buddhist	6.5	6.7	6.2
Jain	1.0	0.3	2.2
Other	0.2	0.1	0.4
Caste/tribe			
Scheduled caste	14.0	13.8	14.4
Scheduled tribe	17.4	23.1	7.5
Other backward class	27.3	29.9	22.7
Other #	40.6	32.7	54.4
Don't know	0.7	0.6	1.0
Education (Years of schooling)			
Non-literate	35.0	44.6	18.2
0-9@ years	42.7	42.7	42.5
10 years & above	22.3	12.6	39.2
Husband's education (Years of schooling)			
Non-literate	18.7	24.6	8.4
0-9@ years	42.9	46.5	36.6
10 years & above	38.0	28.4	54.7
Don't know	0.4	0.4	0.3
Standard of living index			
Low	36.7	54.5	5.7
Medium	34.9	33.3	37.7
High	28.4	12.2	56.5
Number of women	27,053	17,194	9,859

Note: # Not belonging to a scheduled caste, scheduled tribe and another backward class. @ Literate persons with no year of schooling are included. Total includes 2 cases missing information on women education were not separately shown.

More than two-fifths (43 percent) of women across the state have completed 0-9 years of schooling. Only a, 13 percent of rural women have completed 10 or more years of schooling compared to 39 percent for urban women. Men are more literate than their spouses. In Maharashtra, 19 percent of the husbands of eligible women are non-literate and the corresponding figures are 25 percent in rural areas and eight percent in urban areas. The DLHS-RCH, includes data on materials used for floor, walls and roofs of the housing structure along with status of possession of a list of durables and these are utilized to construct a composite index of household standard of living. Households are further classified as those with low, medium and high standard of living. Majority (37 percent) of women in the state live in low standard of living households and this is 55 percent in rural

areas and six percent in urban areas. In urban areas, 57 percent of women belong to high standard of living households and the corresponding figure is just 12 percent in rural areas.

3.2 Educational Level of Women

Table 3.2 provides details of educational level of eligible women in terms of classification by years of schooling, and selected background characteristics, such as, place of residence, religion, and caste and husbands' education. As regards distribution of non-literate women, it is observed that a lesser proportion of younger women below 30 years of age are non-literate compared to older women above 30 years. This age divide remains true even among literate women. A distinct pattern of educational attainment of women is that maximum of them attended schooling either for 6-8 years or 9-10 years and not many had 11 or more years of schooling. For the women in the age group 15-19 years, 25 percent and 26 percent of them had 6-8 years and 9-10 years of schooling, while only eight percent had 11 or more years of schooling. Among the elderly women in the age group 40-44 years, distribution by year of schooling is more or less uniform with 16 percent, 16 percent, 13 percent and 11 percent of them having attended school for 1-5, 6-8, 9-10 and 11 or more years of schooling.

Table 3.2 LEVEL OF EDUCATION OF ELIGIBLE WOMEN

Percent distribution of currently married women aged 15-44 by years of schooling, according to selected background characteristics, Maharashtra, 2002-04

			Years of schooling						
Background characteristic	Non-literate	Literate but no schooling	1-5 years	6-8 years	9-10 years	11 or more years	Missing	Total percent	Number of women
Age group									
15-19	26.9	0.0	13.1	25.4	26.3	8.3	0.0	100.0	2,292
20-24	27.8	0.0	11.0	19.9	25.8	15.4	0.0	100.0	5,879
25-29	29.8	0.0	11.5	18.5	21.3	18.9	0.0	100.0	5,754
30-34	38.3	0.1	14.5	17.5	16.6	13.0	0.0	100.0	5,470
35-39	45.6	0.1	14.2	16.0	13.1	10.9	0.0	100.0	4,377
40-44	42.9	0.1	16.4	16.4	12.9	11.3	0.0	100.0	3,281
Place of residence									
Rural	44.6	0.1	14.4	17.7	16.0	7.2	0.0	100.0	17,194
Urban	18.2	0.0	11.1	19.9	25.3	25.5	0.0	100.0	9,859
Religion									
Hindu	36.3	0.1	12.7	17.9	19.1	13.9	0.0	100.0	22,117
Muslim	29.2	0.0	14.7	25.5	20.2	10.4	0.0	100.0	2,542
Christian	18.3	0.0	13.0	18.4	26.3	24.0	0.0	100.0	208
Sikh	5.2	0.0	18.1	38.0	8.8	29.8	0.0	100.0	75
Buddhist	35.0	0.1	17.0	15.8	20.1	12.0	0.0	100.0	1,770
Jain	5.4	0.0	4.7	13.6	30.7	45.6	0.0	100.0	279
Other	22.0	0.0	29.0	14.4	30.7	3.8	0.0	100.0	61
Caste/tribe #									
Scheduled caste	40.5	0.2	14.8	16.1	18.0	10.3	0.1	100.0	3,790
Scheduled tribe	62.9	0.1	11.8	11.2	9.6	4.5	0.0	100.0	4,703
Other backward class	29.8	0.0	14.7	19.9	21.7	13.9	0.0	100.0	7,385
Other	24.7	0.0	12.2	21.3	22.6	19.2	0.0	100.0	10,982
Husband's education									
Non-literate	79.9	0.1	8.6	7.4	3.6	0.4	0.0	100.0	5,071
Literate but no schooling	(83.3)	(2.8)	(8.3)	(5.6)	(0.0)	(0.0)	(0.0)	(100.0)	40
1-5 years	51.6	0.1	21.9	16.5	8.6	1.3	0.0	100.0	3,980
6-8 years	35.5	0.1	21.3	25.6	14.8	2.7	0.0	100.0	4,048
9-10 years	20.0	0.1	13.9	27.3	29.7	8.9	0.0	100.0	6,940
11 or more years	6.7	0.0	6.0	14.9	29.9	42.6	0.0	100.0	6,870
Total	35.0	0.1	13.2	18.5	19.4	13.8	0.0	100.0	27,053

Note: # Total number may not add upto N due to don't know and missing cases. Table includes 244 missing / do not know cases on husband's education were not shown separately. ( ) Based on less than 50 unweighted cases.

There is a substantial rural-urban differential in the level of education of women in Maharashtra. About 45 percent of rural eligible women are non-literate and 14 percent, 18 percent, 16 percent and seven percent of the women have 1-5, 6-8, 9-10 and 11 or more years of schooling. The corresponding figures in urban areas are 18 percent non-literate and 11 percent, 20 percent, 25 percent and 26 percent respectively. More Hindu and Buddhist women (35-36 percent) are non-literate compared to Muslim women (29 percent), Christian women (18 percent) and women belonging to other religious communities (22 percent). In case of each Sikh and Jain women only five percent of them are non-literate. For literate eligible women from all religious communities (except Jain), maximum of them have either 6-8 or 9-10 years of schooling.

The uneven level of educational attainment by caste can be noted from the recorded proportion of non-literate women among scheduled caste (41 percent), scheduled tribe (63 percent), other backward class (30 percent) and other caste or tribe (25 percent). The literate women belonging to different castes are concentrated more in the range of 9-10 years of schooling. The husband's education is an important characteristic, which has strong association with the education of eligible women. As many as 80 percent of women whose husbands are non-literate are also non-literate, while only seven percent of women whose husbands have 11 or more or years of schooling are non-literate. Forty-three percent of literate women educated for 11 or more years of schooling have husbands who have the same level of education.

3.3 Background Characteristics of Husbands of Eligible Women

In DLHS-RCH husbands of eligible women were also interviewed. The response rate for husbands is relatively low compared to that of eligible women. Selected background characteristics of husbands are shown in Table 3.3. Across the state of Maharashtra, majority of husbands are in the age group 35-44 years. One-fifth of husbands are 45 years or older. In Maharashtra, 83 percent of the husbands are Hindus, nine percent are Muslims and seven percent are Buddhist. About 19 percent of husbands in the state belong to the scheduled tribe and it is little more in rural areas (24 percent) than in urban areas (8 percent). Nearly two-fifth of the husbands belong to castes other than scheduled caste, scheduled tribe and other backward classes. In urban areas husbands from other castes constitute 53 percent, while it is 31 percent in rural areas. As regards educational characteristics of the husbands of surveyed eligible women, 47 percent of them have completed 0-9 years of schooling and the proportion of non-literate husband ranges from nine percent in urban areas to 25 percent in rural areas, while the overall state figure is 20 percent.

The proportion of husbands living in households classified as low, medium and high standard of living index are 40 percent, 34 percent and 26 percent respectively. In rural areas, majority (56 percent) of the husbands live in low standard of living households compared to only six percent in urban areas. This is complementary in the case of husbands living in high standard of living households, 58 percent in urban and 11 percent in rural areas. In terms of household standard of living composition, those living in high standard of living dominate in urban areas. Around 29 percent of husbands across the state reported to have two living children. More husbands in urban areas (34 percent) reported to have two living children, while more husbands in rural areas (29 percent) have three living children. Half of the husbands of rural eligible women have at least three living children and it is 36 percent for husbands of urban eligible women.

Table 3.3 BACKGROUND CHARACTERISTICS OF MEN

Percent distribution of husband of eligible women by selected background characteristics, according to residence, Maharashtra, 2002-04

Background characteristic	Total	Residence	
		Rural	Urban
Age group			
< 25	6.7	8.0	4.2
25-34	36.3	36.6	35.6
35-44	37.4	36.2	40.0
45 +	19.5	19.2	20.2
Religion			
Hindu	82.7	88.4	70.9
Muslim	8.6	4.1	18.0
Christian	0.7	0.2	1.7
Sikh	0.2	0.0	0.7
Buddhist	6.6	6.7	6.5
Jain	0.9	0.4	1.9
Other	0.2	0.2	0.3
Caste/tribe			
Scheduled caste	14.4	14.1	14.9
Scheduled tribe	18.6	24.0	7.6
Other backward class	27.6	29.7	23.5
Other #	38.5	31.4	52.9
Don't know	0.9	0.8	1.0
Education (Years of schooling)			
Non-literate	19.8	25.1	8.7
0-9@ years	46.8	51.2	38.1
10 years & above	33.4	23.7	53.2
Standard of living index			
Low	39.6	56.1	5.6
Medium	34.1	32.7	36.9
High	26.3	11.2	57.5
Number of living children			
0	10.7	10.9	10.1
1	15.3	13.1	19.9
2	28.5	26.1	33.6
3	26.2	29.0	20.4
4+	19.3	20.9	16.0
Number of Men	16,357	11,007	5,350

Note: # Not belonging to a scheduled caste, scheduled tribe and another backward class.
@ Literate persons with no year of schooling are included.

3.4 Educational Level of Husbands of Eligible Women

Educational levels in categories of years of schooling classified by age, place of residence, religion and caste/tribe of husbands of eligible women are shown in Table 3.4. The proportion of non-literate husbands is marginally more for husbands above 45 years (23 percent) and 35-44 years of age (22 percent) compared to 19 and 16 percent for husbands in the age groups of below 25 years and 25-34 years respectively. Among the literate husbands, irrespective of their age at the time of survey majority of them have 9-10 years of schooling, 27 percent of those below 25 years and 22 percent of those above 45 years of age. As in the case of eligible women, majority (53 percent) of husbands from Jain religion have 11 or more years of schooling compared to 35 percent of Christian husband and 18 to 23 percent of husband from Hindu, Muslim and Buddhist religions. Educational attainment of husbands of eligible women varies according to the caste/tribe they belong. There are more non-literate husbands belonging to scheduled tribes (40 percent) followed by scheduled caste husbands (21 percent). Among the scheduled caste and scheduled tribe husbands, 20 percent and 12 percent of them have 11 or more years of schooling. The literacy level of other backward

classes is comparable with that of husbands from castes other than scheduled tribe, scheduled caste and other backward classes. Among the husbands belonging to other backward classes, 15 percent of them are non-literate and 22 percent of them have 11 or more years of schooling.

Table 3.4 LEVEL OF EDUCATION OF MEN

Percent distribution of husbands of eligible women by years of schooling, according to selected background characteristics, Maharashtra, 2002-04

Background characteristic	Non-literate	Literate but no schooling	Years of schooling: 1-5 years	6-8 years	9-10 years	11 or more years	Missing	Total percent	Number of men
Age group									
< 25	19.4	0.0	15.2	21.3	27.2	16.9	0.0	100.0	1,104
25-34	15.7	0.1	13.0	14.8	28.4	27.9	0.0	100.0	5,937
35-44	21.9	0.1	17.7	15.0	24.8	20.5	0.0	100.0	6,125
45 +	23.1	0.0	21.0	16.2	21.9	17.7	0.0	100.0	3,192
Place of residence									
Rural	25.1	0.1	19.6	16.0	23.3	15.9	0.0	100.0	11,007
Urban	8.7	0.0	10.1	14.7	30.7	35.8	0.0	100.0	5,350
Religion									
Hindu	20.3	0.0	16.2	15.1	25.8	22.5	0.0	100.0	13,528
Muslim	19.1	0.0	20.0	18.4	24.6	17.9	0.0	100.0	1,413
Christian	10.5	0.0	13.0	11.2	30.2	35.2	0.0	100.0	111
Buddhist	17.1	0.1	17.6	18.0	25.4	21.8	0.0	100.0	1,086
Jain	2.7	0.0	3.0	10.2	31.1	52.9	0.0	100.0	141
Other	12.0	0.0	16.5	39.8	18.5	13.1	0.0	100.0	80
Caste/tribe #									
Scheduled caste	21.3	0.1	18.0	17.3	23.9	19.5	0.0	100.0	2,354
Scheduled tribe	39.6	0.1	19.6	11.8	16.6	12.2	0.0	100.0	3,049
Other backward class	15.0	0.0	17.8	16.9	28.7	21.5	0.0	100.0	4,521
Other	12.7	0.0	13.5	16.0	28.6	29.3	0.0	100.0	6,294
Total	19.8	0.1	16.5	15.6	25.7	22.4	0.0	100.0	16,357

Note: # Total number may not add upto N due to don't know and missing cases

3.5 Children Ever Born and Surviving

In DLHS-RCH, currently married women in the age group of 15-44 years were asked about the children ever born alive and the number of children surviving. Table 3.5 shows mean children ever born and mean surviving children by selected background characteristics and sex of children. A look at the mean number of children ever born by age of the women reveals that older women had experienced more average live births than younger women. On the average, women in the reproductive age group have given birth to more male children than female children and similarly sex differential is also noted when it comes to mean surviving children. Completed fertility, that is, mean children ever born to women in the age group 40-44 years is 3.5 for the state of Maharashtra and it comprises of an average of 1.8 male children and 1.7 female children. Out of the 3.5 mean children ever born to women in the 40-44 year age group, an average of 3.2 children survived. By sex of children, out of 1.8 mean numbers of males, 1.7 survived on the average and the corresponding mean number of females surviving was 1.5 out of 1.7.

As expected, women with longer marital duration have higher mean number of children ever born. On the average, women who are married for 15 or more years have 3.5 children ever born and on the average 3.2 of them are surviving. There is a clear rural-urban divide in terms of mean number of children ever born with 2.6 children in rural areas and 2.3 children in urban areas. The mean number of children ever born to women who are Hindu,

Muslim, Christian, Sikh, Buddhist and Jain are 2.4, 2.9, 2.2, 2.9, 2.6 and 1.8 respectively. The corresponding mean number of surviving children are respectively 2.2, 2.7, 2.1, 2.8, 2.4 and 1.7 for these religious groups. The average children ever born also vary by caste/tribe of the eligible women. For women belonging to scheduled caste, the mean number of children ever born are 2.7, for the scheduled tribe they are 2.8, other backward classes they are 2.4 and other castes they are 2.3. Except Jain, for all religious groups, the mean number of surviving children is slightly more than two, shared by on the average at-least one surviving male and one surviving female child.

Table 3.5 CHILDREN EVER BORN AND LIVING

Mean children ever born (CEB) and children surviving (CS) by selected background characteristics of currently married women aged 15-44 years, Maharashtra, 2002-04

Background characteristic	Mean children ever born			Mean children surviving			Number of women
	Total	Male	Female	Total	Male	Female	
Age group (years)							
15-19	0.6	0.3	0.3	0.5	0.3	0.3	2,292
20-24	1.6	0.8	0.7	1.5	0.8	0.7	5,879
25-29	2.4	1.3	1.2	2.3	1.2	1.1	5,754
30-34	3.0	1.5	1.5	2.8	1.4	1.4	5,470
35-39	3.3	1.8	1.6	3.0	1.6	1.4	4,377
40-44	3.5	1.8	1.7	3.2	1.7	1.5	3,281
Marital duration							
0-4	0.8	0.4	0.4	0.7	0.4	0.4	5,917
5-9	2.1	1.1	1.0	2.0	1.0	1.0	5,592
10-14	2.8	1.4	1.4	2.6	1.3	1.3	5,234
15+	3.5	1.8	1.7	3.2	1.7	1.5	10,310
Residence							
Rural	2.6	1.3	1.3	2.4	1.2	1.1	17,194
Urban	2.3	1.2	1.1	2.2	1.1	1.0	9,859
Religion							
Hindu	2.4	1.3	1.2	2.2	1.2	1.1	22,117
Muslim	2.9	1.5	1.4	2.7	1.4	1.3	2,542
Christian	2.2	1.1	1.0	2.1	1.1	1.0	208
Sikh	2.9	1.6	1.3	2.8	1.6	1.2	75
Buddhist	2.6	1.4	1.3	2.4	1.3	1.1	1,770
Jain	1.8	0.9	0.9	1.7	0.8	0.8	279
Other	1.4	1.0	0.5	1.4	0.9	0.5	61
Caste/tribe #							
Scheduled caste	2.7	1.4	1.3	2.4	1.3	1.2	3,790
Scheduled tribe	2.8	1.4	1.4	2.5	1.3	1.2	4,703
Other backward class	2.4	1.3	1.2	2.2	1.2	1.1	7,385
Other	2.3	1.2	1.1	2.2	1.2	1.0	10,982
Education							
Non-literate	3.2	1.6	1.5	2.9	1.5	1.4	9,470
0-9@ years	2.3	1.2	1.1	2.2	1.1	1.0	11,544
10 years & above	1.7	0.9	0.8	1.6	0.8	0.8	6,036
Standard of living index							
Low	2.8	1.4	1.4	2.5	1.3	1.2	9,933
Medium	2.5	1.3	1.2	2.3	1.2	1.1	9,442
High	2.1	1.1	1.0	2.0	1.1	1.0	7,678
All women	2.5	1.3	1.2	2.3	1.2	1.1	27,053

Note: # Total number may not add upto N due to don't know and missing cases. Total includes 2 women with missing information on education were not shown separately. @ Literate women with no year of schooling are included.

In the state of Maharashtra, the DLHS-RCH shows inverse association between mean children ever born and educational attainment of women and also the level of household economic comfort. The mean children ever born is higher for non-literate women (3.2) than women who have completed 0-9 years of schooling (2.3) and 10 or more years of schooling (1.7). The mean number of surviving children for women corresponding to these educational

levels is 2.9, 2.2 and 1.6 respectively. Further the mean children ever born for women classified into low, medium and high standard of living by SLI are 2.8, 2.5 and 2.1 respectively.

3.6 Completed Fertility by District

The level of completed fertility as measured by mean number of children ever born to women of 40-44 years by districts in Maharashtra together with mean number of surviving children are shown in Table 3.6.

Table 3.6 COMPLETED FERTILITY BY DISTRICT

Mean children ever born (CEB) and children surviving (CS) to currently married women aged 40-44 by district, Maharashtra, 2002-04

District	Mean children ever born			Mean children surviving		
	Total	Male	Female	Total	Male	Female
Ahmadnagar	3.3	1.8	1.5	3.1	1.7	1.4
Akola	4.2	2.1	2.1	3.7	1.9	1.9
Amravati	3.9	2.0	1.9	3.5	1.8	1.70
Aurangabad	4.4	2.4	2.1	3.9	2.1	1.8
Bhandara	3.6	1.9	1.7	3.1	1.6	1.5
Bid	4.4	2.3	2.1	3.8	2.0	1.7
Buldana	3.8	2.1	1.8	3.4	1.8	1.6
Chandrapur	3.6	2.0	1.5	3.1	1.8	1.3
Dhule	4.1	2.0	2.1	3.7	1.8	1.9
Gadchiroli	3.8	1.8	2.0	3.2	1.6	1.7
Gondiya	3.6	1.9	1.7	3.1	1.7	1.4
Hingoli	4.5	2.3	2.1	3.8	2.0	1.8
Jalgaon	3.8	1.9	1.9	3.4	1.7	1.6
Jalna	4.2	2.3	2.0	3.7	2.0	1.7
Kolhapur	3.0	1.5	1.5	2.7	1.4	1.3
Latur	4.7	2.5	2.2	4.1	2.2	2.0
Mumbai	2.8	1.6	1.2	2.7	1.5	1.2
Mumbai (Suburban)	2.7	1.4	1.3	2.7	1.4	1.3
Nagpur	3.7	1.7	2.0	3.3	1.5	1.9
Nanded	4.5	2.5	2.0	3.8	2.2	1.7
Nandurbar	3.8	2.0	1.8	3.2	1.7	1.5
Nashik	4.3	2.1	2.2	3.8	1.9	1.9
Osmanabad	3.9	2.0	1.9	3.4	1.8	1.6
Parbhani	4.0	2.1	1.9	3.6	1.9	1.7
Pune	3.1	1.6	1.6	3.0	1.5	1.5
Raigarh	3.4	1.7	1.7	3.1	1.6	1.5
Ratnagiri	3.1	1.5	1.6	2.8	1.4	1.5
Sangli	3.5	1.7	1.8	3.2	1.6	1.6
Satara	3.3	1.8	1.5	3.1	1.6	1.4
Sindhudurg	3.3	1.6	1.7	3.2	1.6	1.6
Solapur	3.6	1.9	1.6	3.3	1.8	1.5
Thane	2.9	1.5	1.4	2.8	1.5	1.3
Wardha	3.6	2.1	1.5	3.1	1.8	1.2
Washim	3.9	2.2	1.8	3.6	2.0	1.6
Yavatmal	4.0	2.1	1.9	3.5	1.8	1.7
Maharashtra	3.5	1.8	1.7	3.2	1.7	1.5

On an average, women on the verge of completing reproductive period have given birth to 3.5 children in their reproductive life of which 3.2 children are surviving on the average. Completed fertility in Maharashtra varies from as low as 2.7 mean number of children ever born in Mumbai (Suburban) district to as high as 4.7 children in Latur district.

Completed fertility in terms of mean number of children ever born are high in the districts of Nanded & Hingoli (4.5 each), Bid & Aurangabad (4.4 each), Nashik (4.3), Jalna & Akola (4.2 each), Dhule (4.1), and Parbhani & Yavatmal (4.0 each). With the exception of Mumbai (Suburban), Mumbai, Thane and Kolhapur districts, mean number of children ever born in all other districts of Maharashtra is more than 3 children. It is also true that in most of the districts mean number of male children is more than the mean number of female children born to women in the 40-44 year age group. Latur (4.1) and Aurangabad (3.9) recorded highest mean number of surviving children. Looking at the absolute difference between mean number of children ever born and mean number of surviving children, it seems that infant and child mortality is still high and varies among districts in Maharashtra.

3.7 Birth Order

Birth order distribution by selected background characteristics of women is provided in Table 3.7 and Figure 3.1. This distribution can be used as a measure of fertility in the absence of formal measures of fertility, such as, crude birth rate and total fertility rate.

Table 3.7 BIRTH ORDER
Percent distribution of births during three years preceding the survey by birth order by selected background characteristics, Maharashtra, 2002-04

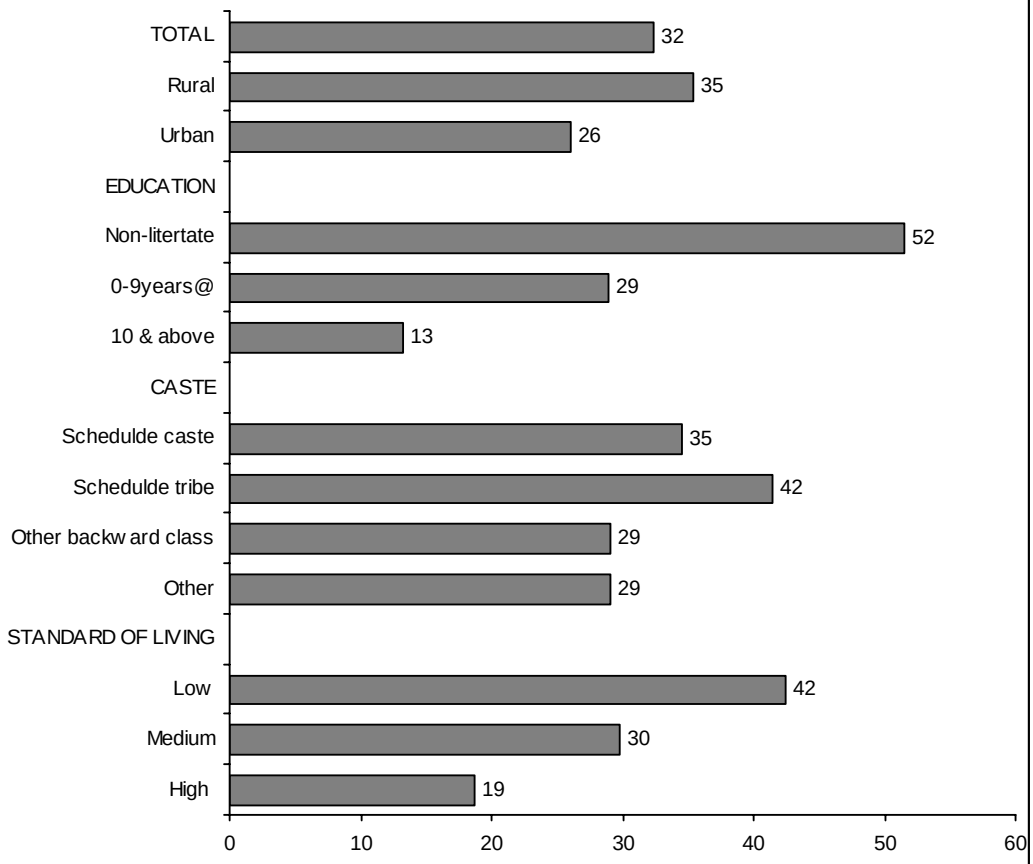
Background characteristic	Birth order 1	2	3	4+	Total percent	Number of births
Age of women						
15-19	76.3	21.1	2.6	0.0	100.0	1,161
20-24	41.7	38.3	15.1	4.8	100.0	4,656
25-29	18.2	31.0	28.7	22.1	100.0	2,647
30-34	7.9	25.6	19.2	47.2	100.0	928
35-39	8.0	14.4	16.5	61.2	100.0	223
40-44	8.3	21.5	2.3	67.9	100.0	50
Place of residence						
Rural	33.1	31.6	18.8	16.6	100.0	6,532
Urban	39.8	34.2	15.5	10.6	100.0	3,133
Education (Years of schooling)						
Non-literate	22.0	26.4	22.4	29.1	100.0	3,030
0-9@ years	37.1	33.9	18.4	10.5	100.0	4,377
10 years & above	49.3	37.6	10.0	3.2	100.0	2,259
Religion						
Hindu	35.9	33.3	17.6	13.2	100.0	7,673
Muslim	29.3	28.4	18.8	23.5	100.0	1,155
Christian	39.6	30.0	22.2	8.2	100.0	62
Buddhist	36.0	30.1	16.8	17.1	100.0	673
Jain	47.7	41.0	9.9	1.4	100.0	61
Other	(33.3)	(23.3)	(26.7)	(16.7)	(100.0)	43
Caste/tribe #						
Scheduled caste	36.2	29.3	18.0	16.6	100.0	1,443
Scheduled tribe	29.4	29.1	18.6	22.9	100.0	1,983
Other backward class	35.4	35.7	18.1	10.9	100.0	2,535
Other	37.9	33.1	17.0	12.0	100.0	3,609
Standard of living index						
Low	28.6	28.9	20.4	22.0	100.0	4,022
Medium	36.3	33.9	17.4	12.4	100.0	3,332
High	45.1	36.3	13.5	5.2	100.0	2,312
Total	35.2	32.4	17.7	14.7	100.0	9,665

Note: # Total number of births may not add upto N due to don't know and missing cases.
( ) Based on less than 50 unweighed cases

For the state of Maharashtra, 35 percent of the births born in the three years period preceding the survey were of first order, 32 percent of second order and the remaining one-

third were of order 3 and higher. By current age of eligible women, more than 60 percent of births to women in the age group 35-39 years and 40-44 years are 4 and higher order births. For women of 15-19 years, 76 percent births are of first order and 21 percent births are of second order. In the case of eligible women in urban areas 26 percent of the births are of 3 and higher order, whereas this 3 and higher order births constitute 35 percent for rural women indicating that higher order births are more concentrated in rural areas. Of the total births born to non-literate women, 52 percent are of 3 and higher order births, followed by 29 percent for women with 0-9 years of schooling and 13 percent for women who had 10 or more years of schooling. In short, births born to non-literate women are of higher order whereas much lower order births occurred to women who completed 10 or more years of schooling. Looking at the religious differential in birth order distribution, it is observed that 42 percent of births born to Muslim women are of 3 and higher order births. For women from Hindu and Buddhist, the 3 and higher order births constitute 31 percent and 34 percent respectively. The occurrence of births of order 3 and above is more among scheduled tribe (42 percent) than among scheduled caste (35 percent), other backward classes and other castes women (29 percent each). Incidence of births of order 3 and above for women classified by household standard of living index are 19 percent for high, 30 percent for medium and 42 percent for low living standard households women.

Figure 3.1
Birth Order 3 & above by Selected Background Characteristic



@ Literate w omen w ith no years of schooling are also included

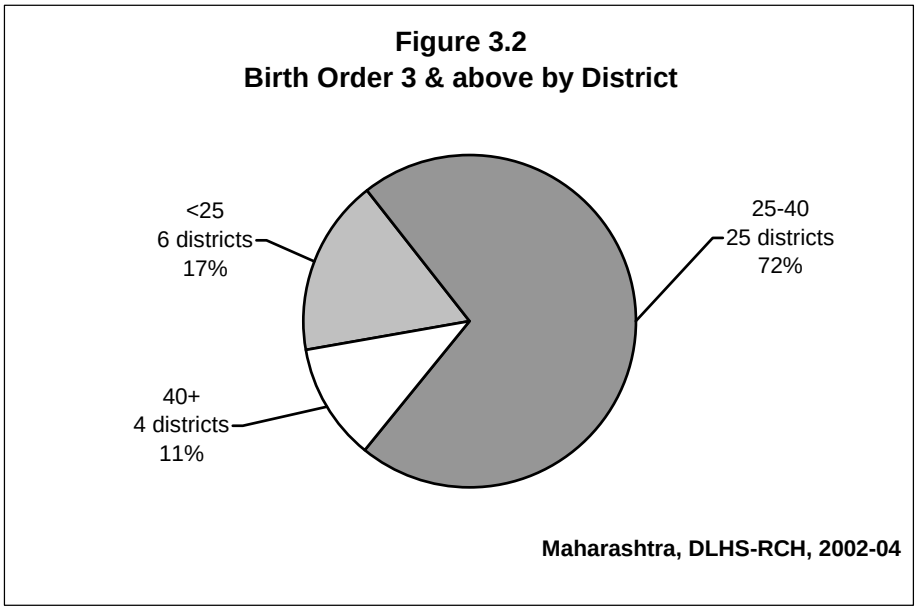
Maharashtra, DLHS-RCH, 2002-04

3.8 Birth Order by District

Table 3.8 and Figure 3.2 shows the birth order distribution by districts in Maharashtra. The proportion of births of order 3 and above ranges from the lowest of 16 percent in Satara to the highest of 48 percent each in Latur and Nandurbar. The districts, which have lower proportion (i.e.<25 percent) of births of order 3 and above, are Kolhapur (18 percent), Mumbai (21 percent), Pune,& Ratnagiri (22 percent each) and Wardha (23 percent). The districts, which can be classified as having higher proportion (i.e.>40 percent) of births of order 3 and above, are Nanded (43 percent), Nandurbar and Latur (48 percent each). The remaining districts fall midway between 25-40 percent in terms of incidence of births of order 3 and above.

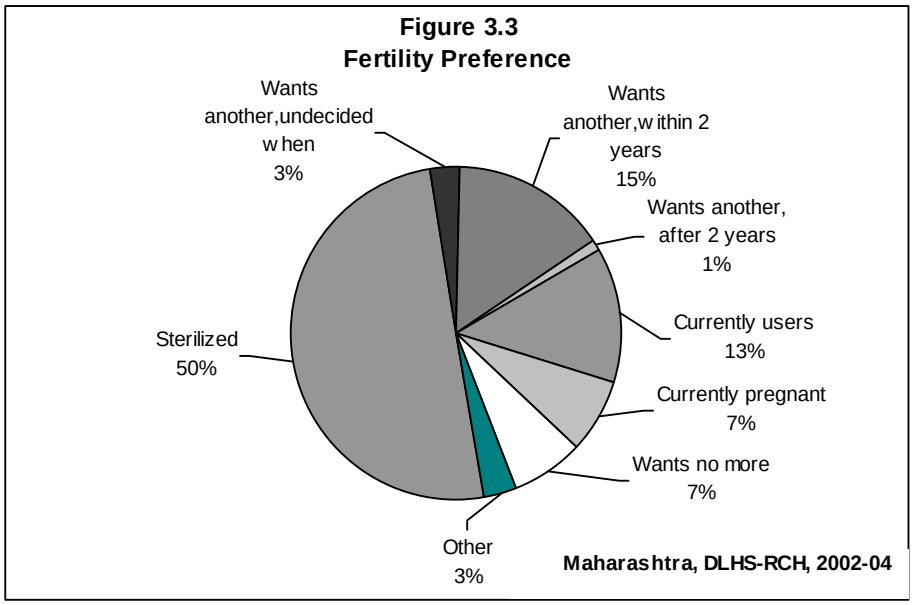
Table 3.8 BIRTH ORDER BY DISTRICT
Percent distribution of births during three years preceding the survey by birth order, according to district, Maharashtra, 2002-04

	Birth order			
District	1	2	3	4+
Ahmadnagar	32.8	32.3	18.2	16.8
Akola	31.4	32.9	16.5	19.2
Amravati	33.5	30.3	16.3	19.8
Aurangabad	32.3	32.4	15.8	19.5
Bhandara	39.5	33.6	17.5	9.4
Bid	32.9	28.7	19.5	19.0
Buldana	36.7	27.7	19.7	15.8
Chandrapur	34.3	32.9	20.9	11.8
Dhule	30.4	32.4	14.7	22.6
Gadchiroli	35.7	31.2	16.4	16.7
Gondiya	29.3	41.6	19.9	9.3
Hingoli	32.3	27.3	16.5	23.8
Jalgaon	35.6	29.8	21.5	13.1
Jalna	32.2	32.4	17.4	17.9
Kolhapur	41.9	39.7	12.8	5.6
Latur	27.5	24.3	22.2	26.0
Mumbai	40.9	38.4	12.2	8.5
Mumbai (Suburban)	40.1	34.7	17.3	7.8
Nagpur	37.1	34.6	19.7	8.5
Nanded	29.5	27.4	17.9	25.2
Nandurbar	23.0	29.2	17.5	30.3
Nashik	34.2	29.7	15.7	20.4
Osmanabad	32.3	27.8	22.6	17.4
Parbhani	30.0	30.4	19.6	20.0
Pune	41.2	36.9	15.3	6.6
Raigarh	36.8	36.8	16.8	9.6
Ratnagiri	44.1	33.6	15.8	6.6
Sangli	39.1	33.8	19.4	7.6
Satara	42.7	41.1	10.3	5.9
Sindhudurg	41.2	33.3	17.3	8.2
Solapur	34.3	32.6	23.2	9.9
Thane	35.6	28.5	17.9	18.0
Wardha	35.9	40.9	15.4	7.7
Washim	32.3	29.2	18.4	20.1
Yavatmal	39.8	31.6	16.5	12.0
Maharashtra	35.2	32.4	17.7	14.7



3.9 Fertility Preference

The distribution of currently married women desiring additional children and preferred sex of additional children by number of living children of the women is shown vividly in Table 3.9 and Figure 3.3. Out of the 2,104 women with no living child, 24 percent are currently pregnant and 57 percent want to have children within two years, while six percent are undecided about the timing of birth and only two percent are using spacing methods. Among the currently married women, the desire for additional children dwindles down with increasing number of living children. Around one-third of women having one living child want additional children within two years, 26 percent of them are using spacing methods, 16 percent are currently pregnant, eight percent are undecided about the timing of the next child, five percent of them want no more additional children and four percent are sterilized.



Use of permanent as well as temporary means of contraception tends to be accelerated with number of living children. In the state of Maharashtra, out of the 27,053 surveyed representative women, 63 percent are using either terminal or temporary contraceptive methods, 15 percent desired to have additional children within two years, and seven percent each are either pregnant or do not want any children. A total of 5,681 women want additional children irrespective of the number of living children. Out of 2,104 women who have no living children and desire for additional children, 18 percent want a boy as the first child, 3 percent desired for girl, for 63 percent, the sex of the child is immaterial and 17 percent leave it to God. With increasing number of living children, male is the dominating preferred sex of the next child though a majority of women desiring additional children expressed that the sex of the child was immaterial.

Table 3.9 FERTILITY PREFERENCE

Percent distribution of currently married women by desire for children, according to number of living children, Maharashtra, 2002-04

Desire for children	Number of living children					Total
	0	1	2	3	4+	
Desire for additional child						
Wants another soon[1]	56.6	31.8	8.5	4.1	3.1	15.2
Wants another later[2]	1.2	5.0	1.0	0.2	0.2	1.3
Want another, undecided when	6.0	7.9	2.0	0.6	0.5	2.7
Undecided	3.0	3.1	0.9	0.4	0.2	1.2
Up to God	3.1	0.9	0.3	0.1	0.3	0.6
Want no more	1.5	4.7	9.2	7.3	8.8	7.1
Sterilized	0.3	3.6	51.9	75.6	78.5	50.3
Currently users[3]	2.2	26.2	20.3	8.4	5.1	13.0
Currently pregnant	24.4	15.6	4.7	2.1	1.8	7.3
Declared infecund	1.4	1.1	1.1	1.0	1.3	1.2
Missing	0.2	0.1	0.1	0.1	0.2	0.1
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	3,010	4,199	7,298	6,492	6,053	27,053
Preferred sex of additional children						
Boy	17.6	33.8	52.2	70.2	67.7	34.6
Girl	2.6	14.6	12.2	8.0	8.3	9.1
Doesn't matter	62.8	39.5	26.7	14.6	15.2	43.4
Upto God	16.8	11.9	8.5	6.4	8.8	12.7
Missing	0.2	0.1	0.4	0.9	0.0	0.2
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	2,104	2,045	921	352	258	5,681

Note: [1] Wants next births within 2 years. [2] Wants to delay next birth for 2 or more years. [3] Other than sterilization

3.10 Pregnancy Outcomes

Table 3.10 shows distribution of pregnancy outcomes including live birth, stillbirth, induced abortion and spontaneous abortion by districts in Maharashtra. For the state as a whole, 91 percent of pregnancy ends in live births, four percent each in induced abortions and spontaneous abortion, and one percent in stillbirth. More pregnancies in rural areas end in live births (93 percent) than in urban areas (88 percent), while the incidence of induced abortion is more in urban areas (7 percent) than in rural areas (3 percent). The proportion of pregnancies ending in live births ranges from 86 percent in Thane to 96 percent in Jalna. Osmanabad, Gadchiroli, Ahmadnagar, Sangli and Nanded are the other districts with 94-95 percent of pregnancies ending in live births. The incidence of stillbirth is highest, more than

two percent in Akola and Yavatmal districts and nil in Raigarh district. Induced abortion is higher in the districts of Thane (9 percent), Washim and Solapur (8 percent each), and Akola and Wardha (7 percent each) while it is less than two percent in Latur, Nanded, and Gadchiroli districts. Spontaneous abortion is least in Jalna (about one percent) and highest in Bhandara (7 percent).

Table 3.10 OUTCOMES OF PREGNANCY

Percent distribution of all pregnancies of currently married women aged 15-44 years by their outcomes three year preceding the survey currently married women, according to districts, Maharashtra, 2002-04

Districts	Live birth	Stillbirth	Induced abortion	Spontaneous abortion	Missing	Total percent
State-Rural	92.8	1.1	2.6	3.6	0.0	100.0
State-Urban	88.1	1.1	6.8	4.0	0.0	100.0
State-Total	91.2	1.1	4.0	3.7	0.0	100.0
Ahmadnagar	94.5	1.1	2.2	2.2	0.0	100.0
Akola	87.5	2.5	6.8	3.2	0.0	100.0
Amravati	92.0	0.8	2.5	4.7	0.0	100.0
Aurangabad	90.7	1.0	4.3	4.0	0.0	100.0
Bhandara	89.4	0.4	3.4	6.9	0.0	100.0
Bid	91.2	1.7	2.7	4.4	0.0	100.0
Buldana	89.0	0.7	4.1	6.0	0.2	100.0
Chandrapur	92.0	2.0	2.5	3.3	0.2	100.0
Dhule	92.8	0.3	3.1	3.8	0.0	100.0
Gadchiroli	94.3	0.7	0.5	4.4	0.0	100.0
Gondia	89.9	1.0	3.0	6.1	0.0	100.0
Hingoli	90.6	1.9	3.0	4.5	0.0	100.0
Jalgaon	89.0	1.7	5.4	3.9	0.0	100.0
Jalna	96.2	0.6	2.2	0.9	0.0	100.0
Kolhapur	92.7	1.2	3.5	2.6	0.0	100.0
Latur	92.8	1.1	1.2	4.8	0.0	100.0
Mumbai	91.7	1.2	5.5	1.6	0.0	100.0
Mumbai (Suburban)	88.7	1.1	6.0	4.2	0.0	100.0
Nagpur	92.4	0.8	2.9	3.9	0.0	100.0
Nanded	94.7	0.8	1.2	3.3	0.0	100.0
Nandurbar	92.6	1.3	3.0	3.1	0.0	100.0
Nashik	92.8	0.5	3.7	3.0	0.0	100.0
Osmanabad	94.1	1.5	2.0	2.4	0.0	100.0
Parbhani	91.1	0.7	2.9	5.4	0.0	100.0
Pune	89.4	1.3	5.0	4.1	0.2	100.0
Raigarh	91.8	0.0	3.5	4.7	0.0	100.0
Ratnagiri	90.5	1.5	4.4	3.6	0.0	100.0
Sangli	94.6	1.0	2.3	2.1	0.0	100.0
Satara	91.8	1.8	3.3	3.1	0.0	100.0
Sindhudurg	91.2	1.6	4.5	2.7	0.0	100.0
Solapur	87.9	0.7	7.6	3.8	0.0	100.0
Thane	86.2	0.5	8.9	4.5	0.0	100.0
Wardha	88.8	0.5	7.1	3.6	0.0	100.0
Washim	86.6	1.0	8.4	4.0	0.0	100.0
Yavatmal	88.3	2.4	4.4	5.0	0.0	100.0

CHAPTER IV

MATERNAL HEALTH CARE

Provisions of maternal health care services to ensure safe motherhood is one of the major components of the Reproductive and Child Health (RCH) programme. The RCH programme services for antenatal care, includes at least three antenatal care visits, iron prophylaxis for pregnant and lactating women, at least one dose of tetanus toxoid vaccine, detection and treatment of anaemia in mothers, and management and referral of high-risk pregnancies, natal care, that is encouragement of safe delivery, post-natal care, and management of unwanted pregnancies. In rural areas, the government delivers reproductive health and other health services through its network of Sub-Centres (SCs), Primary Health Centres (PHCs) and other health facilities. In addition, pregnant women and children can get services from private maternity homes, hospitals, private practitioners, and in some case non-governmental organisations (NGOs) and trust hospitals. In urban areas, reproductive health services are available mainly through government or municipal hospitals, Urban Health Posts (UHPs), Urban Family Welfare Centres (UFWCs), hospitals and nursing homes operated by NGOs, and private nursing and maternity homes.

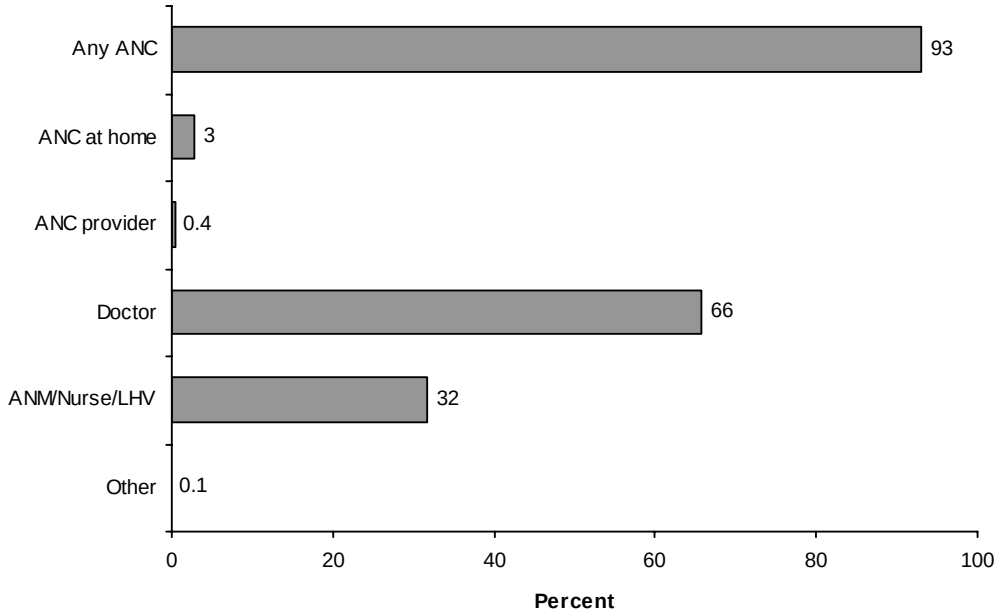
The National Population Policy (NPP), 2000 adopted by the Government of India (Ministry of Health and Family Welfare, 2000) reiterates the Government's commitments to the safe motherhood programme within the wider context of reproductive health. Among the national socio-demographic goals for 2010 specified by the policy, several goals pertain to safe motherhood, that 80 percent of all deliveries should take place in institutions by 2010, hundred percent 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. Empowering women for improved health and nutrition is one of the 12 strategic themes identified in the policy to be pursued either as stand-alone programmes or as intersectoral programmes.

In DLHS-RCH Phase-I, to all the eligible women who had their last pregnancy after January 1, 1999 a separate section on the status of maternal health and utilisation of maternal health care services was canvassed. In Phase-II, the same section was canvassed to all the eligible women who had their last pregnancy after January 1, 2001. The women whose last pregnancy terminated into live/still birth were asked about the details of antenatal, natal and post-natal care they received; pregnancy, delivery and post-delivery complications they suffered from and the treatment seeking behaviour in case of complications. Women whose last pregnancy terminated into abortion, either spontaneous or induced, were asked about the utilisation of safe abortion services and the post-abortion complications they experienced. This chapter presents information on antenatal, natal and postnatal care received by women whose last pregnancy had terminated during the three years preceding the survey as live birth or as stillbirth.

4.1 Antenatal Check-Ups

Women who had given a birth during the three years preceding the survey were asked whether they had gone for antenatal check-ups outside the home, and if they had, what type of service provider had given them the check-ups. They were also asked whether any health worker had visited them at home to provide antenatal check-ups. Table 4.1 and Figure 4.1 present the percentage of women who had given birth during the three years preceding the survey, and information regarding the antenatal check-ups they had by source of antenatal check-ups according to some selected background characteristics. Results show that nine out of every ten women received antenatal check-ups during the three years preceding the survey, slightly more than RCH Round I (88 percent). Two-third of women received antenatal check-ups from doctors, and 32 percent from ANM/Nurse/LHV. Only three percent women received antenatal check-ups at the doorstep from the ANMs or health worker.

Figure 4.1
Source of Antenatal Care



Note: Based on last live/still birth, born during three years preceding the survey

Maharashtra, DLHS-RCH, 2002-04

Antenatal check-ups are more common among younger women age below 35 years than among older women, and it is more common among those women who had given their first birth. The percentage of women who received antenatal check-up was comparatively higher in urban areas (97 percent) than in rural areas (91 percent), and the percentage of women who received antenatal check-ups from doctors is much higher in urban areas (89 percent) than in rural areas (54 percent), and, on the other hand, 42 percent of rural women received antenatal check-ups from auxiliary nurse midwife, nurse or LHVs, the same for women in urban areas is 11 percent. Eighty-four percent of non-literate women received antenatal check-ups against to nearly all women (99 percent) who had completed high school received antenatal check-ups for their last pregnancy that terminated into births (either live or still birth) during the three years preceding the survey.

Table 4.1 ANTENATAL CHECK-UP

Percentage of women* who received any antenatal check-up (ANC) during pregnancy by source of antenatal provider, according to selected background characteristics, Maharashtra, 2002-04

Background characteristic	Any [1] antenatal check-up	Antenatal check-up only at home by ANM	Health personnel providing ANC[2]				Number of women
			Doctor	ANM/ Nurse/ LHV	Other health professional	Other[3]	
Age group							
Less than 20 years	92.3	3.6	57.3	40.5	0.8	0.1	1,034
20-34 years	93.1	2.7	67.0	30.6	0.3	0.1	7,905
35 years & above	90.2	4.2	63.1	28.4	0.1	0.0	327
Children ever born							
1	96.5	1.7	76.4	26.5	0.6	0.1	2,884
2	94.1	2.1	69.3	30.2	0.2	0.1	3,079
3	90.7	3.4	58.4	37.1	0.3	0.1	1,805
4+	85.8	5.9	46.5	38.4	0.3	0.3	1,468
Residence							
Rural	90.8	4.1	54.1	42.0	0.5	0.1	6,139
Urban	97.0	0.3	88.6	11.4	0.1	0.0	3,126
Education							
Non-literate	84.0	5.2	40.3	44.8	0.4	0.2	2,909
0-9 @ years	95.7	2.5	70.2	32.0	0.4	0.1	4,089
10 years & above	99.3	0.3	90.4	14.1	0.3	0.1	2,267
Religion							
Hindu	92.3	3.0	63.7	33.4	0.4	0.1	7,426
Muslim	96.2	1.3	81.1	19.6	0.1	0.0	1,069
Christian	98.6	0.0	85.1	14.4	0.0	0.0	59
Buddhist	92.5	3.3	58.6	36.2	0.4	0.2	622
Jain	100.0	0.0	97.1	10.7	0.0	0.0	57
Other	(95.8)	(8.3)	(62.5)	(20.8)	(4.2)	(4.2)	32
Caste/tribe#							
Scheduled caste	92.4	2.6	59.2	37.9	0.2	0.2	1,340
Scheduled tribe	85.2	5.6	41.8	43.9	0.3	0.2	1,887
Other backward class	95.6	2.6	69.7	31.4	0.6	0.1	2,416
Other	95.4	1.5	78.5	23.1	0.3	0.1	3,537
Standard of living index							
Low	87.3	5.6	42.1	46.9	0.4	0.2	3768
Medium	95.0	1.4	73.9	28.4	0.4	0.1	3185
High	99.0	0.3	93.2	11.3	0.3	0.1	2311
Availability of health facility[4] in the village							
No	88.8	5.5	51.8	40.3	0.4	0.2	3,369
Yes	93.1	2.5	57.0	44.0	0.7	0.1	2,770
Total	92.9	2.8	65.8	31.7	0.4	0.1	9,265

Note: * Women who had their last live/still birth since 1-1-1999/1-1-2001.
Total includes 29 women with zero parity who were not shown separately.
[1] Antenatal check-ups either at home or outside from home at health facility.
[2] Antenatal check-ups outside home and percentage add more than 100.0 due to multiple responses
[3] Other also includes trained and untrained *dai* .
Total figure may not add to N due to do not know and missing cases. @ Literate women with no years of schooling are also included. [4] Includes sub-centre, primary health centre, community health centre or referral hospital, government hospital, and government dispensary within the village.
() Based on less than 50 unweighted cases.

The proportion of women who have received antenatal check-ups from a doctor increased steadily, with the level of education and the standard of living index. Two-fifth of non-literate women as compared to 90 percent having education of more than 10 years received ANC from doctors. Similarly, 42 percent women belonging to households with a low standard of living against 93 percent of that from a high standard of living fall in this

category. The proportion of Buddhist and Hindu women who received antenatal check-ups from doctors (59 and 64 percent respectively) is much lower than that of women from different religions (81-97 percent). Seventy-nine percent of women from the 'other castes' category received antenatal check-ups from doctors, while it is 59 percent for scheduled caste women, and 42 percent for scheduled tribe women, and for women from other backward classes, it is 70 percent. Women from scheduled tribes were more likely to receive antenatal check-ups from auxiliary nurse midwives, or LHVs. Forty-four percent of scheduled tribe women received antenatal check-ups from ANMs, while it is 38 percent among scheduled castes, 31 percent among other backward class women, and 23 percent of women from the 'other' castes category.

4.2 Antenatal Check-Ups at Health Facility

DLHS-RCH asked women who had a birth during the three years preceding the survey whether women had received antenatal check-ups, and if they had, from where they had availed such services.

Table 4.2 shows the percentage of women who had received antenatal check-ups during pregnancy by place. During pregnancy, women received antenatal check-ups from multiple sources such as, health workers providing ANC at home, Government health facility, private health facility, and at Indian System of medicine etc. Women who received antenatal check-ups both at home and outside the home are categorised as having received care outside the home. Two-fifth of women received antenatal check-ups at Government health facility, including 12 percent through primary health centre and nine percent through sub-centre, and 38 percent at a private health facility. Other than this, 13 percent of women reported that they had received antenatal check-ups at the private Indian system of medicine, and 10 percent from other sources. As mentioned above women availed antenatal check-ups from multiple sources. Women who were visited by an ANM might have also visited government and/ or private health facilities including Indian system of medicine.

Younger women were more likely to receive antenatal-check-ups at government health facilities than older women. About two-fifth women below 35 years of age receive antenatal check-ups compared to 35 percent for age 35 and above. More than half (51 percent) of women from urban areas visited private health facilities for antenatal check-ups that were much higher than women in rural areas (31 percent), however more or less same proportion of women from urban (39 percent) and rural areas (41 percent) areas availed ANC services from government health facilities. It may be mentioned that 18 percent of the women from rural areas received antenatal check-ups at PHC and 14 percent from sub-centre against about three percent together in urban areas.

Table 4.2 PLACE OF ANTENATAL CHECK-UP

Percentage of women* who received any antenatal check-ups (ANC) during pregnancy by source and place of antenatal check-ups, according to selected background characteristics, Maharashtra, 2002-04

Background characteristic	Antenatal check-up only at home	Place of antenatal check-ups[1]							Number of women
		Govern-ment [2] health facility	Private[3] health facility	PHC	SC	ISM[4] facility		Other	
						Govt.	Private		
Age group									
Less than 20 years	3.6	39.3	35.3	13.3	11.9	0.1	12.3	13.5	1,034
20-34 years	2.7	40.4	38.4	12.1	9.0	0.3	12.8	9.9	7,905
35 years & above	4.2	35.2	39.3	9.2	6.4	0.3	11.3	9.0	327
Children ever born									
1	1.7	36.3	48.2	10.4	7.5	0.2	15.3	7.0	2,884
2	2.1	41.7	39.2	11.8	9.7	0.4	12.5	8.7	3,079
3	3.4	44.6	30.9	13.9	10.0	0.2	10.8	13.6	1,805
4+	5.9	38.7	24.3	14.9	11.3	0.2	9.5	17.1	1,468
Residence									
Rural	4.1	40.7	31.4	17.8	14.2	0.3	11.7	15.4	6,139
Urban	0.3	38.7	51.1	2.3	0.5	0.3	14.4	1.2	3,126
Education									
Non-literate	5.2	42.3	18.3	18.6	14.1	0.1	8.6	21.4	2,909
0-9 @ years	2.5	44.6	39.2	12.0	9.1	0.4	12.8	8.4	4,089
10 years & above	0.3	29.0	61.4	5.9	4.5	0.2	16.6	2.0	2,267
Religion									
Hindu	3.0	38.4	38.4	13.1	10.0	0.3	12.2	11.5	7,426
Muslim	1.3	46.1	38.8	6.7	3.8	0.2	16.5	3.6	1,069
Christian	0.0	43.5	42.0	5.1	4.2	0.6	11.1	3.4	59
Buddhist	3.3	51.5	27.5	13.5	10.9	0.1	11.6	9.8	622
Jain	0.0	19.2	78.0	3.5	6.6	0.0	14.5	3.1	57
Other	(8.3)	(30.3)	(55.8)	(4.8)	(4.8)	(0.0)	(9.5)	(9.5)	32
Caste/tribe#									
Scheduled caste	2.6	53.2	30.2	13.8	13.2	0.1	9.6	8.9	1,340
Scheduled tribe	5.6	39.5	18.0	19.7	13.6	0.2	11.0	23.5	1,887
Other backward class	2.6	40.7	42.5	13.5	8.9	0.4	13.0	8.9	2,416
Other	1.5	34.6	49.1	7.5	6.2	0.3	14.4	5.9	3,537
Standard of living index									
Low	5.6	44.4	20.5	20.4	15.8	0.1	9.0	19.3	3,768
Medium	1.4	44.6	41.8	10.6	7.5	0.5	12.7	7.1	3,185
High	0.3	26.7	61.6	3.2	2.6	0.2	17.5	2.1	2,311
Availability of health facility[5] in the village									
No	5.5	30.7	28.7	15.3	6.4	0.2	14.2	23.5	3,369
Yes	2.5	53.0	34.8	20.6	23.0	0.3	8.9	6.4	2,770
Total	2.8	40.1	38.1	12.2	9.2	0.3	12.7	10.3	9,265

Note: * Women who had their last live/still birth since 1-1-1999/1-1-2001.
Total includes 29 women with zero parity who were not shown separately. # Total figure may not add to N due to do not know and missing cases. @ Literate women with no years of schooling are also included.
[1]Antenatal check-ups outside home and percentage add more than 100.0 due to multiple responses. [2] Includes sub-centre, primary health centre, community health centre or rural hospital, urban health centre/ urban health post/ urban family welfare centre, government hospital or dispensary. [3] Includes Private hospital/clinic or non-governmental hospital/ trust hospital or clinic. [4] Indian system of medicine. [5] Includes sub-centre, primary health centre, community health centre or referral hospital, government hospital, and government dispensary within the village. () Based on less than 50 unweighted cases.

This indicates that the services are not reaching the target population, particularly through the public sector. A comparatively high proportion of women who received antenatal check-ups at Government health facilities are non-literate, literate upto 0-9 years, Buddhist, scheduled caste, living in households with a low and medium standard of living and women from those villages where health facilities are available.

4.3 Antenatal Check-Ups by District

Table 4.3 indicates the antenatal coverage in Maharashtra that ranges from the lowest of 82 percent in Nashik to the highest, which is almost hundred percent Sindhudurg. Almost all districts, except Nashik, Jalgaon, Nandurbar, Bid, Ahmadnagar, Gadchiroli and Nanded more than 90 percent of women got some kind of antenatal check-ups for their last births during the three years preceding the survey.

Table 4.3 ANTENATAL CHECK-UPS BY DISTRICT

Percentage of women* who received any antenatal care (ANC), by source and place of antenatal check-ups by district, Maharashtra, 2002-04

District	Any [1] antenatal check-up	Antenatal check-up only at home by ANM	Health personnel providing ANC		Place of antenatal check-ups		
			Doctor	ANM/ Nurse	Govern-ment [2] health facility	Private[3] health facility	ISM[4] facility
Ahmadnagar	87.9	4.5	67.5	16.5	33.0	37.7	12.3
Akola	96.7	1.8	69.6	42.3	57.2	40.6	14.2
Amravati	97.4	5.1	53.8	39.1	48.2	27.7	2.6
Aurangabad	90.6	4.4	55.5	32.3	34.5	35.0	5.1
Bhandara	98.8	0.4	57.3	52.2	64.2	29.2	27.9
Bid	85.8	2.3	49.4	37.0	29.9	46.3	2.1
Buldana	94.2	5.0	60.7	30.4	38.3	42.2	4.1
Chandrapur	96.9	1.4	60.9	35.5	44.3	39.0	8.0
Dhule	90.1	2.8	59.8	46.1	46.6	1.0	41.4
Gadchiroli	88.8	10.7	30.6	48.8	67.0	8.2	0.9
Gondiya	99.2	0.9	71.1	43.3	73.3	3.2	35.0
Hingoli	94.6	1.3	57.3	52.1	31.8	37.5	18.6
Jalgaon	83.1	6.1	57.8	19.3	19.4	48.2	2.3
Jalna	94.3	1.6	57.0	49.8	37.2	11.4	35.9
Kolhapur	99.2	0.0	87.8	50.3	53.1	71.7	2.2
Latur	93.8	0.5	65.3	49.8	31.8	59.8	0.3
Mumbai	98.6	0.0	97.7	2.6	55.1	0.8	65.8
Mumbai (Suburban)	96.2	0.0	94.3	7.2	40.9	68.4	0.6
Nagpur	96.5	1.3	79.3	16.9	58.9	31.7	4.6
Nanded	89.0	4.8	58.0	27.5	31.1	43.1	3.2
Nandurbar	85.6	1.4	39.6	55.9	44.3	10.7	19.2
Nashik	81.5	6.7	48.2	27.2	35.7	32.4	2.0
Osmanabad	90.9	1.6	54.6	35.1	39.5	40.1	2.5
Parbhani	95.7	3.1	62.4	40.6	31.3	8.3	46.8
Pune	94.0	1.8	76.4	16.2	36.8	42.4	11.8
Raigarh	97.6	0.4	75.1	42.7	40.4	2.8	57.4
Ratnagiri	98.9	0.0	80.8	49.7	54.9	64.1	0.0
Sangli	97.1	0.8	80.6	16.4	37.3	54.4	4.4
Satara	96.6	0.2	76.2	20.2	28.5	59.4	8.8
Sindhudurg	99.8	0.0	78.0	30.7	63.1	37.7	3.4
Solapur	98.8	0.0	82.7	44.2	43.3	56.1	12.4
Thane	96.1	3.3	69.6	25.5	31.2	51.9	2.0
Wardha	99.1	2.6	64.6	36.1	50.1	44.8	2.6
Washim	95.4	0.6	68.0	37.1	29.5	1.5	56.6
Yavatmal	96.5	2.5	68.2	34.1	37.7	12.1	40.7
Maharashtra	92.9	2.8	65.8	31.7	40.1	38.1	11.6

Note: * Women who had last live/still birth during three years preceding the survey.[1] Antenatal check-ups either at home or health facility. [2] Includes sub-centre, primary health centre, community health centre or rural hospital, urban health centre/urban health post/urban family welfare centre, government hospital or dispensary. [3] Includes Private hospital/clinic or non-governmental hospital/ trust hospital or clinic. [4] Either government or private Indian system of medicine.

Antenatal check-ups received from doctor was low in Gadchiroli (31 percent), Nandurbar (40 percent), Nashik (48 percent) and Bid (49 percent), and in all the remaining

districts more than half of the women received antenatal check-ups from doctor and it is highest in Mumbai (98 percent) followed by Mumbai (Suburban) (94 percent). In 3 out of 35 districts, Hingoli and Bhandara (52 percent each), and Nandurbar (56 percent), more than half of women received antenatal check-ups by ANM/Nurse/LHV.

The extent of utilisation of government health facilities for antenatal check-ups was higher than that of private health facilities. The range of antenatal check-ups coverage through government facilities was highest in Gondia (73 percent) to the lowest of 19 percent in Jalgaon district. In Maharashtra, two-third pregnant women in Mumbai, and 57 percent each in Washim and Raigarh availed the Indian system of medicine (either government or private) for an antenatal check-up. In 9 out of 35 districts, more than one-fourth of women availed such services through the Indian system of medicine.

4.4 Components of Antenatal Check-ups

Women who received any kind of antenatal check-ups were asked whether they received each of the several components of antenatal check-ups at least once during their pregnancy. Table 4.4 presents the percentage of women who received specific components of check-ups by residence. Except for X-rays (which are not recommended as a standard component of antenatal care), all of the measurements and tests are part of essential obstetric care or are required for monitoring high-risk pregnancies.

About 83 percent of women each were weighed, and had an abdominal examination and 73 percent had their blood pressure checked, as the part of the antenatal check-ups. Other common components of antenatal check-ups were blood test (76 percent), urine test (73 percent), internal examination (56 percent), measurement of height, and breast examination (43 percent each). Two-fifth of women had a sonogram or ultrasound, four percent had an X-ray and five percent of women reported that they had amniocentesis test. All of these measurements or producers were performed more often during antenatal check-ups in urban areas than in rural areas.

Table 4.4 COMPONENTS OF ANTENATAL CHECK-UPS

Percentage of women* who received an antenatal check-up by specific components of antenatal check-up, according to residence, Maharashtra, 2002-04

Components of antenatal check-ups	Total	Rural	Urban
Antenatal measurements/tests			
Weight measured	82.5	76.8	92.9
Height measured	43.0	38.7	50.9
Blood pressure checked	73.3	64.2	90.0
Blood tested	76.0	67.9	90.7
Urine tested	73.0	63.8	90.0
Abdomen examined	82.7	77.6	92.1
Internal examined	56.3	47.0	73.3
Breast examined	42.5	35.8	54.7
X-ray	4.3	3.1	6.7
Sonography / ultrasound	40.3	28.1	62.7
Amniocentesis	4.9	4.4	5.9
Antenatal advice			
Diet	71.4	66.4	80.6
Danger signs of pregnancy	39.2	33.3	49.9
Delivery care	37.2	32.3	46.2
Breast feeding	36.1	31.0	45.4
New born care	33.8	30.2	40.4
Family planning	32.2	32.2	32.3
Number of women who received any antenatal check-up	8,606	5,573	3,033

Note: * Women who had their last live/still birth since 1-1-1999/1-1-2001

The type of advice received by women who had antenatal check-ups for last live/still births during three years preceding the survey is also presented in Table 4.4. Advice on diet was given to 81 percent of urban women as compared to 66 percent of rural women and 71 percent in general. Nearly two-fifth women received advice on danger signs of pregnancy. Women were less likely to receive advice on delivery care (37 percent), on breastfeeding (36 percent), and on newborn care (34 percent). Advice on family planning was given to 32 percent of each rural and urban women.

4.5 Antenatal Care Services

In India, the Reproductive and Child Health Programme includes all pregnant women should be registered in the first 12-16 weeks (Ministry of Health and Family Welfare, 1997). Accordingly the first antenatal check-ups should take place at latest during the first trimester of the pregnancy. It also includes the provision of at least three antenatal care visits, of at least one tetanus toxoid injection, and supplementary iron in the form of IFA tablets daily for 100 days. To assess whether the women had received all the care during pregnancy, information was collected regarding number of antenatal visits, timing of the first visit, received tetanus toxoid injection and supplement iron folic acid tablets. The results are presented in Table 4.5. In Maharashtra, 72 percent of the women received at least three antenatal check-ups and 54 percent had four or more check-ups. At least three antenatal check-ups were received by 83 percent of women in urban areas compared with 67 percent of women in rural areas. Number of visits for antenatal care varies by education, children ever born, religion, caste and standard of living index. Fifty-four percent of non-literate, 75 percent literate women (educated below high school) and 91 percent of women who had 10 or more years of schooling visited for minimum three antenatal care. Parity of women is negatively associated with antenatal check-ups. About 82 percent of women with parity one received three antenatal check-ups compared to 57 percent of the women with parity 4 and above.

Jain and Christian women (84-86 percent) were more likely to have at least three visits for antenatal check-ups than Muslim women (76 percent), Hindu women (72 percent) and women from Buddhist religion (62 percent). Coverage is substantially lower for women from scheduled-tribes (57 percent) than to women of other than scheduled tribe (68-79 percent). Having three or more antenatal visits also increased with the standard of living, 57 percent for women with a low standard of living, 76 percent for women with a medium standard of living and 91 percent for women with a high standard of living. Availability of health facility in the village makes some difference to the minimum three visits for antenatal check-ups.

Data on timing of first antenatal check-ups shows that 52 percent of the women received their first antenatal check-up in the first trimester of pregnancy, and another 31 percent received their first check-up in the second trimester, and 11 percent of women received their first check-up in the third trimester. A relatively higher proportion of women in the urban areas (61 percent) as compared to those in rural areas (47 percent) had a check-up in the first trimester of pregnancy. The first antenatal check-up in the first trimester has steadily increased with education. A less than one-third (31 percent) of non-literate women had undergone their first antenatal check-up in the first trimester, against 78 percent of women who had completed at least 10 years of schooling received their first antenatal check-up in the first trimester.

Table 4.5 ANTENATAL CARE

Percent distribution of women who had live/still births during three years preceding the survey by number of antenatal check-ups, the stage of pregnancy at the time of first check-up, the number of tetanus toxoid injections received and were given iron folic acid (IFA) tablets/syrup during pregnancy, and percentage who received full antenatal check-ups by some selected background characteristics, Maharashtra, 2002-04

		Residence		Education			Children ever born			
Antenatal care indicators	Total	Rural	Urban	Non-literate	0-9@ years	10 years & above	1	2	3	4+
Number of ANC visits										
No visit	7.1	9.2	3.0	16.0	4.3	0.7	3.5	5.9	9.3	14.2
1	5.8	7.2	3.0	9.2	5.6	1.7	3.7	5.3	6.6	9.8
2	15.0	17.1	11.1	21.1	15.2	7.0	10.7	15.5	18.2	18.7
3	18.5	20.4	14.8	21.2	20.6	11.3	16.3	18.0	19.9	22.3
4+	53.5	46.1	68.1	32.5	54.3	79.3	65.8	55.3	46.1	35.1
Stage of pregnancy at the time of the first antenatal check-up										
No antenatal check-up	7.1	9.2	3.0	16.0	4.3	0.7	3.5	5.9	9.3	14.2
First trimester	51.7	46.9	61.0	30.7	52.0	78.0	62.6	55.1	43.4	33.2
Second trimester	30.6	34.0	23.9	38.2	32.3	17.6	27.0	29.4	33.1	36.9
Third trimester	10.6	9.9	12.1	15.1	11.3	3.6	6.9	9.6	14.2	15.8
Women who received TT										
No TT	8.7	10.4	5.2	16.1	6.6	2.9	6.0	7.7	9.6	14.6
1	11.5	13.7	7.1	13.6	12.1	7.7	8.0	12.9	11.1	16.0
2+	79.4	75.4	87.1	69.8	81.0	88.7	85.4	79.1	79.1	68.7
Do not remember/missing	0.5	0.4	0.6	0.5	0.4	0.6	0.6	0.4	0.2	0.7
Women who received IFA tablets/syrup										
No IFA/syrup	14.8	12.7	18.9	20.4	12.7	11.3	11.4	14.5	16.1	20.2
Received but not consumed	5.6	6.4	3.9	5.8	6.6	3.3	4.8	5.7	6.6	5.6
Consumed one IFA per day	50.7	51.6	49.0	44.6	53.0	54.4	53.3	51.4	49.4	46.2
Received 100+ IFA tablets/syrup	28.1	28.3	27.6	22.2	26.9	37.9	32.0	29.2	23.6	23.4
Percentage of women who received full [1] antenatal check-ups	23.0	22.3	24.5	15.4	22.1	34.6	28.3	23.5	18.9	16.9
Number of women	9,265	6,139	3,126	4,089	2,267	2,909	2,884	3,079	1,805	1,468

Note: Total includes 29 women with zero parity who were not shown separately.

@ Literate women with no years of schooling are also included.

At least three visits for antenatal check-ups, at least one TT injection received and were given adequate amount of IFA tablets/syrup.

contd…….

Table 4.5 ANTENATAL CARE (contd)

Percent distribution of women who had live/still births during three years preceding the survey by number of antenatal check-ups, the stage of pregnancy at the time of first check-up, the number of tetanus toxoid injections received and iron and were given iron folic acid (IFA) tablets/syrup during pregnancy, and percentage who received full antenatal check-ups by some selected background characteristics, Maharashtra, 2002-04

	Religion						Caste#				Standard of living index			Availability of health facility[2] in the village	
Antenatal care indicators	Hindu	Muslim	Christian	Buddhist	Jain	Other	Scheduled caste	Scheduled tribe	Other backward class	Other	Low	Medium	High	No	Yes
Number of ANC visits															
No visit	7.7	3.8	1.4	7.5	0.0	(4.2)	7.6	14.8	4.4	4.6	12.7	5.0	1.0	11.2	6.9
1	5.9	3.9	1.8	9.0	1.5	(8.3)	7.1	8.7	4.6	4.5	9.4	4.4	1.9	8.3	5.9
2	14.3	16.7	10.8	21.7	15.0	(4.2)	17.7	20.0	13.9	12.3	21.1	14.4	6.0	18.2	15.7
3	18.2	22.1	20.5	17.7	0.6	(20.8)	20.8	17.8	20.6	16.4	21.5	20.2	11.4	19.1	22.0
4+	54.0	53.5	65.5	44.1	83.0	(62.5)	46.8	38.8	56.6	62.2	35.4	56.1	79.7	43.3	49.6
Stage of pregnancy at the time of the first antenatal check-up															
No antenatal check-up	7.7	3.8	1.4	7.5	0.0	(4.2)	7.6	14.8	4.4	4.6	12.7	5.0	1.0	11.2	6.9
First trimester	52.4	48.4	69.0	44.7	73.2	(62.5)	45.7	36.1	58.3	58.0	36.0	55.1	72.6	44.7	49.7
Second trimester	30.4	31.4	18.8	34.3	16.7	(29.2)	34.1	37.0	28.9	27.1	38.3	29.0	20.2	34.5	33.4
Third trimester	9.5	16.4	10.8	13.5	10.1	(4.2)	12.7	12.1	8.4	10.4	13.0	11.0	6.2	9.7	10.1
Women who received TT															
No TT	9.3	5.0	1.9	8.2	8.6	(8.3)	9.3	16.1	5.5	6.4	13.7	6.5	3.3	11.2	9.4
1	11.3	10.6	4.6	15.7	13.0	(4.2)	14.5	11.8	11.4	10.3	15.2	10.3	7.2	13.9	13.5
2+	78.9	83.8	93.5	75.4	77.5	(87.5)	75.8	71.5	82.7	82.9	70.6	82.9	88.8	74.3	76.8
Do not remember/missing	0.4	0.5	0.0	0.8	1.0	(0.0)	0.4	0.6	0.5	0.4	0.6	0.3	0.6	0.5	0.3
Women who received IFA tablets/syrup															
No IFA/syrup	14.0	20.1	9.2	13.9	25.9	(12.5)	11.9	18.8	13.1	14.6	15.8	14.6	13.3	14.8	10.1
Received but not consumed	5.5	5.0	8.8	7.5	1.1	(8.3)	7.9	4.8	5.5	5.3	6.4	6.3	3.4	6.7	6.0
Consumed one IFA per day	51.4	49.1	40.8	45.0	60.1	(54.2)	49.1	44.9	51.9	53.5	48.4	51.9	52.8	50.2	53.3
Received 100+ IFA tablets/syrup	29.2	20.9	32.5	24.8	54.7	(29.2)	24.5	25.1	29.9	29.9	24.2	25.5	38.0	27.6	29.2
Percentage of women who received full [1] antenatal check-ups	24.0	16.3	32.5	18.7	54.7	(29.2)	18.8	18.0	25.5	25.8	16.9	21.5	35.2	21.4	23.4
Number of women	7,426	1,069	59	622	57	32	1,340	1,887	2,416	3,537	3,768	3,185	2,311	3,369	2,770

Note: # Total figure may not add to N due to do1069n't know and missing cases.

[1] At least three visits for antenatal check-ups, at least one TT injection received and was given adequate amount of IFA tablets/syrup.

[2] Includes sub-center, primary health center, community health center or referral hospital, government hospital, and government dispensary within the village

() Based on less than 50 unweighted cases.

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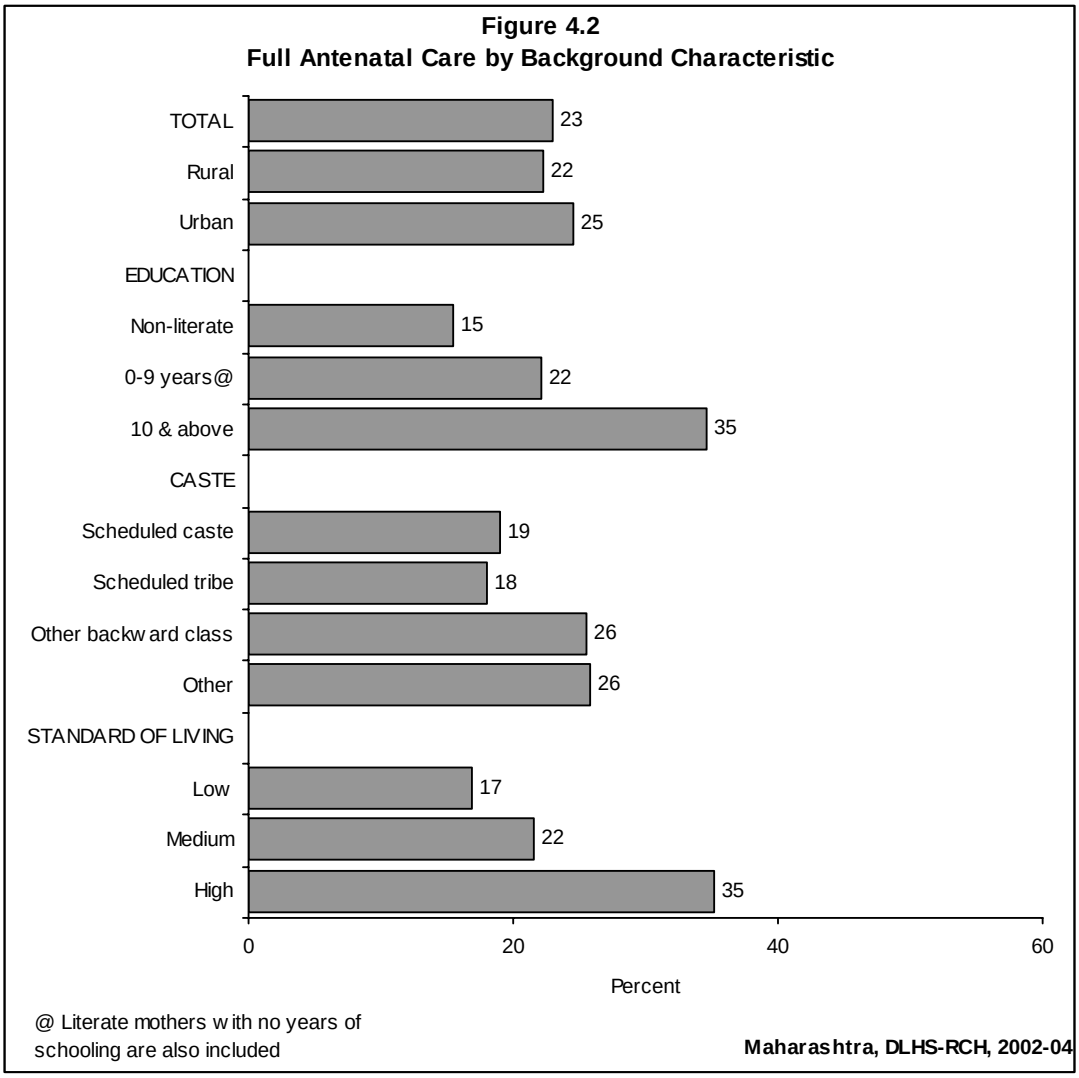
About 63 percent of the women with parity-1 were visited in first trimester and only one-third women with parity- four and above had undergone antenatal check-up in first trimester. Muslim and Buddhist women were less likely to go for first antenatal check-up in first trimester of their pregnancy as compared to Hindu and women of other religion. About 36 percent of scheduled tribe women were visited in first trimester for first antenatal check-ups compared with 46 percent to scheduled caste women, and 58 percent each from other backward class women and women from 'other' caste category. About 36 percent women with low standard of living, 55 percent with medium standard of living, and 73 percent of women with high standard of living respectively had undergone their first antenatal check-up in the first trimester of their pregnancy period.

Nutritional deficiencies in women are often exacerbated during pregnancy because of the additional nutrient requirements of foetal growth; therefore a pregnant woman needs six times more iron than a non-pregnant woman. The information on receiving iron folic acid tablets/syrup during pregnancy is also collected. Table 4.5 shows that 85 percent women in Maharashtra received IFA supplements for the last birth during three years preceding the survey. The coverage of IFA tablets is relatively more in rural areas (87 percent) than in urban areas (81 percent). IFA coverage is much below for non-literate women, scheduled tribe women, and women of higher parity. IFA coverage is also lower among Jain women (74 percent) and Muslim women (80 percent) than Christian (91 percent), Hindu and Buddhist women (86 percent each). Again, during pregnancy in the last three years preceding the survey, only 28 percent of women in each rural and urban areas received 100 or more IFA. Intake of 100 or more IFA is positively associated with education and standard of living index and negatively associated with parity. More women from Jain religions, other backward classes and women from other caste received 100 or more IFA than their counterparts. Such a large difference in receiving IFA or intake of 100 or more IFA tablets/syrup is not found while analysing the situation by availability of health facility in the village.

For the last live birth or stillbirth during the three years preceding the survey, women were asked whether they were given tetanus toxoid injection to prevent them and their baby from getting tetanus. Table 4.5 shows that 79 percent of the women received two or more tetanus toxoid injections. Coverage of two or more TT injection is slightly higher in urban areas (87 percent) than that in rural areas (75 percent). The coverage of at least one tetanus toxoid injection for Christian women is highest (98 percent) than Muslim women (95 percent), Hindu, Buddhist, and Jain women (90-91 percent). Coverage of at least one tetanus toxoid injection is lowest among the schedule tribe women (83 percent), compared to schedule caste (90 percent), other backward classes (94 percent), and for 'other' caste category women (93 percent). Non-literate women received at least one tetanus toxoid injection for 83 percent of their last birth, whereas literate women with 9 years of schooling received at least one tetanus toxoid injection for 93 percent, and women who had completed 10 years or more of schooling received at least one tetanus toxoid injection for 96 percent of their last birth. Eighty-six percent of women with a low standard of living received at least one tetanus toxoid injection, and 93-96 percent women with medium or high standard of living received at least one tetanus toxoid injection for their last live/still birth. The coverage varies inversely by parity. At least one tetanus toxoid injection was received by 90 percent women of Parity-1 compared with 85 percent of Parity 4 and above.



The percentage of women who received full antenatal care, (that is, at least three antenatal check-ups, and at least one tetanus toxoid injection and supplementary iron in the form of IFA tablets daily for 100 days as recommended by the RCH programme,) has been presented in Figure 4.2. Only 23 percent of women in Maharashtra received full antenatal care. Coverage of full antenatal care is slightly more in urban areas (25 percent) than in rural areas (22 percent). Full antenatal care is low for non-literate women, women with higher parity, Muslim women, women from scheduled caste-tribe, and women with a low standard of living compared to their respective counterparts.

4.6 Antenatal Care Indicator by District

Table 4.6 shows the percentage of women who had given live/still birth during the three years preceding the survey who received different types of antenatal care; (the percentage who received antenatal check-up in the first trimester of pregnancy, the percentage who received at least three antenatal check-ups, the percentage who received at least one tetanus toxoid injection, the percentage given 100 or more iron folic acid tablets/syrup, and the percentage who received full antenatal care services) by district.

Table 4.6 ANTENATAL CARE INDICATORS BY DISTRICT

Percentage of women* who received different type of antenatal care by district, Maharashtra, 2002-04

District	Percentage that received an antenatal check-up in the first trimester of pregnancy	Percentage that received three or more antenatal check-ups	Percentage that received at least one tetanus toxoid injection	Percentage that received adequate amount of IFA[1]	Percentage that received full[2] antenatal check-ups
Ahmadnagar	52.5	66.1	85.7	38.3	30.2
Akola	58.8	72.2	96.0	19.3	17.3
Amravati	55.2	73.0	93.2	37.2	29.0
Aurangabad	43.7	65.6	92.8	34.4	28.0
Bhandara	71.3	78.7	95.7	28.7	24.9
Bid	43.3	54.8	85.1	16.8	12.4
Buldana	45.7	64.4	92.1	33.0	26.1
Chandrapur	66.6	79.5	90.6	34.2	27.1
Dhule	38.4	66.7	85.0	13.0	10.5
Gadchiroli	52.2	67.6	85.4	26.8	21.2
Gondiya	65.3	79.4	98.2	37.3	29.2
Hingoli	33.8	66.6	92.3	7.1	5.9
Jalgaon	39.4	58.7	94.6	31.1	25.3
Jalna	43.2	64.5	88.8	16.2	13.2
Kolhapur	68.8	89.7	98.9	28.7	27.7
Latur	44.6	74.1	90.8	9.4	7.9
Mumbai	66.9	89.0	95.7	20.2	18.4
Mumbai (Suburban)	59.9	89.6	95.2	19.7	18.0
Nagpur	52.5	71.8	89.4	25.1	19.6
Nanded	37.5	63.6	81.9	24.6	16.1
Nandurbar	42.2	60.5	82.4	17.0	15.0
Nashik	29.3	50.9	87.7	21.6	15.8
Osmanabad	52.5	67.3	90.5	28.1	26.0
Parbhani	43.0	59.8	90.5	14.9	11.2
Pune	63.5	80.0	91.5	46.4	41.2
Raigarh	65.8	87.0	94.1	17.9	17.9
Ratnagiri	72.0	90.1	98.1	22.3	20.5
Sangli	55.5	76.6	76.6	43.0	28.3
Satara	72.4	85.6	95.2	40.7	34.1
Sindhudurg	63.0	89.5	91.2	42.2	35.8
Solapur	57.4	82.4	98.0	12.1	12.1
Thane	52.1	80.5	93.1	37.9	31.9
Wardha	68.5	83.0	89.2	30.0	26.1
Washim	46.7	56.6	95.5	14.1	10.2
Yavatmal	60.8	68.7	93.0	20.6	17.7
Maharashtra	51.7	72.0	90.9	28.1	23.0

Note: * Women who had their last live/still birth since 1-1-1999/1-1-2001

[1] 100 or more iron folic acid tablets including syrup

[2] At least three visits for antenatal check-ups, at least one TT injection received and adequate amount of IFA

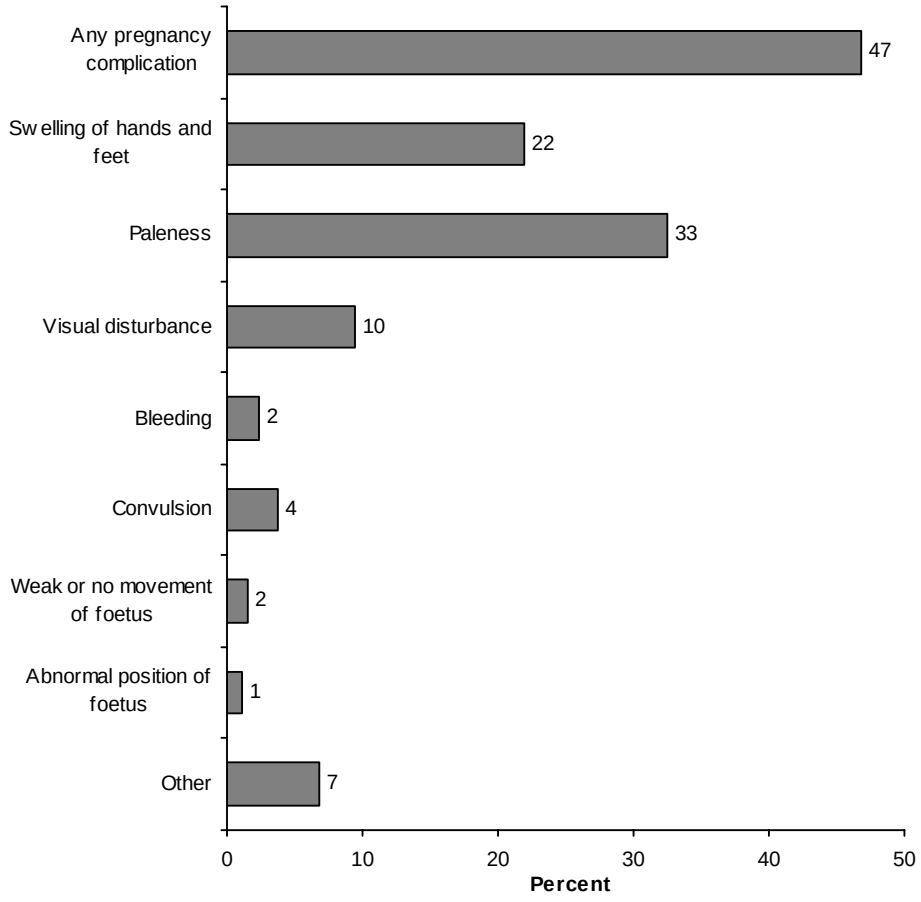
The utilisation of antenatal care services differs from district to district. In 13 out of 35 districts, less than half the women received their first antenatal check-up in the first trimester of pregnancy and it ranges from 29 percent in Nashik to 72 percent each in Ratnagiri and Satara. The percentage of women who received at least three visits for antenatal check-ups is lowest in Nashik (51 percent) and highest in Sindhudurg, Mumbai (Suburban), Kolhapur and Ratnagiri (90 percent each). In 11 of the districts namely; Kolhapur, Mumbai, Mumbai (Suburban), Pune, Raigarh, Ratnagiri, Satara, Sindhudurg, Solapur, Thane and Wardha coverage of at least three visits of ANC was more than 80 percent and none of the district was found with less than 50 percent (see Map-3). There has been good coverage of tetanus toxoid injection in all the districts, ranging from 77 to 99 percent. But on the other hand, performance regarding receipt of 100 or more IFA is poor. In

all the districts, the value ranges from a meagre seven percent to 46 percent, and it is lowest in Hingoli district. The percentage of women who received full antenatal care ranges from six percent in Hingoli to 41 percent in Pune. In 19 districts of Maharashtra the coverage rate of full antenatal care is lower than that of the state average.

4.7 Pregnancy Complications and Treatment

Complications during pregnancy may affect both women's health and the outcome of the pregnancy adversely. Early detection of complications during pregnancy and their management are important components of the safe motherhood programme. In the survey, all the eligible women who had given last live or still birth during the three years preceding the survey were asked if at any time during the pregnancy, they had experienced any of the following pregnancy-related problems such as swelling of hands and feet, paleness, visual disturbance, vaginal bleeding, convulsions, weak or no movement of foetus, abnormal position of foetus, and other problems. All the information is based on women's self-reporting which is presented in Table 4.7 and Figure 4.3.

Figure 4.3
Percentage of Women with Pregnancy Complication and by Symptoms



Maharashtra, DLHS-RCH, 2002-04

About 47 percent of the women experienced at least one pregnancy related problem. The proportion was relatively more among the urban women (50 percent) than rural women (45 percent). Women aged 40-44 years, women with low parity and women from medium and high standard of living face at least one pregnancy related problem more than younger women, women with high parity and women from low standard of living do. This proportion is much higher among women who had received some kind of antenatal care during the pregnancy. Forty-eight percent of women who had an antenatal check-up reported that they had experienced at least one problem during their pregnancy while 27 percent of women did not receive any antenatal check-up during their pregnancy fall in this category. The major problems reported were 'paleness' (33 percent), 'swelling of hand and feet' (22 percent), and 'visual disturbance' (10 percent). Less than five percent reported each 'convulsions', 'vaginal bleeding', 'weak or no movement of foetus' and 'abnormal position of foetus'. Other problems related to pregnancy were reported by seven percent of women. Swelling of hands and feet is more common among women with parity-1, rural women, women with high standard of living, and women who received any kind of antenatal care during the pregnancy.

The percentage of women who were more anaemic belonging to the age group 40-44 years, women with parity-4, and women who received any kind of antenatal care during the pregnancy. The women with parity-4, rural women, and women from low standard of living were more likely to report visual disturbance.

Table 4.7 PREGNANCY COMPLICATIONS

Percentage of women who had live/still births during three years preceding the survey by pregnancy complication and type of complication during pregnancy by some selected background characteristics, Maharashtra, 2002-04

Background characteristic	Percentage of women with any pregnancy complication	Type of pregnancy complication;								Number of women
		Swelling of hands and feet	Paleness	Visual disturbances	Bleeding	Convulsion	Weak or no movement of foetus	Abnormal position of foetus	Other	
Age group (years)										
15-19	46.7	23.3	32.3	11.3	1.3	4.3	1.3	0.9	5.3	1,034
20-24	47.3	21.5	32.3	8.6	2.6	3.7	1.6	1.0	7.5	4,139
25-29	46.5	22.3	32.6	9.1	2.2	3.4	1.8	1.5	6.8	2,739
30-34	45.4	21.0	33.4	11.9	3.0	3.9	1.1	0.5	4.7	1,026
35-39	46.1	24.2	29.3	9.7	3.4	3.8	0.6	0.2	7.9	265
40-44	54.6	28.7	35.6	8.4	5.3	8.1	0.3	2.0	13.7	62
Children ever born										
1	50.7	28.8	31.3	8.4	2.4	3.6	1.8	1.2	8.1	2,884
2	45.5	20.2	31.5	8.4	2.7	3.1	1.4	1.1	6.3	3,079
3	44.2	16.9	33.2	8.8	2.0	3.7	1.2	1.0	6.4	1,805
4+	44.8	18.6	35.6	14.6	2.2	5.3	1.2	0.5	5.8	1,468
Residence										
Rural	45.0	19.0	33.2	10.6	2.3	3.7	1.6	1.0	5.7	6,139
Urban	50.2	27.9	31.1	7.2	2.7	3.7	1.4	1.2	8.8	3,126
Standard of living index										
Low	41.6	17.8	31.6	11.7	2.4	4.1	1.4	0.9	4.8	3,768
Medium	49.6	21.6	34.5	8.8	2.5	3.9	1.7	1.2	8.1	3,185
High	51.4	29.4	31.2	6.7	2.3	2.8	1.5	1.2	8.1	2,311
Received any ANC										
Yes	48.3	22.8	33.2	9.6	2.5	3.8	1.6	1.2	7.1	8,606
No	27.4	12.2	23.0	7.3	1.0	1.9	0.3	0.0	3.2	659
Total	46.8	22.0	32.5	9.5	2.4	3.7	1.5	1.1	6.8	9,265

Note: Total include 29 women with zero parity and 2 missing cases on type of pregnancy complication who were not shown separately

@ Literate women with no years of schooling are also included

Women who reported at least one pregnancy related complication were asked whether they had consulted someone or had sought treatment for their problem and also the source of treatment. Table 4.8 shows the percentage of women who had pregnancy complications who obtained advice or had sought treatment by source of treatment according to residence and availability of health facility in the village. Around three-fifths of women reported that they had obtained advice or consulted someone for their problem. The proportion was higher among urban women (83 percent) than among rural women (68 percent), and 72 percent of women sought treatment from those villages where health facility was available as compared to 64 percent of women with non-availability of health facility within the village.

Table 4.8 TREATMENT FOR PREGNANCY COMPLICATIONS

Percentage of women* who had any pregnancy complication, sought treatment and source of treatment according to residence and availability of health facility in the village, Maharashtra, 2002-04

Treatment and source	Total	Residence		Availability of health facility[5] in the village	
		Rural	Urban	No	Yes
Percentage of women sought treatment who had any pregnancy complication	73.2	67.5	83.1	63.7	71.8
Number of women	4,336	2,765	1,571	1,442	1,324
Percentage sought treatment at health facility					
Government health facility[1]	31.0	33.0	28.0	29.8	36.1
Primary health centre	8.5	13.6	1.3	12.7	14.3
Sub centre	3.2	5.2	0.2	2.7	7.7
Private health facility[2]	63.6	60.7	67.8	62.1	59.2
ISM[3] facility	3.8	3.7	4.0	3.7	3.6
Other	3.8	5.0	2.0	6.9	3.2
Percent distribution of women who obtained treatment from					
Doctor	89.1	83.9	96.5	85.5	82.4
ANM/nurse/midwife/LHV	10.5	15.4	3.3	13.4	17.4
Other[4]	0.4	0.6	0.2	1.1	0.2
Total percent	100.0	100.0	100.0	100.0	100.0
Number of women	3,181	1,870	1,312	920	950

Note: [1] Include municipal hospital, dispensary, urban health centre/urban health post/urban family welfare centre, community health centre/rural hospital, primary health centre and sub centre
[2] Include private hospital/clinic and non-governmental organization/ trust hospital
[3] Either government or private Indian system of medicine
[4] Other include Dai trained or untrained, other health professional and ISM practitioner
[5] Includes sub-centre, primary health centre, community health centre or referral hospital, government hospital, and government dispensary within the village

Among women who sought treatment for pregnancy complications, 31 percent visited a government health facility including a primary health centre (9 percent) and sub-centre (3 percent). Nearly two-third (64 percent) of them visited a private health facility, and four percent had gone to a facility with the Indian system of medicine, while another four percent obtained advice from another health facility. The proportion of women who visited a private health facility is relatively higher in urban areas (68 percent) than in rural areas (61 percent). Among women who sought treatment, most (89 percent) went to a doctor and 11 percent to an auxiliary nurse midwife or nurse or LHV. Ninety-seven percent of these women in urban

areas and 84 percent in rural areas were examined by a doctor, whereas ANM/Nurse/LHV examined 15 percent women in rural areas and three percent in urban areas.

4.8 Delivery Care

4.8.1 Place of Delivery

One of the important thrusts of the Reproductive and Child Health Programme is to encourage deliveries under proper hygienic conditions under the supervision of trained health professionals. The provision of delivery services in the government health institutions is one of the components of the RCH programme. For each live/still birth during three years preceding the survey, DLHS-RCH asked the women the place where their children were born, who assisted during the deliveries in case of home deliveries, characteristics of delivery, and any problems that occurred during the delivery. Table 4.9 and Figure 4.4 present the place of delivery. Nearly one-fourth of the birth (24 percent) took place in government health institutions, 34 percent in private health institutions, and a large proportion of births (42 percent) took place at home. About 85 percent of the deliveries in urban areas and 44 percent of the deliveries in rural areas took place in health institutions. Deliveries in health facilities in Maharashtra rose from 51 percent in Round-I to 58 percent in Round-II.

The proportion of births occurring in health institutions is slightly less for young women under 20 years (53 percent) than for women aged 20 years and above (58-59 percent). Institutional deliveries, particularly in private health facilities, increase sharply with education and the standard of living. Around one-third (32 percent) of the births to non-literate women and 86 percent births to literate women who had completed at least 10 or more years of schooling took place at health institutions. Women with a high standard of living were more likely to give birth in health institutions than women with a low standard of living. The proportion of institutional deliveries decreases as parity increases from parity one (73 percent) to parity four and above (35 percent). Institutional delivery is much lower for Hindu and Buddhist women (56 percent each) than for other religion women (71-98 percent). Only 29 percent births of women from scheduled-tribes are institutional deliveries as compared to 57 percent of births to women from scheduled-castes, 60 percent to other backward classes and 73 percent of births to women from the ‘other’ caste category. Institutional deliveries are more common among women who had four or more antenatal check-ups (74 percent) than among those who had fewer antenatal check-ups (32-50 percent). Institutional deliveries are least prevalent among births to women who did not receive any antenatal check-ups (19 percent). A large proportion of births occurred through caesarean section that took place at private institutions (70 percent), compared to 29 percent in public health institutions.

Table 4.9 PLACE OF DELIVERY

Percent distribution of women who had given live/still births during three years preceding the survey, by place of delivery, according to selected background characteristics, Maharashtra, 2002-04

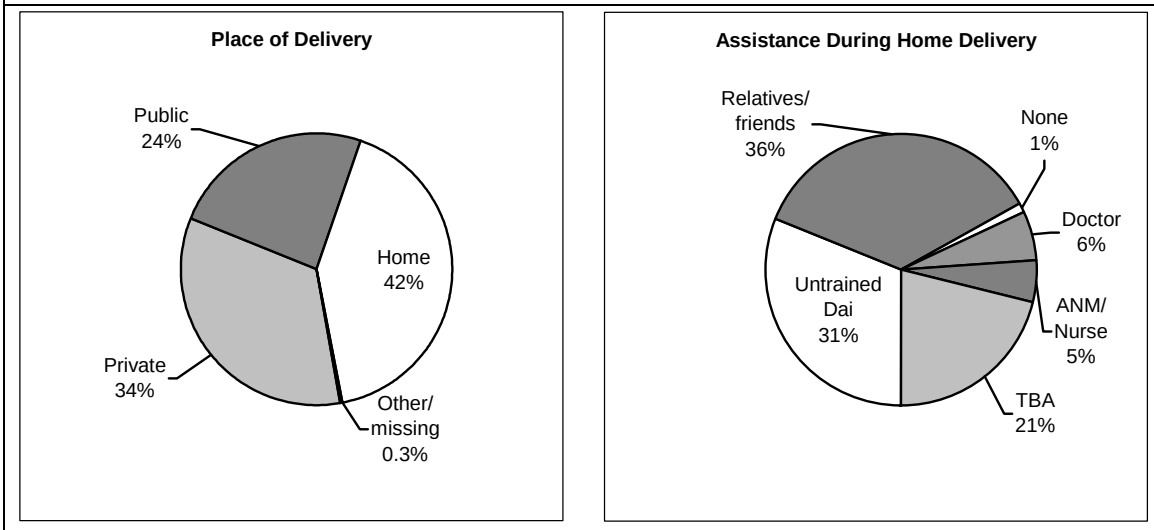
Background characteristics	Health institutions		Home	Other	Total percent	Number of women
	Public	Private				
Age group (in years)						
Below 20	23.7	29.7	46.2	0.4	100.0	1,034
20-34	24.4	34.2	41.1	0.3	100.0	7,905
35 and above	19.3	38.2	42.5	0.0	100.0	327
Children ever born						
1	26.8	45.7	27.2	0.3	100.0	2,884
2	24.1	35.2	40.3	0.4	100.0	3,079
3	24.8	25.5	49.3	0.4	100.0	1,805
4+	17.9	17.4	64.4	0.4	100.0	1,468
Residence						
Rural	20.1	24.1	55.5	0.3	100.0	6,139
Urban	31.9	53.0	14.6	0.5	100.0	3,126
Education						
Non-literate	17.4	14.1	68.2	0.2	100.0	2,909
0-9@ years	29.1	32.0	38.4	0.5	100.0	4,089
10 years & above	23.7	62.5	13.6	0.2	100.0	2,267
Religion						
Hindu	22.2	33.5	43.9	0.4	100.0	7,426
Muslim	30.7	39.8	29.4	0.1	100.0	1,069
Christian	43.1	42.4	14.5	0.0	100.0	59
Buddhist	35.1	20.9	43.7	0.3	100.0	622
Jain	7.8	89.8	2.5	0.0	100.0	57
Other	(25.0)	(41.7)	(33.3)	(0.0)	(100.0)	32
Caste#						
Scheduled caste	32.6	24.1	42.6	0.7	100.0	1,340
Scheduled tribe	15.2	13.5	71.0	0.4	100.0	1,887
Other backward class	26.6	33.7	39.3	0.5	100.0	2,416
Other	23.6	48.9	27.4	0.1	100.0	3,537
Standard of living index						
Low	19.3	13.0	67.4	0.2	100.0	3,768
Medium	30.6	35.3	33.7	0.4	100.0	3,185
High	22.9	65.7	10.9	0.5	100.0	2,311
Number of antenatal check-ups						
No check-up	10.9	8.2	80.7	0.3	100.0	659
1	20.1	12.2	67.7	0.0	100.0	537
2	21.7	18.3	59.0	1.0	100.0	1,394
3	23.8	26.5	49.2	0.4	100.0	1,715
4+	27.1	46.5	26.3	0.2	100.0	4961
Delivery characteristics						
Normal	23.6	29.9	46.2	0.3	100.0	8,269
Caesarean	28.5	70.1	0.9	0.6	100.0	789
Assisted	29.4	52.0	18.0	0.5	100.0	206
Availability of health facility[1] in the village						
No	19.6	21.7	58.3	0.4	100.0	3,369
Yes	20.7	27.0	52.1	0.2	100.0	2,770
Total	24.1	33.8	41.7	0.3	100.0	9,265

4.8.2 Assistance During Home Delivery

Table 4.10 shows distribution of assistance during home delivery by selected background characteristics. Generally, assistance during delivery can be provided by medical staff (doctors, ANM/nurse/LHV, TBA, un-trained *dai*), and relatives/friends. If more than one type of attendant assisted during the delivery, then only the most qualified person is considered. In the last three years only seven percent of home deliveries were attended by doctors, five percent by ANM or nurse or LHV, 21 percent by trained birth attendants, 31 percent by untrained *dais*, 36 percent were attended by relatives and friends and one percent of home deliveries were not attended by anyone (Figure 4.4). Overall, health professionals attended 11 percent of deliveries that took place at home. About 8-12 percent of births attended by health

professional for women age below 20 and 20-34 years and only three percent of births for women age 35 and above were attended by health professionals. In rural areas, 11 percent of births were attended by health professionals as compared to 16 percent of that in urban areas. The percentage of births attended by health professionals decreased steadily with increasing parity of women.

Figure 4.4
Place of Delivery and Assistance During Delivery



Note: Percentage may add more than 100.0 due to rounding **Maharashtra, DLHS-RCH, 2002-04**

Births to literate women who had completed 10 or more years of schooling which were attended by health professionals is more than three times higher than those of non-literate women. About 31 percent of home deliveries to women with a high standard of living, 14 percent with medium standard of living and eight percent of deliveries to women with a low standard of living were attended by health professionals. Only seven percent of births to women from scheduled tribe, 11 percent to scheduled caste, 15 percent to other backward classes and 14 percent to women belonging to 'other castes' category were attended by health professionals. Five percent of home deliveries to women who did not have any antenatal check-ups were attended by health professionals compared to 16 percent of home deliveries to women who had four or more antenatal check-ups. About 11 percent of home deliveries that were normal were attended by health professionals. Eight percent home deliveries were attended by health professionals in villages with non-availability of a health facility compared to 14 percent in villages where health facility are available.

4.8.3 Delivery Assisted by Skilled Persons

The extent of safe deliveries varied substantially by background characteristics of women (Table 4.10 and Figure 4.5). More than half of the births (63 percent) were safe in Maharashtra. In urban areas 87 percent of deliveries were safe as against 50 percent in rural areas. About 64 percent of the deliveries were safe for women aged 20-34 than below 20 years and women aged 35 years and above (57-59 percent).

Table 4.10 ASSISTANCE DURING HOME DELIVERY AND SAFE DELIVERY

Percent distribution of women who had given live/still births during three years preceding the survey, by assistance during home delivery, and percentage of safe delivery, according to selected background characteristics, Maharashtra, 2002-04

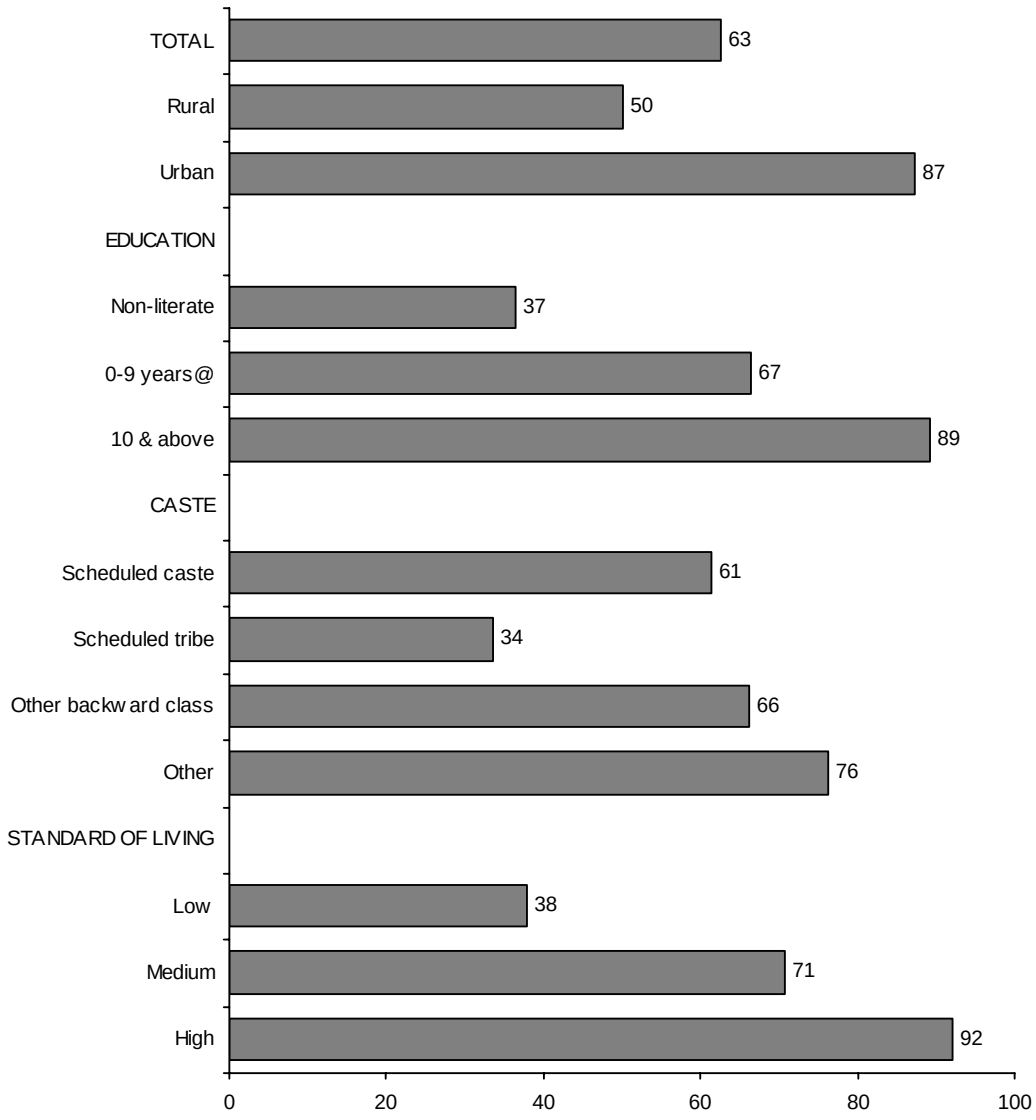
Background characteristics	Attendant assisting during home delivery[1] Doctor	ANM/ Nurse/ LHV	TBA	Un-trained *dai*	Relative/ friends	None	Number of women	Percentage of safe[2] delivery
Age group (in years)								
Below 20	4.7	3.5	19.3	29.6	42.3	0.7	478	57.1
20-34	7.0	5.1	21.2	30.4	35.5	0.8	3248	63.5
35 and above	0.3	2.6	15.5	41.4	37.2	3.0	139	58.7
Children ever born								
1	8.9	6.1	20.5	32.2	31.3	0.9	785	76.6
2	6.5	5.9	20.7	30.9	35.2	0.8	1240	64.3
3	5.7	4.5	19.1	28.3	41.6	0.8	890	55.4
4+	5.2	2.4	22.7	31.3	37.4	1.0	945	40.2
Residence								
Rural	6.3	4.4	20.3	31.1	37.1	0.9	3409	50.1
Urban	8.3	7.5	24.4	27.7	31.3	0.9	457	87.2
Education								
Non-literate	4.3	2.9	17.2	32.5	42.0	1.1	1985	36.5
0-9@ years	8.3	5.8	23.8	29.9	31.4	0.7	1572	66.5
10 years & above	11.1	11.5	28.3	23.0	25.6	0.4	309	89.3
Religion								
Hindu	6.9	4.5	20.4	30.7	36.6	1.0	3261	60.7
Muslim	3.8	8.9	26.8	32.9	27.0	0.5	315	74.2
Buddhist	5.6	3.5	18.3	27.2	45.3	0.2	272	59.9
Caste#								
Scheduled caste	5.8	5.0	16.6	25.3	46.4	1.0	571	61.3
Scheduled tribe	4.9	2.1	21.4	36.5	34.3	0.8	1339	33.6
Other backward class	8.2	7.0	22.9	30.4	30.6	0.9	949	66.2
Other	7.6	6.2	20.0	25.8	39.5	0.9	969	76.3
Standard of living index								
Low	4.8	3.2	19.6	32.4	39.0	0.9	2539	37.8
Medium	7.9	6.3	22.4	29.0	33.5	0.9	1075	70.7
High	17.3	13.8	25.1	20.4	22.6	0.8	252	92.0
Number of antenatal check-ups								
No check-up	3.7	1.6	15.8	34.9	43.1	0.8	532	23.4
1	7.3	3.6	15.6	30.1	42.6	0.8	363	39.6
2	4.5	5.5	21.1	30.3	37.2	1.3	822	45.9
3	5.9	3.9	21.2	32.8	35.2	0.9	844	55.2
4+	9.1	6.5	23.7	27.9	32.1	0.6	1304	77.6
Delivery characteristics								
Normal	5.9	4.7	20.9	31.0	36.6	0.9	3821	58.4
Assisted	(61.5)	(7.7)	(7.7)	(11.5)	(11.5)	(0.0)	37	(69.2)
Availability of health facility[3] in the village								
No	5.9	2.3	20.7	32.4	37.8	0.8	1965	46.1
Yes	6.8	7.2	19.7	29.2	36.0	1.0	1444	55.0
Total	6.5	4.8	20.8	30.7	36.4	0.9	3865	62.6

Note: Total includes 6 women with zero parity who were not shown separately.
Total includes 9 Christian, 1 Jain, 7 women in other religion and 7 in Caesarean delivery who were not shown separately
@ Literate women with no years of schooling are also included.
# Total figure may not add to N due to do not know and missing cases
1 If the respondent mentioned more than one attendant, only the most qualified attendant is shown
2 Either institutional delivery or home delivery assisted by doctor/ANM/Nurse/LHV
3 Includes sub-centre, primary health centre, community health centre or referral hospital, government hospital, and government dispensary within the village. ( ) Based on less than 50 unweighted cases

The proportion of safe deliveries was higher among Muslim women (74 percent) than among Hindu women and women from Buddhist religion (61-60 percent). Only 34 percent of births to women from scheduled-tribe were safe deliveries, compared to 61 percent to women from scheduled-castes, 66 percent to women from other backward classes, and 76 percent of births to women from 'other castes' category. Proportion of safe deliveries decreases as parity rises from 1 (77 percent) to 4 and above (40 percent). Safe deliveries were least prevalent among women who did not receive any antenatal check-ups (23 percent), and it is most

prevalent among women who had four or more antenatal check-ups (78 percent). The proportion of safe deliveries increased sizeably with women's education and standard of living. Only 37 percent of non-literate women had safe deliveries whereas its prevalence is 89 percent among women who had completed at least high school. Women with a high standard of living had 92 percent safe deliveries compared to 71 percent of women with a medium standard of living and 38 percent with a low standard of living. The proportion of safe deliveries was higher in villages with a health facility (55 percent) than to women from those villages where health facilities are not available (46 percent).

Figure 4.5
Delivery Assisted by Skilled Person by Background Characteristic



@ Literate mothers with no years of schooling are also included

Maharashtra, DLHS-RCH, 2002-04

4.9 Reasons for Not Going to Health Institutions for Delivery

Table 4.11 shows the percentage distribution of women who did not deliver in health institutions in the three years preceding the survey. The main reason for not going to health institutions has been presented according to residence and availability of health facility in the village. A little more than half (53 percent) of the women stated that it was not necessary to deliver in health institutions. It is surprising to see that 45 percent of urban women felt this way. Almost an equal proportion of women whether or not health facility is available in their villages stated that it was not necessary to deliver in health institutions. About 16 percent of women mentioned 'no time to go' and this proportion is more in urban areas (22 percent) than rural areas (15 percent). Other factors contributing for not going to health institutions for delivery were, 'better care at home' (9 percent), 'no transportation' or 'health facility is too far' (7 percent), 'not customary' and 'it cost too much' (3 percent each), and 'other' (5 percent). About two percent each of the women did not opt for institutional delivery due to poor quality of services and their family did not allow. Not much difference is found for the reported reasons for not going to health facilities for delivery by availability of health facility in the village or not.

Table 4.11 REASONS FOR NOT GOING TO HEALTH INSTITUTIONS FOR DELIVERY

Percent distribution of women who had given last live/still birth at home during three years preceding the survey by the main reason for not going to health institution for delivery, according to residence and availability of health facility in the village, Maharashtra, 2002-04

		Residence		Availability of health facility[1] in the village	
Reason	Total	Rural	Urban	No	Yes
Not Necessary	52.6	53.5	45.2	53.2	54.0
Not customary	3.4	3.5	2.2	3.9	2.9
Cost too much	3.0	3.0	3.1	3.2	2.8
Health facility too far/ No transport	7.4	7.3	8.7	8.3	5.9
Poor quality service	1.5	1.5	1.8	1.5	1.5
No time to go	15.9	15.2	21.6	14.2	16.6
Family did not allow	1.8	1.8	1.8	1.9	1.8
Better care at home	8.5	8.8	6.3	8.9	8.7
Lack of knowledge	0.1	0.1	0.0	0.2	0.0
Other	5.7	5.2	9.2	4.8	5.8
Total percent	100.0	100.0	100.0	100.0	100.0
Number of women	3,865	3,409	457	1,965	1,444

Note: [1] Includes sub-centre, primary health centre, community health centre or referral hospital, government hospital, and government dispensary within the village.

4.10 Delivery Characteristics by District

Table 4.12 shows the delivery characteristics by district; institutional delivery (delivery in government or private health institutions), home delivery and attendant assistance during home delivery for last live/still births to women during the three years preceding the survey. The proportion of institutional delivery is lowest in Gadchiroli (21 percent) followed by Nandurbar (29 percent) and it is highest in Mumbai (Suburban) (89 percent).

More than half (58 percent) of births are institutional delivery in the state, but in 12 of 35 districts, more than half of the births took place at home and Gadchiroli and Nandurbar had more than 70 percent of home deliveries. Except Bhandara, Kolhapur, Mumbai, and Sindhudurg, districts, less than 30 percent of home deliveries were attended by a health

professional. The extent of safe deliveries also varies by district, in 19 of 35 districts, the proportion of safe deliveries are below the state average, it ranges from 28 percent in Gadchiroli to about 90 percent in Mumbai, Mumbai (Suburban) and Sindhudurg. The proportion of safe deliveries is less than 45 percent in four districts i.e. Gadchiroli, Hingoli, Nanded and Nandurbar, (see Map-4).

Table 4.12 DELIVERY CHARACTERISTICS BY DISTRICT

Place of delivery, assistance during home deliveries, and percentage of safe deliveries by district, Maharashtra, 2002-04

Districts	Percentage of women who had institutional delivery	Percentage of women who had delivery at home	Home delivery assisted by skilled[1] persons	Percentage of safe[2] delivery
Ahmadnagar	65.8	33.9	17.0	71.5
Akola	58.9	40.5	8.8	62.5
Amravati	56.4	43.1	7.8	59.7
Aurangabad	54.8	45.2	12.8	60.5
Bhandara	40.8	58.9	31.8	59.5
Bid	53.0	47.0	6.8	56.2
Buldana	44.1	55.5	13.1	51.4
Chandrapur	41.5	58.5	9.5	47.1
Dhule	38.0	62.0	14.2	46.8
Gadchiroli	20.5	79.5	10.0	28.4
Gondiya	36.7	63.3	15.8	46.8
Hingoli	35.1	64.9	7.1	39.7
Jalgaon	51.7	48.3	23.6	63.1
Jalna	51.3	48.5	9.6	56.0
Kolhapur	76.5	23.5	34.8	84.7
Latur	51.2	48.8	5.8	54.0
Mumbai	86.3	13.4	35.3	91.0
Mumbai (Suburban)	89.1	10.9	(11.4)	90.3
Nagpur	73.1	26.0	11.7	76.1
Nanded	39.3	59.6	8.0	44.1
Nandurbar	28.5	71.5	6.6	33.2
Nashik	47.2	51.8	4.4	49.5
Osmanabad	46.7	52.9	6.2	50.0
Parbhani	45.9	53.8	11.0	51.8
Pune	79.2	20.6	1.5	79.5
Raigarh	63.4	36.6	6.7	65.9
Ratnagiri	68.9	30.7	12.9	72.8
Sangli	74.1	25.9	18.0	78.7
Satara	73.5	26.5	7.9	75.6
Sindhudurg	83.7	16.3	31.3	88.8
Solapur	64.7	34.9	16.4	70.4
Thane	68.4	30.6	12.5	72.2
Wardha	64.2	33.9	10.2	67.6
Washim	52.5	47.3	4.9	54.8
Yavatmal	53.1	46.4	6.0	55.9
Maharashtra	57.9	41.7	11.3	62.6

Note: *Table includes last live/still birth since 1-1-1999/1-1-2001.
[1] Includes Doctor/ANM/Nurse. [2] Either institutional delivery or home delivery assisted by skilled person. ( ) Based on less number of cases.

4.11 Complications During Delivery

Complications during delivery include ‘premature labour’, ‘obstructed labour’, ‘prolonged labour (more than 12 hours)’, ‘breech presentations’, ‘excessive bleeding during delivery’ and ‘other problems’ at the time of delivery reported by women during the three years preceding the survey. Nearly three-fourth of women experienced at least one problem during

delivery (Table 4.13 and Figure 4.6). The proportion of delivery complications is less among rural women (73 percent) than among urban women (77 percent). Relatively more elderly women aged 35 years and above, and women with parity 1 reported at least one delivery related problem than younger women and women with higher parity. This proportion is high among women who had received some kind of antenatal care during their pregnancy. About 55 percent of women who had not had any antenatal check-up reported that they experienced at least one problem during their pregnancy compared to 63-78 percent of women who had received some kind of antenatal check-up. Among women who had assisted or had caesarean delivery, 87-90 percent reported experiencing such problems, and 72 percent women with normal deliveries also cited complications during delivery. A relatively higher proportion of women who delivered in health institutions (77-78 percent) faced at least one delivery complication compared to those who delivered at home or other places (70 percent).

Table 4.13 DELIVERY COMPLICATIONS

Percentage of women who had given last live/still births during three years preceding the survey by delivery complication, according to selected background characteristics, Maharashtra, 2002-04

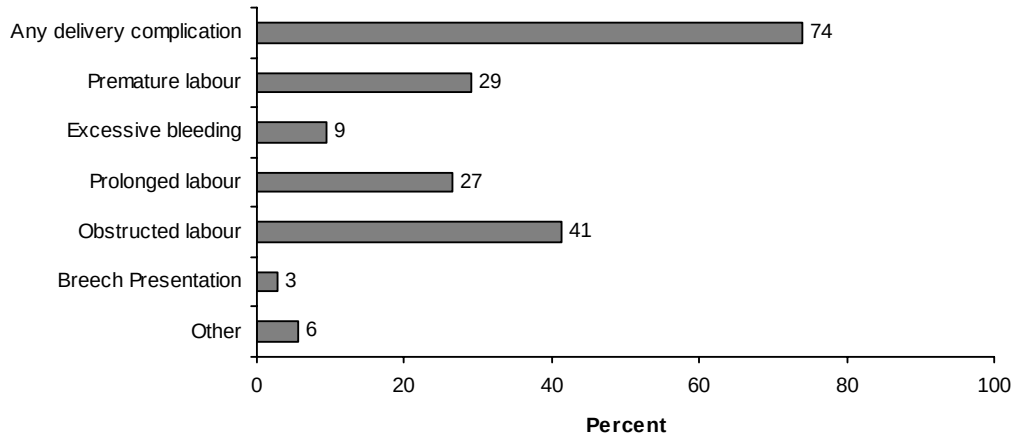
Background characteristics	Any delivery complic-ation	Type of delivery complication; Premature labour	Excessive bleeding	Prolonged labour	Obstructed labour	Breech presntation	Other	Number of women
Age group (in years)								
Below 20	72.2	26.0	12.1	28.1	40.9	2.1	5.0	1,034
20-34	74.2	29.6	8.9	26.4	41.1	2.8	5.7	7,905
35 and above	77.5	29.5	11.2	25.8	45.4	2.3	5.3	327
Children ever born								
1	77.3	29.7	9.5	28.7	41.9	3.1	8.6	2,884
2	73.7	29.7	9.6	25.6	41.8	3.7	5.5	3,079
3	72.0	29.3	8.7	24.1	41.5	2.0	3.2	1,805
4+	70.5	26.9	9.3	27.1	38.5	0.8	2.6	1,468
Residence								
Rural	72.5	28.9	9.6	28.3	40.5	1.7	4.1	6,139
Urban	77.1	30.0	9.0	23.2	42.7	4.7	8.7	3,126
Number of antenatal check-ups								
No check-up	55.4	21.0	7.8	25.7	28.1	0.0	1.7	659
1	63.2	32.0	9.9	27.3	31.2	1.0	2.0	537
2	70.1	26.9	7.4	24.8	40.9	2.0	2.3	1,394
3	76.1	27.3	10.1	27.5	43.6	1.7	4.5	1,715
4+	78.1	31.4	9.8	26.8	43.3	3.8	7.9	4,961
Delivery characteristics								
Normal	72.2	29.0	8.8	26.5	41.6	1.1	2.6	8,269
Caesarean	90.2	29.3	11.7	28.5	33.7	18.5	35.6	789
Assisted	86.6	39.6	24.3	22.2	54.5	6.0	12.5	206
Place of delivery								
Government sector	77.7	32.1	11.1	29.2	43.7	3.1	6.3	2,234
Private sector	77.3	30.0	9.1	27.3	40.7	4.9	10.1	3,134
Home	69.5	27.1	8.6	24.6	40.4	0.7	1.7	3,865
Other	(55.2)	(17.2)	(10.3)	(20.7)	(20.7)	(0.0)	(10.3)	32
Total	74.1	29.2	9.4	26.6	41.2	2.7	5.6	9,265

Note: Table include 29 women with zero parity and 1 missing case on delivery characteristic who were not shown separately.
( ) Based on less than 50 unweighted cases

The major problems reported were ‘obstructed labour’ (41 percent), ‘premature labour’ (29 percent), and ‘prolonged labour’ (27 percent). Nine percent reported ‘excessive bleeding, three percent reported ‘breech presentation’, and six percent reported ‘other’ problems related to delivery. Rural women were more likely to report prolonged labour whereas breech presentations are more prevalent among urban women. Premature labour,

excessive bleeding, and obstructed labour were more among women whose last delivery was assisted with instruments, while breech presentation and other health problems related to delivery were more likely among those who had a caesarean, during delivery than by women with normal delivery during the three years preceding the survey. Women whose recent delivery was performed in medical institutions were more likely to report premature labour, prolonged labour, breech presentation and other problems related to delivery complications compared with place of delivery other than medical institutions.

Figure 4.6
Percentage of Women with Delivery Complication and by Symptoms



Maharashtra, DLHS-RCH, 2002-04

4.12 Post Delivery Complications and Treatment

Table 4.14 and Figure 4.7 present information about women who faced complications after delivery according to some selected background characteristics. The incidence of post delivery complications during the first six-weeks of delivery were reported to be ‘high fever’, ‘lower abdominal pain’, ‘foul smelling vaginal discharge’, ‘excessive bleeding’, ‘convulsion’, ‘severe headache’, and ‘other’ problems. Thirty-five percent of women reported that they faced any of the problems during the first six weeks after their delivery. The proportion of women who cited at least one post delivery complication is higher in rural areas (39 percent) than in urban areas (28 percent). Younger women below 20 years, women with higher parity 4 and over, those women whose deliveries took place at home, and those whose deliveries at home were attended by doctor are more prone to report at least one post delivery related problem.

Women reported lower abdominal pain (20 percent), high fever and severe headache (15 percent each), excessive vaginal bleeding (9 percent), foul smelling vaginal discharge (5 percent), and convulsion (3 percent). Four percent of women reported other problems. Rural-urban differences in all symptoms of postpartum complication are large. All the postpartum complications, are more prevalent among younger women aged below 20 years than among women aged above 20 years. The symptoms of postpartum complications increased with increase in parity. Women who had the last delivery at home were more likely to have high fever, lower abdominal pain, foul smelling vaginal discharge, and excessive bleeding during

the first six weeks of delivery. Symptoms like high fever, lower abdominal pain and severe headache are more common for women who delivered at home assisted by a doctor than for women whose home deliveries were assisted by an ANM/nurse/LHV, trained birth attendant, untrained *dai*, or relatives or friends.

Women who reported at least one complication during the postpartum period were asked, whether they had consulted or sought treatment for their problems and also the source of treatment. Table 4.15 shows the percentage of women who had post delivery complications and who sought treatment by source of treatment according to residence and availability of health facility in the village. Sixty-four percent of women reported that they had obtained advice or had consulted someone for their problems. The proportion was higher among urban women (72 percent) than among rural women (62 percent). Two-third of women sought treatment from those villages where health facility was available as compared to 58 percent of women who did not have a health facility within the village.

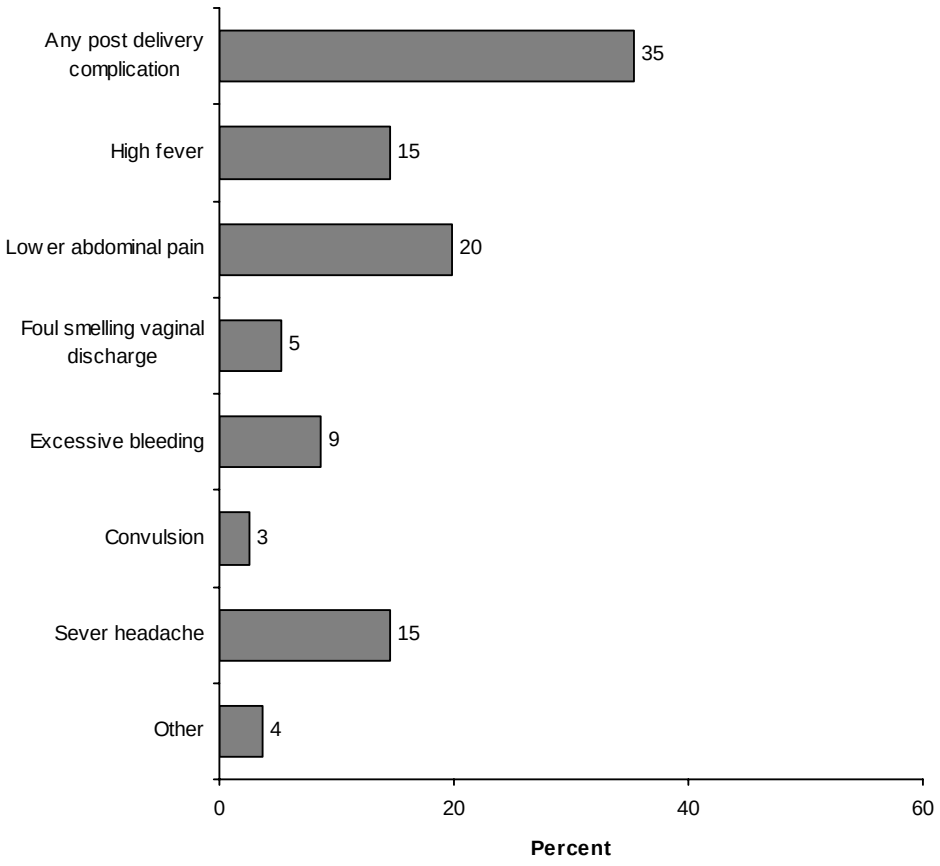
Table 4.14 POST DELIVERY COMPLICATIONS

Percentage of women who had given last live/still births during three years preceding the survey by post delivery complication, according to selected background characteristics, Maharashtra, 2002-04

Background characteristics	Any post delivery complic-ation	Type of post delivery complication; High fever	Lower abdom-inal pain	Foul smelling vaginal discharge	Excess-ive bleeding	Convul-sion	Severe head-ache	Other	Number of women
Age group (years)									
Below 20	41.4	17.0	22.2	6.7	12.4	4.9	18.3	4.2	1,034
20-34	34.8	14.4	19.6	5.2	8.4	2.3	14.3	3.7	7,905
35 and above	28.6	10.6	17.3	5.0	5.7	1.4	11.7	2.6	327
Children ever born									
1	33.2	14.0	14.6	4.0	8.4	2.5	13.7	4.3	2,884
2	34.4	13.1	20.5	5.5	8.3	2.0	13.6	2.8	3,079
3	36.8	14.5	22.4	5.8	8.8	2.8	15.6	3.9	1,805
4+	39.2	18.2	25.4	7.1	10.0	3.8	17.1	4.0	1,468
Residence									
Rural	39.0	15.8	22.2	6.3	9.6	2.9	16.1	3.8	6,139
Urban	28.2	12.0	15.1	3.4	6.9	2.0	11.7	3.5	3,126
Delivery characteristics									
Normal	35.2	14.7	19.9	5.6	8.8	2.6	14.4	3.4	8,269
Caesarean	36.8	13.8	20.0	4.1	9.1	2.4	16.6	5.9	789
Assisted	34.0	11.0	15.4	1.2	4.2	1.8	15.1	6.2	206
Place of delivery									
Government sector	33.6	13.7	18.3	4.6	8.0	2.7	15.2	3.4	2,234
Private sector	29.6	11.1	14.3	3.8	7.7	2.3	11.6	3.8	3,134
Home	40.9	17.7	25.1	7.1	10.0	2.7	16.7	3.8	3,865
Other	(48.3)	(20.7)	(31.0)	(6.9)	(10.3)	(10.3)	(31.0)	(6.9)	32
Assistance during home delivery									
Doctor	51.3	27.3	30.6	6.5	11.5	4.7	19.7	6.4	251
ANM/Nurse/LHV	45.0	20.8	24.8	6.2	16.2	3.9	14.6	5.4	184
TBA	40.0	16.3	25.1	8.8	11.0	2.0	17.3	3.8	803
Untrained dai	39.4	18.7	24.1	5.9	8.7	1.8	16.5	3.1	1,186
Relative/friends	39.9	15.6	24.7	7.2	9.2	3.3	15.8	3.7	1,407
None	(60.0)	(20.0)	(34.3)	(8.6)	(20.0)	(8.6)	(37.1)	(5.7)	34
Total	35.4	14.5	19.8	5.3	8.7	2.6	14.6	3.7	9,265

Note: Table include 29 women with zero parity and 1 missing case on delivery characteristic who were not shown separately.
( ) Based on less than 50 unweighted cases

Figure 4.7
Percentage of Women with Post Delivery Complication and by Symptoms



Maharashtra, DLHS-RCH, 2002-04

Among women who sought treatment for complications in the postpartum period, only 24 percent visited a government health facility including primary health centre (7 percent) and sub-centre (3 percent). Nearly two-third of women visited a private health facility, and nine percent obtained advice from other sources. The proportion of women who visited a private health facility is relatively higher in urban areas (71 percent) than in rural areas (62 percent). The proportion of women seeking treatment from a government health facility is more among women who belonged to villages where health facility is available compared to with non-availability of health facility within the village. Among women who sought treatment, most (88 percent) preferred to go to a doctor. Nine percent visited an auxiliary nurse midwife or nurse or LHV and three percent went to some one else. Ninety-three percent of these women in urban areas, and 85 percent in rural areas went to a doctor, whereas a visit to an ANM/nurse/LHV was 11 percent in rural areas and three percent in urban areas. Not much differences by availability of health facilities and non-availability of health facilities in the village is observed.

Table 4.15 TREATMENT FOR POST DELIVERY COMPLICATIONS

Percentage of women who had last live/still births during three years preceding the survey and who had any post delivery complication, sought treatment for the problems, and source of treatment according to residence and availability of health facility in the village, Maharashtra, 2002-04

Treatment and source	Total	Residence		Availability of health facility[5] in the village	
		Rural	Urban	No	Yes
Percentage of women sought treatment who had any post delivery complication	64.4	61.8	71.5	58.3	65.8
Number of women	3,276	2,393	882	1,288	1,106
Percentage sought treatment at health facility					
Government health facility[1]	24.4	25.0	23.1	21.5	28.6
Primary health centre	7.4	10.0	1.3	7.6	12.4
Sub centre	2.5	3.5	0.1	2.3	4.8
Private health facility[2]	64.6	61.9	70.9	63.6	60.2
ISM[3] facility	2.8	2.9	2.6	3.2	2.6
Other	9.0	10.9	4.4	12.6	9.1
Percent distribution of women who obtained treatment from					
Doctor	87.5	85.0	93.4	85.8	84.1
ANM/nurse/midwife/LHV	8.7	11.3	2.8	9.5	13.1
Other health professionals[4]	0.2	0.1	0.5	0.2	0.0
Other	2.5	2.5	2.3	3.1	2.0
Missing	1.1	1.1	0.9	1.5	0.8
Total percent	100.0	100.0	100.0	100.0	100.0
Number of women	2,109	1,479	631	751	728

[1] Include municipal hospital, dispensary, urban health centre/urban health post/urban family welfare centre, community health centre/rural hospital, primary health centre and sub centre [2] Include private hospital/clinic and non-governmental organization/ trust hospital [3] Either government or private Indian system of medicine
[4] Other health professionals include Dai (trained or untrained), relative/friends and ISM practitioner
[5] Includes sub-centre, primary health centre, community health centre or referral hospital, government hospital, and government dispensary within the village

4.13 Obstetric Morbidity by District

The extent of health problems/complications women suffer during pregnancy, delivery and post delivery period indicates the state of obstetric morbidity. Table 4.16 presents the incidence of pregnancy, delivery and post-delivery complications and treatment seeking behaviour in case of pregnancy and post delivery complications by district. As mentioned earlier, in the state, 47 percent, 74 percent and 35 percent of the women experienced pregnancy, delivery and post delivery complications respectively. About 73 percent of the women sought treatment for pregnancy complications and 64 percent for post delivery complications. In every district, a minimum of 30 percent of the women experienced at least one of the symptoms of pregnancy complications.

Table 4.16 PREGNANCY, DELIVERY AND POST DELIVERY COMPLICATIONS

Extent of pregnancy, delivery and post delivery complications and treatment seeking behaviour by districts, Maharashtra, 2002-04

District	Percentage of women[1]				
	Who had complication during pregnancy	Sought [2] treatment for pregnancy complication	Who had delivery complication	Who had post delivery complication	Sought [3] treatment for post delivery complication
Ahmadnagar	34.2	69.7	52.7	30.2	59.5
Akola	77.3	68.5	99.0	56.8	73.6
Amravati	46.9	67.5	77.9	46.1	65.1
Aurangabad	46.3	77.7	66.1	41.0	61.3
Bhandara	61.2	81.4	86.4	45.6	68.1
Bid	45.5	67.6	66.3	50.6	61.2
Buldana	51.0	63.9	62.6	44.9	65.7
Chandrapur	52.5	74.3	67.7	42.5	62.4
Dhule	52.5	70.1	99.7	48.7	71.2
Gadchiroli	39.9	61.7	61.7	33.5	37.3
Gondiya	52.9	74.0	81.6	47.4	72.3
Hingoli	59.2	64.6	99.2	51.2	62.2
Jalgaon	44.5	64.0	56.0	37.3	60.5
Jalna	70.5	68.7	96.0	52.1	80.2
Kolhapur	56.6	81.9	97.5	32.0	78.5
Latur	44.3	69.5	98.4	46.0	62.4
Mumbai	30.0	74.8	97.7	11.4	(73.5)
Mumbai (Suburban)	46.2	89.6	99.7	10.0	(93.6)
Nagpur	58.9	70.4	65.0	42.7	59.7
Nanded	34.4	60.8	56.8	41.4	66.0
Nandurbar	51.4	59.4	94.3	43.0	51.7
Nashik	44.6	67.4	54.8	37.5	56.5
Osmanabad	36.1	75.4	44.4	39.4	64.6
Parbhani	71.1	65.2	98.0	49.3	69.4
Pune	47.9	78.3	58.9	25.3	58.7
Raigarh	44.0	84.6	97.5	22.9	79.9
Ratnagiri	44.4	78.6	98.9	21.3	76.2
Sangli	42.1	86.2	64.6	31.3	75.4
Satara	42.4	74.2	58.6	29.6	63.1
Sindhudurg	49.2	85.8	50.8	26.9	62.0
Solapur	40.3	84.8	99.2	28.0	73.4
Thane	43.8	86.1	56.1	28.7	60.7
Wardha	51.0	74.4	74.1	57.1	55.3
Washim	68.4	67.5	98.1	52.7	64.6
Yavatmal	62.1	70.0	97.3	55.3	73.5
Maharashtra	46.8	73.2	74.1	35.4	64.4

Note: [1] Women who had last live/still birth during three years preceding the survey. [2] Women who reported at least one complication of pregnancy. [3] Women who reported at least one post delivery complication. ( ) Based on less than 25 cases.

In few districts like, Akola (77 percent), Jalna and Parbhani (71 percent each), and Washim (68 percent) the incidence of pregnancy complications is comparatively higher than other districts. The incidence of delivery complication is higher than that of pregnancy and post delivery complications. The incidence of post delivery complication varies from 10 percent in Mumbai to 57 percent in Akola and Wardha. The incidence of all three types of complications seems to be linked with each other in varying proportions.

In most of the districts of Maharashtra more than 90 percent of women received some kind of antenatal care. It is encouraging to note that in all the districts more than 60 percent of women sought treatment for pregnancy complication. However, among women who experienced at least one symptoms of postpartum complication, the proportion seeking treatment also varies across the districts, ranging from 37 percent in Gadchiroli to 80 percent in Jalna.

Assi

CHAPTER V

CHILD CARE AND IMMUNIZATION

Child health services under the Reproductive and Child Health (RCH) programme include health education to mothers on breast-feeding and services for immunization, Vitamin A supplements and Iron prophylaxis, treatment of diarrhoea and Acute Respiratory Infections (ARIs). The District Level Household Survey (DLHS) covered all the currently married women whose last surviving child was born during the three years preceding the survey, and information on those breastfeeding currently and duration of breastfeeding. They were also asked about their awareness of diarrhoea management and danger signs of pneumonia and practices followed in case of episodes of diarrhoea and ARI among the children. Data on immunization, administering Vitamin A supplements and Iron prophylaxis was collected for the last two living children born after January 1, 1999/2001. This chapter presents an analysis of the data collected on the above aspects.

5.1 Breastfeeding

Educating mothers on correct breastfeeding practices and child nutrition is one of the components of the RCH programme. Infant feeding practices have significant effects on the health of both mothers and children. Mothers are affected through the influences of breastfeeding on the period of postpartum infertility, and hence on fertility levels and the length of birth intervals. These effects vary according to the duration and intensity of breastfeeding. Proper infant feeding, starting from the time of birth, is important for the physical and mental development of the child. 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 have significant effects on the child's nutritional status.

As recommended by the World Health Organization (WHO), breastfeeding should be initiated immediately after birth and should be continued upto a minimum of six months. The WHO also suggests that the yellowish milk, known as colostrums, should be given to the baby because it provides protection against certain infections. Afterwards, it has to be supplemented with other semi-solid and solid foods at the proper time intervals.

Table 5.1 shows the breastfeeding practices among children born during the three years preceding the survey in Maharashtra. Although, the practice of breastfeeding is common in Maharashtra, the initiation of breastfeeding within two hours of the birth of the child is not always followed. About 44 percent of the children were breastfed within two hours of birth, and 61 percent were breastfed within one day of birth (including those who were breastfed within two hours of birth), while 39 percent of children were breastfed after one day of birth. As shown in Figure 5.1, about 17 percent of the children were breastfed within one day of birth but after two hours of birth, 31 percent were breastfed after the first day of birth but before 3 days, and seven percent children were put to the breast after three days. One percent of the children were never breastfed. More than half of the women (55 percent) who gave birth to children during the three years preceding the survey squeezed the

first milk from the breast before they began breastfeeding. Not more than 57 percent of children in any socio-economic groups shown in Table 5.1 were breastfed within two hours of birth. Thirty-seven percent of children from scheduled tribe were breastfed within two hours of birth while nearly half of children from scheduled castes were breastfed within one day of birth. Women who reside in urban areas, women who have had high school education and above and women who live in households with a high standard of living are more likely to start breastfeeding their children early. A large proportion of children from rural areas (42 percent), children of non-literate mothers (49 percent), children from schedule tribe (44 percent), and children from households with a low standard of living (46 percent) were put to the breast after one day of birth.

Table 5.1 INITIATION OF BREASTFEEDING

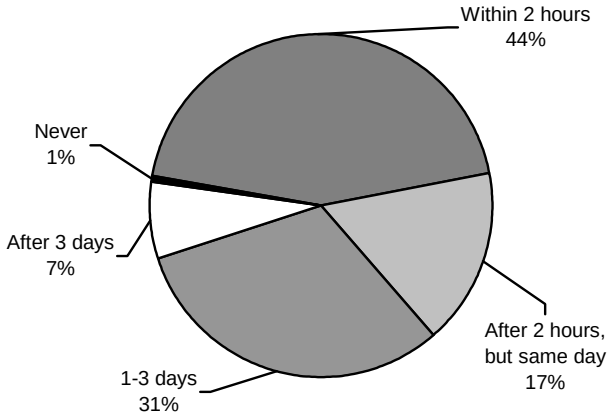
Percentage of children born during the three years preceding the survey who started breastfeeding within two hours of births, within one day of birth, and after one day of birth and percentage whose mother squeezed the first milk from her breast before breastfeeding by selected background characteristics, Maharashtra, 2002-04

Background characteristic	Percentage started breastfeeding			Percentage whose mother squeezed first milk from breast	Number of children
	Within two hours of birth	Within one day of birth[1]	After one day of birth		
Residence					
Rural	41.8	58.0	41.5	58.7	5,444
Urban	49.3	66.3	33.1	47.4	2,764
Mother's education					
Non-literate	34.6	50.8	48.6	66.5	2,531
0-9@ years	46.1	63.0	36.5	55.5	3,660
10 and above	53.3	69.5	30.1	39.2	2,017
Religion					
Hindu	44.1	60.3	39.3	56.1	6,573
Muslim	43.1	59.6	39.7	53.7	951
Buddhist	46.3	66.0	32.8	46.5	545
Other	57.3	72.3	27.7	38.6	138
Caste/tribe#					
Scheduled caste	48.5	65.4	33.9	51.8	1,207
Scheduled tribe	37.0	55.5	44.2	63.9	1,645
Other backward class	43.2	59.7	39.6	54.0	2,172
Other	47.3	62.7	36.9	52.0	3,104
Standard of living index					
Low	37.0	53.5	46.0	64.4	3,342
Medium	46.9	63.9	35.6	52.3	2,812
High	52.9	68.5	31.0	42.9	2,054
Total	44.3	60.8	38.7	54.9	8,208

Note: Table based on youngest living child born during the three years preceding the survey
[1] Includes children who started breastfeeding within two hours of births
@ Literate mother with no years of schooling are included.
#Total figure may not add to N due to do not know and missing cases.

The custom of squeezing the first milk from the breast before breastfeeding is widely practised in every group, but it is higher among the mothers of rural areas, mothers of scheduled tribe children, and children with Hindu religion. Children whose mothers are non-literate and who live in households with a low standard of living are more likely than children of literate mothers and children in other households to have mothers who squeezed the first milk from the breast before breastfeeding.

Figure 5.1
Initiation of Breastfeeding



Maharashtra, DLHS-RCH, 2002-04

Mothers of children born in the three years preceding the survey were asked whether the child had been fed breast milk exclusively and if so, what the duration was. Here it needs to be mentioned that, exclusive breastfeeding includes breastfeeding the child without giving it anything including water. Results are shown in Table 5.2.

Table 5.2 EXCLUSIVE BREASTFEEDING BY CHILD'S AGE
Percentage of children under age3 years by exclusive breastfeeding, according to child's age in month, Maharashtra, 2002-04

	Status of exclusive breastfeeding			
Age in months	Exclusive breastfeeding	At least 4 months	At least 6 months	Number of children
<2	48.3	*	*	381
2-3	38.5	*	*	563
4-5	23.7	33.4	*	552
6 -7	12.2	37.6	16.9	499
8-9	5.9	32.5	13.3	569
10-11	5.4	34.2	16.3	529
12-13	6.2	30.7	14.0	549
14-15	4.0	29.2	11.4	462
16-17	3.5	29.0	12.3	526
18-19	2.8	29.0	11.6	441
20-21	3.5	27.9	11.7	440
22-23	2.4	33.5	16.3	457
24-25	4.9	28.1	12.4	413
26-27	4.1	25.2	13.8	401
28-29	6.1	29.0	13.8	383
30-31	4.3	32.0	15.2	313
32-33	1.8	32.9	13.5	380
34-35	4.5	39.6	18.4	349
< 4 months	42.5	*	*	944
4-6 months	20.5	34.6	*	807
7-9 Months	7.4	34.2	14.1	813

Note: Table based on youngest living child born during the three years preceding the survey.
*Percentage not shown: Based on very few cases

In Maharashtra, only 43 percent of children, under four months of age are exclusively breastfed. The percentage of infants exclusively breastfed drops steadily, from 48 percent for children under 2 months of age to 12 percent for children who are 6-7 months old. About 35 percent of children in the age group 4-6 months were exclusively breastfed up to 4 months

and 14 percent of children in the age group 7-9 months are exclusively breastfed upto 6 months.

5.1.1 Breastfeeding by Districts

Table 5.3 shows that in all the districts of Maharashtra, except Amravati and Mumbai not more than 60 percent of the children were put to the breast within two hours of birth. Less than one-fourth of the children were breastfed within two hours of birth in Dhule district. More than half of the children were put to the breast after one day of birth in Dhule, Jalna, Kolhapur, Nanded and Solapur districts. In 29 of the 35 districts, the mothers of more than half children squeezed the first milk before breastfeeding.

Table 5.3 BREASTFEEDING BY DISTRICT

Percentage of children under age 3 who started breastfeeding within two hours of births, within one day of birth and after one day of birth, percentage whose mother squeezed the first milk from her breast before breastfeeding and percentage of children who exclusively breastfeed by District, Maharashtra, 2002-04

District	Percentage started breastfeeding			Percentage whose mother squeezed first milk from breast	Exclusive breastfeeding[2]
	Within two hours of birth	Within one day of birth[1]	After one day of birth		
Ahmadnagar	47.2	61.8	38.2	61.0	47.8
Akola	47.4	71.3	28.4	59.8	5.0
Amravati	60.8	72.5	27.5	38.4	5.5
Aurangabad	44.8	58.6	41.4	54.3	2.4
Bhandara	59.5	73.5	26.0	52.1	8.6
Bid	45.6	55.8	43.8	57.9	3.9
Buldana	43.2	54.2	45.6	53.9	0.9
Chandrapur	50.0	64.8	34.4	51.1	10.0
Dhule	21.1	42.5	57.2	59.5	1.0
Gadchiroli	53.3	72.8	27.2	58.5	14.0
Gondia	47.8	61.1	38.2	61.7	13.5
Hingoli	35.5	56.6	43.4	62.3	1.5
Jalgaon	37.7	57.5	42.5	53.1	75.7
Jalna	25.7	47.1	52.2	73.6	4.6
Kolhapur	29.8	48.9	51.1	66.4	0.5
Latur	32.5	59.4	40.1	51.0	0.4
Mumbai	61.4	76.4	22.8	35.2	3.4
Mumbai (Suburban)	57.7	77.8	21.3	38.9	1.6
Nagpur	50.5	61.4	37.5	51.2	16.2
Nanded	32.0	46.7	53.3	50.1	4.4
Nandurbar	30.5	50.7	49.3	70.4	2.9
Nashik	43.4	62.4	37.2	54.5	3.8
Osmanabad	47.3	58.8	40.7	61.4	8.0
Parbhani	44.3	64.0	35.8	66.1	4.8
Pune	59.8	67.9	31.1	52.6	50.4
Raigarh	43.0	70.6	29.4	52.1	1.8
Ratnagiri	33.9	59.1	40.9	53.7	4.3
Sangli	56.7	64.9	35.1	48.9	24.0
Satara	55.4	63.1	35.3	47.9	18.1
Sindhudurg	45.6	63.7	34.7	67.1	6.4
Solapur	31.6	47.1	52.6	53.1	0.8
Thane	31.9	57.2	42.2	57.9	5.2
Wardha	60.0	71.5	27.1	44.7	4.2
Washim	40.9	60.0	39.8	65.9	4.7
Yavatmal	44.5	64.5	35.5	64.5	11.5
Maharashtra	44.3	60.8	38.7	54.9	14.0

Note: Table based on youngest living child born during the three years preceding the survey
[1] Includes children who started breastfeeding within two hours of births. [2] Based on youngest children age 6 months and older at the time of survey and breastfeed exclusively 6 months or more as mother reported.

There is a great deal of variation in the extent of exclusive breastfeeding for six months. It is highest in Jalgaon and lowest in Latur and Kolhapur.

5.2 Immunization of Children

The immunization of children against six serious but preventable diseases namely, tuberculosis, diphtheria, pertusis, poliomyelitis and measles is the main component of the child survival programme. As part of the National Health Policy, the National Immunization Programme is being implemented on a priority basis. The Government of India initiated the Expanded Programme on Immunization (EPI) in 1978 with the objective of reducing morbidity, mortality and disabilities among children from six diseases.

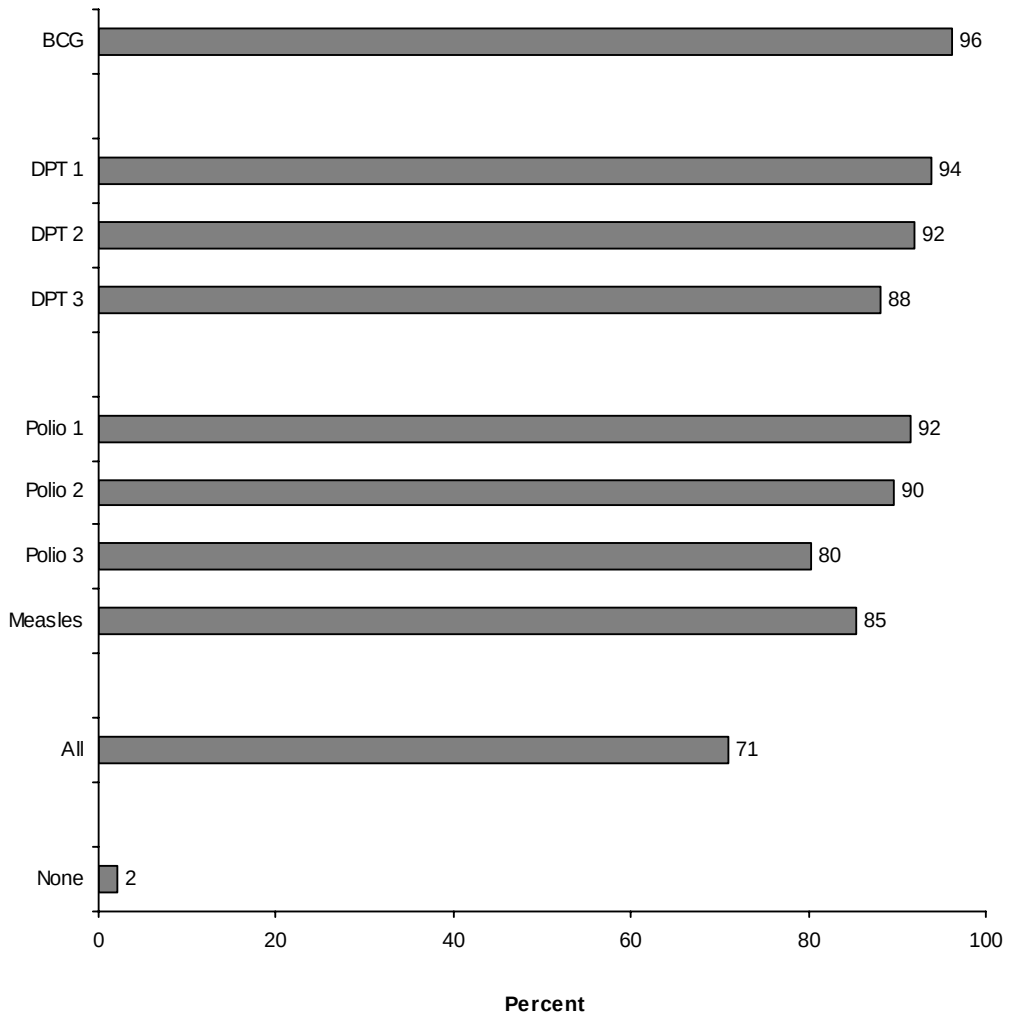
The Universal Immunization Programme (UIP) was introduced in 1985-86 with the objective of covering at least 85 percent of all infants against the six vaccine preventable diseases by 1990. This scheme has been introduced in every district of the country. The standard immunization schedule developed for the child immunization programme specifies the age at which each vaccine should be administrated and the number of doses to be given. Routine vaccinations received by infants and children are usually recorded on a vaccination card that is issued for the child.

In the first phase of Round II, all the women with last and last but one living child born after January 1, 1999 were asked whether the child/children had received the vaccination against polio, tuberculosis (BCG), diphtheria, whooping cough (pertusis), tetanus (DPT) and measles, and for the second phase, the reference period was from January 1, 2001. For Polio and DPT, further information on polio at birth and number of doses was asked. Children who received BCG, three doses of DPT and polio (excluding polio 0) and measles are considered to be fully vaccinated. Information on the source of immunization for last dose and in case where immunization was not given, the reason for not giving immunization was also compiled.

Table 5.4, Figures 5.2 and 5.3 presents vaccination coverage rates for children in the age group 12-23 months. About 71 percent of the children are fully vaccinated, and two percent have not received any routine vaccination. Coverage of each vaccination except Polio 0 is much higher than the percentage fully vaccinated. BCG, the first and second dose of DPT and Polio vaccine has each been given to more than 90 percent of children (Figure 5.2). About 88 percent of the children have received three doses of DPT and 80 percent of the children received three drops of Polio, and 85 percent of the children have been vaccinated against measles. Moreover, not all children who begin the DPT and polio vaccination series, go on to complete them. The differences between the percentage of children receiving the first and third doses is 6 percentage point for DPT and 12 percentage points for polio.

These data indicate that despite the progress that has been made in immunization coverage for children in Maharashtra, all the children are still not protected. Substantial proportion of children who received some early vaccinations dropped out of the programme before receiving all of the recommended vaccinations.

Figure 5.2
Percentage of Children Age 12-23 Months, who have Received Specific Vaccinations, Maharashtra



Maharashtra, DLHS-RCH, 2002-04

The data indicates that the coverage of each type of vaccine except polio 0 is more or less same in rural and urban areas. About 86 percent of the children have received polio vaccine at the time of birth in urban areas whereas 56 percent received the same in rural areas. Similarly a marginal difference between male and female children is observed for their vaccination. About 72 percent male children are fully vaccinated compared to 70 percent female children. The relationship between vaccination coverage and birth order is consistently negative for almost all vaccinations. A large majority of first-order births occur to younger women who are more likely than older women to utilize child health care services.

Table 5.4 VACCINATION OF CHILDREN

Percentage of children age 12-23 months who received vaccination according to some selected background characteristics, Maharashtra, 2002-04

Background characteristic	Polio 0	BCG	DPT 1	DPT 2	DPT 3	Polio 1	Polio 2	Polio 3	Measles	Full [1] vaccination	No vaccination	Number of children
Residence												
Rural	56.1	96.1	94.7	92.3	88.3	92.3	90.2	79.5	85.9	71.2	2.1	2,007
Urban	85.9	96.5	92.3	91.0	88.0	90.1	88.8	81.7	84.5	70.3	2.3	1,019
Sex of the child												
Male	67.7	96.9	94.8	93.1	89.8	92.4	90.9	80.3	86.4	72.0	1.7	1,585
Female	64.5	95.5	92.9	90.5	86.4	90.6	88.5	80.1	84.2	69.7	2.7	1,441
Birth order												
1	76.0	97.9	95.9	94.0	89.7	90.9	89.9	81.4	89.1	74.7	1.3	1,050
2	68.1	97.7	95.4	93.6	89.8	93.6	91.7	80.8	86.3	70.5	1.1	998
3	59.8	95.3	92.5	90.7	88.0	91.6	89.5	82.2	85.3	73.2	2.3	534
4+	46.0	90.1	87.5	84.5	81.3	88.4	85.2	73.8	74.6	60.1	6.6	443
Mother's education												
Non-literate	43.2	91.4	88.9	86.4	82.1	88.5	85.7	73.6	75.7	61.2	5.5	954
0-9@ years	70.8	98.0	96.3	94.1	90.1	94.5	93.4	83.6	87.9	75.2	0.8	1,374
10 years and above	88.0	99.3	96.0	94.9	92.7	90.0	88.1	82.8	93.8	75.8	0.5	697
Religion												
Hindu	64.3	97.1	94.6	92.4	88.7	92.0	90.1	80.3	86.4	71.8	1.7	2,397
Muslim	74.5	90.5	87.5	86.7	82.7	89.7	89.0	79.4	76.4	65.6	6.3	366
Buddhist	64.9	97.3	96.3	93.6	91.5	93.4	91.8	84.6	86.9	73.2	0.7	198
Other	89.9	95.0	96.6	95.3	92.2	79.0	75.0	69.3	92.1	61.1	0.2	65
Caste/tribe #												
Scheduled caste	68.4	94.8	93.5	91.7	88.1	90.0	88.8	80.7	83.1	68.3	3.1	433
Scheduled tribe	37.7	93.3	91.4	87.2	82.2	92.2	88.6	77.2	79.4	65.5	3.7	659
Other backward class	72.4	98.6	94.9	93.6	89.7	93.3	91.7	81.9	89.4	75.0	0.8	810
Other	77.5	96.9	94.8	93.4	90.8	90.7	89.6	81.2	87.0	72.6	1.8	1,096
Standard of living index												
Low	46.5	94.0	92.0	89.3	84.8	90.7	88.2	77.6	80.9	66.7	3.4	1,227
Medium	73.6	96.9	94.7	92.6	89.2	93.0	91.3	80.9	85.8	72.3	1.7	1,061
High	88.8	99.1	95.9	95.1	92.4	91.0	90.0	83.7	92.3	76.0	0.8	737
Total	66.1	96.2	93.9	91.9	88.2	91.6	89.7	80.2	85.4	70.9	2.2	3,026

Note: Table includes only last and last but one living child born since 1.1.1999/1.1.2001.

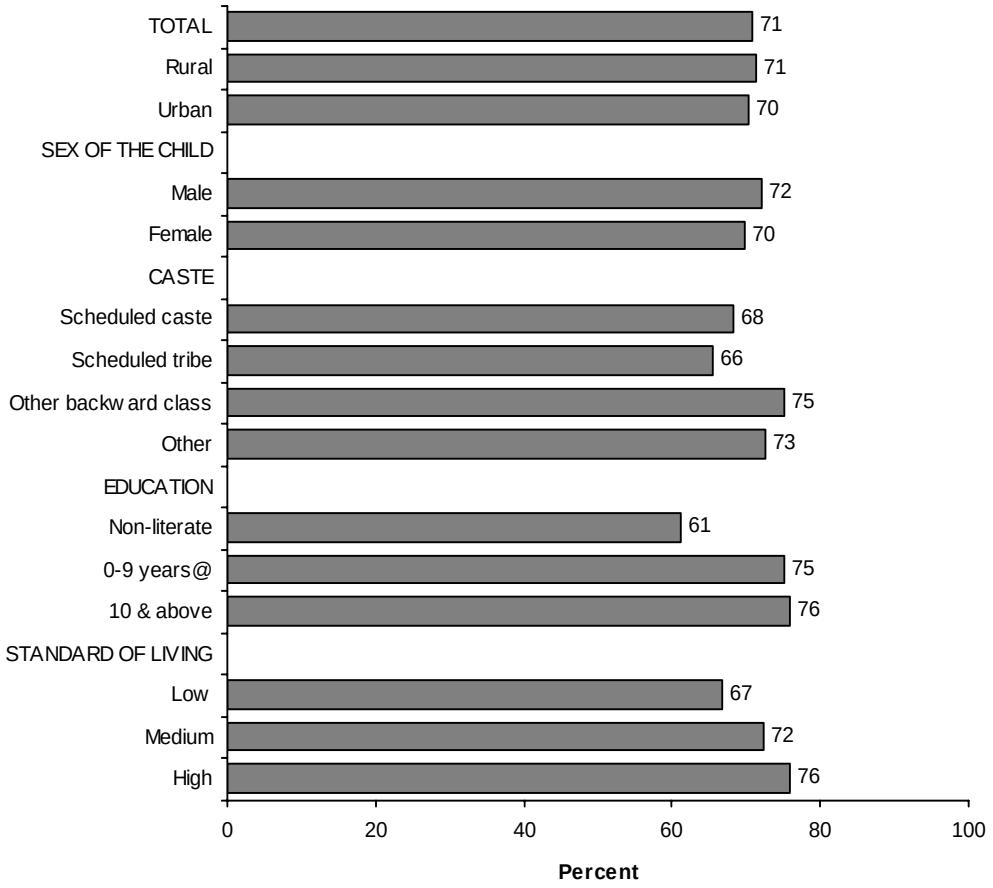
Total includes 1 child with missing information on mother's education and 3 children with other religion were not shown separately.

@ Literate mothers with no years of schooling are included. # Total figure may not add to N due to do not know cases.

[1] BCG, three injection of DPT, three doses of Polio (excluding Polio 0) and measles

As with the use of child health care services, there is a positive relationship between mother's education and children's vaccination coverage. Only 61 percent children of non-literate mothers are fully vaccinated compared to about 75 percent of children of literate mothers. Hindu and Buddhist children are more likely than Muslim children and children from other religions to have received each of the recommended vaccinations. Children from Scheduled tribe are less likely to have BCG, DPT-1, DPT-2, DPT-3, Polio-2, Polio-3 and measles vaccinations, and children from other Backward Classes are more likely to have BCG and Measles. The standard of living index of the household has a strong positive relationship with vaccination coverage. Seventy-six percent of children from households with a high standard of living are fully vaccinated, whereas only 67 percent of children are from households with a low standard of living.

Figure 5.3
Percentage of children age 12-23 months who have received all vaccination, Maharashtra



@ Literate mothers with no years of schooling are also included.

Maharashtra, DLHS-RCH, 2002-04

Table 5.5 shows the percentage of children in the age group 12-23 months and 24-35 months with a vaccination card, and the percentage who received various vaccinations during the first year of life by current age of children and place of residence. The interviewer was shown this vaccination card.

The proportion of children fully vaccinated by age 12 months increased slightly from 71 percent for children in the age group 12-23 months to 78 percent for children in the age group 24-35 months. No much rural-urban differential for the coverage of full vaccination is observed (Figure 5.4).

Table 5.5 CHILDHOOD VACCINATION RECEIVED BY 12 MONTHS OF AGE

Percentage of children age 12-23 months and 24-35 months with a vaccination card that shown to the interviewer and percentage who received specific vaccinations by 12 months of age according to residence, Maharashtra, 2002-04

	Total		Rural		Urban	
Vaccination status	12-23 months	24-35 months	12-23 months	24-35 months	12-23 months	24-35 months
Vaccination card shown to interviewer	41.3	36.2	42.1	36.2	39.6	36.2
Percentage vaccinated by 12 months of age						
Polio 0	66.1	65.2	56.1	56.3	85.9	82.5
BCG	96.2	95.5	96.1	96.0	96.5	94.6
Polio doses						
No Polio	4.7	4.5	4.3	4.0	5.4	5.7
1	1.8	1.9	2.1	1.9	1.3	2.0
2	9.6	5.1	10.8	5.0	7.2	5.2
3	81.1	85.3	80.0	85.8	83.5	84.2
Don't remember	2.7	3.2	2.8	3.3	2.6	2.9
DPT injection						
No DPT	5.1	4.6	4.4	3.8	6.6	6.3
1	2.0	1.9	2.4	1.7	1.3	2.3
2	3.7	3.2	4.0	2.3	3.0	4.9
3	88.2	88.8	88.3	90.6	88.0	85.2
Don't remember	1.0	1.5	0.9	1.7	1.1	1.2
Measles	85.4	90.5	85.9	92.4	84.5	86.8
Full [1] vaccination	70.9	77.6	71.2	78.5	70.3	75.8
No vaccination at all	2.2	1.7	2.1	1.4	2.3	2.4
Number of children	3,026	3,080	2,007	2,035	1,019	1,045

Note: Table includes only last and last but one living child born since 1.1.1999/1.1.2001
[1] BCG, three injection of DPT, three doses of Polio (excluding Polio 0) and measles

Figure 5.4
Child vaccination by age

5.3 Source of Immunization

Table 5.6 gives the percent distribution of children under three years of age who have received any vaccination by the source of last vaccine, according to place of residence and availability of health facilities in the village. Majority of the children (65 percent) were immunized at the government health facilities and only 14 percent at private health facilities. Further, among the children immunized, 24 percent from municipal hospital, 15 percent from community health centre or from primary health centre, and 13 percent of them had received vaccination from the sub-centre. The percentage of children receiving vaccination from the private sector is much lower in rural areas (5 percent) than in urban areas (31 percent). Even in urban areas, however, 61 percent of children received their vaccination from the government health facility. Children from those villages where health facilities are available are more likely to receive vaccination from the government health facility.

Table 5.6 SOURCE OF CHILDHOOD VACCINATION
Percent distribution of children under age 3 who have received any vaccination by source of last vaccination, according to place of residence and availability of health facilities in the village, Maharashtra, 2002-04

		Residence		Availability of health facility[1] in the village	
Source of vaccination	Total	Rural	Urban	No	Yes
Government health sector					
Government/municipal hospital	23.6	12.1	46.8	12.4	11.7
Community/primary health centre	14.5	17.3	9.0	10.1	25.9
Sub-centre	12.6	18.2	1.2	6.1	32.7
RCH/MCP camp	13.8	18.6	4.1	26.0	9.8
Private health sector					
Private hospital	9.6	3.5	21.6	3.6	3.4
Private doctor	3.9	1.3	9.2	1.2	1.4
ISM[2] health facility	0.7	0.3	1.7	0.2	0.4
Other	20.4	27.8	5.6	39.5	13.8
Do not remember	0.9	0.9	0.8	0.8	0.9
Total percent	100.0	100.0	100.0	100.0	100.0
Number of children	8,681	5,789	2,892	3,152	2,637

Note: Table includes last and last but one living children born in the three years preceding the survey[1] Includes sub-centre, primary health centre, Community health centre or referral hospital, government hospital, and government dispensary within the village. [2] Either government or private health facility of Indian System of Medicine

5.4 Vitamin A and IFA Supplements

Vitamin A deficiency is one of the most common nutritional deficiency disorders in the world, affecting more than 250 million children worldwide (Bolem et. al., 1997). The child survival programme also includes administration of five doses of Vitamin A for prevention of night blindness and distribution of IFA for iron supplement. In Round II, mothers of children born during the three years before the survey were asked whether their children had received a dose of Vitamin A and IFA tablets/syrup. Those who said that their children had received a dose of Vitamin A and IFA tablets/syrup were further asked how many doses were given.

Table 5.7 VITAMIN A AND IFA SUPPLEMENTATION FOR CHILDREN

Percentage of children age 12-35 months who have received at least one dose of Vitamin A and iron folic acid tablets/syrup, according to selected background characteristics, Maharashtra, 2002-04

Background characteristic	Percentage who received at least one dose of vitamin A	Percentage who received iron folic acid tablets/syrup	Number of children
Age of the child			
12-23 months	69.9	7.8	3,026
24-35 months	73.1	8.7	3,080
Sex of the child			
Male	71.8	9.3	3,213
Female	71.1	7.1	2,892
Birth order			
1	72.9	10.1	2,100
2	74.7	8.2	1,985
3	68.8	6.4	1,114
4+	64.6	6.5	907
Residence			
Rural	73.3	8.4	4,042
Urban	68.0	8.1	2,064
Mother's education			
Non-literate	64.0	5.9	1,915
0-9 years@	74.6	8.5	2,753
10 years and above	75.7	11.1	1,437
Religion			
Hindu	72.3	8.5	4,829
Muslim	66.3	5.0	731
Buddhist	74.1	9.3	422
Other	61.8	13.5	124
Caste/tribe #			
Scheduled caste	72.0	9.8	905
Scheduled tribe	66.0	5.9	1,227
Other backward class	76.1	8.5	1,645
Other	71.2	9.0	2,279
Standard of living index			
Low	68.6	7.5	2,515
Medium	74.0	7.0	2,083
High	72.9	11.3	1,507
Availability of health facility in the village[1]			
Yes	74.9	9.1	1,853
No	72.0	7.7	2,188
Total	71.5	8.3	6,105

Note: Table includes last and last but one living children born in the three years preceding the survey.
@ Literate mother with no years of schooling are also included here. # Total figure may not add to N due to do not know and missing cases. [1] Includes sub-centre, primary health centre, Community health centre or referral hospital, government hospital, and government dispensary within the village.

Table 5.7 shows the percentage of children in the age group 12-35 months who received at least one dose of Vitamin A and IFA tablets/syrup by selected background characteristics. In the state of Maharashtra as a whole, 72 percent of the children received at least one dose of Vitamin A, and only eight percent received IFA tablets/syrup. This indicates that a substantial proportion of children in Maharashtra did not receive Vitamin A supplements and very few children received IFA tablets/syrup supplementation.

Children in the age group 24-35 months are more likely to receive at least one dose of Vitamin A and IFA tablets/syrup each than children in the age group 12-23 months. Sex

differential is almost negligible to receive Vitamin A, while in case of IFA tablets/syrup a marginal difference exist. Children living in rural areas, children whose mother are literate, and children living in households with a high standard of living, are more likely to receive a dose of Vitamin A and IFA tablets/syrup. Children of birth order 4 or above are much less likely than children of birth order 1, 2 or 3 to receive any dose of vitamin A and IFA tablets/syrup. Similarly, children from Schedule Tribes are less likely to receive at least one dose of Vitamin A and a dose of IFA tablets/syrup than other caste category.

5.5 Immunization Coverage by District

The coverage of vaccination rates for all vaccines for children in the age group 12-23 months in each district is presented in Table 5.8.

Table 5.8 CHILDHOOD VACCINATION BY DSITRICT

Percentage of children who received specific vaccinations and Vitamin A supplementation by district, Maharashtra, 2002-04

	Percentage vaccinated [1]							Percentage received at least one does of Vitamin A[3]
District	Polio 0	BCG	DPT3	Polio3	Measles	Full[2]	None	
Ahmadnagar	83.2	96.0	83.5	56.7	90.8	54.1	1.6	48.2
Akola	77.3	96.3	98.1	98.1	81.9	80.1	0.8	69.8
Amravati	54.3	97.6	86.9	89.7	90.4	76.9	1.4	79.2
Aurangabad	65.6	98.8	94.6	84.6	88.9	76.2	0.8	78.1
Bhandara	78.4	97.0	90.1	91.2	92.6	89.3	3.0	72.8
Bid	66.9	96.7	95.8	84.9	86.9	75.7	1.6	67.0
Buldana	51.2	97.5	90.9	85.9	89.7	78.2	1.5	77.4
Chandrapur	45.6	98.9	74.3	73.1	89.7	61.2	0.0	68.0
Dhule	64.1	85.7	72.0	73.0	70.9	67.3	13.3	64.0
Gadchiroli	40.6	89.5	50.0	46.7	81.6	27.5	4.1	48.7
Gondia	43.7	98.6	87.7	84.6	93.3	77.1	1.4	69.6
Hingoli	58.3	78.2	76.9	76.9	61.9	60.0	17.0	63.2
Jalgaon	41.7	98.2	91.8	81.9	84.9	75.0	1.8	73.4
Jalna	58.6	94.4	88.4	87.8	85.8	76.1	1.6	83.7
Kolhapur	78.4	100.0	100.0	100.0	98.7	98.7	0.0	95.8
Latur	68.2	93.0	90.1	90.1	83.8	78.6	2.4	80.7
Mumbai	89.6	99.0	94.3	94.3	97.2	93.5	1.0	94.3
Mumbai (Suburban)	94.3	98.0	95.8	95.8	91.3	91.3	2.0	86.7
Nagpur	67.5	100.0	71.7	63.8	80.5	47.8	0.0	59.0
Nanded	37.9	96.6	89.3	76.1	79.6	67.5	2.5	69.6
Nandurbar	40.8	88.2	80.5	80.5	76.2	69.9	4.5	72.1
Nashik	48.4	90.3	83.5	78.3	70.6	64.1	6.6	66.5
Osmanabad	68.7	96.0	90.8	74.2	83.6	64.9	0.6	68.0
Parbhani	47.0	94.5	89.8	89.8	85.7	81.6	2.1	78.3
Pune	94.2	100.0	79.0	59.8	83.4	46.8	0.0	33.6
Raigarh	78.6	98.9	98.9	98.9	91.9	91.9	1.1	91.2
Ratnagiri	85.1	100.0	98.5	98.5	100.0	98.5	0.0	94.7
Sangli	80.4	95.0	88.2	76.0	86.1	63.0	2.3	71.9
Satara	85.7	98.1	93.1	76.4	88.3	69.1	0.0	78.4
Sindhudurg	76.2	100.0	100.0	97.2	100.0	97.2	0.0	92.0
Solapur	73.5	94.8	88.0	88.6	79.9	77.4	5.2	81.1
Thane	67.4	96.2	94.3	71.2	81.4	58.6	2.5	69.2
Wardha	72.1	96.1	90.0	71.5	84.7	60.8	0.0	75.8
Washim	75.6	92.5	82.3	82.3	79.8	77.1	5.8	72.6
Yavatmal	61.3	91.7	86.1	88.7	80.4	72.6	2.5	66.9
Maharashtra	66.1	96.2	88.2	80.2	85.4	70.9	2.2	71.5

Note: Table includes only last and last but one living child born since 1.1.1999/1.1.200. [1] Children age 12-23 months, [2] BCG, three injection of DPT, three doses of Polio (excluding Polio 0) and measles. [3] Children age 12-35 months.

There are inter-district differentials in the coverage for different vaccinations, and for children receiving all vaccinations and those that did not receive any vaccination at all. The percentage of children who are fully vaccinated ranges from 28 percent in Gadchiroli to about 99 percent in Ratnagiri and Kolhapur. In three more districts, namely Pune, Nagpur and Ahmadnagar the coverage of full immunization is below 55 percent (see Map-5) and including these districts the coverage rate of full immunization is below the state average of 71 percent in Thane, Hingoli, Wardha, Chandrapur, Sangli, Nashik, Osmanabad, Dhule, Nanded, Satara and Nandurbar. About 17 percent of children in Hingoli district and 13 percent in Dhule district were not vaccinated at all. The coverage of polio drops at the time of birth varies from the lowest in Nanded (38 percent) to the highest in Mumbai (Suburban) and Pune (94 percent each). However in case of BCG except four districts, (Hingoli, Dhule, Nandurbar and Gadchiroli) coverage is more than 90 percent.

District wise variations in the percentage of children who received at least one dose of Vitamin A are also shown in Table 5.8. The percentage of children in the age group 12-35 months who received at least one dose of Vitamin 'A' supplements ranges from 34 percent in Pune to about 95 percent in Mumbai, Ratnagiri and Kolhapur.

5.6 Child Morbidity and Treatment

This section discusses the awareness, prevalence and treatment of diarrhoea and acute respiratory infection (ARI). Mothers of surviving children born during the three years preceding the survey were asked if their children suffered from cough and cold or diarrhoea during the two weeks preceding the survey, and if so, the type of treatment that had been given. Accuracy of all these measures is affected by the reliability of the mother's recall of when the diseases occurred.

5.6.1 Awareness of Diarrhoea

Diarrhoea is a major killer disease of children under five years of age. Deaths from acute diarrhoea are mostly due to dehydration resulting from loss of water and electrolytes. An attempt was made to collect data on awareness of diarrhoea management and the practice followed during the episode of diarrhoea. This has been presented in Table 5.9.

In Maharashtra, 70 percent of the mothers with births three years preceding the survey were aware of what to do when a child had diarrhoea, as compared to 64 percent in Round I, and 44 percent were aware of ORS, which was 32 percent in Round I. Nearly half of the women were aware of salt and sugar solution. Some of the women also reported that they would continue normal food (7 percent), continue breastfeeding (8 percent), and give plenty of fluids (7 percent), and 30 percent of women did not know what to give a child who had diarrhoea. As expected, knowledge of ORS is higher among urban women (54 percent) than rural women (38 percent), and among high school and above educated women (67 percent) as compared to non-literate women (27 percent). Women belonging to Schedule Tribes (33 percent) are less likely to know about ORS than women belonging to other caste groups (45-48 percent). Sixty-two percent of women with children having a high standard of living know about ORS and it declines to 44 percent for women with a medium standard of living and 32 percent with a low standard of living. Knowledge of ORS is more among middle age groups than among younger women and older women. Women from villages with availability of

health facilities are little more aware of diarrhoea management than women from other villages.

Table 5.9 AWARENESS OF DIARRHOEA

Percentage of women who are aware of diarrhoea management, type of practice followed if child gets diarrhoea, and percentage of women whose child suffered[1] from diarrhoea by selected background characteristics, Maharashtra, 2002-04

Background characteristic	Knowledge of diarrhoea manage-ment	Type of practices to be followed do if child gets diarrhoea*						Number of women
		Give ORS	Salt and sugar solution	Continue normal food	Continue breastfee-ding	Give plenty of fluids	Do not know	
Age								
15-24	66.9	39.1	43.8	6.3	7.6	5.9	33.2	5,147
25-34	74.6	50.6	53.8	8.0	8.8	8.7	25.4	3,777
35-44	65.7	40.4	52.1	5.4	6.9	6.2	34.8	322
Residence								
Rural	65.7	38.3	43.2	6.3	7.8	6.0	34.4	6,063
Urban	78.3	54.4	57.7	8.3	8.7	9.0	21.8	3,183
Mother's education								
Non-literate	54.0	27.4	29.4	3.0	4.8	3.6	46.2	2,855
0-9@ years	71.2	42.4	48.8	6.8	8.2	6.3	28.9	4,088
10 and above	87.9	66.7	70.2	12.1	11.9	12.7	12.2	2,304
Religion								
Hindu	69.4	42.8	47.5	7.1	8.2	7.2	30.7	7,414
Muslim	70.4	47.1	47.9	6.2	5.6	5.0	29.7	1,059
Christian	75.5	60.3	61.6	16.8	20.3	13.9	24.5	64
Buddhist	74.0	47.0	52.0	4.9	8.7	7.4	26.3	614
Jain	92.1	49.2	67.2	14.2	16.2	13.6	7.9	59
Other	(72.0)	(56.0)	(52.0)	(8.0)	(8.0)	(4.0)	(28.0)	37
Caste/tribe#								
Scheduled caste	71.5	45.0	47.9	5.3	9.0	6.4	28.7	1,338
Scheduled tribe	55.8	33.3	32.1	3.5	4.0	3.9	44.3	1,823
Other backward class	72.8	45.5	51.7	9.0	9.3	8.3	27.2	2,432
Other	75.1	47.8	53.9	8.1	9.0	8.1	25.0	3,571
Standard of living index								
Low	59.2	31.9	36.2	4.8	6.4	5.1	41.0	3,701
Medium	71.6	43.9	48.2	6.3	7.7	6.5	28.5	3,192
High	85.1	62.4	66.9	11.3	11.2	11.0	15.0	2,354
Availability of health facility[2] in the village								
Yes	68.1	40.4	45.3	7.0	7.7	6.4	31.9	2,751
No	63.6	36.6	41.4	5.6	7.9	5.8	36.5	3,312
Total	70.0	43.8	48.2	7.0	8.1	7.1	30.1	9,247

Note: Table based on women with living children born since 01.01.1999 for phase - I /01.01.2001 for phase - II.
[1] Last two weeks prior to survey.
@ Literate mother with no years of schooling are included. # Total figure may not add to N due to do not know and missing cases.
[2] Includes sub-centre, primary health canter, Community health centre or referral hospital, government hospital, and government dispensary within the village. ( ) Based on less than 50 cases.

5.6.2 Treatment of Diarrhoea

During the two weeks before the survey, 17 percent of the women reported that their children suffered from diarrhoea (Table 5.10). Women, whose children had diarrhoea, were further asked about treatment with ORS, any other medical treatment and source of treatment. About 42 percent of the women mentioned that they gave ORS, and 82 percent of the women said that their child had been treated at health facility. Use of ORS for the treatment of childhood diarrhoea in Maharashtra is relatively high among urban women than among rural women. It

is observed that a relatively higher proportion of women from villages where health facilities are available within the village, sought treatment of childhood diarrhoea than other villages.

Table 5.10 TREATMENT OF DIARRHOEA

Percentage of women who sought treatment whose child suffered from diarrhoea and by source of treatment, according to place of residence and availability of health facility in the village, Maharashtra, 2002-04

Sought treatment/ source of treatment	Total	Residence		Availability of health fcaility[2] in the village	
		Rural	Urban	Yes	No
Percentage of women whose child suffered[1] from diarrhoea	16.7	18.4	13.6	19.0	17.9
Number of women	9,247	6,063	3,183	2,751	3,312
Percentage of women whose child suffered[1] from diarrhoea treated with ORS	42.0	39.8	47.6	40.7	39.1
Percentage of women whose child suffered[1] from diarrhoea sought treatment	81.9	80.3	86.0	84.6	76.5
Number of women	1,548	1,114	434	523	591
Source of treatment					
Government health facility					
Hospital/dispensary	6.4	5.2	9.3	3.6	6.6
UHC/UHP/UFWC	0.2	0.1	0.5	0.1	0.0
CHC/ Rural hospital	2.5	2.5	2.5	2.5	2.5
Primary health centre	9.3	12.5	1.6	14.8	10.2
Sub centre	4.3	6.0	0.2	9.3	2.6
Private health facility					
NGO/Trust hospital/clinic	0.0	0.0	0.1	0.0	0.0
Private hospital clinic	68.8	64.2	79.6	62.8	65.6
ISM[3] facility	7.3	5.8	10.8	5.8	5.8
Home remedy	2.2	2.0	2.8	1.2	2.9
Other	6.5	7.7	3.4	4.7	10.7
Percent distribution of women who seek treatment by					
Doctor	85.4	82.1	81.1	83.0	82.1
ANM/Nurse/LHV	11.0	14.5	15.5	13.5	14.5
Relative/friends	1.4	1.3	1.6	1.0	1.3
Chemist/medical shop	1.8	1.8	1.7	1.9	1.8
ISM practitioner	0.3	0.3	0.1	0.5	0.3
Total percent	100.0	100.0	100.0	100.0	100.0
Number of women	1,268	895	442	453	895

Note: Table based on women with living children born since 01.01.1999 for phase - I /01.01.2001 for phase - II.
[1] Last two weeks prior to survey. [2] Includes sub-centre, primary health centre, Community health centre or referral hospital, government hospital, and government dispensary within the village. [3] Either government or private health facility of Indian System of Medicine

Among those mothers whose children suffered from diarrhoea during the last two weeks before the survey and those women who consulted or obtained advice, 69 percent of women visited private hospitals/clinics and 23 percent of women treated their children in the government health facilities. Most of the children were treated by doctors (85 percent).

5.6.3 Awareness of Pneumonia

Another major killer disease among infants and children is Acute Respiratory Infections (ARI) including pneumonia. Early diagnosis and treatment with antibiotics can prevent a large proportion of ARI/pneumonia deaths. An attempt was made to understand the awareness level of pneumonia, and the proportion of children who had suffered from pneumonia during the last two weeks before the survey and their health seeking behaviour. This is presented in Table 5.11. It was found that a low proportion (31 percent) of women with births three years preceding the survey in Maharashtra were aware of danger signs of pneumonia. This figure is slightly up from Round I (29 percent). A little more proportion of women in urban areas (33 percent) were aware of the danger signs of pneumonia as compared to women from rural areas (30 percent). Knowledge of danger signs of pneumonia is higher among middle age group women (35 percent), women from Jain religion (50 percent), other backward class and other castes category (32-34 percent), highly educated women (44 percent), and women living in high standard of living household (40 percent).

Women, who were aware of the danger signs of pneumonia, were further asked about different types of signs of pneumonia. Most of the women mentioned about 'difficulty in breathing' (71 percent), 'pain in chest and productive cough' (66 percent), 'chest in drawing' (35 percent), 'rapid breathing' (32 percent), 'condition get worse than before' (23 percent), 'not able to drink or take a feed' (22 percent), 'excessive drowsy and difficulty in keeping awake' (21 percent), and 'wheezing / whistling' (20 percent).

5.6.4 Treatment of Pneumonia

About one-fourth of women reported that their child had suffered from pneumonia during two weeks before the survey, the corresponding figures were 27 percent in rural areas and 23 percent in urban areas (Table 5.12).

Table 5.12 also shows that the percentage of women whose children suffered from ARI symptoms in the last two weeks before the survey sought advice/treatment and taken to a health facility or provider. About 78 percent of women received some advice or treatment whose children were ill with ARI. This percentage is relatively low in rural areas (76 percent) than in urban areas (82 percent) and village without health facilities (73 percent) than village with health facility (80 percent).

Among them who got advice for children suffering with ARI, 76 percent of women visited private hospital/clinic, and only 16 percent went to government hospital/dispensary.

Table 5.11 AWARENESS OF PNEUMONIA

Percentage of women who are aware of danger signs of pneumonia by signs by selected background characteristics and availability of health facility in the village, Maharashtra, 2002-04

Background characteristic	Percentage of women aware of danger signs of pneumonia	Number of women	Danger signs: Difficulty in breathing	Chest in-drawing	Not able to drink or take a feeding	Excessive drowsy and difficulty in keeping awake	Pain in chest and productive cough	Conditions get worse than before	Wheezing/ whistling	Rapid breathing	Number of women
Age											
15- 24	28.4	5,147	68.0	34.0	21.4	21.1	66.0	23.0	22.9	32.2	1,463
25-34	35.2	3,777	74.7	36.5	21.9	20.5	67.0	24.2	17.9	31.7	1,328
35-44	28.6	322	67.9	37.0	16.9	21.4	66.4	18.1	16.9	27.9	92
Residence											
Rural	30.1	6,063	68.6	34.3	22.3	20.8	67.8	24.4	24.1	35.5	1,823
Urban	33.3	3,183	75.4	36.9	20.0	20.8	64.2	21.6	13.9	25.6	1,059
Mother's education											
Non-literate	21.0	2,855	63.1	34.4	20.9	18.4	63.6	23.5	23.8	31.8	599
0-9@ years	30.9	4,088	69.9	34.0	21.4	21.2	67.3	23.4	22.0	34.1	1,263
10 and above	44.3	2,304	77.2	37.3	21.9	21.8	67.1	23.2	16.4	29.0	1,021
Religion											
Hindu	30.6	7,414	71.9	34.9	21.2	21.6	65.2	23.6	21.9	32.0	2,266
Muslim	33.5	1,059	67.1	38.5	21.5	18.7	72.2	21.6	13.7	30.5	354
Christian	33.0	64	*	*	*	*	*	*	*	*	21
Buddhist	33.4	614	67.7	31.6	20.2	17.6	67.6	19.6	16.0	28.4	205
Jain	49.6	59	(78.6)	(28.6)	(21.4)	(21.4)	(85.7)	(35.7)	(28.6)	(64.3)	29
Other	(32.0)	37	*	*	*	*	*	*	*	*	7
Caste/tribe#											
Scheduled caste	30.5	1,338	66.4	34.6	18.2	19.3	61.4	21.6	21.8	31.3	408
Scheduled tribe	26.0	1,823	66.5	32.2	21.6	24.0	69.9	25.7	23.6	33.9	474
Other backward class	33.8	2,432	72.9	32.9	19.2	18.5	68.3	21.4	18.3	30.8	821
Other	32.4	3,571	73.4	38.4	24.5	21.8	65.9	24.3	20.4	32.1	1,158
Standard of living index											
Low	25.7	3,701	70.1	32.7	22.0	22.2	64.8	22.6	24.7	36.7	952
Medium	31.4	3,192	67.1	36.4	19.7	17.7	65.6	23.0	19.7	30.9	1,001
High	39.5	2,354	76.4	36.5	22.9	22.8	69.0	24.5	16.8	27.9	930
Availability of health facility [2] in the village											
Yes	29.6	2,751	70.9	37.2	20.3	19.7	68.9	22.1	25.9	34.5	814
No	30.5	3,312	66.7	31.9	24.0	21.8	66.9	26.2	22.8	36.3	1,009
Total	31.2	9,247	71.1	35.2	21.5	20.8	66.4	23.4	20.4	31.8	2,883

Note: Table based on women with living children born since 01.01.1999 for phase - I /01.01.2001 for phase - II. [1] Last two weeks prior to survey.
@ Literate mother with no years of schooling are included. # Total figure may not add to N due to do not know and missing cases.
[2] Includes sub-centre, primary health centre, Community health centre or referral hospital, government hospital, and government dispensary within the village.
* Percentage not shown based on very few cases.

Table 5.12 TREATMENT OF PNEUMONIA

Percentage of women who sought treatment whose child suffered[1] from cough and cold and source of treatment, according to place of residence and availability of health facility in the village, Maharashtra, 2002-04

Sought treatment/ source of treatment	Total	Residence		Availability of health fcaility[2] in the village	
		Rural	Urban	Yes	No
Percentage of women whose child suffered from cough, cold and difficulty in breathing	25.7	26.9	23.3	27.8	26.1
Number of women	9,247	6,063	3,183	2,751	3,312
Percentage of women sought treatment whose child suffered from cough and cold	78.1	76.2	82.2	79.8	73.0
Number of women	2,374	1,632	742	766	866
Source of treatment					
Government health facility					
Hospital/dispensary	5.0	4.6	5.7	4.1	5.2
UHC/UHP/UFWC	0.1	0.0	0.2	0.1	0.0
CHC/ Rural hospital	1.6	2.1	0.7	1.5	2.7
Primary health centre	7.2	10.3	1.0	10.6	10.0
Sub centre	2.2	3.2	0.0	4.7	1.8
Private health facility					
NGO/Trust hospital/clinic	0.2	0.0	0.5	0.1	0.0
Private hospital clinic	76.3	72.0	85.1	72.6	71.5
ISM[3] facility	1.9	2.0	1.7	2.2	1.7
Home remedy	4.2	4.0	4.4	3.1	4.9
Other	2.6	3.2	1.4	2.9	3.5
Percent distribution of women who seek treatment by					
Doctor	92.8	90.9	96.8	90.1	91.6
ANM/Nurse/LHV	4.5	6.2	1.0	7.2	5.2
Relative/friends	1.4	1.6	1.1	0.8	2.3
Chemist/medical shop	1.3	1.4	1.0	2.0	0.9
Total percent	100.0	100.0	100.0	100.0	100.0
Number of women	1,853	1,244	609	611	633

Note: Table based on women with living children born since 01.01.1999 for phase - I /01.01.2001 for phase - II.
[1] Last two weeks prior to survey. [2] Includes sub-centre, primary health centre, Community health centre or referral hospital, government hospital, and government dispensary within the village.
[3] Either government or private health facility of Indian System of Medicine

5.6.5 Awareness of Diarrhoea, ORS and Pneumonia and Incidence of Diarrhoea and Pneumonia by District

Table 5.13 presents the knowledge of diarrhoea management, knowledge of ORS, and incidence of diarrhoea by district. Although knowledge of diarrhoea management is high in almost all districts but knowledge about ORS is low. Knowledge of ORS is also not common, and it is lowest in Sangli (31 percent) followed by Nanded, Jalgaon, Gadchiroli, Jalna, Sindhudurg, Osmanabad, Dhule, Nandurbar, and Nashik also have relatively low (less than 40 percent) level of knowledge of ORS. The incidence of diarrhoea is 17 percent in the state as a whole and it varies from two-three percent in Mumbai and Mumbai (Suburban) to 31 percent in Amravati. Table 5.13 also shows differentials in the awareness of danger signs of pneumonia and incidence of pneumonia. In comparison with awareness about diarrhoea management, the awareness of danger signs of pneumonia is quite low. It is the lowest in

Solapur (16 percent) and highest in Washim (67 percent). The incidence of ARI symptoms is highest in Bhandara and Pune districts (47 percent each) and lowest in Mumbai (8 percent). The incidence of ARI is also high at more than 30 percent in Osmanabad, Sangli, Wardha, Yavatmal, Akola and Ahmadnagar districts.

Table 5.13 KNOWLEDGE OF DIARRHOEA MANAGEMENT AND PNEUMONIA BY DISTRICT

Percentage of women by awareness of diarrhoea management, ORS, danger signs of pneumonia and whose child had suffered from diarrhoea and pneumonia during last two weeks prior to survey by district, Maharashtra, 2002-04

District	Percentage of women aware of		Percentage of women whose child suffered[1] from diarrhoea	Percentage of women aware of danger signs of pneumonia	Percentage of women whose child suffered[1] from pneumonia
	Diarrhoea Management	ORS			
Ahmadnagar	80.7	43.3	21.8	21.6	43.0
Akola	89.0	51.3	21.8	44.0	41.2
Amravati	64.5	45.6	31.3	39.6	17.3
Aurangabad	67.2	46.0	15.7	34.0	27.0
Bhandara	79.8	41.9	20.1	63.3	47.3
Bid	78.5	44.8	19.6	42.8	28.6
Buldana	63.5	46.1	22.1	29.5	21.2
Chandrapur	66.6	45.6	16.1	32.3	26.1
Dhule	48.1	38.3	21.5	31.3	27.3
Gadchiroli	48.9	35.1	15.6	21.2	21.0
Gondia	79.3	50.2	20.3	56.9	26.9
Hingoli	66.0	41.8	17.8	42.5	19.5
Jalgaon	63.9	34.9	11.6	28.3	16.2
Jalna	69.6	35.4	26.0	45.4	29.3
Kolhapur	76.1	48.6	16.0	27.0	23.7
Latur	56.8	44.4	22.7	33.8	18.7
Mumbai	76.4	63.5	2.7	23.4	8.1
Mumbai (Suburban)	71.4	61.1	1.9	25.1	12.3
Nagpur	70.8	47.5	22.9	33.3	29.8
Nanded	53.7	34.4	17.2	21.1	15.6
Nandurbar	68.9	38.5	21.9	18.3	22.6
Nashik	64.5	39.1	10.2	35.2	23.5
Osmanabad	71.1	38.2	18.9	42.9	31.5
Parbhani	69.1	43.4	26.0	47.5	14.5
Pune	78.2	40.3	25.6	20.9	47.3
Raigarh	75.3	45.9	7.3	19.0	26.7
Ratnagiri	68.8	45.6	12.6	25.7	29.5
Sangli	71.2	30.6	14.5	28.1	33.9
Satara	86.8	56.2	20.5	28.4	32.4
Sindhudurg	81.9	38.0	10.1	21.5	22.7
Solapur	50.2	40.2	19.7	16.4	20.3
Thane	80.6	50.1	6.8	37.2	13.3
Wardha	72.2	48.4	18.6	40.0	34.9
Washim	83.5	51.2	21.5	67.2	26.7
Yavatmal	79.5	50.1	29.1	52.7	39.7
Maharashtra	70.0	43.8	16.7	31.2	25.7

Note: Table based on women with last and last but one living children born since 01.01.1999 /01.01.2001. [1] Last two weeks prior to survey.

Under the RCH programme, the government health facilities are strengthened to provide treatment of ARI. However, the percentage of women who visited to a government health facility for treatment of their children sick with ARI symptoms was very low.

CHAPTER VI

FAMILY PLANNING

The Reproductive and Child Health Programme has been implemented with a new philosophy and direction to meet the health care needs of women and children. It envisages the provision of couples to control their fertility and have sexual relations free from the fear of pregnancy. Provision of free contraceptive services to all the needy couples is one of the components of the RCH programme. In DLHS-RCH a separate section on family planning was canvassed to all the eligible women to assess the knowledge and practice of various family planning methods. The information on source of currently adopted contraceptive method, source of supply of the method and health problems related to contraceptive use were collected from current users. The current non-users were asked about the past status of contraceptive use, reason for not using contraceptives currently and future intention to adopt a family planning method.

An attempt was made to understand why male methods of family planning especially that of vasectomy was not in common use. The husbands of sampled eligible women were asked about the contraceptive method they would recommend to a couple who was not desirous of any additional children. They were also asked about the reasons for not preferring male methods and their knowledge about the no-scalpel vasectomy. This chapter presents the results of data on contraceptive practices collected from both the sampled women and their husbands.

6.1 Knowledge of Family Planning Methods

Lack of knowledge of various contraceptive choices can be a major barrier to promotion and use of contraceptives among couples. In DLHS-RCH information on knowledge of contraceptives was obtained by asking a question, “Which are the family planning methods you know?” to each sampled eligible women. The knowledge of no-scalpel vasectomy was also asked to the husbands of eligible women. If the respondent did not recognise the name of the family planning method, he was given a brief description on how the particular method was to be used. The DLHS-RCH assesses the knowledge of female sterilisation, male sterilisation including NSV, IUD, Pills, condom and traditional methods along similar lines.

The extent of knowledge of contraceptive methods among currently married women for specific methods and selected background characteristics are shown in Table 6.1 and Figure 6.1. Knowledge of any method including any modern contraceptive method is almost universal in the state of Maharashtra. The knowledge of any method and any modern method do not vary by residence. The knowledge of modern spacing method among currently married women is around 86 percent, and higher among the women with an urban residence. There are large differentials in knowledge of all modern methods with respect to the aforesaid background characteristics. For instance, 49 percent of women from rural areas are aware about all modern methods compared to 72 percent of their urban counterparts.

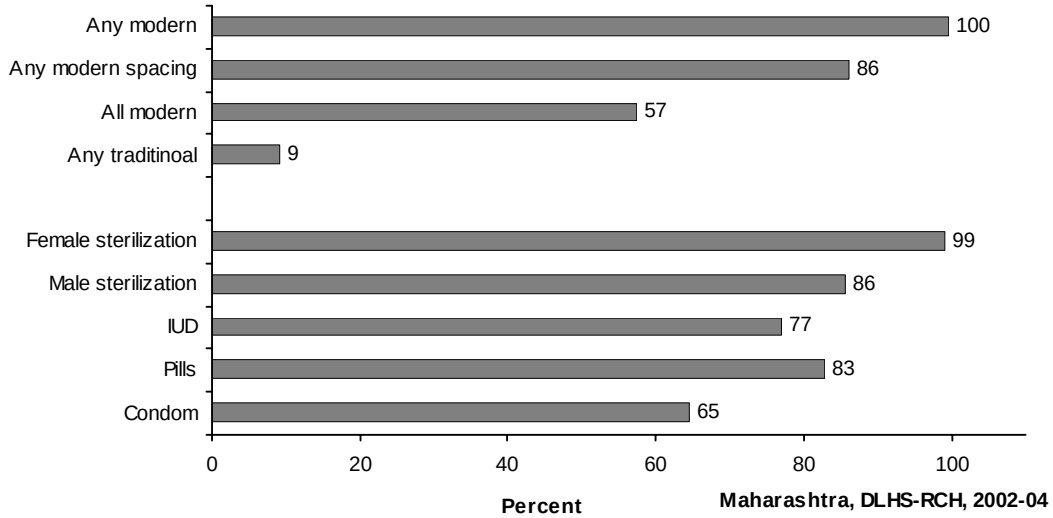
Table 6.1 KNOWLEDGE OF CONTRACEPTIVE METHODS

Percentage of currently married women age 15-44 years who know any contraceptive method by specific method and selected background characteristics, Maharashtra, 2002-04.

Contraceptive methods	Total	Residence		Availability of health facility in the village[3]	
		Rural	Urban	No	Yes
Any method	99.6	99.6	99.8	99.6	99.5
Any modern method	99.6	99.5	99.8	99.6	99.5
Any modern spacing method[1]	86.1	81.1	94.7	79.2	83.2
All modern methods[2]	57.4	48.9	72.4	45.8	52.2
Female sterilization	99.2	99.3	99.2	99.3	99.2
Tubectomy	95.0	94.5	95.8	94.5	94.6
Laparoscopy	72.2	70.1	76.0	69.8	70.5
Male sterilization	85.7	83.2	89.9	84.3	82.0
Vasectomy	63.8	59.4	71.6	58.1	60.9
No-scalpel vasectomy	44.3	39.4	52.7	38.0	40.9
IUD/Loop	77.1	70.6	88.5	67.5	73.9
Pills	82.8	77.1	92.8	74.8	79.6
Daily	63.0	54.9	77.1	50.9	59.4
Weekly	34.9	28.0	46.8	25.1	31.3
Condom/Nirodh	64.6	56.3	79.2	53.0	59.9
Sponge (today)	10.2	6.8	16.2	6.0	7.6
Injectables	15.4	10.7	23.5	10.1	11.5
Norplant	1.7	0.9	3.1	0.9	0.8
Contraceptive herbs	7.5	7.1	8.2	7.2	6.9
Any traditional method	9.2	6.2	14.5	6.3	6.0
Any other Indian system of medicinal contraceptives	0.3	0.2	0.4	0.2	0.2
Number of women	27,053	17,194	9,859	9,054	8,140

Note: [1] Include IUD, pills and condom. [2] Include Female sterilization, Male sterilization, IUD, pills and condom
[3] Includes sub-centre, primary health centre, community health centre or referral hospital, government hospital, and government dispensary within the village.

Figure 6.1
Knowledge of Family Planning Method



Female sterilisation is the most widely known method of all contraceptive methods in Maharashtra followed by male sterilisation and Pills. Overall, 99 percent of currently married women are aware of female sterilization and 86 percent knew about male sterilization. There is no rural - urban difference in knowledge of female sterilization. There are differentials in spacing methods such as IUD/Loop, Pill and condom with respect to the background

characteristics. The best-known spacing methods are Pills (83 percent) and IUD (77 percent). Only 65 percent of women know about the condom. There is a large differential in knowledge of spacing methods by residence only 56 percent of the rural women know condom compared to 77 percent of urban women. Pills and IUD are known to 77 and 71 percent of rural women respectively while the corresponding figures in urban areas are 93 and 89 percent respectively. The knowledge of these spacing methods remains low as compared to knowledge of sterilization.

In Maharashtra, only nine percent of the women are aware of a traditional method. It is also observed that women from villages with a health facility are slightly more aware about modern spacing methods and all modern methods.

6.1.1 Knowledge of Family Planning Methods by Districts

Table 6.2 shows the knowledge of contraceptive methods by districts in Maharashtra. In all districts except Gadchiroli, more than 98 percent of women know about contraceptives including modern methods.

Table 6.2 KNOWLEDGE OF CONTRACEPTIVE METHODS BY DISTRICT

Percentage of currently married women age 15-44 years who know any contraceptive method by specific method and district, Maharashtra, 2002-04

Districts	Any method	Any modern[1] method	Any modern spacing[2] method	All modern[3] methods	Male steriliz-ation	Female steriliz-ation	IUD	Pill	Condom /Nirodh	Any traditio-nal method
Ahmadnagar	99.7	99.7	82.1	46.6	71.5	99.5	72.8	79.9	56.4	5.7
Akola	100.0	100.0	94.8	74.3	96.0	99.9	85.5	93.0	80.6	15.3
Amravati	99.6	99.6	90.5	67.8	96.4	99.6	87.5	88.3	70.1	7.6
Aurangabad	99.9	99.9	85.9	56.2	92.1	99.9	78.2	84.7	60.6	5.9
Bhandara	100.0	100.0	90.5	56.7	93.2	99.9	79.7	83.4	67.9	21.7
Bid	99.9	99.8	90.6	62.7	79.4	99.8	83.9	88.1	71.6	7.1
Buldana	99.2	99.2	88.2	61.3	95.9	99.2	77.6	84.6	68.1	3.8
Chandrapur	99.5	99.5	83.8	56.8	92.9	99.5	74.3	79.2	63.4	5.7
Dhule	99.9	99.9	86.5	66.1	94.6	99.9	77.6	84.7	71.7	14.5
Gadchiroli	94.9	94.9	48.3	13.0	64.9	92.9	32.2	44.9	17.3	1.8
Gondia	99.5	99.5	80.5	36.8	83.9	99.1	57.4	74.0	49.1	7.2
Hingoli	100.0	100.0	88.7	61.1	94.6	99.9	75.0	86.7	68.2	9.3
Jalgaon	99.4	99.4	86.3	63.8	94.1	99.4	78.7	84.1	66.9	4.8
Jalna	100.0	100.0	84.4	45.9	72.6	99.8	70.2	80.1	59.7	8.7
Kolhapur	100.0	100.0	92.1	64.1	86.4	99.9	85.9	86.2	73.8	6.3
Latur	100.0	100.0	90.9	68.7	95.0	100.0	82.7	88.9	73.6	9.6
Mumbai	100.0	100.0	98.2	88.2	98.6	100.0	95.8	97.4	90.8	22.1
Mumbai (Suburban)	100.0	100.0	98.5	88.2	96.0	100.0	97.1	96.3	93.1	20.6
Nagpur	98.9	98.8	81.3	42.6	73.9	97.4	68.4	76.8	50.6	1.5
Nanded	99.4	99.4	71.5	46.6	91.8	99.4	60.5	69.3	51.6	2.7
Nandurbar	99.3	99.3	59.3	33.4	62.8	99.2	46.5	57.1	40.6	6.3
Nashik	99.3	99.3	81.8	58.7	95.4	99.2	71.6	78.8	61.4	5.1
Osmanabad	99.8	99.8	80.7	50.5	71.0	99.8	76.4	76.9	58.2	3.8
Parbhani	100.0	100.0	80.0	48.4	78.3	100.0	68.3	74.1	59.1	8.2
Pune	99.3	99.3	82.1	38.5	53.2	95.9	68.0	76.1	55.7	9.2
Raigarh	99.4	99.4	81.6	56.3	85.3	99.4	74.1	79.5	62.7	13.5
Ratnagiri	100.0	100.0	87.2	70.2	92.7	100.0	83.0	84.0	73.9	16.5
Sangli	99.7	99.7	89.4	57.8	76.0	99.7	81.9	86.8	67.7	2.6
Satara	99.8	99.8	95.4	67.0	80.7	99.3	88.6	94.3	80.3	8.6
Sindhudurg	99.8	99.8	97.9	72.5	93.9	99.8	93.9	95.3	78.6	12.8
Solapur	100.0	100.0	89.3	65.9	96.8	100.0	81.6	87.4	69.4	8.9
Thane	99.9	99.9	94.5	57.8	97.4	99.9	85.6	93.3	61.8	15.6
Wardha	100.0	100.0	95.2	69.6	97.6	100.0	87.9	90.9	76.5	7.7
Washim	100.0	100.0	87.4	62.9	85.5	100.0	76.4	82.9	72.3	18.6
Yavatmal	100.0	100.0	87.8	59.1	90.2	100.0	77.3	82.7	67.3	14.6
Maharashtra	99.6	99.6	86.1	57.4	85.7	99.2	77.1	82.8	64.6	9.2

Note: [1] Includes Female sterilization, Male sterilization, IUD, Pills and Condom. [2] Includes IUD, Pills and Condom.
[3] Includes Female sterilization & Male sterilization & IUD & Pills and Condom.

A large differential is noticed in the knowledge of all modern methods by districts. The awareness ranges from 13 percent women in Gadchiroli to 88 percent each in Mumbai and Mumbai (Suburban) districts. There is not much variation in the knowledge of female sterilization it is lowest in Gadchiroli (93 percent) followed by Pune (96 percent) and Nagpur (97 percent) while in rest of the district it ranges between 99-100 percent. Knowledge about IUD/Loop and condom are 32 and 17 percent respectively in Gadchiroli district, whereas the same is more than 90 percent for each method in Mumbai and Mumbai (Suburban) districts. As for any traditional method, awareness is 22 percent in Bhandara and Mumbai districts and the least in Nagpur and Gadchiroli districts (2 percent each).

6.1.2 Knowledge of No-Scalpel Vasectomy (NSV)

Knowledge of no-scalpel vasectomy among the husbands of currently married women in the state of Maharashtra is shown in Table 6.3. A little more than two-fifth (42 percent) of the husbands know about the no-scalpel vasectomy. In rural areas, 38 percent of husbands know about NSV compared to 51 percent in urban areas. For women residing in villages with a health facility, 41 percent of their husbands are aware of No-scalpel vasectomy and it is 35 percent for those living in villages without health facilities. Among the husbands who know about NSV, 71 percent reported that NSV is simpler than a conventional family planning method, 48 percent feel that NSV does not lead to any complication and 36 percent reported that NSV does not affect a man's sexual performance. Not much difference is found by availability of health facility in the village as far as their knowledge on NSV that it does not affect sexual performance.

Table 6.3 KNOWLEDGE OF NO-SCALPEL VASECTOMY (NSV)
Husbands knowledge of NSV by residence and availability of health facility in the village, Maharashtra, 2002-04

		Residence		Availability of health facility in the village[1]	
Knowledge of NSV	Total	Rural	Urban	No	Yes
Percentage of husband who had knowledge about NSV	41.9	37.6	50.7	34.8	40.9
Number of husbands	16,357	11,007	5,350	5,889	5,119
Who know that NSV is simpler than conventional vasectomy	70.7	69.1	73.1	68.2	70.0
Who feel that NSV does not lead to any complication	47.5	47.9	46.9	48.2	47.5
Who feel that NSV does not affect man's sexual performance	36.3	37.0	35.2	36.8	37.2
Number of husbands	6,852	4,139	2,713	2,048	2,091

Note: [1] Includes sub-centre, primary health centre, community health centre or referral hospital, government hospital, and government dispensary within the village.

6.1.3 Knowledge of No-Scalpel Vasectomy (NSV) by Districts

No-scalpel vasectomy awareness by districts in Maharashtra is provided in Table 6.4. The districts in which at least half of husbands know about NSV are Bhandara (67 percent), Akola (66 percent), Mumbai & Gondia (63 percent each), Kolhapur & Yavatmal (56 percent each), Dhule, Parbhani & Ratnagiri (55 percent each), Mumbai (Suburban) (54 percent), and Wardha (52 percent). Only 18 percent of the husbands in Gadchiroli district know about the no-scalpel vasectomy followed by 23 percent in Nashik district. That NSV does not lead to

any complications was reported by 64 percent of the husbands in Gondia district, followed by 61 percent in Satara and 60 percent in Amravati districts and only 29 percent in Thane district. The husbands who reported that the NSV does not affect a man's sexual performance were also highest in Gondia district (52 percent) and the lowest in Thane (23 percent).

Table 6.4 NO-SCALPEL VASECTOMY BY DISTRICT

Percentage of husband of eligible women by knowledge of NSV by district, Maharashtra, 2002-04

Districts	Knowledge about NSV	NSV is simpler than conventional method	Who reported NSV does not lead to any complication	Who reported NSV does not affect man's sexual performance
Ahmadnagar	40.9	57.7	36.1	23.7
Akola	66.3	68.8	55.7	50.9
Amravati	44.5	78.0	59.8	36.8
Aurangabad	39.1	70.5	38.9	29.4
Bhandara	66.7	70.1	56.5	42.6
Bid	36.4	78.6	46.5	38.9
Buldana	40.7	84.9	57.3	35.7
Chandrapur	45.4	82.4	49.6	34.8
Dhule	55.1	69.8	52.3	39.4
Gadchiroli	17.7	66.4	49.6	40.7
Gondia	63.2	65.0	63.6	52.0
Hingoli	36.1	69.8	44.8	40.2
Jalgaon	33.6	71.6	46.8	27.2
Jalna	49.3	61.4	41.3	32.4
Kolhapur	55.6	70.0	49.7	47.7
Latur	49.0	66.3	49.5	45.1
Mumbai	63.4	81.2	57.2	43.3
Mumbai (Suburban)	54.0	77.7	56.1	37.3
Nagpur	37.5	79.4	40.6	35.3
Nanded	28.9	68.0	48.4	34.6
Nandurbar	43.0	67.6	48.5	37.2
Nashik	23.2	72.0	33.4	25.2
Osmanabad	33.8	73.4	50.5	43.4
Parbhani	55.3	74.3	42.7	31.6
Pune	38.3	60.4	40.2	35.6
Raigarh	40.0	62.4	43.4	39.6
Ratnagiri	55.2	61.0	41.6	35.5
Sangli	42.9	67.1	49.6	37.7
Satara	45.4	84.3	60.7	44.0
Sindhudurg	46.2	76.7	42.1	35.8
Solapur	43.6	65.8	40.6	32.7
Thane	31.7	68.4	29.2	23.4
Wardha	51.8	70.1	37.7	25.0
Washim	43.7	74.0	57.7	43.6
Yavatmal	55.8	69.5	48.6	37.4
Maharashtra	41.9	70.7	47.5	36.3

6.2 Current use of Family Planning Methods

Table 6.5 and Figure 6.2 provide the information on current use of family planning methods for currently married women in Maharashtra. At the time of DLHS-RCH, 63 percent of currently married women were using some method of contraception, 4 percentage points up from Round I. Current contraceptive use is slightly more in urban areas (65 percent) than in rural areas (62 percent). Use of modern method is reported by 61 percent of the women, the breakdown of which is 50 percent for permanent methods and 11 percent for spacing methods. Among the users of sterilization methods most prefer female sterilization, which invalidates the use of male sterilization (2 percent).

Table 6.5 CONTRACEPTIVE PREVALENCE RATE

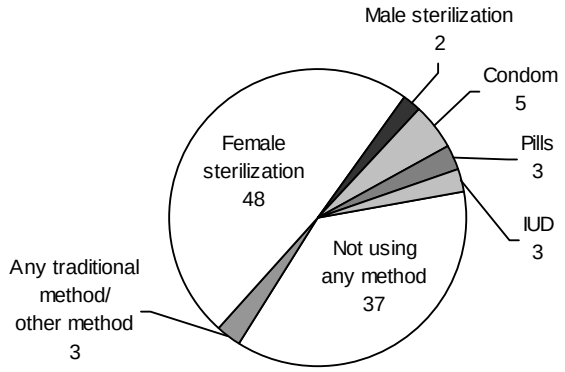
Percentage of currently married women age 15-44 years currently using any contraceptive method by selected background characteristics, Maharashtra, 2002-04

Method	Any method	Any modern[1] method	Any modern spacing method[2]	Any steriliza-tion	Male steriliza-tion	Female steriliza-tion	IUD/ Loop	Pill	Condom / Nirodh	Any traditio-nal method[3]	Rhythm/ periodic abstinence	Withdr-awal	Number of women
Residence													
Rural	62.1	60.9	5.3	55.6	2.7	52.8	1.0	1.8	2.4	1.2	0.8	0.2	17,194
Urban	65.2	60.6	19.2	41.1	0.6	40.5	5.1	4.9	9.2	4.6	3.1	1.3	9,859
Education													
Non-literate	67.4	66.2	2.5	63.7	3.5	60.2	0.2	1.1	1.1	1.1	0.7	0.2	9,470
0-9@ years	60.5	58.4	8.0	50.3	1.4	48.9	1.5	2.9	3.7	2.1	1.4	0.6	11,544
10 years & above	62.0	57.0	27.1	29.4	0.6	28.8	7.9	6.0	13.2	5.0	3.6	1.3	6,036
Religion													
Hindu	64.2	61.7	9.4	52.1	2.1	50.0	2.3	2.6	4.5	2.4	1.7	0.6	22,117
Muslim	54.6	52.3	18.2	34.0	0.2	33.8	4.1	6.1	7.9	2.3	1.3	0.8	2,542
Christian	64.2	57.4	11.6	44.5	1.6	42.9	3.3	3.6	4.7	6.8	5.9	0.9	208
Sikh	75.3	58.5	24.4	34.1	0.0	34.1	13.6	3.7	7.1	16.8	6.7	10.1	75
Buddhist	63.6	61.9	7.0	54.7	3.2	51.5	1.4	2.4	3.2	1.7	1.3	0.2	1,770
Jain	68.0	65.6	27.6	38.0	0.4	37.6	10.4	0.7	16.4	2.4	1.1	0.0	279
Other	41.6	41.6	4.9	36.6	0.9	35.7	0.0	3.7	1.2	0.0	0.0	0.0	61
Caste/tribe#													
Scheduled caste	63.3	61.7	6.4	55.2	2.5	52.7	1.0	2.6	2.8	1.6	1.2	0.3	3,790
Scheduled tribe	58.4	57.0	3.8	53.1	4.5	48.6	0.5	1.7	1.6	1.3	1.0	0.0	4,703
Other backward class	64.8	62.4	9.8	52.4	2.0	50.5	2.0	2.6	5.2	2.4	1.7	0.6	7,385
Other	64.5	61.3	14.9	46.2	0.7	45.5	4.2	3.9	6.8	3.2	2.1	1.0	10,982
Standard of living index													
Low	59.7	58.6	2.4	56.2	3.5	52.7	0.4	1.0	1.0	1.0	0.7	0.1	9,933
Medium	63.0	60.6	9.1	51.3	1.5	49.8	1.6	3.2	4.3	2.3	1.3	0.9	9,442
High	68.2	63.9	22.1	41.5	0.6	40.8	6.3	5.2	10.6	4.3	3.3	1.0	7,678
Availability of health facility in the village[4]													
No	60.6	59.4	4.2	55.1	3.0	52.1	0.7	1.4	2.1	1.2	0.8	0.2	9,054
Yes	63.8	62.6	6.4	56.1	2.4	53.6	1.4	2.2	2.9	1.1	0.8	0.2	8,140
Total	63.3	60.8	10.3	50.3	2.0	48.3	2.5	2.9	4.9	2.4	1.7	0.6	27,053

Note: [1] Include Female sterilization, Male sterilization, IUD, Pills and Condom. [2] Include IUD, Pills and Condom. [3] Include Rhythm/Periodic abstinence, Withdrawal and Other traditional method.
2 women with missing information on women education were not show separately. @ Literate women with no years of schooling are also included. #Total figure may not add to N due to don't know and missing cases. [4] Includes sub-centre, primary health centre, community health centre or referral hospital, government hospital, and government dispensary within the village.

The use of condom is reported by five percent of the women. The rural-urban differential by education and economic status is visible in the case of condom use.

Figure 6.2
Practice of family planning method



Note: Total percent may add more than 100.0 due to rounding

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Current use of contraception is low among the women of scheduled tribe (58 percent each) than other caste groups (63-65 percent). The current use of contraceptives is more among non-literate women (67 percent) than among the literate women (61-62 percent). However, it is positively associated with the standard of living of the women, increasing the prevalence rate from 60 percent to 68 percent for women from the lowest to the highest standard of living households. The availability of the health facility in the village is not seem to be an important factor in motivating eligible women to use contraceptives. Sixty-four percent of the women living in villages with a health facility are currently under contraception and this is little more than the women from villages deprived of a health facility (61 percent). The current use of any modern spacing method is much higher among the urban women, women with a higher education level and with a high standard of living than their counterparts.

6.2.1 Current Use of Family Planning Methods by Districts

Table 6.6 presents a picture of current contraceptive use in the districts of Maharashtra. The contraceptive use is a couple concepts as family planning methods can be used either by women or by their husbands. In most of the districts, the current use of contraceptives exceeds 60 percent of eligible women (see Map-6). The state figure of current modern spacing methods use is 10 percent and it ranges from two percent in Gadchiroli district to about 23 percent in Mumbai and Mumbai (Suburban) each. The variation in contraceptive prevalence at district level is basically due to the variation in the use of spacing methods. However use of male sterilization is negligible in most of the districts of Maharashtra, but in case of Gadchiroli district it is highest (about 16 percent) followed by Bhandara and Gondia districts (9-10 percent). On the other hand, use of female sterilization varies from less than 40 percent, in Mumbai, Mumbai (Suburban), Thane, Aurangabad and Buldana to 63-64 percent in Kolhapur and Wardha.

The districts in which the use of pills is more than five percent are Pune, Nashik and Mumbai (Suburban) while the use of condom exceeds five percent in 15 districts. The use of any traditional method is ten percent in Thane districts followed by Mumbai and Mumbai Suburban (7 percent each).

Table 6.6 CONTRACEPTIVE PREVALENCE RATES BY DISTRICT

Percentage of currently married women age 15-44 years currently using any contraceptive method by district, Maharashtra, 2002-04

Districts	Any method	Any modern[1] method	Any modern spacing[2] method	Male steriliz-ation	Female steriliz-ation	IUD	Pill	Condom/ Nirodh	Any traditio-nal[3] method
Ahmadnagar	61.7	60.7	5.4	0.7	54.4	1.6	1.6	2.2	1.0
Akola	66.7	64.7	12.1	3.6	48.9	2.3	3.3	6.5	2.0
Amravati	65.1	64.1	11.3	5.7	47.0	2.4	3.5	5.4	1.0
Aurangabad	57.6	55.5	15.2	1.1	39.0	4.2	4.1	6.9	1.1
Bhandara	70.0	68.2	7.9	9.9	50.3	1.3	2.2	4.4	1.8
Bid	58.5	57.7	7.0	0.2	50.3	1.8	1.5	3.8	0.8
Buldana	56.4	55.5	14.0	2.4	39.1	1.9	4.3	7.8	0.9
Chandrapur	60.8	60.3	6.3	5.4	48.5	1.2	1.6	3.5	0.5
Dhule	62.9	60.4	10.0	3.1	47.3	1.4	3.6	5.0	2.5
Gadchiroli	60.1	59.7	2.1	15.5	42.2	0.3	0.9	0.8	0.3
Gondia	65.1	64.0	5.3	9.2	49.5	1.0	0.8	3.5	1.1
Hingoli	57.0	56.0	7.0	0.2	48.7	0.8	1.6	4.7	1.0
Jalgaon	64.0	63.1	11.9	2.4	48.9	4.0	3.1	4.8	0.9
Jalna	57.0	54.3	10.9	0.4	42.9	1.1	2.8	7.0	2.5
Kolhapur	71.7	71.4	6.9	0.4	63.9	1.0	2.3	3.7	0.3
Latur	59.8	58.0	7.2	0.0	50.8	0.9	2.3	4.0	1.8
Mumbai	62.6	55.7	23.4	0.3	31.6	6.9	2.7	13.8	7.0
Mumbai (Suburban)	64.0	57.0	23.7	0.2	32.9	6.2	5.8	11.6	7.0
Nagpur	70.1	69.5	14.7	1.9	53.2	4.3	4.6	5.8	0.6
Nanded	55.2	54.1	5.6	0.6	48.0	0.9	1.9	2.8	0.9
Nandurbar	61.4	59.4	7.6	5.8	45.9	1.3	2.8	3.5	2.0
Nashik	58.2	56.8	9.5	4.3	43.0	1.5	5.4	2.5	1.4
Osmanabad	61.1	61.1	8.1	0.0	53.1	2.1	2.3	3.6	0.0
Parbhani	57.0	56.1	10.3	0.8	44.9	1.2	3.1	6.0	0.8
Pune	68.1	67.6	12.5	1.5	53.4	3.3	5.1	4.0	0.5
Raigarh	61.6	58.6	9.3	1.1	47.4	1.2	2.9	5.2	3.0
Ratnagiri	59.5	53.9	11.8	1.7	40.4	1.5	2.2	8.1	5.5
Sangli	65.1	63.6	5.4	0.2	57.9	1.6	1.9	1.9	1.5
Satara	67.6	66.5	6.5	0.2	59.9	2.5	1.4	2.5	1.0
Sindhudurg	56.1	53.4	9.2	1.7	42.5	2.1	2.6	4.5	2.7
Solapur	65.1	63.9	5.6	0.2	57.6	1.9	1.2	2.5	1.2
Thane	64.4	54.8	16.2	0.1	37.8	4.6	3.4	8.2	9.6
Wardha	73.6	73.4	5.9	4.5	63.0	1.1	1.5	3.2	0.2
Washim	69.1	67.4	11.8	0.2	55.4	2.0	2.3	7.5	1.7
Yavatmal	66.2	64.7	10.6	2.6	51.2	2.5	3.1	5.0	1.5
Maharashtra	63.3	60.8	10.3	2.0	48.3	2.5	2.9	4.9	2.4

Note: [1] Include Female sterilization, Male sterilization, IUD, Pills and Condom. [2] Include IUD, Pills and Condom. [3] Include Rhythm/Periodic abstinence, Withdrawal and Other traditional method

6.2.2 Current Use and Ever Use of Family Planning Methods by Women

Table 6.7 provides information on current contraceptive use and ever use of contraception by age and number of surviving children, living sons and daughters. The current use of any method of contraception among currently married women in the 15-19 years age group is eight percent and this attains a peak of 85 percent in the age group, 35-39 years. A similar age pattern of contraceptive use is also observed in case of modern methods. The use of modern

methods ranges from seven percent for women in the age group 15-19 years to 82 percent for women in the age group 35-39 years.

Table 6.7 USE OF CONTRACEPTION BY WOMEN
Percentage of currently married women in 15-44 years by current use and ever use of contraception according to selected demographic characteristics, Maharashtra, 2002-04

Demographic Characteristic	Percentage of women/husbands using				Percentage of women/husbands by contraceptive status		Number of women
	Any modern[1] method	Any traditional[2] method	Any method	Not using any method	Ever used	Never used	
Age-group							
15-19	7.1	0.5	7.7	92.3	10.2	89.8	2,292
20-24	35.1	1.7	36.9	63.1	43.1	56.9	5,879
25-29	64.9	2.6	67.5	32.4	72.3	27.7	5,754
30-34	78.5	2.9	81.5	18.5	84.4	15.6	5,470
35-39	81.6	2.9	84.5	15.5	86.7	13.3	4,377
40-44	79.8	3.2	83.1	16.9	85.3	14.7	3,281
Surviving children							
0	2.4	0.3	2.7	97.3	4.6	95.3	3,186
1	27.7	3.8	31.5	68.5	39.8	60.1	4,530
2	70.6	3.7	74.3	25.6	78.8	21.2	7,973
3 or more	83.5	1.5	85.1	14.9	87.1	12.8	11,363
Surviving sons							
0	18.3	2.0	20.3	79.7	25.6	74.4	6,996
1	64.8	3.3	68.2	31.8	72.9	27.0	10,434
2 or more	87.4	1.7	89.2	10.8	90.8	9.2	9,623
Surviving daughters							
0	42.1	2.1	44.3	55.7	48.1	51.9	9,206
1	68.5	3.0	71.5	28.4	75.5	24.4	10,028
2 or more	72.9	2.0	75.0	25.0	78.4	21.5	7,819
All women	60.8	2.4	63.3	36.7	67.0	32.9	27,053

Note: [1] Include Female sterilization, Male sterilization, IUD, Pills and Condom.
[2] Include Rhythm/Periodic abstinence, Withdrawal and Other traditional method.

It is crucial to understand the association between the number of living children and contraceptive use. The contraceptive use is high among the women who have three or more surviving children invariably in Maharashtra. The use of any method of contraception is 89 percent for the women who have two or more sons and is higher than the women who have two or more daughters (75 percent). However, the use of any method of contraception in case of no surviving daughter is more than double (44 percent) as compared to the women who have no surviving son (20 percent). The data clearly indicates that son preference exists in the state.

6.2.3 Current Use and Ever Use of Family Planning Methods as Reported by Husbands

Information pertaining to current use of family planning methods among the husbands of currently married women in Maharashtra by age and number of surviving children, sons and daughters are given in Table 6.8**.** The current use of any method of contraception among the husbands (aged below 25 years) of currently married women is 12 percent and it gradually picks up with the age of husband, to a peak of 87 percent in the age group, 45 years and above. Similar age patterns of contraceptive use are observed both in the case of modern

methods. The use of modern methods ranges from 12 percent for husbands below 25 years of age to 79 percent for the husbands in the age group 35-44 years.

Table 6.8 USE OF CONTRACEPTION BY MEN
Percentage of husband of currently married women by current use and ever use of contraception by selected demographic variables, Maharashtra, 2002-04

Demographic Characteristic	Percentage of husbands/women using: Any modern[1] method	Any traditional[2] method	Any method	Not using any method	Number of men
Age-group					
<25	11.5	1.0	12.4	87.6	1,104
25-34	48.2	2.1	50.3	49.7	5,937
35-44	79.4	2.5	81.9	18.1	6,125
45+	84.6	1.9	86.5	13.5	3,192
Surviving children					
0	3.1	0.5	3.6	96.4	1,745
1	30.0	5.4	35.4	64.6	2,506
2	72.4	2.6	75.0	25.0	4,669
3 or more	85.6	1.1	86.7	13.3	7,438
Surviving sons					
0	20.2	2.5	22.6	77.4	3,876
1	67.6	2.6	70.2	29.8	6,137
2 or more	88.7	1.4	90.1	9.9	6,344
Surviving daughters					
0	45.6	2.4	48.0	52.0	5,400
1	72.3	2.5	74.8	25.2	6,002
2 or more	75.8	1.3	77.1	22.9	4,955
All men	64.5	2.1	66.6	33.4	16,357

Note:[1] Include Female sterilization, Male sterilization, IUD, Pills and Condom.
[2] Include Rhythm/Periodic abstinence, Withdrawal and Other traditional method.

6.3 Reasons for Not Using Male Methods

The DLHS-RCH asked husbands of currently married women about the contraceptive methods that he or his wife was using currently. The husbands who were not using male methods were further asked the reasons for it.

Table 6.9 REASONS FOR NOT USING MALE METHODS
Percentage of husbands with their choice of family planning methods and reasons for not accepting male methods according to residence, Maharashtra, 2002-04

Female method users and reason for not accepting male methods	Total	Residence: Rural	Urban
Percentage of husband who have reported female methods	83.7	88.7	73.7
Number of men	10,902	7,229	3,672
Reasons for not accepting male methods*			
Fear of impotency	0.9	0.8	1.2
Lack of sexual pleasure	1.5	1.2	2.2
Fear of method failure	0.9	0.5	1.8
Fear of operation	3.4	3.7	2.8
Fear of weakness	48.7	56.2	31.1
Female methods are more popular	45.9	39.6	60.7
Other	6.7	7.3	5.3
Number of men	9,120	6,413	2,707

Note: * Percentages may add to more than 100.0 because multiple responses could be recorded.

Table 6.9 provides information about reasons for not using male contraceptive methods in Maharashtra. Among all the husbands interviewed, 84 percent reported about female methods. Reporting of female methods is higher in rural areas (89 percent) than in urban areas (74 percent). The main reasons cited for not preferring the male methods are fear of weakness (49 percent) and greater popularity of female methods (46 percent). The expression for fear of weakness is higher in rural areas (56 percent) than in urban areas (31 percent) while popularity of female methods as a reason for not using male methods of contraception is more reported in urban areas (61 percent) than in rural areas (40 percent). Lack of sexual pleasure is mentioned by only two percent. Only one percent each reported fear of impotency and fear of method failure as the reasons for not using male methods. Seven percent reported other reasons for not accepting male methods.

6.4 Source of Contraceptive Methods

To assess various sources of contraceptive methods, DLHS-RCH collected information on source of obtaining methods. Table 6.10 and Figure 6.3 show the percent distribution of current users of modern contraceptives by source of contraceptives. Family planning methods and services in Maharashtra are provided primarily through a network of government hospitals. The services are also provided by private hospitals and clinics, as well as non-governmental organisations (NGOs). Modern spacing methods like IUD, Pill and condom are available through both the government and private sectors. Community health centres or primary health centres (40 percent) are the main source for female sterilization followed by government/municipal hospitals (37 percent), and private hospital (17 percent).

Table 6.10 SOURCE OF MODERN CONTRACEPTIVE METHODS
Percent distribution of current users of modern contraceptive methods by method and source of supply, Maharashtra, 2002-04

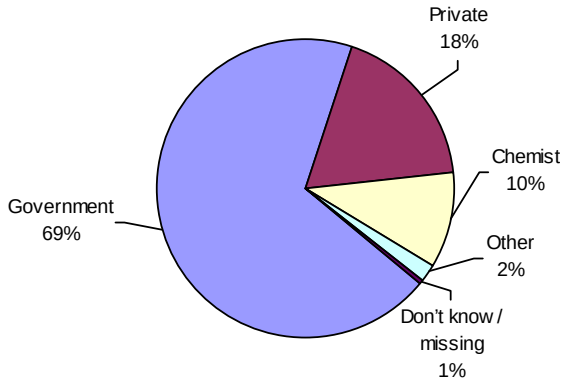
	Contraceptive method					
Source	Female sterilization	Male sterilization	IUD/ Loop	Pills	Condom/ Nirodh	All modern methods[1]
Government medical centre	79.1	86.3	33.8	19.5	9.1	69.0
Government/Municipal hospital	36.5	21.4	23.2	5.3	3.2	31.3
CHC/PHC	40.0	60.6	8.4	3.9	2.5	34.6
Sub-centre	0.4	0.2	1.5	6.3	2.1	0.8
Government doctor	0.1	0.0	0.6	0.0	0.0	0.1
Government nurse/ ANM	0.0	0.0	0.2	3.3	0.6	0.2
Family planning/RCH camp	2.0	3.8	0.0	0.1	0.4	1.8
Out reach/MCP clinic in village	0.1	0.2	0.0	0.1	0.3	0.1
Mobile clinic	0.1	0.1	0.0	0.5	0.1	0.1
Private medical centre	19.1	3.2	63.3	5.4	1.7	18.3
Private hospital	17.0	2.8	47.5	1.5	1.0	15.8
Private doctor	2.0	0.4	14.7	3.4	0.7	2.4
Private nurse	0.1	0.0	1.1	0.4	0.0	0.1
Chemist	NA	NA	NA	71.5	85.4	10.4
Other	1.7	7.2	1.9	2.9	1.3	1.9
Do not know	0.1	2.9	0.8	0.6	2.4	0.4
Missing	0.0	0.4	0.1	0.1	0.1	0.1
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of users	13,077	533	675	797	1,325	16,406

Note: [1] Includes female sterilization, male sterilization, IUD, Pills or condom. CHC: Community health centre, PHC: Primary health centre. NA: Not applicable.

For male sterilization as well, aforesaid are the main sources for obtaining the service. Among the IUD users, 48 percent reported the source as private hospital, 23 percent reported government/municipal hospital, 15 percent private doctor, and eight percent mentioned

community health centres as the source of IUD insertion. It is found that the chemist is the main source for Pills (72 percent) and condom (85 percent).

Figure 6.3
Source of family planning among current users of modern contraceptive methods



Note: Total percent may add more than 100.0 due to rounding

Maharashtra, DLHS-RCH, 2002-04

6.5 Problems with Current Use of Contraceptive Methods

Women who were using a modern contraceptive method were asked if they had experienced any problems related with the current methods they are using. Table 6.11 shows the percentage of current contraceptive users who reported specific health problems, treatment seeking behaviour and their satisfaction about the method.

Table 6.11 HEALTH PROBLEMS WITH CURRENT USE OF CONTRACEPTION
Percentage of women informed about side effects, had side effects with the method by use of method, Maharashtra, 2002-04

Health problems/side effect	Type of method: Female sterilizations	IUD/loop	Pill
Women who were informed about all the available methods	26.0	NA	NA
Women who were informed about the side effects before adoption of the method	22.8	52.4	32.5
Women who had side effect/health problem due to use of contraceptive method	18.4	12.2	11.0
Number of current users	13,077	675	797
Type of health problems/side effects[1]			
Weakness/inability to work	44.9	32.5	37.3
Body ache/ backache	76.7	54.7	17.0
Cramps	24.6	16.8	10.2
Weight gain	4.4	3.2	2.8
Dizziness	20.5	13.9	23.3
Nausea/vomiting	7.4	4.8	17.7
Breast tenderness	2.0	0.0	1.6
Irregular periods	8.0	13.8	8.0
Excessive bleeding	5.6	24.1	16.3
Spotting	2.6	10.4	3.2
White discharge	21.6	13.6	18.1
Number of users with side effects	2,403	82	88

Note: [1] Percentages may add to more than 100.0 because multiple problems could be recorded. NA: Not applicable

The analysis of the method specific problems reveals that 18 percent of the sterilized women have problem with the contraceptive methods in use. The most common problems experienced by sterilized women are body ache or backache (77 percent), weakness or inability to work (45 percent), cramps (25 percent), white discharge (22 percent), and dizziness (21 percent). With regard to the modern spacing methods, 11 percent and 12 percent of women had problems in using Pills and IUD respectively. The most common problems of Pill users were weakness or inability to work (37 percent), dizziness (23 percent), and white discharge, nausea or vomiting, body ache or backache, and excessive bleeding (16-18 percent). IUD users mainly experienced body ache or backache (55 percent), weakness or inability to work (33 percent), and excessive bleeding (24 percent).

6.6 Treatment for Health Problems with Current Use of Contraception

The study of respondents who sought treatment for contraceptive related health problems reveals that 68 percent of the sterilized women sought treatment and 72 and 47 percent in the case of IUD and Pills respectively. Regarding the satisfaction about the method, by and large all the sterilized women and those women who were using IUD or pills reported satisfaction with the respective methods.

Table 6.12 FOLLOW-UP VISIT AND SOUGHT TREATMENT FOR HEALTH PROBLEMS WITH CURRENT USE OF CONTRACEPTION

Percentage of women who had follow-up visit, satisfied with current method, and sought treatment with side effect with the method by use of method, Maharashtra, 2002-04

	Type of method		
Health problems/side effect	Female sterilizations	IUD/loop	Pill
Women who had follow up visit by health worker after adoption of method	30.9	41.1	19.4
Women who are satisfied with method of current use	96.9	96.9	94.5
Number of current users	13,077	675	797
Women who sought treatment for the health problem	68.1	71.5	46.5
Number of women with side effects	2,403	82	88
Source of treatments			
Government health facility			
Government hospital/dispensary	16.1	13.2	(4.3)
UHC/UHP/UFWC	0.5	0.0	(0.0)
CHC/Rural hospital	5.4	0.0	(6.4)
PHC	14.7	8.1	(4.3)
Sub-centre	2.5	3.6	(4.3)
Out reach/MCP clinic in village	0.2	0.0	(0.0)
Private health facility			
NGO/trust hospital clinic	0.6	2.8	(0.0)
Private hospital/clinic	57.1	69.9	(74.5)
ISM health facility[1]	2.2	3.9	(4.3)
Chemist/Medical shop	1.4	0.3	(2.1)
Home remedy	0.2	0.0	(0.0)
Other	2.4	0.0	(2.1)
Number of women with side effects	1,637	59	41

Note: [1] Either government or Private. ( ) Based on less than 50 unweighted cases

Those women who had sought treatment for contraceptive use related problems, majority of them have taken treatment from private hospitals/clinics. For female sterilization related health problems, 57 percent had taken treatment from private hospitals/clinics, 16

percent from government hospitals/dispensaries, and 15 percent from PHC. Private hospital/clinic is the source of treatment for 70 percent of women who had health problem in using IUD and the corresponding figures for the same source of treatment among Pill users is 75 percent.

6.7 Advice to Non-Users to Use Contraception

Information about non-users who were advised by the ANM/health worker to adopt contraceptives and their future intention to use by preferred method according to their background characteristics are presented in Table 6.13. In DLHS-RCH currently married women who were not using any method of contraception, were asked about advice given by ANM/health worker for adoption of any contraceptive method. It is evident that one-fifth of the women were advised by ANM/health worker to adopt any family planning method in Maharashtra. Among rural women, 22 percent were advised by ANM/health worker to adopt any method and it is more than the urban women (17 percent) who were advised so.

Table 6.13 ADVICE ON CONTRACEPTIVE USE

Percentage of current non-users* who were advised by the ANM/health worker to use contraception by suggested method according to place of residence and availability of health facility in the village, Maharashtra, 2002-04

		Residence		Availability of health facility in the village[1]	
Advise/future intension to use	Total	Rural	Urban	No	Yes
Percentage of current non-users advised by ANM/health worker to use of contraceptive method	20.2	21.9	17.0	21.3	22.6
Number of non-users	9,613	6,310	3,303	3,440	2,870
Percent distribution of women who were advised by method					
Female sterilization	62.9	66.3	54.8	68.0	64.4
Male sterilization	3.0	3.2	2.4	3.9	2.4
IUD/loop	17.9	14.9	25.4	11.8	18.3
Pill	11.6	11.2	12.5	11.9	10.5
Condom/Nirodh	2.9	2.6	3.4	2.5	2.9
Rhythmic /periodic abstinence	0.2	0.2	0.3	0.2	0.1
Other	1.2	1.2	1.2	1.5	1.0
Missing	0.3	0.4	0.0	0.3	0.6
Total percent	100.0	100.0	100.0	100.0	100.0
Number of non-users	1,941	1,381	561	733	648

Note: * Exclude women in menopause or those who have undergone hysterectomy.
[1] Includes sub-centre, primary health centre, community health centre or referral hospital, government hospital, and government dispensary within the village.

The recommended contraceptive methods by ANM/health worker is dominated by female sterilization (63 percent). Only 18 percent were advised to adopt IUD and 12 percent for Pills as spacing methods. Male sterilization and condom has been advised to only three percent each. This pattern of advice also emerges irrespective of residence and availability of health facility in the village.

6.7.1 Future Intentions

Among the non-users, 38 percent of women have expressed their intention to use any method of contraception in the future. The intention to use any method of contraception is slightly higher in rural areas (41 percent) than in urban areas (33 percent).

Among the women who intended to use permanent methods of contraception, 89 percent preferred female sterilization whereas only two percent of the women preferred male sterilization. In case of temporary methods, four percent of women mentioned for oral Pills and three percent for IUD as their preferred choice.

Around two-third of the husbands intended to use contraception in the future, among them 70 percent belong to rural areas and 51 percent from urban areas. Method wise choice in intention to use contraception is dominated by female sterilization being reported by 89 percent, followed by male sterilization (4 percent).

Table 6.14 FUTURE INTENTION TO USE CONTRACEPTION
Percentage of current non-users* who were intended to use contraception in future by preferred method according to place of residence, Maharashtra, 2002-04

	Women			Husband		
Future intention to use/method	Total	Rural	Urban	Total	Rural	Urban
Percentage of respondents who intend to use contraceptive in future	38.3	41.0	33.1	63.8	69.6	50.7
Number of non-users	9,613	6,310	3,303	5,393	3,741	1,652
Percent distribution of non-user who were preferred to use family methods by preferred method						
Female sterilization	88.6	89.7	86.2	89.3	90.4	85.8
Male sterilization	1.5	1.7	1.2	4.2	4.0	5.0
IUD/copper-T/loop	2.5	2.3	3.1	0.6	0.6	0.6
Oral pills	4.1	3.9	4.5	0.4	0.5	0.3
Condom/Nirodh	1.2	0.8	2.3	1.7	1.4	2.7
Rhythm/periodic abstinence	0.1	0.0	0.3	0.0	0.0	0.1
Withdrawal	0.0	0.0	0.0	0.0	0.1	0.0
Other	1.7	1.5	2.2	3.7	3.0	5.6
Missing	0.1	0.1	0.1	0.0	0.0	0.0
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of non-users	3,673	2,583	1,090	3,438	2,601	837

Note: * Exclude women who are in menopause or those who have undergone hysterectomy.

6.7.2 Future Intention to Use Among Women by Number of Living Children

Currently married women who were not using any contraceptive method at the time of survey were asked about their intentions to use a method in the future. Those women who intended to use contraceptives in the future were further asked about preferred methods. This type of information aids the managers and programmers to identify the potential groups of future users and to provide the type of contraceptives that are likely to be in demand. Table 6.15 provides the information on intention to use contraception in future according to number of living children and residence background in Maharashtra. Among the current non-users, 14 percent of the women intended to use contraception within the next twelve months. Only seven percent of women wanted to use within one to two years whereas 18 percent reported their intention to use contraceptives after two years. About 45 percent are not sure of their intention to use, where as 16 percent reported no intention to use. The intention of using contraception is high among the women who have two or more living children compared to the women who have either one or no living children. About 67 percent of the women who have no living children reported that they are yet to decide about the use of contraceptives. The pattern is more or less same in rural and urban areas.

Table 6.15 FUTURE USE OF CONTRACEPTION BY NUMBER OF LIVING CHILDREN

Percent distribution of currently married women* who were not currently using any contraceptive method by intention to use in the future, according to number of living children and residence, Maharashtra, 2002-04

Intention to use in the future	Number of living children					Total
	0	1	2	3	4+	
			Total			
Intends to use in next 12 months	1.4	11.4	24.1	33.1	23.0	13.6
One to two years	2.5	8.3	11.6	7.9	6.1	6.9
More than two years	17.1	22.9	16.9	11.9	6.9	17.7
Does not intend to use	12.1	13.0	17.9	21.5	39.1	16.4
Not yet decided	66.8	44.3	29.4	25.5	24.7	45.3
Missing	0.0	0.0	0.1	0.1	0.2	0.1
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	3,052	3,048	1,942	866	705	9,613
			Rural			
Intends to use in next 12 months	1.9	11.5	25.3	34.8	24.9	14.3
One to two years	2.7	8.8	13.6	8.5	7.6	7.6
More than two years	18.5	24.2	18.9	12.3	8.5	19.0
Does not intend to use	12.4	12.6	16.5	19.6	32.9	15.5
Not yet decided	64.5	42.9	25.7	24.7	25.9	43.5
Missing	0.0	0.0	0.1	0.1	0.2	0.1
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	2,050	1,934	1,253	601	473	6,310
			Urban			
Intends to use in next 12 months	0.6	11.4	22.0	29.2	19.1	12.3
One to two years	2.1	7.5	8.1	6.6	3.2	5.6
More than two years	14.2	20.7	13.3	11.0	3.7	15.2
Does not intend to use	11.6	13.6	20.4	25.9	51.9	18.1
Not yet decided	71.5	46.7	36.2	27.3	22.2	48.8
Missing	0.0	0.1	0.0	0.0	0.0	0.0
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	1,003	1,114	689	265	232	3,303

Note: * Exclude women who are in menopause or those who have undergone hysterectomy.

6.8 Reasons for Discontinuation and Non-Use of Contraception

Currently married non-pregnant women who were not using any contraceptive method at the time of survey were categorised as past users and never users according to their contraceptive experience. In DLHS-RCH, women who had discontinued contraceptive use were asked about the main reason for discontinuation. The survey also asked women who had never used contraceptives about the main reason for not doing so. Table 6.16 shows the main reason for not using contraceptives among both the past never users and current non-users. Among the past users, 57 percent of the women mentioned that they discontinued the use because they had wanted child, weakness/inability to work (7 percent), excessive bleeding (5 percent), and method failed/became pregnant (4 percent) and other reasons (12 percent). For urban women 8-9 percent reported weakness/inability to work and excessive bleeding as the reasons for discontinuation. The corresponding figures in rural areas were five and three percent respectively.

Table 6.16 REASONS FOR DISCONTINUATION OF CONTRACEPTION

Percent distribution of women who were past users (current non-users) by reason for discontinuation of the contraceptive method according to place of residence, Maharashtra, 2002-04

Reasons	Total	Place of residence	
		Rural	Urban
Reason for discontinuation			
Wanted child	56.9	63.4	51.2
Method failed/became pregnant	3.8	5.2	2.6
Supply not available	0.2	0.2	0.1
Difficult to get method	0.3	0.5	0.1
Weakness/inability to work	7.2	5.3	8.9
Body ache/ Backache	3.0	1.2	4.5
Weight gain	0.4	0.0	0.8
Dizziness	1.2	0.7	1.7
Nausea/vomiting	2.1	3.0	1.4
Breast tenderness	0.6	0.1	1.0
Irregular periods	1.8	2.3	1.5
Excessive bleeding	5.4	2.7	7.7
Spotting	0.2	0.3	0.1
White discharge	1.0	1.3	0.8
Method was inconvenient	2.7	1.4	3.8
Other	12.4	11.2	13.4
Missing	0.7	1.3	0.3
Total percent	100.0	100.0	100.0
Number of past users	1,020	472	547

6.8.1 Reasons for Not Using Contraceptive Methods

DLHS asked women and husbands who are currently not using any contraception the main reasons why they were not currently using a method. The reported main reasons by the women for not using contraceptives are, health does not permit (10 percent), difficult to become pregnant and opposed to family planning (9 percent each). About 59 percent of the women reported other reasons for not using contraception. As far as rural-urban differentials are concerned, a little variation is observed in the reasons for not using any contraceptive.

Table 6.17 REASON FOR NOT USING CONTRACEPTIVE METHOD

Percentage of current non-users who were currently not using contraceptive method by reason according to place of residence, Maharashtra, 2002-04

Reasons	Women			Husband*		
	Total	Rural	Urban	Total	Rural	Urban
Lack of Knowledge about FP method	1.9	2.3	1.1	0.9	1.2	0.5
Against the Religion	1.0	0.5	1.8	1.8	1.6	2.2
Opposed to family planning	8.6	11.0	4.7	1.6	2.0	0.9
Not like existing method	1.3	1.7	0.7	2.8	2.9	2.6
Afraid of sterilization	1.0	0.9	1.2	1.3	1.9	0.4
Can not work after sterilization	0.3	0.4	0.2	1.5	1.9	0.7
Worry about side effects	4.3	3.6	5.4	1.9	2.5	0.9
Costs too much	0.8	1.1	0.2	0.7	1.0	0.3
Health does not permit	10.0	7.6	13.9	17.3	17.0	17.9
Hard/inconvenient to get method	0.1	0.1	0.0	0.5	0.7	0.0
Inconvenient to use method	1.0	0.4	2.1	0.6	0.6	0.6
Difficult to become pregnant	9.3	9.5	9.0	5.6	6.2	4.5
Wife is pregnant	-	-	-	3.0	2.3	4.2
Other	59.4	59.7	59.0	60.2	58.1	64.3
Missing	0.9	1.1	0.4	0.0	0.0	0.0
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of current non-users	3,441	2,149	1,292	1,358	888	471

Note: [1] Not applicable for women. * Excluding not decided cases on timing of next child.

The pattern of reporting reasons by the husbands, for not using any contraceptive method is more or less same as reported by women. For husbands the main reason for not using any contraceptive methods was health does not permit (17 percent) followed by difficult to become pregnant (6 percent). Like women, about 60 percent of the husbands reported other reasons for not using contraception.

6.9 Unmet Need for Family Planning Services

Unmet need for family planning is one of the indicators to assess the effectiveness of the family planning programme. Policy makers and family planning programme planners use this to know the demand for family planning services/supplies.

Table 6.18 UNMET NEED FOR FAMILY PLANNING SERVICES

Percentage of currently married women with unmet need for family planning services by selected background characteristics, Maharashtra, 2002-04

Background Characteristic	Unmet need for FP			Number of women
	Spacing[1]	Limiting[2]	Total	
Age				
15-19	18.1	2.4	20.5	2,292
20-24	11.0	7.1	18.0	5,879
25-29	4.6	7.4	12.0	5,754
30-34	1.6	6.9	8.6	5,470
35-39	1.5	8.1	9.6	4,377
40-44	0.5	8.8	9.3	3,281
Residence				
Rural	5.8	6.5	12.4	17,194
Urban	5.0	8.1	13.1	9,859
Education				
Illiterate	3.8	7.4	11.1	9,470
0-9 @ years	6.3	7.2	13.5	11,544
10 years and above	6.7	6.5	13.2	6,036
Religion				
Hindu	5.4	6.7	12.2	22,117
Muslim	6.6	9.8	16.3	2,542
Christian	8.4	5.6	14.0	208
Sikh	1.4	3.7	5.2	75
Buddhist	5.2	8.1	13.3	1,770
Jain	3.7	6.1	9.8	279
Others	9.0	7.4	16.4	61
Caste/tribe#				
Scheduled caste	6.2	6.8	13.1	3,790
Scheduled tribe	5.0	5.8	10.8	4,703
Other backward class	4.8	6.7	11.5	7,385
Others	6.0	7.9	13.9	10,982
Number of living children				
0	9.2	1.6	10.8	3,186
1	17.5	5.1	22.6	4,530
2	3.6	9.3	12.9	7,973
3	1.0	6.6	7.6	6,735
4+	1.1	9.7	10.8	4,629
Standard of living Index				
Low	5.7	7.4	13.1	9,933
Medium	6.1	6.5	12.6	9,442
High	4.6	7.5	12.0	7,678
All women	5.5	7.1	12.6	27,053

Note: [1] Unmet need for spacing includes the proportion of currently married women who are neither in menopause or had hysterectomy nor are currently pregnant and who want more children after two years or later and are currently not using any family planning method. The women who are not sure about whether and when to have next child are also included in unmet need for spacing. [2] Unmet need for limiting includes the proportion of currently married women who are neither in menopause or had hysterectomy nor are currently pregnant and do not want any more children but are currently not using any family planning method. Total unmet need refers to unmet for limiting and spacing. @ Literate women with no years of schooling are also included. # The total figure may not add to N due to do not know and missing cases.

Unmet need is defined in this report separately for limiting and spacing. Unmet need for spacing includes the proportion of currently married women who are neither in menopause nor had hysterectomy nor are currently pregnant and who want more children after two years or later and are currently not using any family planning method. The women who are not sure about whether and when to have next child, are also included in unmet need for spacing. The women who are not sure about the timing of the next child are also included in the unmet need for spacing. Unmet need for limiting includes the proportion of currently married women who are neither in menopause nor had hysterectomy nor are currently pregnant and do not want any more children but are currently not using any family planning method. Total unmet need refers to the totality of unmet need for limiting and spacing. Table 6.18 provides the information about unmet need for limiting and spacing in Maharashtra by background characteristics.

The unmet need is high for women below 25 years, mainly for spacing rather than for limiting. Among the older women (25-29 years), 12 percent have unmet need, and seven percent for limiting. Among the women age 30 years and above, unmet need is mainly for limiting. Not much rural-urban differential is found for unmet need. The unmet need for family planning does not differ much by education, caste, and standard of living index. Unmet need for family planning is higher (23 percent) for those women who had only one living child compared to the women who had no child (11 percent) and those who had two or more children (8-13 percent). Among the women with no children or one child the unmet need is mainly for spacing, whereas for women with two children or more unmet need is for limiting.

6.9.1 Unmet Need for Family Planning Services by Districts

Table 6.19 provides the information about unmet need for limiting, spacing and total by district. The unmet need for family planning services for state is 13 percent and it ranges from seven percent in Kolhapur to 22 percent in Ahmadnagar. In more than half of districts unmet need for family planning is more than the state average. Unmet need for limiting was found lowest in Kolhapur, Solapur and Bhandara (4 percent each) and highest in Buldana and Sindhudurg (12 percent each). Similarly, unmet need for spacing was lowest, less than three percent in each of the districts of Thane, Kolhapur and Jalgaon district to 12 percent in Ahmadnagar. It may also observe that in the districts of Ahmadnagar, Bhandara, Dhule, Gadchiroli, Gondia, Osmanabad, Pune, Sangli, Satara, and Wardha unmet need for spacing was more than limiting.

Table 6.19 UNMET NEED BY DISTRICT

Percentage of currently married women with unmet need by district Maharashtra, 2002-04

Districts	Unmet need for		
	Spacing	Limiting	Total
Ahmadnagar	11.6	10.5	22.2
Akola	4.8	7.0	11.8
Amravati	6.0	7.4	13.4
Aurangabad	3.3	11.1	14.4
Bhandara	6.2	4.2	10.4
Bid	6.9	8.5	15.4
Buldana	5.5	12.1	17.6
Chandrapur	6.9	8.3	15.3
Dhule	6.1	5.7	11.7
Gadchiroli	10.2	5.7	15.9
Gondia	8.2	5.7	13.9
Hingoli	5.3	7.2	12.5
Jalgaon	2.7	6.7	9.4
Jalna	4.9	7.9	12.8
Kolhapur	2.6	3.9	6.5
Latur	5.6	7.4	13.0
Mumbai	4.5	8.6	13.1
Mumbai (Suburban)	5.1	8.6	13.6
Nagpur	4.9	6.2	11.2
Nanded	4.3	8.8	13.0
Nandurbar	3.3	7.1	10.4
Nashik	3.3	5.9	9.2
Osmanabad	8.7	7.5	16.2
Parbhani	5.3	6.7	12.1
Pune	8.9	6.7	15.6
Raigarh	5.4	7.1	12.5
Ratnagiri	3.2	9.3	12.5
Sangli	6.8	5.9	12.7
Satara	9.2	5.4	14.6
Sindhudurg	7.9	11.7	19.6
Solapur	4.0	4.2	8.2
Thane	2.5	7.7	10.2
Wardha	5.0	4.5	9.5
Washim	4.1	4.9	9.0
Yavatmal	4.9	5.3	10.2
Maharashtra	5.5	7.1	12.6

CHAPTER VII

ACCESSIBILITY AND PERCEPTION ABOUT GOVERNMENT HEALTH FACILITIES

The government health facilities at all the levels provide various RCH services. Auxiliary Nurse Midwife (ANM), family planning worker or male health worker play a key role in delivering the services to the community. Health workers are expected to make regular visits to all the households in their assigned area. During these contacts, the health workers are supposed to monitor various aspects of the health of women and children, provide information related to health and family planning, counsel and motivate to adopt appropriate health and family planning practices, and deliver other selected services. These contacts are also important as they enhance the creditability of services and establish necessary rapport with the clients. In order to assess the extent of utilisation of government health facilities by all eligible women and to find out whether ANM/health workers reach the households for providing RCH services, a separate section in the women's questionnaire was canvassed to all the eligible women. This chapter deals with the accessibility and the opinion of women about the services provided by the government health workers. The quality of care offered by the government health programme as perceived by currently married women is also presented.

7.1 Home Visit by Health Workers

Table 7.1 shows the percentage of currently married women visited by health workers at home during the three months prior to the survey. Fourteen percent of the women in Maharashtra reported that the health worker visited them at their residence at least once in last three months preceding the survey. Younger women seemed more likely to report a home visit than older women. Sixteen percent of women in the age group 15-24 years reported at least one home visit compared to 12 percent of women in the age group 35 years and older. The percentage of women in Maharashtra receiving home visits is higher in rural areas (19 percent) than in urban areas (6 percent). Women having education 10 and above (11 percent) and women with a high standard of living (10 percent) seemed less likely to report home visits. There was not much variation by religions, caste/tribe and availability of health facility in the village. However, comparatively more Hindu and Buddhist women (14-15 percent) reported home visits than women from Muslim, Christian and Jain religions (9-10 percent), and home visits were more common for women from scheduled tribe.

Women who reported a home visit during the three months preceding the survey were asked who visited their household during the past three months and whether they were satisfied with the kind of services/advice received, and the time spent by these health workers. Among women who received services at home, 73 percent received services from ANM/LHV, 32 percent from male health worker and six percent from a doctor. ANM/LHV were more likely to visit in rural areas (77 percent) compared to urban areas (51 percent), whereas it is reverse in case of home visits by a doctor or male health worker, as they were reported more by the women from urban areas. Most (86 percent) of women who received services at home were satisfied with the time spent with them and 88 percent of women were satisfied with the services or advice given to them.

Table 7.1 HOME VISIT BY HEALTH WORKER

Percentage of women who had home visit by a doctor, ANM/LHV, or male health worker in the 3 months preceding the survey, among women who had home visit, satisfied with time spent by health workers and with services provided by selected background characteristics, Maharashtra, 2002-04

Background characteristic	Percentage with home visit	Number of women	Home visit by[1]			Percentage of women satisfied with		Number of women
			Doctor	ANM / LHV	Male health worker	Amount of time	Services/ advices	
Age								
15.24	15.9	8,170	4.7	80.4	24.3	86.6	88.7	1,295
25-34	14.2	11,224	6.1	73.9	31.6	85.9	87.7	1,593
35-44	12.3	7,658	6.6	62.9	41.3	85.6	86.7	943
Residence								
Rural	19.1	17,194	5.0	77.2	28.8	87.3	89.2	3,275
Urban	5.6	9,859	10.0	50.9	47.3	78.6	79.9	556
Education								
Non-literate	14.3	9,470	5.9	71.6	33.6	84.9	86.3	1,350
0-9@ years	16.0	11,544	6.1	73.1	32.1	87.3	88.9	1,847
10 and above	10.5	6,036	4.5	78.0	25.3	85.0	87.9	634
Religion								
Hindu	14.9	22,117	5.5	74.7	30.9	86.5	88.2	3,289
Muslim	9.1	2,542	9.6	58.6	37.4	84.0	88.1	232
Christian	9.7	208	15.4	62.7	26.1	80.0	75.0	20
Sikh	11.6	75	*	*	*	*	*	9
Buddhist	14.4	1,770	6.2	69.3	34.1	84.2	85.7	255
Jain	8.8	279	0.0	81.2	52.0	63.8	66.4	25
Other	1.9	61	*	*	*	*	*	1
Caste/tribe#								
Scheduled caste	14.2	3,790	7.1	71.5	31.0	83.0	84.7	538
Scheduled tribe	18.5	4,703	3.7	74.6	32.9	88.3	89.6	869
Other backward class	14.6	7,385	5.5	70.3	35.2	84.5	87.3	1,081
Other	12.0	10,982	6.8	75.6	28.1	87.1	88.2	1,320
Standard of living index								
Low	18.0	9,933	5.4	76.0	29.9	87.2	88.7	1,788
Medium	13.8	9,442	6.4	69.7	34.2	84.7	86.9	1,305
High	9.6	7,678	5.4	73.5	30.5	85.6	87.3	739
Availability of health facility[2] in the village								
No	18.2	9,468	6.6	74.3	31.0	87.3	88.9	1,723
Yes	20.1	7,726	3.3	80.4	26.5	87.4	89.4	1,552
Total	14.2	27,053	5.8	73.4	31.5	86.1	87.8	3,831

Note: Total includes 2 women with missing information on education who were not shown separately.[1] Percentage add to more than 100.0 due to multiple responses. @ Literate mother with no years of schooling are included. # Total number may not add to N due to do not know and missing cases. [2] Includes sub-center, primary health center, Community health center or referral hospital, government hospital, and government dispensary within the village. ( ): Based on les than 50 unweighted cases.
*Percentage not shown: Based on very few cases.

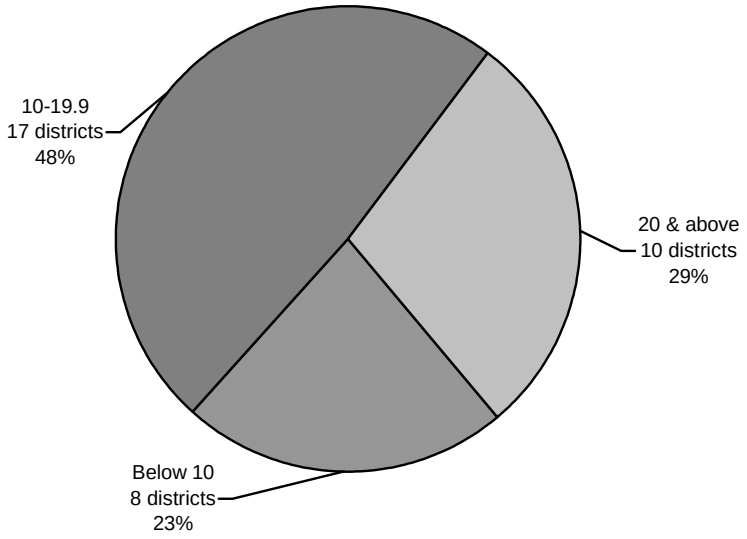
The proportion of women who were satisfied with the amount of time spent, and advices provided by health workers does not vary by various background characteristics. Only differential by the residence of women is observed. Urban women (87 percent) were more likely than rural women (79 percent) to report that they were satisfied with the time spent by health workers during home visits, and more urban women (89 percent) than rural women (80 percent) were satisfied with service/advices received. Women residing in the village with availability of health facility are equally satisfied with the time spent and services/advices as women from those villages where health facilities are not available.

7.2 Home Visit by Health Workers by Districts

In 71 percent of the districts of Maharashtra, health workers visited less than 20 percent of the women at home (Table 7.2 and Figure 7.1). After ignoring Mumbai, in districts of Nagpur, Osmanabad, Bid, Thane, Aurangabad and Pune, only a less than 10 percent of the women were visited by the health workers. There are only eight districts in which about one-fourth or more of women received home visits (Parbhani, Nandurbar, Kolhapur, Raigarh, Yavatmal, Bhandara, Gondia and Sindhudurg). In Sindhudurg district, highest proportion (37 percent) of health workers approached women during the home visit. Among women who were visited by health worker at home, more than half of them were approached by ANM/LHV in most of the districts. Male workers approaching the clients at home is lowest in Sangli (2 percent)) district and highest in Dhule (77 percent) district, and except Nagpur, Bid and Wardha (20-28 percent) percentage of women visited by doctor at home was below 20 percent in all the districts.

In almost all the districts more than three-quarter of the women said that the worker had spent enough time with them and they were satisfied with the given services/advices. Only in case of Parbhani district less than 60 percent women reported satisfaction with the time spent and services/advices given by health workers.

Figure 7.1
Distribution of Districts by Home Visit by Health Worker



Maharashtra, DLHS-RCH, 2002-04

Table 7.2 HOME VISIT BY HEALTH WORKER BY DISTRICT

Percentage of women who had home visit by a doctor, ANM/LHV, or male health worker in the 3 months preceding the survey, among women who had home visit, satisfied with time spent by health workers and with services provided by district, Maharashtra, 2002-04

District	Percentage with home visit	Home visit by[1]			Percentage of women satisfied with	
		Doctor	ANM / LHV	Male health worker	Time spent	Service
Ahmadnagar	12.0	10.3	85.6	6.8	93.6	96.3
Akola	20.5	0.0	43.8	64.1	73.1	78.3
Amravati	11.8	3.1	85.0	13.1	93.5	94.8
Aurangabad	9.7	7.1	83.7	7.6	98.5	97.3
Bhandara	28.9	1.7	37.2	68.1	79.0	84.1
Bid	7.5	24.0	64.7	11.3	85.4	86.0
Buldana	12.4	9.4	75.9	15.7	96.1	96.8
Chandrapur	11.3	6.1	80.7	15.1	76.5	83.3
Dhule	16.3	1.3	37.8	77.1	83.2	83.5
Gadchiroli	17.0	6.0	89.1	6.5	91.7	91.9
Gondia	31.4	2.7	74.1	45.7	77.2	82.0
Hingoli	11.7	0.4	68.5	62.5	80.4	83.9
Jalgaon	10.0	14.3	80.1	5.5	94.6	91.5
Jalna	18.6	0.0	53.3	56.4	65.5	67.3
Kolhapur	25.9	0.0	84.7	36.0	81.6	82.0
Latur	11.0	0.0	58.5	55.4	88.9	88.2
Mumbai	2.4	(0.0)	(82.1)	(35.5)	(86.4)	(86.4)
Mumbai (Suburban)	2.4	(0.0)	(89.2)	(18.1)	(86.9)	(92.8)
Nagpur	5.9	20.4	58.5	32.7	64.6	70.0
Nanded	10.9	17.6	64.0	19.6	92.9	93.8
Nandurbar	25.3	0.9	64.4	51.9	85.0	90.7
Nashik	11.1	12.3	81.3	6.4	97.0	94.3
Osmanabad	7.1	1.0	87.0	13.7	94.6	94.6
Parbhani	25.1	1.9	59.1	50.1	54.0	58.7
Pune	9.7	10.3	82.4	10.3	80.9	88.8
Raigarh	26.3	0.0	60.4	63.0	93.7	94.0
Ratnagiri	24.5	0.5	75.5	46.6	90.2	91.1
Sangli	18.9	7.5	95.8	2.0	97.1	99.4
Satara	13.1	12.6	89.9	4.4	89.8	91.3
Sindhudurg	36.9	0.5	92.5	9.7	90.1	91.8
Solapur	16.1	0.7	45.0	71.0	80.9	80.9
Thane	8.4	14.9	71.9	25.4	97.5	94.0
Wardha	12.4	27.5	60.6	14.8	91.2	97.9
Washim	19.9	1.2	57.3	58.8	71.0	74.4
Yavatmal	26.6	2.0	60.9	50.9	68.9	71.9
Maharashtra	14.2	5.8	73.4	31.5	86.1	87.8

Note: [1] Percentage add to more than 100.0 due to multiple responses
( ) Based on less number of cases

7.3 Matters Discussed during Home visits or Visits to Health Facilities

Women who were visited at home by a family planning worker, as well as those who visited government health facility or other health facility during the three months preceding the survey were asked about the different topics discussed with the workers during any of these visits. Table 7.3 shows the percentage of women who discussed the health and family planning or any health related matters to the health workers during home visits or visits to a health facility during the past three months. There are 1,732 pregnant woman or women with children born during the reference period, and other women includes 1,687 current users and 411 current non-users, who were visited by health workers at home.

The major focus of discussion during home visits was disease prevention (34 percent), treatment of health problem (31 percent), and immunization (27 percent). In addition, discussions were also made on family planning (11 percent), antenatal care (7 percent), sanitation/ cleanliness (6 percent) and childcare (5 percent). As expected, pregnant women or women with child born after reference period were much more likely than other women to report that they discussed immunization, antenatal care, childcare, and family planning. A higher proportion of current contraceptive users and current non-users discussed, disease prevention, treatment of health problems, and other health related matters during home visit by health workers in the past three months preceding the survey.

Table 7.3 MATTER DISCUSSED DURING CONTACT WITH A HEALTH WORKER

Percentage of women who were visited by health worker in the three months preceding the survey, and percentage of women who visited health facility, and the percentage of women[1] who discussed specific topics with the health worker Maharashtra, 2002-04

Topic discussed	Pregnant women or women with children after reference period[2]	Other women		Total
		Current contraceptive users	Current nonusers	
During home visit				
Family planning	16.4	4.4	10.8	10.5
Breastfeeding	1.9	0.7	.4	1.2
Supplementary feeding	2.7	0.7	3.3	1.9
Immunization	41.5	13.6	15.9	26.5
Nutrition	5.4	3.1	2.7	4.1
Diseases prevention	23.8	43.7	35.0	33.7
Treatment of health problem	19.5	41.0	42.0	31.4
Antenatal care	12.1	1.8	1.9	6.5
Delivery care	2.2	0.8	.8	1.4
Postpartum care	2.7	0.6	.5	1.5
Childcare	8.4	2.6	2.9	5.3
Sanitation / cleanliness	4.8	6.2	8.7	5.9
Oral rehyderation	0.4	0.8	.6	0.6
Other	6.3	13.6	11.9	10.1
Number of women	1,732	1,687	411	3,831
During visit to health facility				
Family planning	6.7	2.7	0.2	5.0
Breastfeeding	0.5	0.0	0.4	0.4
Supplementary feeding	1.4	0.9	0.0	1.1
Immunization	34.2	0.7	1.5	21.4
Nutrition	2.6	1.6	4.0	2.4
Diseases prevention	6.2	24.2	21.6	12.9
Treatment of health problem	22.1	47.1	46.4	31.6
Antenatal care	21.8	0.5	1.1	13.7
Delivery care	7.5	0.2	2.2	4.9
Postpartum care	3.5	0.3	0.5	2.3
Childcare	8.5	4.4	1.6	6.7
Sanitation / cleanliness	2.4	4.3	4.7	3.2
Oral rehyderation	0.2	0.9	0.0	0.4
Other	5.7	20.9	28.2	12.1
Number of women	1,502	757	178	2,438

Note: Percentage add to more than 100.0 due to multiple responses.
[1] Women who visited private health facility are not included.
[2] Reference period for phase I, January 1st 1999 and for phase II, January 1st .2001

The topic discussed most often during visits to health facility by women was treatment of health problems (32 percent), immunization (21 percent), antenatal care (14 percent), disease prevention (13 percent), childcare (7 percent) and other health related topics (12 percent). Only five percent women reported that they discussed family planning during the visit. During visit to health facility little over one-third of pregnant women or women with children born during reference period discussed on immunization, 22 percent visited for

antenatal care and treatment of health problem each, nine percent discussed about childcare, and eight percent discussed delivery care. Seven percent of pregnant women or women with children born after reference period also discussed about family planning during visit to health facility. A higher proportion of current users and non-users discussed on treatment of health problems, disease prevention, and other health related problems than pregnant women with children after reference period during visit to health facility in three months prior to survey.

7.4 Visit to Health Facility

Table 7.4 presents the percentage of currently married women who needed to visit health facility and visited the health facility by residence and availability of health facility in the village. Around one-third of women needed to visit health facility but did not visit in comparison with about same proportion of women who needed to visit health facility and visited in past three months of the survey. The proportion of such women was almost same in rural and urban areas. Among them who visited any health facility, 61 percent of women reported that they had visited a private hospital, (54 percent in rural areas and 71 percent in urban areas).

Only twenty-four percent of the women visited a government health facility, of which 10 percent visited government hospital/ CHC/FRU/RH, and primary health centre each, only three percent visited sub-centres while 11 percent visited to private dispensary. There are not much differences in visiting to any health facility by availability of health facility in the village or not, in the past three months of the survey.

Table 7.4 VISIT TO HEALTH FACILITY

Percentage of women who need to visit health facility and visited, and percent distribution of women visited health facility by type of health facility and according to place of residence and availability of health facilities in the village, Maharashtra, 2002-04

Health facility	Total	Residence		Availability of health facility[1] in the village	
		Rural	Urban	No	Yes
Percentage of women who needed to visit health facility and not visited	31.8	32.2	30.9	31.9	32.6
Percentage of women who needed to visit health facility and visited	32.9	33.0	32.8	31.9	34.4
Number of women	27,053	17,194	9,859	9,468	7,726
Government health facility					
Hospital / CHC / FRU /RH	10.1	7.3	15.1	7.3	7.2
Dispensary	0.7	.5	1.0	.3	0.7
Primary health center	9.7	14.3	1.6	12.3	16.4
Sub-center	3.3	5.1	0.1	1.4	9.3
Private health facility					
Hospital	60.5	54.4	71.3	57.9	50.3
Dispensary	11.4	13.0	8.6	13.8	12.2
ISM[2] hospital/dispensary	0.8	0.7	0.9	0.8	0.6
Other	3.5	4.7	1.3	6.0	3.3
Total percent	100.0	100.0	100.0	100.0	100.0
Number of women	8,911	5,673	3,238	3,019	2,654

Note: CHC: Community health center, FRU: First referral unit, RH: Referral Hospital
[1] Includes sub-center, primary health center, Community health center or referral hospital, government hospital, and government dispensary within the village. [2] Either government or private health facility of Indian System of Medicine
Table includes 3 missing cases in availability of health facility in the village

7.5 Visit to Health Facility by Districts

Table 7.5 presents the percentage of currently married women who needed to visit health facility and visited the health facility by districts. More than two-fifth of currently married women in Jalna, Dhule, Gondia and Nandurbar, needed to visit a health facility, but they did not visit. Out of 35 districts of Maharashtra, in 10 districts i.e. Hingoli, Raigarh, Ratnagiri, Washim, Parbhani, Latur, Yavatmal, Akola, Kolhapur and Jalna, more than two-fifth of the women visited health facility for their health problems. In Ahmadnagar, Pune, Gadchiroli and Sangli districts only a less than one-fifth of women visited health facility when needed. Among them who visited health facility, less than a quarter women visited government health facility in more than half of the districts. On the other hand, except Gadchiroli, in all other districts more than half of the women visited to private health facility in past three months before the survey.

Table 7.5 VISIT TO HEALTH FACILITY BY DISTRICT

Percentage of women who needed to visit health facility, but not visited and percentage of women who visited health facility by type of health facility by district, Maharashtra, 2002-04

Districts	Percentage of women who need to visit health facility, but not visited	Percentage of women who need to visit health facility and visited	Percentage of women who visited to	
			Government health facility	Private health facility
Ahmadnagar	37.8	14.3	35.5	63.0
Akola	34.3	46.8	25.5	70.9
Amravati	32.1	34.5	27.7	71.0
Aurangabad	22.9	32.4	24.0	69.5
Bhandara	27.0	37.9	33.3	64.3
Bid	18.1	38.0	21.7	77.5
Buldana	24.9	36.5	23.9	73.6
Chandrapur	21.9	31.3	35.1	62.5
Dhule	42.7	38.9	24.2	69.9
Gadchiroli	28.7	18.0	67.3	31.5
Gondia	44.6	30.5	46.5	50.8
Hingoli	38.7	40.8	15.6	76.6
Jalgaon	30.2	32.8	18.5	77.5
Jalna	40.9	51.3	19.4	73.2
Kolhapur	35.9	48.9	17.2	80.0
Latur	32.1	46.1	21.0	71.1
Mumbai	36.0	32.9	21.3	78.1
Mumbai (Suburban)	33.8	28.5	14.3	84.3
Nagpur	28.1	29.2	22.6	76.5
Nanded	29.7	31.4	23.1	73.9
Nandurbar	49.0	36.0	33.7	59.0
Nashik	28.9	31.7	31.7	62.7
Osmanabad	21.2	36.4	33.9	64.8
Parbhani	31.8	45.5	21.0	74.0
Pune	37.5	15.8	37.6	62.4
Raigarh	35.2	42.2	22.0	71.1
Ratnagiri	32.8	44.0	29.7	67.3
Sangli	24.1	19.4	13.9	86.1
Satara	21.5	27.6	21.9	78.1
Sindhudurg	33.1	35.2	35.2	63.5
Solapur	32.8	38.9	15.1	81.1
Thane	26.7	36.5	15.9	82.1
Wardha	21.0	36.8	29.2	69.5
Washim	36.9	44.1	13.2	79.9
Yavatmal	36.0	46.5	19.3	75.9
Maharashtra	31.8	32.9	23.8	72.6

7.6 Client's Perception of Quality of Government Health Services

Utilization of services is an essential indicator reflecting the quality of services. Better quality of services would have a higher utilization rate, which is very important from the policy point of view. Unless clients are satisfied with the services provided by the government, efforts made by the government will be wasted. In order to assess the utilization of government health facilities, a question was asked whether they had visited any health facility for their health problem during past three months to the survey. Those who visited the government health facility were asked their perceptions about quality of services, (personal manner like courtesy, respect, sensitivity, and friendliness of the physician and staff, technical skills and quality like thoroughness, carefulness, and competence and waiting time for receiving the services) and same is presented in Table 7.6. Women in general perceived that the quality of services, personal manner as well technical skills and quality of physician, ANM/nurse and other staff was good. Majority of the respondents perceived that personal manner (courtesy, respect, sensitivity, and friendliness) and technical skills (thoroughness, carefulness, and competence) of the physician, nurses and other staff were good, a few respondents mentioned that personnel manner of doctor (13 percent), nurse (9 percent), and other staff including paramedical staff (4 percent) was excellent.

Table 7.6 QUALITY OF GOVERNMENT HEALTH FACILITY

Percentage of women who visited government health facility and rated quality and availability of services during most recent visit to a government health facility in the three months proceeding the survey, Maharashtra, 2002-04

Quality indicator	Poor	Good	Excellent
The convenience of the health facility location	21.8	64.0	13.6
Length[1] of time spend towards waiting	23.0	64.6	10.2
Personal manner[2] of the physician[5]	8.5	78.3	12.8
The technical skills and quality[3] of the physician[5]	8.8	78.4	12.4
Personal manner[2] of nurse	10.5	79.8	8.8
The technical skills and quality[3] of nurse	10.2	81.0	8.0
Personal manner of other staff[5]	12.9	82.3	4.1
The technical skills and quality of other[4] staff	12.6	78.2	2.7
The explanation of what was done to her	11.7	82.3	4.8
Medical, surgical and diagnostic equipment	11.6	81.6	6.1
General comfort	12.4	80.6	6.3

Note: [1] Poor indicate long waiting time, good indicate average waiting time, and excellent indicate short waiting time
[2] Courtesy, respect, sensitivity, friendliness. [3]Thoroughness, carefulness, competence.
[4] Including paramedical staff. [5]Includes hospital/community health center/ first referral unit/ referral hospital, dispensary, and primacy health center last visit made by women

7.7 Reason for not visiting Government Health Centre

Women who visited the private health centre were asked the main reason for not visiting the government health centre and the results are presented in Table 7.7. About 29 percent of women reported that they did not visit the government health facility due to poor quality of service, (28 percent in rural area and 31 percent in urban area). Nineteen percent of the women reported inconvenient location of the centre as one of the reason for not visiting the government health centre for their health problems, as expected this reason is more reported by the women from those villages where health facilities are not available (24 percent) compared to the women of the villages with health facility (12 percent). Other reasons for not visiting government health centres were: medicine rarely/not given or of bad quality (11 percent), doctor/health workers do not examine properly (10 percent), time is not suited (7 percent), heavy rush (6 percent), non-availability or rare availability of doctors/health workers (4 percent).

Table 7.7 REASON FOR NOT PREFERRING GOVERNMENT HEALTH FACILITY

Percent distribution of women visited private health facility by reason for not visiting government health facility and according to residence and availability of health facilities in the village, Maharashtra, 2002-04

Reason	Total	Residence		Availability of health facility[1] in the village	
		Rural	Urban	No	Yes
Not conveniently located	19.4	18.7	20.5	23.6	12.3
Time is not suited	7.1	5.9	9.0	5.5	6.3
Poor quality of services	28.9	27.5	31.1	27.1	27.9
Heavy rush	5.9	4.4	8.0	4.8	4.0
Non/rare-availability of doctors/health workers	3.9	4.7	2.8	3.7	6.0
Doctors/health workers do not examine properly	9.7	11.5	7.0	10.5	12.8
Medicine not/rarely given or of bad quality	10.9	13.5	7.0	12.4	15.0
Doctors/paramedical staff does not behave properly	0.5	0.5	0.5	0.4	0.6
Services are charged	0.5	0.6	0.3	0.6	0.7
Referred by government doctor	0.3	0.5	0.1	0.4	0.6
Other	12.8	12.3	13.6	11.1	13.9
Total percent	100.0	100.0	100.0	100.0	100.0
Number of women	6,468	3,857	2,611	2,185	1,672

Note: [1] Includes sub-center, primary health center, Community health center or referral hospital, government hospital, and government dispensary within the village

7.8 Family Planning Information and Advice Received

Women who are currently not using any contraceptive method were asked whether they were ever advised by ANM or family planning health worker to adopt family planning method and method advised during any of the contact. One-fifth of currently non-users said that they had advised or had discussion on method of family planning with ANM or family planning health worker (Table 7.8).

Table 7.8 ADVISE TO ADOPT FAMILY PLANNING METHOD

Percentage of current non-users who reported ever advised to adopt family planning method by method of family planning by ANM/health worker, according to residence, Maharashtra, 2002-04

Method	Total	Rural	Urban
Percentage of non-users who were advised to adopt family planning method	20.2	21.9	17.0
Number of women	9,613	6,310	3,303
Method			
Female sterilization	62.9	66.3	54.8
Male sterilization	3.0	3.2	2.4
IUD	17.9	14.9	25.4
Pills	11.6	11.2	12.5
Condom	2.9	2.6	3.4
Rhythm/periodic abstinence	0.2	0.2	0.3
Other	1.2	1.2	1.2
Missing	0.3	0.4	0.0
Total percent	100.0	100.0	100.0
Number of women	1,941	1,381	561

The most frequently discussed method was female sterilization (63 percent) followed by IUD (18 percent) and pills (12 percent). Only three percent of women received advice to adopt condom and male sterilization each as a contraceptive method. Discussions about traditional method, such as rhythm or withdrawal were rare. Female sterilization was more reported by the women of rural areas (66 percent) compared to urban areas (55 percent), whereas it was reverse in case of IUD (25 percent in urban and 15 percent in rural areas).

7.9 Availability of Pills and Condom

To explore difficulties faced in the procurement of condoms and pills, current users of these methods were asked that they had been able to get their supply whenever needed. The results are presented in Table 7.9. Only four percent of condom users and three percent of pills users reported that they had a problem in getting these methods.

Table 7.9 AVAILABILITY OF REGULAR SUPPLY OF CONDOMS/PILLS
Percentage of current condom or pill users who ever had a problem getting a supply of condoms/pills by residence, Maharashtra, 2002-04

Method/residence	Percentage who had a problem getting supply	Number of users
Condom		
Rural	2.7	311
Urban	5.4	485
Total	4.3	797
Pills		
Rural	4.7	421
Urban	2.5	904
Total	3.2	1,325

Note: Total includes 1 case missing on condom using and 1 case missing on pills using.

7.10 Quality of Care of Family Planning Services

Several aspects of quality of care of family planning services were investigated. Current user of a sterilization was asked whether the person or centre where sterilization had been performed, informed her about other alternative methods of family planning; and further it was asked whether she was told by a ANM or health worker about possible side effects of the modern method at the time she accepted the method; whether she received any follow-up care after accepting the method. Tables 7.10 and 7.11 present the results of this investigation.

About 26 percent of sterilized women reported that ANM or health worker informed them about alternative methods that they could use (Table 7.10) before adopting sterilization. One-fourth of sterilized women received such information in the government health facilities compared to 33 percent of women who were sterilized in private health facilities, and 26 percent of women received this information in the family planning or RCH camp or out reach/MCH clinic in village at the time of accepting the sterilization. About 29 percent of such women were informed about alternative methods by others but not by a health worker working in government or private health sector.

Table 7.10 INFORMATION OF OTHER MODERN METHOD BEFORE STERILIZATION
Percentage of current users of sterilization who were informed about other modern method by the source where they get sterilized, according to the source of sterilization and residence, Maharashtra, 2002-04

Source of sterilization	Total	Rural	Urban	Number of users
Government health facility	24.7	22.5	31.6	1,0505
Family planning or RCH camp/ village session	26.1	26.1	26.1	293
Private health facility	32.5	30.3	34.1	2,509
Other	28.5	24.9	30.7	257
Total	26.2	23.5	32.5	1,3609

Note: Total includes 10 and 35 women who said that they sterilized at mobile clinic and who do not know including missing information of place/source of sterilization, are not shown separately.

Another important facet of informed contraceptive choice is being fully informed about any side effects and any other problems associated with the method. In Maharashtra, only 24 percent of users of any modern method were informed about possible side effects or health problems associated with their current method. About 21 percent of acceptors of sterilization in rural area and 29 percent in urban area reported that they were informed about side effects. Among users of modern method other than sterilization, 26 percent of rural users and 34 percent of urban users were informed about side effects. It is clear from the result that ANM or health workers in Maharashtra are not providing sufficient information to couples who need to make an informed choice about contraceptive methods. The situation with respect to follow-up services is also not encouraging. Follow-up services among sterilization users are almost same as user of modern methods. About 31 percent of sterilization users and 30 percent of other modern method users reported that they received follow-up services by ANM or health worker. In all, only 31 percent of the users of any modern method in rural area and 26 percent in urban areas received follow-up services.

Table 7.11 INFORMATION ON SIDE EFFECT AND FOLLOW-UP FOR CURRENT METHOD

Percentage of current users of modern contraceptive methods who were told about side effects or other problems of current method by a health worker or ANM/Nurse at the time of accepting the method and percentage who received follow-up services after accepting the method by current method and residence, Maharashtra, 2002-04

Information/follow-up	Total	Rural	Urban
Told about side effects			
Sterilization	22.4	20.8	26.1
Other modern method	31.6	26.0	34.4
Any modern method	24.0	21.3	28.8
Received follow-up			
Sterilization	30.7	32.0	27.6
Other modern method	29.9	20.9	20.9
Any modern method	29.0	31.0	25.5

7.11 Quality of Care Indicators for Contraceptive Users by District

Table 7.12 shows inter-district variations in the percentage of users of sterilization who were told about alternative methods before adopting sterilization and about side effects or other problems related to the current method or users of modern contraceptive methods, and the percentage of users who received follow-up services.

The percentage of sterilization-users who were told about alternate method is lowest in Nandurbar (4 percent) but it is highest in Mumbai (45 percent). There are also large inter-district variations in the percentage of sterilization-users and users of modern contraceptive methods who were told about the possible side effect. In case of sterilization, the proportion varied from a low of (12-15 percent) in Bid, Solapur, Osmanabad and Gadchiroli to the highest of 41 percent in Mumbai, 38 percent in Thane and 34 percent in Gondia. For other modern contraceptive methods, more than one-third users in Gondia, Sindhudurg, Pune, Sangli, Kolhapur, Nandurbar, Thane, Ahmadnagar, Amravati, Osmanabad and Mumbai and a minimum of 10 percent of users in Wardha were told about the side effects of the method. Follow-up services are better for acceptors of sterilization than for other modern methods in most of the districts of Maharashtra. Table 7.12 also shows district wise variation in the percentage of currently non-users who were ever advised to adopt contraceptive methods, which varies from a less than 15 percent in Mumbai, Hingoli, Ahmadnagar, and Nandurbar to a high of 36-37 percent in Amravati and Sindhudurg.

Table 7.12 QUALITY OF CARE INDICATORS FOR CONTRACEPTIVE USERS BY DISTRICT

Among currently married women who are current users of modern contraceptive methods, quality of care indicators related to the use of their current contraceptive method by district, Maharashtra, 2002-04

District	Percentage informed about other methods before getting sterilization[1]	Percentage told about side effects or other problems with method[2]		Percentage who received follow–up[2]		Percentage non-user told ever had advised to adopt contraceptive method
		Sterilizat-ion	Other modern method	Sterilizat-ion	Other modern method	
Ahmadnagar	27.6	20.6	37.3	15.9	28.7	14.4
Akola	25.7	21.0	22.7	30.2	18.7	21.3
Amravati	29.5	18.8	37.5	32.2	22.6	35.5
Aurangabad	19.4	16.2	23.8	31.6	16.7	23.7
Bhandara	35.4	23.1	19.8	43.1	17.7	25.4
Bid	19.9	11.6	24.2	17.7	20.9	16.9
Buldana	21.3	16.0	18.6	28.0	13.6	28.3
Chandrapur	39.9	17.5	20.9	44.5	14.0	33.5
Dhule	21.5	18.2	17.1	33.0	11.8	16.0
Gadchiroli	29.2	14.6	(40.7)	32.3	(37.4)	25.4
Gondia	42.3	33.8	33.1	50.6	23.5	33.1
Hingoli	25.6	16.1	20.9	29.7	16.2	13.0
Jalgaon	23.9	18.6	26.4	26.8	14.5	19.1
Jalna	9.6	27.0	17.4	34.8	12.1	21.1
Kolhapur	6.8	21.4	36.7	38.7	23.0	20.4
Latur	29.0	18.0	15.3	39.9	11.3	16.9
Mumbai	42.4	31.0	28.7	18.5	27.2	21.2
Mumbai (Suburban)	45.4	41.3	47.9	29.4	29.3	8.9
Nagpur	29.9	18.4	20.6	32.9	13.2	22.5
Nanded	21.0	16.2	23.0	23.4	15.4	20.6
Nandurbar	4.3	21.8	36.9	33.6	19.1	14.9
Nashik	23.9	24.8	20.6	29.9	17.6	16.7
Osmanabad	17.7	13.5	37.9	19.9	15.1	21.5
Parbhani	5.5	26.9	17.0	41.4	16.5	21.1
Pune	32.2	24.1	35.3	16.8	17.7	19.4
Raigarh	17.6	20.2	29.2	37.7	25.6	16.3
Ratnagiri	18.4	23.9	23.2	32.7	13.3	17.4
Sangli	24.2	20.1	35.7	24.4	24.2	29.2
Satara	23.5	19.6	28.8	17.4	19.0	15.3
Sindhudurg	36.1	28.2	34.0	29.7	17.4	36.6
Solapur	19.0	12.7	25.3	27.4	16.7	15.5
Thane	42.8	37.5	37.0	42.0	22.2	21.5
Wardha	23.5	15.0	10.0	43.8	14.9	26.5
Washim	23.5	23.3	22.7	43.3	13.9	21.7
Yavatmal	27.5	23.5	22.5	39.5	10.8	23.7
Maharashtra	26.2	22.4	31.6	30.7	29.9	20.2

Note: [1] At the time of accepting the current method. [2] By a health worker or ANM/Nurse after accepting the current method
( ) Based on less number of cases

Overall, the quality of care for family planning and health services is far from satisfactory in many of the district of Maharashtra; almost all districts need to work much more to improve their health and family planning services, particularly services that are provided by the government sector.

7.12 Quality of Care of Maternal Health Care

Information on few other aspects of quality of care in terms of maternal care was also collected. Women with last live/still births during three years preceding the survey were asked whether the Doctor/ANM/health worker advised you to go to health facility for delivery when they were pregnant, and received any follow-up care after delivering the baby within 2 weeks of delivery and received follow-up care of at least one visit within six weeks of delivery. The same information is presented in Table 7.13.

Table 7.13 ADVISED TO HAVE DELIVERY AT HEALTH FACILITY AND FOLLOW-UP SERVICES FOR POSTPARTUM CEHECK-UP

Percentage of women* who were advised to have delivery at health facility by doctor/ health worker and percentage who receive follow-up services within 2 weeks and within 6 weeks of delivery by ANM, according to residence, Maharashtra, 2002-04

Advise/follow-up service	Total	Rural	Urban
Percentage of women who were advised to have delivery at health facility	56.6	49.1	71.2
Percentage of women who were visited within 2 weeks of delivery	20.5	28.4	5.0
Percentage of women who were visited at least once within 6 weeks of delivery	22.4	31.0	5.6
Number of women	9,265	6,139	3126

Note: * Women who had live birth/still birth after 1.1.1999/2001
Total includes 1, 26 missing cases on visited within 2 weeks of delivery and visited at least once within 6 weeks of delivery.

More than half (57 percent) of the women with last live/still births during three years preceding the survey reported that they were advised by doctor or health worker to have delivery in health facility.

District wise variation illustrates that the percentage varies from as low as 33 percent in Hingoli to as high as 87 percent in Mumbai (Suburban) and 81 percent in Sindhudurg (Table 7.14). In ten of the 35 districts, less than half women were advised to deliver their child in health facility.

Table 7.14 QUALITY OF CARE INDICATORS FOR MATERNAL CARE

Among currently married women* who are given live/still birth three years preceding the survey, quality of care indicators related to delivery care by district, Maharashtra, 2002-04

District	Percentage of women		
	Advised to have delivery at health facility by doctor/ health worker	Visited within 2 weeks of delivery by ANM	Visited at least one within 6 weeks of delivery by ANM
Ahmadnagar	41.1	19.8	21.9
Akola	58.9	16.4	18.6
Amravati	65.0	34.9	36.1
Aurangabad	63.7	16.9	19.5
Bhandara	49.3	38.6	40.5
Bid	45.3	14.2	16.3
Buldana	53.6	21.4	22.8
Chandrapur	54.8	32.3	33.3
Dhule	49.0	12.9	14.2
Gadchiroli	38.9	49.5	52.4
Gondia	56.6	35.3	37.9
Hingoli	33.4	17.9	20.8
Jalgaon	59.8	15.4	17.7
Jalna	52.6	16.1	16.6
Kolhapur	75.4	24.2	25.2
Latur	46.1	13.8	15.0
Mumbai	77.3	2.3	2.3
Mumbai (Suburban)	86.7	4.3	4.7
Nagpur	56.4	16.5	19.2
Nanded	52.3	16.4	17.5
Nandurbar	34.1	20.6	20.6
Nashik	53.1	15.7	19.8
Osmanabad	48.1	18.9	21.4
Parbhani	58.4	21.0	21.6
Pune	44.2	10.7	12.2
Raigarh	62.0	26.3	27.0
Ratnagiri	70.0	37.9	38.9
Sangli	63.0	20.4	23.3
Satara	57.1	23.0	24.4
Sindhudurg	80.7	54.5	56.8
Solapur	62.0	9.3	10.4
Thane	64.7	18.5	20.3
Wardha	70.3	40.2	43.1
Washim	54.3	22.2	22.8
Yavatmal	50.8	27.4	28.4
Maharashtra	56.6	20.5	22.4

Note: * Women who had live birth/still birth after 1.1.1999/2001

About 21 percent of women were visited by an ANM within two weeks of delivery; such visit was only five percent in urban areas and 28 percent in rural areas. Only six percent of women in urban and 31 percent in rural areas received at least one follow-up service within six weeks of delivery. Not more than 55 percent women in any district of Maharashtra received postpartum check-up within 2 weeks of delivery. The proportion of women who had at least one postpartum check-up within six weeks of delivery varied from two percent in Mumbai to 57 percent in Sindhudurg (Table 7.14).

CHAPTER – VIII

REPRODUCTIVE HEALTH PROBLEMS AND AWARENESS OF RTIs/STIs AND HIV/AIDS

One of the important components of the Reproductive and Child Health Programme is to have a healthy sexual life without any fear of contracting disease. With this approach the RCH programme places a lot of emphasis on promoting and encouraging healthy sexual behaviour among couples through various Information, Education and Communication (IEC) activities. Health workers are also expected to educate women and men about Reproductive Tract Infections (RTIs) and Sexually Transmitted Infections (STIs) and motivate those people with RTI/STI problems to seek medical help. The DLHS-RCH has made an attempt to collect information on awareness and prevalence of RTI/STI. Apart from this, information on knowledge of HIV/AIDS, source of information and way of avoiding AIDS were also collected.

8.1 Awareness of RTI/STI

An attempt was made to assess whether couples were aware of RTI/STI. Currently married women and their husbands were asked about their awareness of RTI/STI, and if they were aware, they were further questioned about the source of information and mode of transmission of the disease.

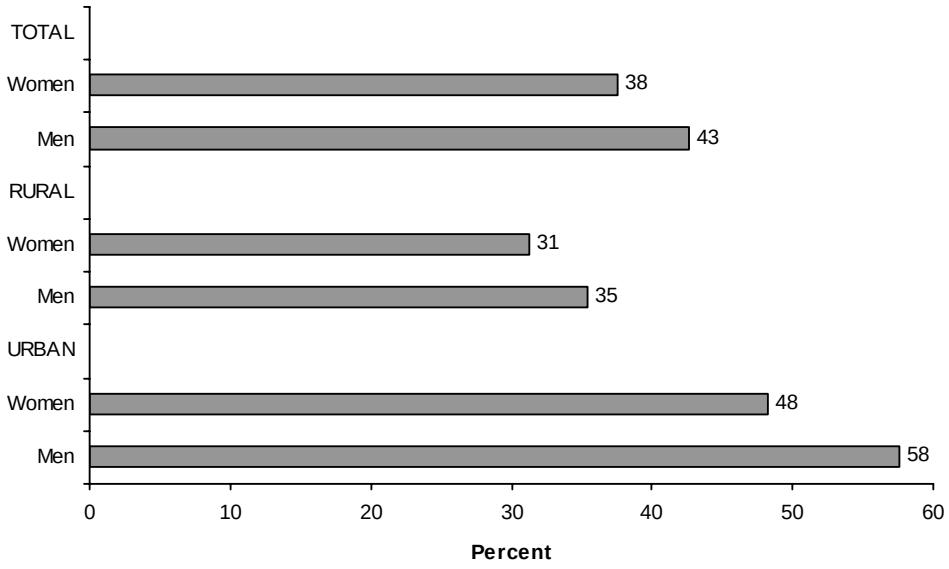
Table 8.1 shows the percentage of women aware of RTI/STI by background characteristics. About 38 percent of the women in Maharashtra were aware of RTI/STI. The proportion of women who were aware of RTI/STI is higher in urban areas (48 percent) than in rural areas (31 percent) Figure 8.1. Awareness of RTI/STI is much lower among younger women, non-literate women, women from scheduled tribe and women from households with a low standard of living. Awareness of RTI/STI increases from 22 percent among non-literate women to 63 percent among women who have completed 10 or more years of schooling. The standard of living index shows a positive relationship with awareness of RTI/STI, ranging from 24 percent among women with a low standard of living to 54 percent among women with a high standard of living.

Those women who had heard of RTI/STI were further asked about the source of information of RTI/STI, which is presented in Table 8.1. Almost two-third of the women reported that they received information of RTI/STI from friends or relatives. Other sources of information of RTI/STI as reported by women were television (29 percent), newspaper or books or magazines (27 percent), slogans or posters or pamphlets or wall hoardings (8 percent) and radio (6 percent). Only seven percent of women received this information from doctors and five percent from health workers, and four percent of the women reported that they had heard of RTI/STI from another source.

Table 8.2 shows the percentage of husbands of currently married women who heard of RTI/STI by specific source of information according to some selected background characteristics. In Maharashtra, the percentage of men who heard of RTI/STI is higher than that of women (Figure 8.1). Forty-three percent of the men heard of RTI/STI. Men from urban areas and older men were relatively more aware of RTI/STI. Like women, men who

belong to scheduled tribes are also less likely to report awareness of RTI/STI. The level of awareness of RTI/STI increases with an increase in education level and standard of living. Only 13 percent of non-literate men were aware of RTI/STI as compared to 68 percent of men who had completed 10 or more years of schooling. About 26 percent of men from households with a low standard of living were aware of RTI/STI as compared to 64 percent of men with a high standard of living.

Figure 8.1
Awareness of RTI/STI by Sex According to Residence



Maharashtra, DLHS-RCH, 2002-04

Television, and newspaper or books or magazines (51 percent each) and relatives or friends (47 percent) are the most prominent source of RTI/STI for men in Maharashtra. Other important sources of information about RTI/STI are slogans or posters or pamphlets or wall hoardings (30 percent) and radio (12 percent). Fifteen percent of the men received this information from a doctor, three percent from health workers, eight percent from community meetings and three percent mentioned that they had received information about RTI/STI from school-teachers. Seven percent of the men reported that they heard of RTI/STI from other sources. Relatives or friends are the most important source of information of RTI/STI in all the groups. Men from rural areas, non-literate men, Muslim men, Men from scheduled-tribes, men with a low standard of living and younger men are more prone to receive information from relatives or friends. Electronic and print media such as ‘television’ and ‘newspaper/ books/ magazines’ are also important sources of information of RTI/STI for men who are from urban areas and belong to Christian religion as well ‘other’ castes category. The differences in the knowledge of RTI/STI from television as a source of information by educational level and standard of living household are quite visible. Only 21 percent of non-literate men had heard of RTI/STI from television, which increased to 64 percent for men who have completed 10 or more years of schooling. Similarly, 27 percent of men with a low standard of living had heard from television compared to 69 percent of men from high standard of living.

Table 8.1 SOURCE OF KNOWLEDGE ABOUT RTI/STI AMONG WOMEN

Percentage of currently married women aged 15 - 44 who have heard about RTI/STI and among women who have heard about RTI/STI, percentage who received information from specific sources by selected background characteristics, Maharashtra, 2002-04.

Background Characteristic	Percentage who have heard about RTI/STI	Number of Women	Among those who have heard about RTI/STI, percentage who received information from.										Number of women who have heard about RTI/STI
			Radio	Television	Newspaper/ Books/ Magazines	Slogan/ Pamphlets/ Posters/ Wall Hoardings	Doctor	Health worker	School teacher	Community Meeting	Relative/ Friends	Others	
Age group (years)													
15-19	28.0	2,292	4.1	19.4	16.1	2.5	5.2	5.3	2.4	3.3	68.2	5.6	642
20-24	33.9	5,879	4.9	27.6	26.0	6.7	6.1	5.6	2.2	3.8	64.2	3.6	1,995
25-29	41.0	5,754	5.7	31.4	28.4	9.3	7.6	5.6	1.3	4.1	59.7	4.2	2,359
30-34	40.0	5,470	5.8	29.6	26.9	8.2	6.9	5.4	1.1	4.9	68.6	3.3	2,189
35-39	37.8	4,377	7.0	27.4	27.2	7.1	7.0	4.3	1.2	4.8	65.8	4.8	1,653
40-44	40.0	3,281	5.4	28.4	27.7	8.0	6.6	3.8	1.8	4.3	66.4	4.3	1,313
Residence													
Rural	31.3	17,194	4.1	17.9	15.7	4.3	6.3	7.5	1.5	5.2	71.8	5.1	5,385
Urban	48.3	9,859	7.4	40.4	38.8	11.3	7.3	2.4	1.6	3.2	57.1	3.0	4,766
Education													
Non-literate	21.9	9,470	1.4	8.7	5.9	0.3	3.1	3.5	0.2	5.2	82.6	5.4	2,072
0-9@ years	37.2	11,544	4.2	21.0	17.4	4.5	5.3	5.6	1.0	4.3	71.9	4.8	4,293
10 and above	62.7	6,036	9.6	47.7	48.2	15.1	10.4	5.4	2.9	3.8	47.2	2.6	3,786
Religion													
Hindu	36.4	22,117	6.1	28.9	27.0	7.7	6.9	5.3	1.6	4.5	65.3	3.7	8,045
Muslim	37.6	2,542	3.6	22.4	16.4	4.0	4.2	2.7	0.3	1.6	70.2	4.8	955
Christian	49.5	208	5.2	28.2	31.5	7.8	8.8	4.4	2.8	3.4	59.1	9.5	103
Sikh	67.0	75	5.3	44.5	57.3	14.5	7.4	0.0	0.0	4.2	56.5	0.0	51
Buddhist	44.2	1,770	2.9	25.6	24.3	7.2	7.9	7.1	2.3	5.3	62.2	6.5	782
Jain	69.7	279	7.4	49.7	52.0	21.0	9.8	1.8	0.7	6.2	42.9	5.2	195
Other	35.2	61	*	*	*	*	*	*	*	*	*	*	21
Caste/tribe#													
Scheduled caste	36.9	3,790	3.4	25.1	23.1	6.4	7.5	6.2	1.4	4.6	65.2	5.7	1,399
Scheduled tribe	27.5	4,703	2.5	16.3	13.1	3.4	4.4	5.8	0.7	4.5	75.5	4.3	1,291
Other backward class	40.0	7,385	4.6	25.4	23.3	6.4	5.9	6.1	1.5	5.9	66.6	4.2	2,953
Other	40.3	10,982	7.6	35.1	33.7	10.0	7.6	3.9	1.8	3.1	60.5	3.5	4,430
Standard of living index													
Low	24.1	9,933	2.5	5.8	4.8	2.1	5.2	6.2	0.6	5.1	80.7	5.6	2,399
Medium	38.3	9,442	4.7	24.5	21.3	5.0	5.7	5.5	1.5	3.8	69.1	4.8	3,620
High	53.8	7,678	8.3	45.1	43.8	13.0	8.6	4.1	2.1	4.3	52.0	2.6	4,132
Total	37.5	27,053	5.6	28.5	26.5	7.6	6.8	5.1	1.5	4.3	64.9	4.1	10,151

Note: Total includes 2 cases missing information on education not shown separately.

Total figure may not add to N due to do not know and missing cases. @ Literate women with no year of schooling are also included. * Percentage not shown: based on few cases

Table 8.2 SOURCE OF KNOWLEDGE ABOUT RTI/STI AMONG MEN

Percentage of husband of eligible women who have heard about RTI/STI and among men who have heard about RTI/STI, percentage who received information from specific sources by selected background characteristics, Maharashtra, 2002-04.

			Among those who have heard about RTI/STI, percentage who received information from.										
Background characteristic	Percentage who have heard about RTI/STI	Number of men	Radio	Televi-sion	Newspaper/ Books/ Magazines	Slogan/ Pamphlets/ Posters/ Wall Hoardings	Doctor	Health worker	School teacher	Community Meeting	Relative/ Friends	Others	Number of men who have heard about RTI/STI
Age group (years)													
< 25	37.9	1,104	11.7	39.9	42.7	30.8	10.1	3.2	3.9	4.6	57.0	6.5	418
25-34	44.8	5,937	11.4	51.9	50.1	30.0	14.8	3.8	2.9	9.1	48.5	6.0	2,659
35-44	41.4	6,125	11.8	55.1	54.0	30.6	14.5	3.0	2.0	7.6	45.5	7.4	2,533
45+	42.8	3,192	13.0	47.2	51.9	29.2	15.5	3.6	2.2	7.7	43.4	9.1	1,365
Residence													
Rural	35.4	11,007	11.0	40.7	41.5	23.2	16.5	4.8	2.8	8.7	51.1	8.7	3,892
Urban	57.6	5350	13.0	65.0	63.9	38.9	12.0	1.7	2.1	7.2	41.6	5.2	3,082
Education													
Non-literate	13.4	3,231	6.7	21.0	4.6	1.9	14.2	2.5	0.3	8.6	63.3	13.9	433
0-9@ years	37.3	7,667	9.5	40.3	38.2	22.5	14.3	3.2	1.4	7.3	49.9	9.0	2,859
10 and above	67.5	5,459	14.3	63.7	67.2	39.4	14.8	3.7	3.6	8.5	42.6	4.9	3,683
Religion													
Hindu	41.9	13,528	12.0	50.1	50.4	29.6	15.2	3.7	2.5	7.6	46.7	7.7	5,674
Muslim	42.0	1,413	8.1	61.2	56.2	38.1	9.4	1.5	1.6	9.5	53.5	5.7	593
Christian	64.7	111	22.3	71.1	64.2	39.7	13.9	1.5	6.5	10.8	39.1	12.4	72
Buddhist	44.8	1,086	12.0	51.6	47.2	20.9	12.8	4.3	2.9	11.2	46.6	4.1	486
Jain	81.5	141	19.6	46.9	74.7	50.2	17.0	0.6	3.0	8.2	36.3	2.1	115
Other	43.9	80	(5.6)	(61.1)	(66.7)	(22.2)	(33.3)	(5.6)	(5.6)	(11.1)	(44.4)	0.0	35
Caste/tribe#													
Scheduled caste	45.5	2,354	14.0	53.2	45.7	21.9	16.7	4.7	3.3	7.8	47.5	7.3	1,071
Scheduled tribe	27.7	3,049	8.3	34.8	37.1	26.9	13.5	5.4	2.9	7.9	53.1	9.3	844
Other backward class	40.7	4,521	13.6	50.8	50.4	29.3	13.1	3.6	1.9	11.9	45.7	6.4	1,841
Other	50.2	6,294	11.1	55.3	57.7	34.3	14.9	2.4	2.4	5.9	45.6	7.1	3,161
Standard of living index													
Low	25.9	6,473	9.3	27.4	30.8	20.9	15.4	4.2	1.6	8.9	54.2	10.1	1,679
Medium	45.7	5,575	11.2	48.4	48.6	25.7	13.9	3.6	2.8	7.1	50.2	8.2	2,547
High	63.8	4,309	14.0	68.9	66.6	39.8	14.6	2.8	2.8	8.3	39.3	4.4	2,749
Total	42.6	16,357	11.9	51.4	51.4	30.1	14.5	3.4	2.5	8.0	46.9	7.2	6,975

Note: # Total number may not add up to N due to do not know and missing cases. @ Literate men with no year of schooling are also included. ( ) Based on less than 50 unweighted cases.

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8.1.1 Knowledge of Mode of Transmission of RTI/STI

Women who were aware of RTI/STI were asked about the mode of transmission. This is presented in Table 8.3. Among women who reported knowledge of RTI/STI, 22 percent of them did not know anything further about the mode of transmission of this disease. This proportion is relatively higher among the non-literate women, women from scheduled-tribes and women coming from households with low standard of living. Lack of personnel hygiene was reported by 62 percent of the women followed by heterosexual intercourse (31 percent) as mode of transmission of RTI/STI. Only three percent of women reported homosexual intercourse as one of the modes of transmission of RTI/STI. Knowledge of modes of transmission of RTI/STI is found to be more among the urban women, women with 10 or more years of schooling, women from other caste and women with high standard of living.

Table 8.3 SOURCE OF KNOWLEDGE ABOUT MODE OF TRANSMISSION OF RTI/STI AMONG WOMEN

Percentage of currently married women aged 15-44 who have heard of RTI/STI, knowledge of mode of transmission by selected background characteristics, Maharashtra, 2002-04

Background characteristic	Percentage by knowledge of mode of transmission				Do not know	Number of women who have heard of RTI/STI
	Homosexual intercourse	Heterosexual intercourse	Lack of personnel hygiene	Other		
Age						
15-19	1.1	24.7	61.5	6.9	24.1	2,292
20-24	2.8	28.9	62.0	8.3	22.6	5,879
25-29	2.4	32.8	64.7	8.8	20.7	5,754
30-34	2.6	32.5	61.0	9.8	21.6	5,470
35-39	3.3	31.3	61.1	9.9	24.0	4,377
40-44	3.1	33.2	61.3	9.4	22.0	3,281
Residence						
Rural	2.0	25.1	59.8	10.6	23.9	17,194
Urban	3.4	38.3	64.7	7.3	20.3	9859
Education						
Non-literate	1.1	18.0	49.3	12.7	31.1	9,470
0-9@ years	1.7	22.4	61.8	9.6	24.7	11,544
10 years and above	4.6	48.6	69.6	6.3	14.4	6,036
Religion						
Hindu	2.8	31.2	62.5	9.0	22.1	22,117
Muslim	1.0	26.0	61.9	8.4	24.0	2,542
Christian	6.0	28.1	68.7	10.7	16.3	208
Sikh	0.0	45.9	48.5	15.4	27.3	75
Buddhist	3.8	33.2	56.4	9.7	23.7	1,770
Jain	0.8	52.7	69.9	8.2	12.7	279
Other	0.0	33.1	78.5	6.3	15.3	61
Caste/tribe#						
Scheduled caste	2.7	29.1	55.4	11.9	23.4	3,790
Scheduled tribe	2.0	20.5	54.1	10.5	31.4	4,703
Other backward class	2.5	27.8	65.4	8.5	20.9	7,385
Other	2.9	37.4	64.2	8.2	20.1	10,982
Standard of living index						
Low	1.2	17.6	54.5	11.4	29.6	9,933
Medium	2.2	26.2	59.2	9.3	24.7	9,442
High	3.9	43.6	69.1	7.4	15.7	7,678
Total	2.7	31.3	62.1	9.0	22.2	27,053

Note: Total includes 2 cases missing information on education are not shown separately. @ Literate women with no year of schooling are also included. # Total number may not add up to N due to do not know and missing cases.

Table 8.4 presents the knowledge of mode of transmission of RTI/STI among men. Among men who had heard of RTI/STI, 10 percent of them mentioned that they did not know any thing about the mode of transmission of this disease. The percentage of men who did not know about the mode of transmission is higher among younger men, men from rural areas, non-literate men, Hindu men, men from scheduled tribes, and men from households with a low standard of living. Among the men who new the modes of transmission of RTI/STI, 76 percent mentioned heterosexual intercourse, 40 percent reported lack of personnel hygiene, 12 percent mentioned homosexual intercourse and five percent reported other modes of transmission. Urban men, men with at least 10 years of schooling, men from other caste and men with high standard of living had better knowledge about the modes of transmission of RTI/STI as compared to their respective counterparts.

Table 8.4 SOURCE OF KNOWLEDGE ABOUT MODE OF TRANSMISSION OF RTI/STI AMONG MEN
Percentage of husbands of currently married women who have heard of RTI/STI , knowledge of mode of transmission by selected background characteristics, Maharashtra, 2002-04

Background characteristic	Percentage by knowledge of mode of transmission				Do not know	Number of men who have heard of RTI/STI
	Homosexual intercourse	Heterosexual intercourse	Lack of personnel hygiene	Other		
Age						
<25	10.4	67.5	35.1	6.8	14.0	418
25-34	10.6	72.9	39.4	5.2	10.6	2,659
35-44	12.0	80.2	41.9	5.7	8.2	2,533
45+	13.6	75.7	39.9	4.7	9.9	1,365
Residence						
Rural	9.4	69.3	36.2	6.3	13.4	3,892
Urban	14.6	83.9	45.2	4.3	5.3	3,082
Education						
Non-literate	5.7	59.5	25.3	6.2	22.2	433
0-9@ years	7.9	69.2	32.4	6.2	13.4	2,859
10 years and above	15.3	82.8	48.0	4.7	5.6	3,683
Religion						
Hindu	12.0	74.8	40.0	4.8	10.6	5,674
Muslim	9.2	76.8	44.1	8.9	4.7	593
Christian	19.8	92.8	38.2	3.4	5.5	72
Buddhist	10.1	81.4	35.6	6.7	9.7	486
Jain	12.8	79.8	42.4	8.8	3.7	115
Other	(16.7)	(77.8)	(50.0)	(11.1)	(11.1)	35
Caste/tribe#						
Scheduled caste	11.3	75.9	35.4	5.4	10.1	1,071
Scheduled tribe	6.2	70.0	32.9	6.1	14.4	844
Other backward class	9.5	72.1	41.3	5.9	12.0	1,841
Other	14.2	79.2	43.2	4.9	7.3	3,161
Standard of living index						
Low	6.2	63.4	32.5	7.2	18.3	1,679
Medium	9.9	74.8	36.2	5.1	9.7	2,547
High	16.7	84.2	48.6	4.5	4.8	2,749
Total	11.7	75.8	40.2	5.4	9.8	6,975

Note: # Total number may not add up to N due to do not know and missing cases. @ Literate men with no years of schooling are also included. ( ) Based on less than 50 unweighted cases.

8.2 Prevalence of RTI/STI

In DLHS-RCH, information was collected on the common symptoms of reproductive tract infections and sexually transmitted infections from women and their husbands, and information on menstruation related problems in the three months immediately preceding the survey.

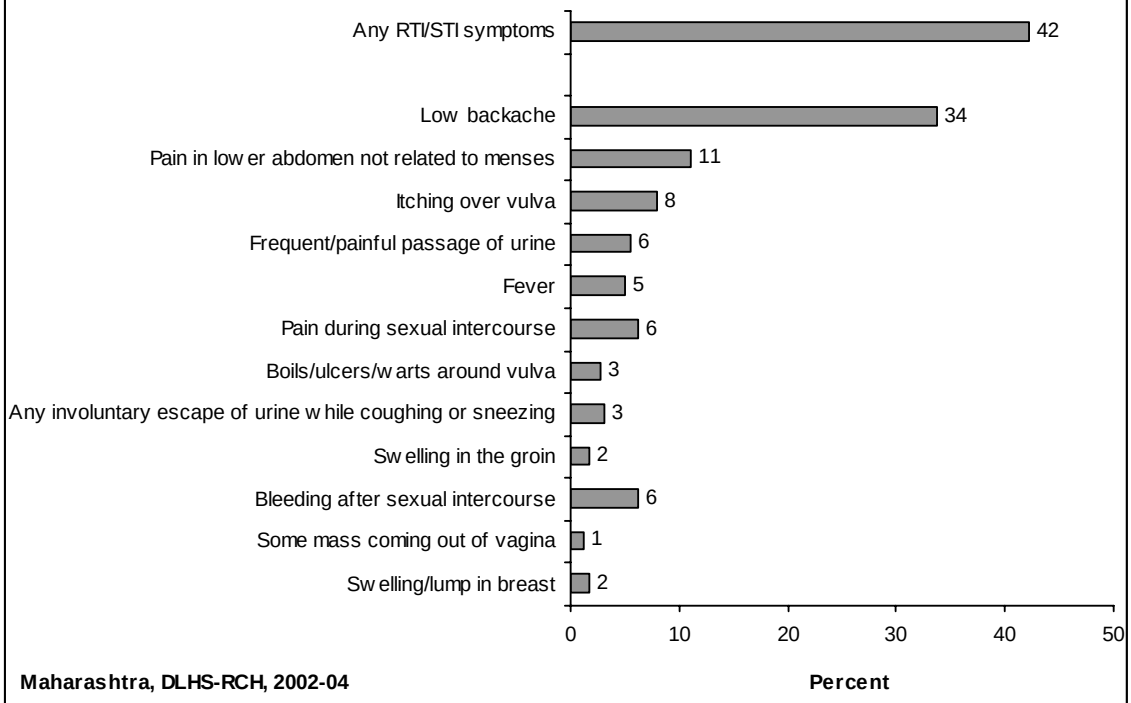
The prevalence of reproductive tract infections and sexually transmitted tract infections is judged by their symptoms. All the respondents were told about symptoms of RTI/STI, and were asked whether they had any of them. In case of the presence of at least one symptom, they were further asked whether they sought treatment for such problems, and if they had sought treatment, details regarding the source of treatment also recorded. The topic of RTI/STI is quite sensitive. The culture of silence prevents people from discussing such topics in front of others. In spite of intensive training of the investigators, the respondent might have hesitated in reporting the symptoms of RTI/STI. What gets reported in the survey though may not have given the exact prevalence, but may have given the lower limit for it.

Table 8.5 SYMPTOMS OF RTI/STI AMONG WOMEN

Percentage of currently married women aged 15-44 who reported any symptoms RTI/STI and specific symptoms during three months prior to survey, according to residence, Maharashtra, 2002-04

Symptoms	Total	Residence	
		Rural	Urban
Percentage of women reported any RTI/STI symptoms	42.2	44.9	37.5
Symptoms			
Itching over vulva	8.0	8.0	8.0
Boils/ ulcers/ warts around vulva	2.8	2.8	2.9
Pain in lower abdomen not related to menses	11.1	12.0	9.4
Low backache	33.8	36.2	29.6
Pain during sexual intercourse	6.3	7.0	5.1
Bleeding after sexual intercourse	1.2	1.4	.9
Swelling in the groin	1.7	1.8	1.4
Frequent / painful passage of urine	5.5	6.3	4.2
Fever	5.1	5.8	4.0
Some mass coming out of vagina	1.2	1.4	.8
Any involuntary escape of urine while coughing or sneezing	3.1	3.3	2.7
Swelling / lump in breast	1.7	1.9	1.3
Number of women	27,053	17,194	9,859

Figure 8.2
Symptoms of RTI/STI among Women

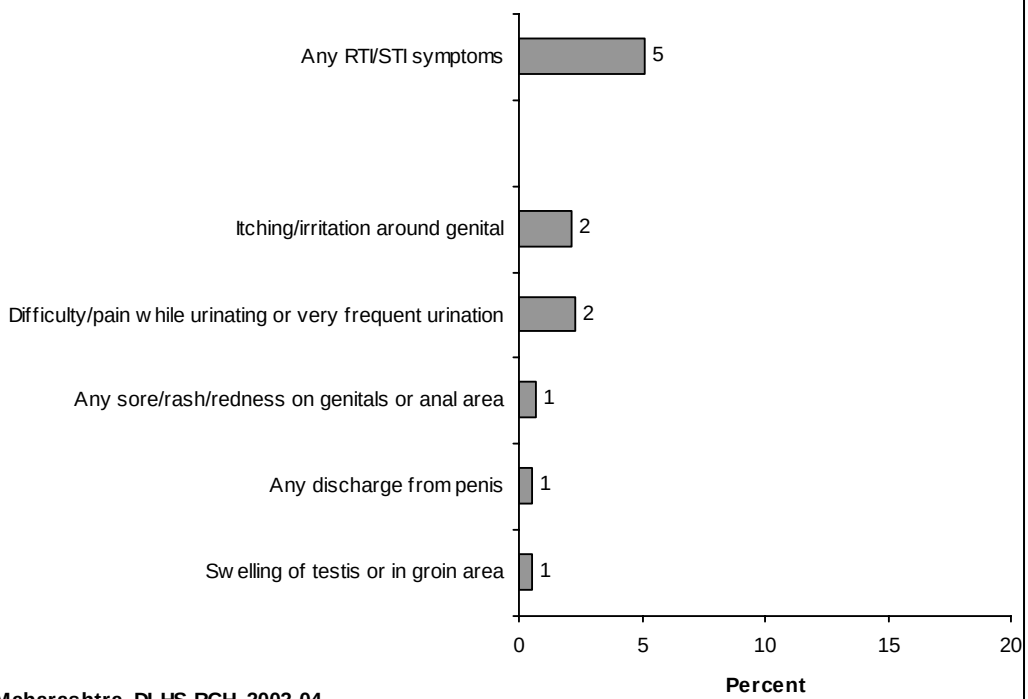


Maharashtra, DLHS-RCH, 2002-04

Table 8.5 and Figure 8.2 show that 42 percent of currently married women reported at least one reproductive health problem. The main problem reported by women was 'low backache' (34 percent), followed by 'pain in lower abdomen' (11 percent). Other symptoms of reproductive health reported by 3-8 percent of the women were 'itching over vulva', 'painful sexual intercourse', 'frequent/painful passage of urine', 'fever', 'involuntary escape of urine while coughing or sneezing', and 'boils/ulcers/warts around vulva'. Very few women reported 'bleeding after sexual intercourse', 'swelling/lump in breast', 'swelling in the groin', and 'some mass coming out of vagina'. The prevalence of reproductive health problems is common among rural and urban women.

Table 8.6 and Figure 8.3 show the prevalence of reproductive health problems among husbands of currently married women. The prevalence of RTI/STI among men was judged by the reporting of symptoms. Five percent of men reported experiencing at least one symptom of reproductive health problem in the last three months preceding the survey. The prevalence of reproductive health problems is more among rural men (6 percent) than among urban men (3 percent). The specific problem of reproductive health experienced by men is 'difficulty / pain while urinating or very frequent urination' and 'itching/irritation around genital' (2 percent each). Very few experienced 'discharge from penis', 'sore / rash / redness on genitals or anal area', and 'swelling of testes or in groin area'.

Figure 8.3
Symptoms of RTI/STI among Husbands



Maharashtra, DLHS-RCH, 2002-04

Table 8.6 SYMPTOMS OF RTI/STI AMONG MEN

Percentage of husbands of currently married women who reported any symptoms RTI/STI and specific symptoms during three months prior to survey and sought treatment for RTI/STI by source of treatment, according to residence, Maharashtra, 2002-04

Symptoms and treatment	Total	Residence	
		Rural	Urban
Percentage of men reported any RTI/STI symptoms	5.1	6.4	2.5
Symptoms			
Any discharge from penis	0.5	0.6	0.3
Any sore / rash / redness on genitals or anal area	0.7	0.9	0.5
Difficulty / pain while urinating or very frequent urination	2.3	3.0	0.9
Swelling of testis or in groin area	0.5	0.6	0.2
Itching / irritation around genital	2.1	2.7	0.9
Number of Men	16,357	11,007	5,350
Percentage of men sought treatment for any RTI/STI[1]	54.0	55.1	48.5
Number of Men	837	700	136
Percentage sought treatment at health facility[2]			
Government health facility[3]	33.6	36.6	16.3
Primary health centre	9.0	10.5	0.2
Sub centre	2.5	2.8	0.4
Private health facility[4]	53.4	50.2	71.7
ISM[5] facility	8.3	8.0	10.3
Chemist/ medical shop	6.0	6.1	5.5
Other	3.7	3.9	2.4
Percentage obtained treatment from[2]			
Doctor	91.1	91.0	91.8
Male health worker	1.8	1.2	0.0
Traditional healer	0.8	1.0	0.0
ISM practitioner	0.5	0.5	0.8
Home remedy	1.4	1.3	1.6
Chemist medical shop	4.3	4.3	3.9
Other	3.3	3.1	4.3
Number of men	452	386	66

Note: [1] Based on men with any symptoms of RTI/STI
[2] Percentage may add more than 100.0 due to multiple responses [3] Includes Government municipal hospital, dispensary, UHC/ UHP /UWFC, CHC/ rural hospital, Primary health centre, sub-centre. [4] Includes private hospital/ clinic, non-governmental / trust hospital/clinic. [5] Either government or private hospital/clinic of Indian system of medicine.

Among men who reported reproductive health problems, 54 percent of them sought treatment. There is not much rural-urban differential in seeking treatment for reproductive health problems. Among them only 34 percent visited a government health facility, including a primary health centre (9 percent) and sub-centre (3 percent) and 53 percent visited a private health facility. Eight percent of men were treated by the Indian system of medicine, six percent obtained treatment from a chemist or medical shop, and four percent of the men reported that they were treated at other sources. Utilisation of the government health facility for the treatment of RTI/STI was found more in rural areas (37 percent) compared to urban areas (16 percent). Most (91 percent) of the men obtained treatment from a doctor and only four percent of them went to a chemist. Another three percent of the men obtained treatment from other sources. No rural-urban differential is observed for the treatment.

Table 8.7 ABNORMAL VAGINAL DISCHARGE

Percentage of currently married women aged 15-44 who reported had abnormal vaginal discharge during three months prior to survey and percentage who sought treatment and source of treatment according to residence, Maharashtra, 2002-04

Symptoms and treatment	Total	Residence	
		Rural	Urban
Percentage of women reported abnormal vaginal discharge	11.6	12.2	10.6
Number of Women	27,053	17,194	9,859
Percentage of women sought treatment for vaginal discharge[1]	39.2	37.5	42.6
Number of Women	3,144	2,099	1,045
Percentage sought treatment at health facility [2]			
Government health facility[3]	21.3	23.3	17.7
Primary health centre	7.7	11.8	0.4
Sub centre	1.6	2.5	0.0
Private health facility[4]	73.2	71.1	76.9
ISM[5] facility	2.9	2.0	4.6
Home remedy	2.5	2.2	3.1
Other	3.2	4.1	1.8
Percent distribution of women who obtained treatment from [2]			
Doctor	89.1	86.1	94.3
ANM/nurse/midwife/LHV	6.2	8.8	1.7
Other health professionals[6]	1.1	1.5	0.4
Other	3.3	3.4	3.1
Total percent	100.0	100.0	100.0
Number of women	1,233	787	446

Note: [1] Based on women who reported having vaginal discharge. [2] Based on women who sought treatment for vaginal discharge. [3] Includes Government municipal hospital, dispensary, UHC/ UHP /UWFC, CHC/ rural hospital, Primary health centre, sub-centre and out reach/ MCP clinic in village. [4] Includes private hospital/ clinic, non-governmental / trust hospital/clinic, chemist/ medical shop. [5] Either government or private hospital/clinic of Indian system of medicine, [6] Includes *dai* (trained or untrained), relative or friends and chemist/ medical shop.

The DLHS-RCH also collected information from currently married women on symptoms of RTIs, that is, on abnormal vaginal discharge, texture, colour and odour of discharge in the three months immediately preceding the survey. The prevalence of reproductive health problems among currently married women is estimated from women's experiences. Table 8.7 shows the asymptotic prevalence of vaginal discharge related problems among currently married women in Maharashtra during the three months preceding the survey according to residence. Twelve percent of the women reported problems related to vaginal discharge. The prevalence of vaginal discharge problem is more or less same in rural and urban areas. Among the women who had reported symptoms of vaginal discharge, 39 percent (43 percent in urban areas and 38 percent in rural areas) went for treatments. A much higher proportion (73 percent) visited private health facilities followed by government health facility (21 percent), including eight percent to the Primary Health Centre and two percent to Sub Centre. About three percent each went to ISM facility, took home remedies, and visited other places for treatment. The proportion of women who visited a government health facility is slightly more in rural areas (23 percent) than in urban areas (18 percent). A much higher proportion (89 percent) of women in the state of Maharashtra obtained treatment from

doctors for their problems. Six percent women were treated by ANM/Nurse/Midwife /LHV and three percent by other health professionals.

8.3 Menstruation Related Problems

Table 8.8 shows the percentage of women who had menstruation problems and who sought treatment during the three months preceding the survey.

Table 8.8 MENSTRUATION RELATED PROBLEMS
Percentage of currently married women aged 15-44 who had any menstruation related problem during three months prior to survey and percentage who sought treatment and source of treatment according to residence, Maharashtra, 2002-04

Symptoms and treatment	Total	Residence	
		Rural	Urban
Percentage of women with any menstruation related problem	17.5	18.3	16.2
Number of Women	21,492	13,276	8,216
Symptoms[1]			
No period	2.6	2.4	2.9
Painful period	40.3	41.5	38.1
Frequent or short period	6.2	5.9	6.6
Delayed period	21.4	21.7	21.0
Prolonged bleeding	4.2	3.5	5.3
Excessive bleeding	13.3	13.5	12.9
Continuous bleeding	3.0	2.8	3.4
Scanty bleeding	35.2	34.2	37.1
Inter-menstrual bleeding	4.8	3.9	6.3
Percentage of women sought treatment who had any menstruation related problems	39.8	36.8	45.3
Number of Women	3,760	2,429	1,331
Percentage sought treatment at health facility[6]			
Government health facility[2]	22.4	25.2	18.1
Primary health centre	7.1	10.9	1.5
Sub centre	1.8	3.0	0.1
Private health facility[3]	75.3	72.8	78.9
ISM[4] facility	2.7	2.0	3.7
Other	1.4	1.7	1.0
Percentage of women obtained treatment from[6]			
Doctor	92.7	89.5	97.4
ANM/nurse/midwife/LHV	7.0	9.7	3.0
Other health professionals[5]	0.7	0.6	0.8
Other	0.9	1.4	0.3
Number of women who are currently menstruating	1,496	894	602

Note: [1] Based on women who reported any menstruated related problems. [2] Includes Government municipal hospital, dispensary, UHC/ UHP /UWFC, CHC/ rural hospital, Primary health centre, sub-centre and out reach/MCP clinic in village. [3] Includes private hospital/ clinic, non-governmental / trust hospital/clinic, chemist/ medical shop. [4] Either government or private hospital/clinic of Indian system of medicine, [6] Includes *dai* (trained or untrained), relative or friends and chemist/ medical shop. [6] Multiple responses.

The Table shows that 18 percent women in Maharashtra had menstruation problems, and the figures are 18 percent and 16 percent in the rural and urban areas respectively. Among the women who had reported menstrual problems in Maharashtra, 40, 35, and 21 percent reported painful periods, scanty bleeding, and delayed periods as symptoms respectively. The magnitude of these symptoms is more or less the same among urban as well as rural women. Painful periods and scanty bleeding are the main menstrual problems prevalent in Maharashtra. Among the women who had menstrual problems, 40 percent sought

treatment in the state, and the figures for urban and rural areas are 45 percent and 37 percent respectively. The private health facility is the main source of treatment for menstrual problems. Three-fourth of the women sought treatment at a private facility. About 22 percent of the women treated at a government health facility, which is more in rural areas (25 percent) than urban areas (18 percent). Most of the women went to a doctor for treatment (93 percent). The figures for urban and rural areas are 97 and 90 percent respectively.

8.4 Prevalence of RTIs/STIs by District

Table 8.9 presents the prevalence of RTIs/STIs among currently married women and their husbands by districts. The reported symptoms of RTIs/STIs among women is lowest in Kolhapur (15 percent) and highest in Wardha and Amravati (67 percent each). The problems related to abnormal vaginal discharge ranges from six percent in each district Pune and Kolhapur to 23 percent in each district Jalna and Dhule.

Table 8.9 REPRODUCTIVE HEALTH CARE INDICATORS BY DISTRICT

Percentage of currently married women and their husbands who reported reproductive health problems and percentage who sought treatment for the problems by district, Maharashtra, 2002-04

District	Percentage of women			Percentage of men	
	With any symptoms of RTI/STI	Reported any abnormal vaginal discharge	Sought treatment for abnormal vaginal discharge	With any symptoms of RTI/STI	Sought treatment for RTI/STI problems
Ahmadnagar	35.1	6.6	43.3	10.2	83.0
Akola	45.1	18.2	44.5	9.7	48.5
Amravati	67.4	18.4	43.5	5.7	40.0
Aurangabad	57.0	15.0	36.6	2.8	(47.1)
Bhandara	54.5	12.2	27.0	10.0	58.1
Bid	59.3	15.8	42.0	10.4	64.1
Buldana	60.5	16.3	47.7	2.8	(40.7)
Chandrapur	61.2	8.9	46.9	8.7	40.7
Dhule	49.1	22.7	17.1	5.1	67.6
Gadchiroli	57.3	10.1	29.8	4.4	(52.2)
Gondia	32.9	9.3	39.1	5.6	60.2
Hingoli	50.0	13.5	30.7	7.4	48.4
Jalgaon	54.5	16.8	43.9	2.9	(56.0)
Jalna	37.0	22.7	35.5	8.5	47.7
Kolhapur	14.7	5.8	42.2	1.2	(73.4)
Latur	44.8	14.0	27.9	4.7	(45.4)
Mumbai	22.8	9.1	25.3	1.1	(13.9)
Mumbai (Suburban)	19.2	9.7	41.0	0.0	-
Nagpur	54.0	12.2	46.4	7.3	40.5
Nanded	52.6	9.9	39.6	4.6	(40.6)
Nandurbar	20.0	18.6	37.1	4.0	35.9
Nashik	56.8	15.8	40.5	5.9	(44.3)
Osmanabad	41.1	10.8	42.3	7.9	38.6
Parbhani	26.3	15.6	37.4	8.3	55.7
Pune	40.3	5.8	41.4	6.1	(40.6)
Raigarh	16.0	7.0	40.3	0.8	(60.4)
Ratnagiri	18.4	9.2	46.8	1.1	(56.4)
Sangli	38.0	7.1	31.7	4.8	(74.4)
Satara	38.7	10.0	44.1	6.2	46.1
Sindhudurg	43.5	11.7	43.0	1.9	(46.4)
Solapur	41.4	10.4	17.4	2.4	(73.3)
Thane	45.3	9.0	53.2	3.8	(69.1)
Wardha	67.0	12.6	63.6	6.0	49.5
Washim	49.3	21.8	31.0	7.5	43.7
Yavatmal	47.0	15.0	42.4	7.8	55.1
Maharashtra	42.2	11.6	39.2	5.1	54.0

Note: ( ) Based on less number of cases. – Not Applicable.

In comparison with women, fewer men from all districts of Maharashtra reported symptoms of RTIs/STIs. The highest prevalence of the symptoms of RTIs/STI among the men was reported in the districts of Akola, Bhandara, Ahmadnagar and Bid (10 percent each).

The percentage of women who have sought treatment for RTIs (abnormal vaginal discharge) ranges from 17 percent each in Dhule and Solapur to 64 percent in Wardha. However, the proportion of the men who have sought treatment for their problems is more than two-fifth in most of the districts (Interpretation should read with caution due to less number of cases).

8.5 HIV/AIDS

Acquired Immune Deficiency Syndrome (AIDS) is an illness caused by the Human Immune Virus (HIV), which weakens the immune system and leads to death through secondary infection such as tuberculosis or pneumonia. The virus is generally transmitted through sexual contact, through the placenta of HIV-infected women to their children, or through contact with contaminated needle (injections) or blood. Prevalence of HIV and AIDS has been on the rise for more than a decade in India and has reached alarming proportions in recent years. To prevent HIV transmission, the government has been making various efforts.

DLHS-RCH has collected information on the general state of awareness of HIV/AIDS, its transmission, its prevention and common misconceptions about HIV/AIDS. All the currently married women in the age group 15-44, and their husbands were first asked if they had ever heard of an illness called HIV/AIDS. Respondents who had heard of HIV/AIDS were further asked about their source of information, mode of transmission, and correct knowledge of HIV/AIDS transfusion.

8.5.1 Knowledge of HIV/AIDS

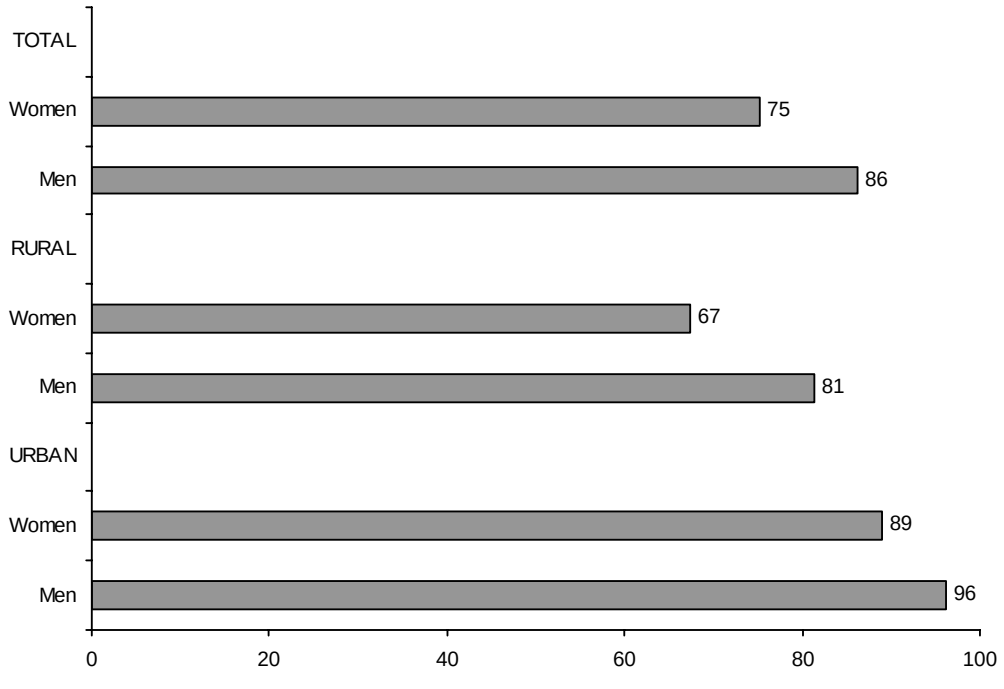
Table 8.10 shows the percentage of women who had heard about HIV/AIDS by some selected background characteristics. Three-quarters of currently married women in Maharashtra have heard of HIV/AIDS, which is higher than RCH Round – I. In Round-I only 55 percent of currently married women were aware of HIV/AIDS.

Knowledge of HIV/AIDS is much lower among rural women, non-literate women, women from scheduled tribes, and women from households with a low standard of living. About 89 percent of urban women had heard about HIV/AIDS compared to only 67 percent of rural women. Knowledge of HIV/AIDS steadily increased with increase in educational level and household standard of living. About half of non-literate women had heard of HIV/AIDS against 98 percent of women who had completed 10 or more years of schooling. Similarly a little more than half of the women (55 percent) with a low standard of living had heard of HIV/AIDS against 95 percent of women with a high standard of living. In all the age groups, more than 70 percent of the women had knowledge of HIV/AIDS. Women from Christian, Sikh and Jain religions were more aware of HIV/AIDS compared to women from Hindu, Muslim, Buddhist and Other religions. Women from ‘other caste’ category were more knowledgeable about HIV/AIDS (86 percent) than women belonging to scheduled-caste (78 percent), other backward classes (75 percent), and scheduled tribe women (48 percent).

The government has been using mass media, such as television, radio, and newspaper extensively to increase awareness among the general public about HIV/AIDS and its prevention. Table 8.10 shows the percentage of currently married women who were aware of HIV/AIDS from different sources. The most prominent source of information about HIV/AIDS is television. About 67 percent of women reported that television was their source of information about HIV/AIDS, followed by relatives or friends (54 percent), newspapers, books or magazines (25 percent), slogans or pamphlets, posters or wall hoardings (16 percent) and radio (14 percent). Four percent of the women reported that a health worker had informed them about HIV/AIDS and six percent of the women received information of HIV/AIDS from a doctor.

Table 8.11 shows the percentage of husbands of currently married women who had heard about HIV/AIDS. In Maharashtra, the proportion of men who had heard about HIV/AIDS is higher (86 percent) than that of women (75 percent) (Figure 8.4).

Figure 8.4
Awareness of HIV/AIDS by Sex According to Residence



Maharashtra, DLHS-RCH, 2002-04

About 96 percent of urban men had heard about HIV/AIDS as compared to 81 percent of rural men. Knowledge of HIV/AIDS is little more in the age group of less than 34 years. Awareness of HIV/AIDS is much lower among non-literate men, men from scheduled tribes, and men who belong to households with a low standard of living. A similar trend is observed in the case of women. About 59 percent of non-literate men had heard of HIV/AIDS, and it increased up to 99 percent who had completed 10 or more years of schooling.

Table 8.11 also shows the percentage of husbands of currently married women who were aware of HIV/AIDS by different sources. Among men, the most prominent source of information of HIV/AIDS was television (71 percent) followed by relatives or friends (54 percent), and newspapers/ books or magazines (52 percent). Other important sources of HIV/AIDS were slogans or pamphlets, posters or wall hoardings (30 percent), radio (20 percent) and community meeting (12 percent). Twelve percent of men reported that a doctor had informed them about HIV/AIDS and four percent men had received information of HIV/AIDS from a health worker. The awareness of HIV/AIDS through mass media, such as television and newspapers, books or magazines, was received more by urban men, men from 'other castes' category, men with at least 10 years of schooling, and men from a high standard of living. On the other hand, relative or friends was the main source of information for rural men, men below age 25 years, non-literate men, scheduled tribe men and men from households with a low standard of living.

Table 8.10 SOURCE OF KNOWLEDGE ABOUT HIV/AIDS AMONG WOMEN

Percentage of currently married women aged 15 - 44 who have heard about HIV/AIDS and among women who have heard about HIV/AIDS, percentage who received information from specific sources by selected background characteristics, Maharashtra, 2002-04.

Background characteristic	Percentage who have heard about HIV/AIDS	Number of Women	Among those who have heard about HIV/AIDS, percentage who received information from.										Number of women who have heard about HIV/AIDS
			Radio	Televi-sion	Newspaper/ Books/ Magazines	Slogan/ Pamphlets/ Posters/ Wall Hoardings	Doctor	Health worker	School teacher	Community Meeting	Relative/ Friends	Others	
Age group (years)													
15-19	73.9	2,292	13.0	59.6	17.7	14.7	6.0	4.3	6.4	2.8	58.5	5.5	1,693
20-24	75.3	5,879	14.6	70.1	24.8	16.2	6.5	4.2	3.8	4.1	53.1	3.9	4,424
25-29	78.3	5,754	14.5	71.1	27.5	17.9	7.8	4.6	2.1	4.5	51.7	3.7	4,507
30-34	75.9	5,470	12.5	65.8	26.0	17.0	5.9	4.6	1.6	5.0	55.6	4.2	4,152
35-39	73.3	4,377	13.7	64.3	24.2	15.3	5.9	4.3	1.9	5.0	56.1	4.3	3,207
40-44	71.6	3,281	12.6	66.8	26.5	15.5	5.3	4.2	2.6	5.6	52.3	4.5	2,349
Residence													
Rural	67.3	17,194	13.1	52.4	15.2	11.4	5.2	5.7	2.6	5.2	63.2	6.0	11,564
Urban	89.0	9,859	14.3	86.8	38.2	23.0	7.9	2.7	3.0	3.7	42.2	1.9	8,768
Education													
Non-literate	51.0	9,470	6.6	35.9	1.2	1.2	1.8	2.8	0.5	4.9	73.0	7.6	4,826
0-9@ years	83.0	11,544	12.9	67.6	19.4	14.1	5.2	4.4	1.8	3.7	55.2	3.6	9,579
10 and above	98.2	6,036	20.6	92.2	54.0	32.5	12.1	5.8	6.2	5.7	37.1	2.5	5,925
Religion													
Hindu	73.8	22,117	14.4	65.0	25.3	16.4	6.3	4.6	2.8	4.9	55.6	4.5	16,327
Muslim	80.9	2,542	7.1	78.9	21.5	12.6	4.4	2.1	1.4	1.2	47.3	2.1	2,057
Christian	94.6	208	11.7	80.8	28.2	27.1	12.8	5.8	4.2	8.1	49.4	4.8	196
Sikh	94.1	75	17.7	93.1	37.2	21.3	12.5	4.6	6.0	4.6	45.6	0.8	71
Buddhist	77.0	1,770	13.4	69.0	23.1	18.1	7.5	5.5	3.5	5.8	50.5	4.3	1,362
Jain	98.0	279	17.7	89.8	50.8	32.6	13.2	4.0	3.4	5.5	41.9	5.0	274
Other	75.0	61	(5.6)	(61.1)	(66.7)	(22.2)	(33.3)	(5.6)	(5.6)	(11.1)	(44.4)	(0.0)	46
Caste/tribe#													
Scheduled caste	78.2	3,790	13.4	65.6	20.0	15.4	6.3	5.2	2.9	4.8	55.9	4.3	2,965
Scheduled tribe	48.0	4,703	8.8	49.2	14.8	11.7	4.8	5.0	2.2	3.5	63.9	4.5	2,258
Other backward class	74.7	7,385	13.0	67.1	24.8	14.8	6.2	4.5	2.7	5.6	53.5	3.5	5,514
Other	86.2	10,982	15.1	72.1	29.4	18.8	6.9	4.0	2.9	4.2	51.6	4.5	9,467
Standard of living index													
Low	54.7	9,933	10.2	29.1	7.7	6.9	4.3	4.8	1.7	5.2	72.9	7.7	5,434
Medium	80.5	9,442	12.6	72.0	18.1	13.9	4.7	4.5	2.2	3.9	54.6	3.3	7,600
High	95.1	7,678	17.2	90.8	45.5	26.1	9.7	4.0	4.1	4.9	39.6	2.5	7,298
Total	75.2	27,053	13.6	67.3	25.2	16.4	6.4	4.4	2.8	4.6	54.1	4.2	20,332

Note: Total includes 2 cases missing information on education are not shown separately. # Total number may not add up to N due to do not know and missing cases.
@ Literate women with no year of schooling are also included. ( ) Based on less than 50 cases.

Table 8.11 SOURCE OF KNOWLEDGE ABOUT HIV/AIDS AMONG MEN

Percentage of husband of currently married women who have heard about RTI/STI and among men who have heard about RTI/STI, percentage who received information from specific sources by selected background characteristics, Maharashtra, 2002-04.

Background Characteristic	Percentage who have heard about HIV/AIDS	Number of men	Among those who have heard about HIV/AIDS, percentage who received information from.										Number of men who have heard about HIV/AIDS
			Radio	Televi-sion	Newspaper/ Books/ Magazines	Slogan/ Pamphlets/ Posters/ Wall Hoardings	Doctor	Health worker	School teacher	Commu-nity Meeting	Relative/ Friends	Others	
Age group (years)													
< 25	89.0	1,104	17.3	66.9	40.8	28.4	9.6	3.1	4.8	10.5	57.2	7.5	982
25-34	89.7	5,937	20.8	73.5	55.0	31.8	12.8	3.8	2.7	10.7	55.8	7.4	5,326
35-44	84.7	6,125	20.2	70.6	51.7	29.8	12.6	3.5	2.1	11.5	54.0	8.2	5,188
45+	81.8	3,192	19.4	66.3	48.2	29.8	10.3	3.1	2.3	13.5	49.7	10.8	2,613
Residence													
Rural	81.4	11,007	18.1	59.9	41.5	23.9	11.7	4.1	2.5	12.3	57.8	10.0	8,965
Urban	96.1	5,350	23.5	89.4	69.0	41.9	12.6	2.6	2.7	10.2	47.6	5.5	5,144
Education													
Non-literate	59.3	3,231	11.7	36.7	5.7	4.4	5.0	1.7	0.5	13.4	69.1	11.1	1,917
0-9@ years	88.5	7,667	18.3	65.1	44.1	26.3	10.6	2.7	1.5	10.4	54.2	9.2	6,783
10 and above	99.1	5,459	25.3	89.6	77.2	44.8	16.4	5.2	4.6	12.2	48.6	6.3	5,409
Religion													
Hindu	85.4	13,528	19.8	69.0	51.1	29.6	12.1	3.8	2.7	11.7	54.0	8.9	11,550
Muslim	91.0	1,413	22.3	80.4	54.8	38.0	11.5	1.7	1.2	8.3	60.9	6.2	1,285
Christian	95.7	111	25.4	90.6	70.1	48.1	15.9	1.8	5.9	14.3	50.4	14.6	106
Buddhist	88.8	1,086	19.8	71.3	46.9	26.1	10.3	3.5	2.3	13.9	49.6	4.7	964
Jain	96.6	141	26.1	84.8	73.7	52.0	21.3	2.5	2.0	12.8	50.6	5.3	136
Other	84.7	80	6.1	90.5	66.8	25.5	9.0	0.8	0.0	3.5	18.8	1.5	68
Caste/tribe#													
Scheduled caste	89.7	2,354	20.3	70.3	47.1	26.6	11.9	3.7	2.3	12.2	51.9	8.0	2,111
Scheduled tribe	67.8	3,049	15.8	52.5	34.3	24.2	9.6	3.6	3.2	12.1	57.6	7.8	2,068
Other backward class	86.9	4,521	20.6	72.2	50.5	30.1	11.1	3.8	2.5	14.0	54.1	6.9	3,930
Other	93.7	6,294	21.1	76.1	59.9	34.4	13.7	3.2	2.3	9.5	53.6	9.7	5,897
Standard of living index													
Low	73.6	6,473	16.5	43.9	29.9	19.8	9.3	3.0	1.6	12.4	62.1	10.2	4,764
Medium	91.7	5,575	20.0	76.5	50.8	30.9	11.4	3.1	2.2	10.1	53.9	8.6	5,112
High	98.2	4,309	24.1	93.7	76.8	41.9	15.9	4.7	4.0	12.2	45.3	5.9	4,233
Total	86.3	16,357	20.1	70.6	51.6	30.4	12.1	3.5	2.5	11.5	54.1	8.3	14,109

Note: # Total number may not add up to N due to do not know and missing cases. @ Literate men with no year of schooling are also included.

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8.5.2 Knowledge of Mode of Transmission about HIV/AIDS

Women who were aware of HIV/AIDS were asked about the mode of transmission and this is presented in Table 8.12. Among women who reported awareness of HIV/AIDS, 15 percent of them did not know about the mode of transmission. This proportion is relatively higher among younger women, rural women, non-literate women, Hindu women, women from scheduled tribe and women with a low standard of living. One-fifth of rural women do not know about the mode of transmission of HIV/AIDS compared to eight percent of urban women.

Table 8.12 SOURCE OF KNOWLEDGE ABOUT MODE OF TRANSMISSION OF HIV/AIDS AMONG WOMEN

Percentage currently married women aged 15-44 who have heard of HIV/AIDS , knowledge of mode of transmission by selected background characteristics, Maharashtra, 2002-04

Background characteristic	Percentage by knowledge of mode of transmission						Do not know	Number of women who have heard of HIV/AIDS
	Homo-sexual intercourse	Heterosexual intercourse	Needles/ blade/ skin puncture	Mother to child	Transfusion of infected blood	Other		
Age								
15-19	4.0	75.3	40.5	15.2	30.8	2.8	21.5	1,693
20-24	5.0	83.8	50.3	22.9	41.6	2.6	12.8	4,424
25-29	5.4	84.3	55.2	27.4	46.4	2.4	12.7	4,507
30-34	4.9	82.5	51.0	23.8	42.1	3.1	14.6	4,152
35-39	5.8	79.1	49.0	22.1	40.5	2.4	17.7	3,207
40-44	6.1	80.1	49.2	22.8	40.8	2.6	16.8	2,349
Residence								
Rural	4.5	76.7	40.9	16.5	32.6	2.9	20.2	11,564
Urban	6.1	88.5	62.9	32.3	53.5	2.2	8.4	8,768
Education								
Non-literate	2.5	66.2	21.8	6.4	15.0	2.5	31.0	4,826
0-9@ years	4.2	81.8	47.1	17.9	36.7	2.7	14.6	9,579
10 years and above	9.2	94.5	79.0	45.9	71.1	2.7	2.8	5,925
Religion								
Hindu	5.6	81.2	50.4	23.6	41.7	2.7	15.6	16,327
Muslim	2.4	83.1	47.5	18.8	36.7	1.8	13.6	2,057
Christian	3.6	84.4	65.1	34.7	57.3	6.1	11.7	196
Sikh	14.5	99.2	50.7	25.8	49.7	0.0	0.0	71
Buddhist	4.9	82.8	47.9	22.7	39.7	3.1	14.6	1,362
Jain	6.3	93.9	72.4	36.4	65.1	1.5	4.5	274
Other	(4.3)	(73.9)	(52.2)	(13.0)	(43.5)	(0.0)	(26.1)	46
Caste/tribe#								
Scheduled caste	5.2	79.7	46.9	20.4	37.6	3.0	16.4	2,965
Scheduled tribe	3.3	74.9	34.1	13.9	27.9	2.8	22.9	2,258
Other backward class	4.8	82.5	48.5	22.3	40.0	2.3	14.5	5,514
Other	5.9	83.7	56.3	27.0	46.9	2.7	13.2	9,467
Standard of living index								
Low	3.6	68.7	27.5	10.7	20.4	2.5	28.2	5,434
Medium	4.4	82.6	48.0	19.2	38.0	2.6	14.1	7,600
High	7.2	90.7	69.9	36.9	61.2	2.8	6.3	7,298
Total	5.2	81.8	50.4	23.3	41.6	2.6	15.1	20,332

Note: Total includes 2 cases missing information on education are not shown separately. @ Literate women with no year of schooling are also included. ( ) Based on less than 50 cases. # Total number may not add up to N due to do not know and missing cases

Among women who reported different ways of transmission of HIV/AIDS, a large proportion (82 percent) mentioned heterosexual intercourse as a mode of transmission. All the socio-economic groups reported that heterosexual intercourse was the main mode of transmission of HIV/AIDS. Other modes reported by women were transmission through

needle or blade or skin puncture (50 percent), transfusion of infected blood (42 percent), mother to child, if pregnancy occurs during a stage of HIV (23 percent); only five percent of the women mentioned that homosexual intercourse could also be a mode of transmission.

Table 8.13 presents the knowledge about mode of transmission of HIV/AIDS among men. Seven percent of the men who had heard about HIV/AIDS mentioned that they do not know the mode of transmission. The percentage of men not knowing the mode of transmission is higher among men aged 45 years or more, rural men, non-literate men, Hindu men, scheduled-tribe men, and men from households with a low standard of living.

Table 8.13 SOURCE OF KNOWLEDGE ABOUT MODE OF TRANSMISSION OF HIV/AIDS AMONG MEN

Percentage of husbands of currently married women who have heard of HIV/AIDS , knowledge of mode of transmission by selected background characteristics, Maharashtra, 2002-04

Background characteristic	Percentage by knowledge of mode of transmission							Number of men who have heard of HIV/AIDS
	Homosexual intercourse	Heterosexual intercourse	Needles/ blade/ skin puncture	Mother to child	Transfusion of infected blood	Other	Do not know	
Age								
<25	11.0	89.4	44.9	9.6	29.5	1.8	6.5	982
25-34	12.3	90.5	54.0	14.9	40.5	2.7	5.0	5,326
35-44	11.5	89.8	51.6	14.5	37.3	2.7	7.6	5,188
45+	10.8	85.3	45.7	13.8	32.4	2.2	11.1	2,613
Residence								
Rural	9.8	86.5	43.2	11.0	29.0	2.7	9.9	8,965
Urban	14.9	93.8	64.4	19.8	51.1	2.3	2.5	5,144
Education								
Non-literate	5.7	76.0	20.7	3.4	10.4	2.2	20.5	1,917
0-9@ years	8.8	88.3	41.9	8.4	27.7	2.2	7.8	6,783
10 years and above	17.4	95.1	72.9	25.3	58.2	3.0	1.7	5,409
Religion								
Hindu	12.2	88.5	50.4	14.5	36.8	2.6	7.5	11,550
Muslim	7.9	93.1	56.1	10.7	39.5	2.6	4.7	1,285
Christian	23.9	97.6	65.4	27.5	50.1	1.5	2.7	106
Buddhist	8.2	89.7	44.0	10.2	32.0	1.8	7.9	964
Jain	14.6	96.4	84.8	30.1	54.5	1.0	1.7	136
Other	18.4	98.9	54.2	37.9	44.3	0.0	0.8	68
Caste/tribe#								
Scheduled caste	11.7	88.6	46.7	13.9	33.7	2.0	7.4	2,111
Scheduled tribe	6.5	86.7	33.5	6.1	23.3	2.2	10.8	2,068
Other backward class	10.9	89.4	47.6	13.2	35.3	2.6	7.4	3,930
Other	13.7	90.3	60.9	17.6	44.3	2.9	5.6	5,897
Standard of living index								
Low	8.5	82.7	32.1	7.7	20.1	2.6	13.6	4,764
Medium	11.2	90.4	52.6	12.2	36.7	2.6	5.5	5,112
High	15.8	95.1	70.1	23.9	56.6	2.4	2.0	4,233
Total	11.6	89.2	50.9	14.2	37.1	2.5	7.2	14,109

Note: # Total number may not add up to N due to do not know and missing cases.
@ Literate men with no year of schooling are also included.

Among the reported ways of transmission of HIV/AIDS, 89 percent of them mentioned heterosexual intercourse as a mode of transmission. All the groups reported that heterosexual intercourse was the main mode of transmission of HIV/AIDS. Other modes reported by men are transmission through needle or blade or skin puncture (51 percent), transfusion of infected blood (37 percent), mother to child, if pregnancy occurs during a stage

of HIV (14 percent), and only 12 percent of men mentioned that homosexual intercourse could also be a mode of transmission of HIV/AIDS.

8.5.3 How to avoid HIV/AIDS

All the respondents, male and female, were asked about how to prevent HIV/AIDS. The percentage of women who said that HIV/AIDS could be avoided by various ways has been presented in Table 8.14 by some selected background characteristics.

Table 8.14 KNOWLEDGE ABOUT AVOIDANCE OF HIV/AIDS AMONG WOMEN

Among currently married women aged 15-44 who have heard about HIV/AIDS, the percentage of women reported HIV/AIDS can be avoided in specific ways by selected background characteristics, Maharashtra, 2002-04

Background characteristic	Percentage reported HIV/AIDS can be avoided by: Sex With Only one partner	Using condoms correctly during each sexual intercourse	Checking blood prior to transfusion	Sterilizing needles and syringes for injection	Avoiding pregnancy when having HIV/AIDS	Other	Do not know to avoid HIV/AIDS	Number of women
Age								
15-19	75.6	16.5	30.3	37.6	12.9	5.7	21.9	1,693
20-24	83.2	29.0	42.5	47.6	19.8	5.9	13.4	4,424
25-29	83.8	32.2	47.8	52.3	23.9	5.8	13.4	4,507
30-34	81.8	30.4	43.5	49.0	20.6	5.3	15.2	4,152
35-39	78.7	26.6	41.0	46.7	19.0	6.4	18.6	3,207
40-44	79.7	27.5	40.7	45.9	20.1	5.4	18.0	2,349
Residence								
Rural	76.0	19.3	32.8	38.2	14.2	6.4	21.0	11,564
Urban	88.2	40.4	55.2	60.3	28.2	4.9	9.0	8,768
Education								
Non-literate	65.1	8.3	14.8	19.7	5.2	5.3	32.3	4,826
0-9@ years	81.6	23.6	37.8	44.0	15.0	5.8	15.3	9,579
10 years and above	94.0	52.7	72.4	76.6	40.8	6.1	3.3	5,925
Religion								
Hindu	80.8	28.6	42.6	47.7	20.3	5.9	16.3	16,327
Muslim	82.9	26.8	38.0	45.4	17.2	5.1	14.4	2,057
Christian	86.1	34.8	55.8	66.2	30.3	7.1	11.3	196
Sikh	98.3	39.1	52.6	51.6	25.2	0.8	0.0	71
Buddhist	81.0	23.8	39.9	44.2	19.1	6.4	15.9	1,362
Jain	91.2	46.0	66.0	72.4	34.9	1.9	4.7	274
Other	(73.9)	(17.4)	(43.5)	(52.2)	(13.0)	(0.0)	(26.1)	46
Caste/tribe#								
Scheduled caste	79.0	25.0	38.5	44.0	16.8	6.3	17.5	2,965
Scheduled tribe	73.7	17.4	28.3	30.5	11.8	6.2	24.1	2,258
Other backward class	81.8	26.9	39.9	44.9	18.8	6.1	15.3	5,514
Other	83.6	33.1	48.4	54.7	24.1	5.3	13.6	9,467
Standard of living index								
Low	68.1	11.6	20.8	25.5	8.8	5.4	29.2	5,434
Medium	82.1	24.6	38.4	45.1	17.4	6.1	15.0	7,600
High	90.3	44.9	62.7	67.0	31.7	5.7	6.7	7,298
Total	81.3	28.4	42.4	47.7	20.2	5.8	15.8	20,332

Note: Total includes 2 cases missing information on education are not shown separately. @ Literate women with no year of schooling are also included. ( ) Based on less than 50 cases. # Total number may not add up to N due to do not know and missing cases.

Among women who reported about awareness of HIV/AIDS, 16 percent of them did not know how to avoid becoming infected by HIV/AIDS. This percentage is higher among rural women than among urban women. The percentage of women who did not know of any way to avoid infection decreases with increasing levels of education and household standard of living. Nearly one-third of non-literate women reported that they did not know of any way

to avoid infection as compared to three percent of women who had completed ten or more years of schooling. Similarly, 29 percent of women with low a standard of living stated that they did not know of any way to avoid infection as compared to seven percent of women with a high standard of living. The percentage of women who did not know ways to avoid infection is also high among scheduled-tribe women.

Among women who mentioned ways to avoid HIV/AIDS, a much higher proportion of women (81 percent) said that "sex with only one partner is the way to avoid it". Other ways to prevent HIV/AIDS mentioned by women were 'sterilizing needles and syringe before injecting' (48 percent), 'checking blood prior to transfusion' (42 percent), 'using a condom correctly during each sexual intercourse' (28 percent), and one-fifth of women reported that pregnancy should be avoided if couples were infected by HIV/AIDS. All the specific ways to avoid becoming infected by HIV/AIDS reported by women are proportionally higher in urban areas, women who belong to 'other castes' category, women with a high level of education and women with a high standard of living.

Table 8.15 KNOWLEDGE ABOUT AVOIDANCE OF HIV/AIDS AMONG MEN

Among husbands of currently married women who have heard about HIV/AIDS, the percentage of men reported HIV/AIDS can be avoided in specific ways by selected background characteristics, Maharashtra, 2002-04

	Percentage reported HIV/AIDS can be avoided by:							
Background characteristic	Sex with only one partner	Using condoms correctly during each sexual intercourse	Checking blood prior to transfusion	Sterilizing needles and syringes for injection	Avoiding pregnancy when having HIV/AIDS	Other	Do not know to avoid HIV/AIDS	Number of men
Age								
<25	88.5	51.1	31.9	40.7	6.1	5.4	6.4	982
25-34	90.8	53.1	42.6	50.3	11.5	5.9	5.3	5,326
35-44	88.3	47.9	39.9	47.5	11.4	6.3	7.4	5,188
45+	85.4	41.5	35.6	41.9	10.7	5.7	10.9	2,613
Residence								
Rural	86.5	39.1	30.6	39.4	8.4	7.1	9.9	8,965
Urban	92.7	66.0	55.2	60.3	15.4	4.1	2.5	5,144
Education								
Non-literate	74.8	23.7	10.2	18.1	2.8	6.1	20.9	1,917
0-9@ years	88.3	41.0	29.0	38.8	6.1	6.7	7.9	6,783
10 years and above	94.3	67.7	63.3	67.6	19.9	5.1	1.4	5,409
Religion								
Hindu	88.2	48.2	39.4	46.6	11.2	6.0	7.6	11,550
Muslim	92.9	55.3	41.2	53.3	9.1	5.9	3.9	1,285
Christian	94.2	69.5	63.0	59.3	21.6	0.0	3.5	106
Buddhist	89.5	40.9	32.7	37.3	6.9	6.8	7.9	964
Jain	85.1	75.3	65.0	79.0	24.3	2.7	0.9	136
Other	90.3	76.5	43.5	51.9	21.1	9.1	0.8	68
Caste/tribe#								
Scheduled caste	89.4	45.6	35.2	42.9	10.1	6.1	7.6	2,111
Scheduled tribe	84.9	38.1	24.1	31.3	5.4	7.3	11.5	2,068
Other backward class	88.6	44.4	37.7	43.7	9.9	6.1	7.4	3,930
Other	90.2	57.0	47.9	56.5	13.8	5.4	5.2	5,897
Standard of living index								
Low	83.2	30.1	21.2	29.7	6.4	7.5	14.0	4,764
Medium	89.9	51.1	38.6	48.8	9.0	6.2	5.3	5,112
High	93.6	67.4	61.4	64.4	18.4	4.0	1.8	4,233
Total	88.7	48.9	39.6	47.1	10.9	6.0	7.2	14,109

Note: # Total number may not add up to N due to do not know and missing cases.
@ Literate men with no year of schooling are also included.

Table 8.15 shows the percentage of men who reported that HIV/AIDS could be avoided by some selected background characteristics. Among men who are aware of HIV/AIDS, seven percent of them did not know of any method to avoid infection, compared to 16 percent women in the state.

In Maharashtra a higher proportion of women reported that 'sex with only one partner' is the way to avoid HIV/AIDS, most of men (89 percent) also reported the same, and this was the most commonly reported way to avoid HIV/AIDS in all the groups. Other ways to prevent by HIV/AIDS mentioned by men are 'using a condom correctly during each sexual intercourse' (49 percent), 'sterilizing needles and syringe before injecting' (47 percent), and 'checking blood prior to transfusion' (40 percent). All the specific ways to avoid becoming infected by HIV/AIDS reported by men are proportionally higher in urban areas, among men who belong to 'other caste' category, and men with a high level of education and high standard of living than their respective counterparts.

8.5.4 Misconception about HIV/AIDS

People generally have misconceptions about the ways of transmission of HIV/AIDS, such as 'shaking hands with a person having AIDS', hugging and kissing with them, sharing their clothes or sharing eating utensils, stepping on urine/stool, through insect bites, for example, being bitten by mosquitoes, fleas and bedbugs. All these questions were asked to the respondents who had heard of HIV/AIDS.

Table 8.16 MISCONCEPTION ABOUT TRANSMISSION OF HIV/AIDS AMONG WOMEN

Among currently married women aged 15-44 who have heard about HIV/AIDS, the percentage of women having misconception about the transmission of HIV/AIDS by selected background characteristics, Maharashtra, 2002-04

	Percentage having misconception about the transmission of HIV/AIDS							
Background characteristic	Shaking hands	Hugging	Kissing	Sharing clothes	Sharing eating utensils	Stepping on Urine / stool	Mosquito, flea, or bedbugs biting	Number of women
Residence								
Rural	14.1	15.6	19.7	21.5	22.2	20.3	26.2	1,1564
Urban	5.8	6.3	9.5	9.8	9.6	8.9	13.8	8,768
Education								
Non-literate	16.4	17.3	20.2	22.8	23.5	21.9	24.3	4,826
0-9@ years	11.5	12.8	17.2	18.5	18.8	17.2	22.8	9,579
10 years and above	4.1	5.0	8.2	8.0	8.0	7.3	15.0	5,925
Religion								
Hindu	11.1	12.3	16.0	17.3	17.7	16.3	22.1	16,327
Muslim	9.0	9.3	12.8	13.1	12.4	11.5	15.9	2,057
Christian	3.8	4.2	6.6	7.5	7.0	9.1	13.9	196
Sikh	0.3	3.5	10.4	0.3	8.6	1.5	1.9	71
Buddhist	9.1	9.9	14.1	15.2	15.1	14.8	19.4	1,362
Jain	4.2	4.0	5.9	7.1	7.4	6.6	8.2	274
Other	(8.7)	(4.3)	(8.7)	(13.0)	(13.0	(0.0)	(0.0)	46
Caste/tribe#								
Scheduled caste	10.1	11.0	15.3	16.9	17.3	16.8	20.4	2,965
Scheduled tribe	13.8	15.1	18.5	21.0	22.0	19.2	23.6	2,258
Other backward class	11.2	12.8	15.6	17.3	17.6	15.6	22.4	5,514
Other	9.4	10.1	14.3	14.7	14.8	13.9	19.4	9,467
Standard of living index								
Low	17.1	19.1	23.0	25.5	26.1	23.9	27.1	5,434
Medium	10.9	11.5	15.7	17.2	17.7	15.6	21.8	7,600
High	5.2	6.1	9.1	9.0	8.7	8.8	15.3	7,298
Total	10.5	11.6	15.3	16.5	16.7	15.4	20.9	20,332

Note: Total includes 2 cases missing information on education are not shown separately. @ Literate women with no year of schooling are also included. ( ) Based on less than 50 cases. # Total number may not add up to N due to do not know and missing cases.

Table 8.16 shows the percentage of women with misconceptions about spreading HIV/AIDS through specific ways by selected background characteristics. Being bitten by mosquitoes, fleas or bedbugs is commonly reported by the women as a way of getting HIV/ AIDS infection, and this percentage is higher among rural areas (26 percent) than in urban areas (14 percent). Other misconceptions about the spreading of HIV/AIDS were 'stepping on urine/stool', 'sharing eating utensils', 'sharing clothes', 'kissing', 'hugging', and 'shaking hands' (11-17 percent). All these misconceptions is more common among the rural women, non-literate women, among the Hindu and Buddhist women, women who belong to scheduled tribes, and women with a low standard of living.

Table 8.17 MISCONCEPTION ABOUT TRANSMISSION OF HIV/AIDS AMONG MEN

Among husbands currently married women who have heard about HIV/AIDS, the percentage of men having misconception about the transmission of HIV/AIDS by selected background characteristics, Maharashtra, 2002-04

	Percentage having misconception about the transmission of HIV/AIDS							
Background characteristic	Shaking hands	Hugging	Kissing	Sharing clothes	Sharing eating utensils	Stepping on Urine / stool	Mosquito, flea, or bedbugs biting	Number of men
Residence								
Rural	12.0	15.9	33.3	24.1	25.8	21.0	41.9	8,965
Urban	4.4	5.5	19.9	9.7	10.5	8.6	26.5	5,144
Education								
Non-literate	14.8	20.1	36.0	28.0	28.9	25.2	36.9	1,917
0-9@ years	10.9	14.3	33.8	23.5	25.2	20.5	41.5	6,783
10 years and above	5.1	6.5	19.0	9.8	10.8	8.4	29.5	5,409
Religion								
Hindu	9.3	12.5	28.8	19.3	20.8	17.0	36.8	11,550
Muslim	8.2	9.1	25.8	15.0	17.2	12.8	32.3	1,285
Christian	5.9	8.0	17.2	10.2	7.8	8.8	26.4	106
Buddhist	10.3	12.5	28.8	21.5	20.3	18.1	39.1	964
Jain	6.1	4.3	24.0	11.9	11.8	8.7	22.9	136
Other	8.5	8.5	33.7	4.2	12.9	4.3	25.0	68
Caste/tribe#								
Scheduled caste	9.1	12.0	28.3	20.6	20.7	18.8	38.1	2,111
Scheduled tribe	12.6	16.1	34.7	26.5	27.2	23.7	38.6	2,068
Other backward class	10.2	13.2	28.9	19.3	20.8	16.5	37.5	3,930
Other	7.2	9.7	25.9	15.2	17.0	12.9	33.9	5,897
Standard of living index								
Low	14.6	18.7	37.2	28.1	30.1	24.3	41.9	4,764
Medium	9.2	12.1	28.7	19.6	20.3	17.1	39.2	5,112
High	3.3	4.6	18.2	7.6	8.8	7.0	26.3	4,233
Total	9.2	12.1	28.4	18.9	20.2	16.5	36.2	14,109

Note: # Total number may not add up to N due to do not know and missing cases.
@ Literate men with no year of schooling are also included.

Table 8.17 presents the percentage of men with misconceptions about the spreading of HIV/AIDS through specific ways by selected background characteristics. Again, just like the women, men reported that HIV/AIDS is transmitted through insect bites, mosquitoes, through flea or bedbugs. Thirty-six percent of the men in India felt so. The percentage of men who reported that HIV/AIDS could be transmitted through the biting by mosquitoes or flees or bedbugs was much higher among rural men (42 percent) than among urban men (27 percent). Other misconceptions about the spread of HIV/AIDS are 'kissing' (28 percent), 'sharing eating utensils' (20 percent), 'sharing clothes' (19 percent), 'stepping on urine/stool' (17 percent), 'hugging' (12 percent), and 'shaking hands' (9 percent). Except shaking hands, all the misconceptions reported by men are relatively higher than those reported by women. Men from rural area, non-literate men and those who have done one to nine years of schooling,

men from households with a low standard of living, and scheduled tribe men are more likely to report all these misconceptions.

8.5.5 Knowledge of Curability of HIV/AIDS

Table 8.18 shows the percentage distribution of currently married women and their husbands who have heard about HIV/AIDS by knowledge of curability of the same, according to some selected background characteristics. About 13 percent women and 10 percent men have the notion that HIV/AIDS is curable, whereas 66 percent women and 78 percent men replied that the disease is not curable. Twenty-one percent women and 11 percent men do not have any idea regarding the curability of the disease. It can be safely asserted from the figures that both men and women of urban area, having high level of education, belonging to Christian or Jain religion and other caste category and from households of high standard of living are better aware as far as the knowledge of curability of HIV/AIDS is concerned.

Table 8.18 KNOWLEDGE OF CURABILITY ABOUT HIV/AIDS

Among currently married women and their husband, who have heard about HIV/AIDS, Percent distribution of respondents by knowledge of curability about HIV/AIDS, according to some selected background characteristics, Maharashtra, 2002-04

	Percent distribution of women				Percent distribution of men			
Background characteristic	Yes	No	Do not know	Number of women	Yes	No	Do not know	Number of men
Residence								
Rural	12.7	62.9	24.4	1,1564	10.2	75.9	13.9	8,965
Urban	14.1	69.4	16.6	8,768	10.7	82.1	7.2	5,144
Education								
Non-literate	9.7	53.4	36.9	4,826	9.1	67.7	23.2	1,917
0-9@ years	13.8	65.1	21.1	9,579	9.9	76.3	13.7	6,783
10 years and above	15.5	76.5	8.0	5,925	11.4	84.2	4.4	5,409
Religion								
Hindu	13.1	66.1	20.8	16,327	10.0	78.4	11.6	11,550
Muslim	13.7	63.6	22.7	2,057	9.2	81.2	9.6	1,285
Christian	10.1	75.2	14.7	196	13.7	76.6	9.7	106
Buddhist	17.0	60.5	22.5	1,362	16.1	69.3	14.6	964
Jain	11.1	74.9	14.0	274	11.5	84.7	3.8	136
Other	6.2	63.7	30.0	117	12.6	85.8	1.5	68
Caste/tribe#								
Scheduled caste	15.9	59.9	24.2	2,965	13.3	74.8	11.9	2,111
Scheduled tribe	15.8	53.9	30.3	2,258	10.6	70.4	19.0	2,068
Other backward class	15.7	63.9	20.5	5,514	13.2	75.5	11.3	3,930
Other	10.5	71.5	18.0	9,467	7.3	84.2	8.6	5,897
Standard of living index								
Low	12.1	55.7	32.2	5,434	9.6	70.9	19.5	4,764
Medium	13.4	65.7	20.9	7,600	10.8	80.0	9.2	5,112
High	14.2	73.0	12.8	7,298	10.7	84.2	5.1	4,233
Total	13.3	65.7	21.0	20,332	10.4	78.2	11.4	14,109

Note: Total includes 2 woman missing information on education are not shown separately. @ Literate persons with no year of schooling are also included. # Total number may not add up to N due to do not know and missing cases.

8.6 Awareness of RTI/STI and HIV/AIDS by Districts

Table 8.19 shows the percentage distribution of currently married women and their husbands who are aware of RTI/STI and HIV/AIDS by districts. According to DLHS, the awareness of RTI/STI and HIV/AIDS among men is higher than that among women. About 38 percent and 75 percent of women ware aware of RTI/STI and HIV/AIDS respectively and the corresponding figures for husbands of eligible women are 43 and 86 percent respectively.

In general, in two-fifth of the districts women are more aware of RTI/STI whereas in all of the districts men are more aware of HIV/AIDS (except Bhandara). The highest level of awareness about RTI/STI among women was reported in Bhandara (68 percent), followed by Washim, Mumbai and Dhule (60-64 percent) to the lowest in Gadchiroli (11 percent). Among men the highest level of awareness of RTI/STI was reported in Sindhudurg (70 percent), followed by Kolhapur (65 percent) and Thane (62 percent) and to the lowest in Gadchiroli (15 percent).

Table 8.19 AWARENESS OF RTI/STI AND HIV/AIDS BY DISTRICT

Percentage of currently married women and their husbands aware of RTI/STI and HIV/AIDS by district, Maharashtra, 2002-04

	Percentage of women		Percentage of men	
District	Aware of RTI/STI	Aware of HIV/AIDS	Aware of RTI/STI	Aware of HIV/AIDS
Ahmadnagar	17.3	87.0	32.6	92.4
Akola	54.5	75.8	53.8	86.9
Amravati	37.5	59.2	30.9	70.0
Aurangabad	35.1	65.6	32.6	82.8
Bhandara	67.7	65.9	34.8	65.7
Bid	18.4	93.2	55.2	95.4
Buldana	25.8	57.4	32.4	82.7
Chandrapur	30.4	52.5	41.4	69.5
Dhule	60.1	71.8	39.4	80.9
Gadchiroli	10.7	23.0	14.6	35.9
Gondiya	38.0	54.9	37.7	65.1
Hingoli	53.4	70.0	28.2	83.6
Jalgaon	31.7	62.5	26.3	84.8
Jalna	33.5	69.4	56.8	93.3
Kolhapur	38.2	94.1	65.1	95.4
Latur	57.8	87.4	41.1	94.4
Mumbai	61.3	94.5	59.5	96.6
Mumbai (Suburban)	54.0	93.4	58.2	97.5
Nagpur	32.5	71.5	52.3	83.8
Nanded	18.7	57.1	23.6	78.0
Nandurbar	29.2	43.1	43.1	69.0
Nashik	29.7	55.0	18.8	72.6
Osmanabad	13.9	88.9	46.7	97.3
Parbhani	44.1	77.9	52.8	92.8
Pune	32.5	87.6	43.5	96.3
Raigarh	37.9	70.3	46.8	83.4
Ratnagiri	50.4	79.9	52.6	91.6
Sangli	11.9	93.4	51.4	98.1
Satara	22.7	95.6	51.3	97.3
Sindhudurg	19.9	86.2	69.9	95.1
Solapur	59.4	86.1	31.4	89.9
Thane	51.6	81.8	62.1	89.9
Wardha	34.2	66.3	43.5	82.6
Washim	63.9	74.9	38.4	91.5
Yavatmal	59.3	72.7	43.5	87.7
Maharashtra	37.5	75.2	42.6	86.3

The proportion of husbands of eligible women for currently married women ages 15-44 who are aware of HIV/AIDS in the districts of Maharashtra state are also presented in Table 8.19. Among women the awareness about HIV/AIDS ranges from the highest of 96 percent in Satara to the lowest of 23 percent in Gadchiroli. With the exception of Gadchiroli and Nandurbar in all the districts at least half of the women reported awareness of HIV/AIDS. A high level of awareness of HIV/AIDS among men exceeding 95 percent was reported in Sindhudurg, Bid, Kolhapur, Pune, Mumbai (Suburban), Osmanabad, Satara, Mumbai, and Sangli.

Sampling errors, Maharashtra, 2002-04

Variables	Estimate (R)	Sampling error (SE)	Number of cases Unweighted	Number of cases Weighted	Design Effect	Relative Error (%)	95% Conf. Interval R-1.96 SE	95% Conf. Interval R+1.96 SE
Contraceptive Prevalence Rate (Currently Married Women age 15-44)								
Total	0.633	0.004	27,051	27,051	1.866	0.6	0.625	0.640
Rural	0.621	0.005	17,194	17,194	1.658	0.8	0.612	0.631
Urban	0.652	0.007	9,857	9,857	2.231	1.1	0.638	0.666
Unmet Need (Currently Married Women age 15-44)								
Total	0.126	0.003	27,051	27,052	1.901	2.2	0.121	0.132
Rural	0.124	0.003	17,194	17,195	1.629	2.6	0.117	0.130
Urban	0.130	0.005	9,857	9,857	2.353	4.0	0.120	0.141
Received Any Antenatal Check up (last live/still birth of past 3 years)								
Total	0.929	0.004	9,284	9,265	2.053	0.4	0.921	0.936
Rural	0.908	0.005	6,052	6,139	2.040	0.6	0.897	0.918
Urban	0.970	0.004	3,232	3,126	1.980	0.4	0.962	0.979
Received 3+ Antenatal Check up (last live/still birth of past 3 years)								
Total	0.720	0.006	9,284	9,266	1.801	0.9	0.708	0.733
Rural	0.665	0.008	6,052	6,139	1.712	1.2	0.650	0.681
Urban	0.829	0.009	3,232	3,127	1.921	1.1	0.811	0.847
Institutional Delivery (last live/still birth of past 3 years)								
Total	0.579	0.007	9,284	9,265	1.789	1.2	0.566	0.593
Rural	0.442	0.008	6,052	6,139	1.695	1.9	0.426	0.458
Urban	0.849	0.008	3,232	3,126	1.768	1.0	0.833	0.866
Safe Delivery (last live/still birth of past 3 years)								
Total	0.626	0.007	9,284	9,265	1.770	1.1	0.613	0.640
Rural	0.501	0.008	6,052	6,139	1.678	1.7	0.485	0.517
Urban	0.872	0.008	3,232	3,126	1.758	0.9	0.857	0.888
Received BCG Vaccination (last and last but one living children, age 12-23 months)								
Total	0.962	0.004	3,098	3,025	1.389	0.4	0.954	0.970
Rural	0.961	0.005	2,046	2,006	1.426	0.5	0.951	0.971
Urban	0.965	0.006	1,052	1,019	1.300	0.7	0.953	0.978
Received Measles (last and last but one living children, age 12-23 months)								
Total	0.854	0.009	3,098	3,025	1.866	1.0	0.837	0.871
Rural	0.859	0.010	2,046	2,006	1.745	1.2	0.839	0.878
Urban	0.845	0.016	1,052	1,019	2.098	1.9	0.813	0.876
Birth order 3+ (birth in last three years)								
Total	0.324	0.006	9,793	9,665	1.753	2.0	0.311	0.336
Rural	0.354	0.008	6,481	6,532	1.640	2.1	0.339	0.369
Urban	0.261	0.011	3,312	3,133	1.990	4.2	0.239	0.282

Sampling errors, Maharashtra, 2002-04							
District	Estimate (R)	Sampling error (SE)	Number of cases Unweighted	Number of cases Weighted	Relative Errors (%)	95% Conf. Interval R-1.96 SE	95% Conf. Interval R+1.96 SE
Contraceptive Prevalence Rate (Currently Married Women age 15-44)							
Ahmadnagar	0.617	0.021	731	728	3.4	0.576	0.658
Akola	0.667	0.018	756	756	2.7	0.632	0.702
Amravati	0.651	0.018	768	763	2.8	0.615	0.687
Aurangabad	0.576	0.019	784	780	3.3	0.539	0.613
Bhandara	0.700	0.017	781	781	2.4	0.667	0.733
Bid	0.585	0.017	928	923	2.9	0.551	0.619
Buldana	0.564	0.018	850	846	3.2	0.529	0.599
Chandrapur	0.608	0.019	744	740	3.1	0.571	0.646
Dhule	0.629	0.019	817	817	3.0	0.592	0.667
Gadchiroli	0.601	0.021	627	624	3.5	0.559	0.642
Gondiya	0.651	0.018	735	735	2.8	0.615	0.686
Hingoli	0.570	0.017	924	924	3.0	0.536	0.603
Jalgaon	0.640	0.019	758	753	3.0	0.603	0.677
Jalna	0.570	0.017	966	966	3.0	0.538	0.603
Kolhapur	0.717	0.016	858	859	2.2	0.686	0.748
Latur	0.598	0.017	928	928	2.8	0.565	0.632
Mumbai	0.626	0.024	585	585	3.8	0.580	0.673
Mumbai (Sub Urban)	0.640	0.020	660	660	3.1	0.600	0.681
Nagpur	0.701	0.018	684	680	2.6	0.665	0.737
Nanded	0.552	0.018	841	836	3.3	0.516	0.587
Nandurbar	0.614	0.017	889	888	2.8	0.581	0.648
Nashik	0.582	0.021	765	760	3.6	0.542	0.623
Osmanabad	0.611	0.019	833	829	3.1	0.575	0.648
Parbhani	0.570	0.018	902	902	3.2	0.535	0.604
Pune	0.680	0.020	669	665	2.9	0.641	0.719
Raigarh	0.616	0.020	648	648	3.2	0.577	0.655
Ratnagiri	0.595	0.021	649	649	3.5	0.554	0.635
Sangli	0.651	0.021	721	718	3.2	0.610	0.692
Satara	0.676	0.020	732	729	3.0	0.636	0.716
Sindhudurg	0.561	0.023	614	610	4.1	0.516	0.605
Solapur	0.651	0.018	794	794	2.8	0.616	0.686
Thane	0.644	0.019	735	732	3.0	0.607	0.681
Wardha	0.736	0.017	732	728	2.3	0.702	0.770
Washim	0.691	0.017	870	870	2.5	0.659	0.724
Yavatmal	0.662	0.018	773	773	2.7	0.628	0.697

Sampling errors, Maharashtra, 2002-04							
District	Estimate (R)	Sampling error (SE)	Number of cases Unweighted	Number of cases Weighted	Relative Errors (%)	95% Conf. Interval R-1.96 SE	95% Conf. Interval R+1.96 SE
Unmet Need (Currently Married Women age 15-44)							
Ahmadnagar	0.222	0.018	731	727	8.1	0.187	0.256
Akola	0.118	0.012	756	756	10.2	0.095	0.142
Amravati	0.134	0.013	768	763	9.7	0.109	0.160
Aurangabad	0.144	0.013	784	780	9.0	0.118	0.169
Bhandara	0.104	0.012	781	781	11.5	0.081	0.127
Bid	0.154	0.013	928	923	8.4	0.129	0.179
Buldana	0.176	0.014	850	846	8.0	0.149	0.203
Chandrapur	0.153	0.014	744	740	9.2	0.124	0.181
Dhule	0.117	0.014	817	817	12.0	0.091	0.144
Gadchiroli	0.159	0.015	627	624	9.4	0.128	0.189
Gondiya	0.139	0.013	735	735	9.4	0.113	0.165
Hingoli	0.125	0.012	924	924	9.6	0.102	0.148
Jalgaon	0.094	0.012	758	754	12.8	0.071	0.117
Jalna	0.128	0.011	966	966	8.6	0.106	0.150
Kolhapur	0.065	0.009	858	858	13.8	0.048	0.082
Latur	0.130	0.012	928	928	9.2	0.107	0.153
Mumbai	0.131	0.017	585	585	13.0	0.099	0.164
Mumbai (Sub Urban)	0.136	0.016	660	660	11.8	0.106	0.167
Nagpur	0.112	0.013	684	680	11.6	0.087	0.136
Nanded	0.130	0.012	841	837	9.2	0.107	0.154
Nandurbar	0.104	0.011	889	889	10.6	0.083	0.125
Nashik	0.092	0.011	765	760	12.0	0.070	0.114
Osmanabad	0.162	0.014	833	828	8.6	0.135	0.190
Parbhani	0.121	0.012	902	902	9.9	0.097	0.144
Pune	0.155	0.015	669	665	9.7	0.125	0.186
Raigarh	0.125	0.014	648	648	11.2	0.098	0.152
Ratnagiri	0.125	0.013	649	649	10.4	0.099	0.151
Sangli	0.127	0.015	721	717	11.8	0.097	0.157
Satara	0.146	0.015	732	730	10.3	0.117	0.174
Sindhudurg	0.196	0.018	614	611	9.2	0.160	0.231
Solapur	0.082	0.010	794	794	12.2	0.062	0.102
Thane	0.102	0.012	735	732	11.8	0.079	0.125
Wardha	0.095	0.011	732	729	11.6	0.072	0.117
Washim	0.090	0.010	870	870	11.1	0.072	0.109
Yavatmal	0.102	0.011	773	773	10.8	0.079	0.124

Sampling errors, Maharashtra, 2002-04							
District	Estimate (R)	Sampling error (SE)	Number of cases Unweighted	Number of cases Weighted	Relative Errors (%)	95% Conf. Interval R-1.96 SE	95% Conf. Interval R+1.96 SE
Received Any Antenatal Check up (last live/still birth of past 3 years)							
Ahmadnagar	0.879	0.025	264	272	2.8	0.829	0.928
Akola	0.967	0.012	254	255	1.2	0.944	0.990
Amravati	0.974	0.011	270	268	1.1	0.953	0.996
Aurangabad	0.906	0.018	305	310	2.0	0.870	0.941
Bhandara	0.988	0.007	250	253	0.7	0.974	1.000
Bid	0.858	0.021	346	344	2.4	0.818	0.899
Buldana	0.942	0.014	315	308	1.5	0.915	0.969
Chandrapur	0.969	0.012	244	252	1.2	0.946	0.992
Dhule	0.901	0.018	280	291	2.0	0.865	0.937
Gadchiroli	0.888	0.024	235	233	2.7	0.841	0.935
Gondiya	0.992	0.006	221	226	0.6	0.981	1.000
Hingoli	0.946	0.014	348	349	1.5	0.919	0.973
Jalgaon	0.831	0.026	274	274	3.1	0.780	0.881
Jalna	0.943	0.013	361	366	1.4	0.918	0.969
Kolhapur	0.992	0.006	221	228	0.6	0.980	1.000
Latur	0.938	0.013	345	347	1.4	0.913	0.963
Mumbai	0.986	0.006	203	306	0.6	0.973	0.998
Mumbai (Sub Urban)	0.962	0.015	188	193	1.6	0.934	0.991
Nagpur	0.965	0.014	225	230	1.5	0.937	0.992
Nanded	0.890	0.019	321	322	2.1	0.853	0.927
Nandurbar	0.856	0.021	307	307	2.5	0.816	0.897
Nashik	0.815	0.026	308	315	3.2	0.764	0.866
Osmanabad	0.909	0.018	337	337	2.0	0.874	0.945
Parbhani	0.957	0.012	316	308	1.3	0.934	0.981
Pune	0.940	0.016	223	224	1.7	0.909	0.972
Raigarh	0.976	0.012	190	193	1.2	0.952	1.000
Ratnagiri	0.989	0.008	177	181	0.8	0.975	1.000
Sangli	0.971	0.013	232	251	1.3	0.945	0.997
Satara	0.966	0.014	237	231	1.4	0.938	0.995
Sindhudurg	0.998	0.002	230	233	0.2	0.995	1.000
Solapur	0.988	0.007	244	238	0.7	0.973	1.000
Thane	0.961	0.014	234	135	1.5	0.934	0.988
Wardha	0.991	0.007	201	199	0.7	0.978	1.000
Washim	0.954	0.012	299	290	1.3	0.930	0.977
Yavatmal	0.965	0.011	279	283	1.1	0.943	0.986

Sampling errors, Maharashtra, 2002-04							
District	Estimate (R)	Sampling error (SE)	Number of cases Unweighted	Number of cases Weighted	Relative Errors (%)	95% Conf. Interval R-1.96 SE	95% Conf. Interval R+1.96 SE
Received 3+ Antenatal Check up (last live/still birth of past 3 years)							
Ahmadnagar	0.661	0.033	264	272	5.0	0.596	0.727
Akola	0.722	0.030	254	256	4.2	0.664	0.780
Amravati	0.730	0.029	270	267	4.0	0.674	0.786
Aurangabad	0.656	0.029	305	309	4.4	0.600	0.713
Bhandara	0.787	0.027	250	253	3.4	0.734	0.839
Bid	0.548	0.029	346	344	5.3	0.491	0.605
Buldana	0.644	0.028	315	309	4.3	0.589	0.699
Chandrapur	0.795	0.028	244	253	3.5	0.741	0.849
Dhule	0.667	0.031	280	291	4.6	0.607	0.726
Gadchiroli	0.676	0.034	235	234	5.0	0.609	0.743
Gondiya	0.794	0.028	221	227	3.5	0.739	0.848
Hingoli	0.666	0.027	348	350	4.1	0.613	0.718
Jalgaon	0.587	0.033	274	273	5.6	0.523	0.651
Jalna	0.645	0.026	361	367	4.0	0.593	0.697
Kolhapur	0.897	0.022	221	228	2.5	0.855	0.940
Latur	0.741	0.024	345	347	3.2	0.693	0.789
Mumbai	0.890	0.025	203	213	2.8	0.842	0.938
Mumbai (Sub Urban)	0.896	0.022	188	193	2.5	0.852	0.940
Nagpur	0.718	0.031	225	231	4.3	0.657	0.779
Nanded	0.636	0.028	321	321	4.4	0.580	0.692
Nandurbar	0.605	0.029	307	306	4.8	0.548	0.662
Nashik	0.509	0.033	308	314	6.5	0.445	0.573
Osmanabad	0.673	0.028	337	336	4.2	0.618	0.729
Parbhani	0.598	0.029	316	308	4.8	0.541	0.655
Pune	0.800	0.030	223	223	3.8	0.741	0.860
Raigarh	0.870	0.026	190	193	3.0	0.820	0.920
Ratnagiri	0.901	0.025	177	180	2.8	0.852	0.950
Sangli	0.766	0.033	232	250	4.3	0.702	0.831
Satara	0.856	0.026	237	231	3.0	0.805	0.908
Sindhudurg	0.895	0.020	230	233	2.2	0.855	0.935
Solapur	0.824	0.026	244	239	3.2	0.772	0.876
Thane	0.805	0.029	234	229	3.6	0.749	0.861
Wardha	0.830	0.028	201	198	3.4	0.774	0.885
Washim	0.566	0.031	299	290	5.5	0.505	0.627
Yavatmal	0.687	0.028	279	283	4.1	0.631	0.743

Sampling errors, Maharashtra, 2002-04							
District	Estimate (R)	Sampling error (SE)	Number of cases Unweighted	Number of cases Weighted	Relative Errors (%)	95% Conf. Interval R-1.96 SE	95% Conf. Interval R+1.96 SE
Institutional Delivery (last live/still birth of past 3 years)							
Ahmadnagar	0.658	0.033	264	271	5.0	0.593	0.723
Akola	0.589	0.032	254	254	5.4	0.526	0.652
Amravati	0.564	0.032	270	268	5.7	0.501	0.626
Aurangabad	0.548	0.030	305	310	5.5	0.488	0.607
Bhandara	0.408	0.033	250	253	8.1	0.344	0.472
Bid	0.530	0.029	346	344	5.5	0.473	0.586
Buldana	0.441	0.029	315	308	6.6	0.384	0.499
Chandrapur	0.415	0.034	244	251	8.2	0.349	0.481
Dhule	0.380	0.032	280	291	8.4	0.317	0.443
Gadchiroli	0.205	0.028	235	233	13.7	0.150	0.259
Gondiya	0.367	0.033	221	226	9.0	0.302	0.433
Hingoli	0.351	0.027	348	350	7.7	0.298	0.404
Jalgaon	0.517	0.033	274	272	6.4	0.452	0.581
Jalna	0.513	0.027	361	368	5.3	0.460	0.567
Kolhapur	0.765	0.029	221	227	3.8	0.708	0.822
Latur	0.512	0.028	345	347	5.5	0.456	0.568
Mumbai	0.863	0.029	203	212	3.4	0.806	0.920
Mumbai (Sub Urban)	0.891	0.023	188	193	2.6	0.845	0.936
Nagpur	0.731	0.031	225	232	4.2	0.670	0.791
Nanded	0.393	0.029	321	321	7.4	0.337	0.450
Nandurbar	0.285	0.027	307	306	9.5	0.233	0.337
Nashik	0.472	0.032	308	315	6.8	0.409	0.535
Osmanabad	0.467	0.030	337	336	6.4	0.408	0.526
Parbhani	0.459	0.030	316	309	6.5	0.400	0.517
Pune	0.792	0.029	223	223	3.7	0.736	0.848
Raigarh	0.634	0.036	190	194	5.7	0.564	0.705
Ratnagiri	0.689	0.037	177	181	5.4	0.615	0.762
Sangli	0.741	0.033	232	251	4.5	0.676	0.806
Satara	0.735	0.034	237	230	4.6	0.668	0.801
Sindhudurg	0.837	0.027	230	233	3.2	0.784	0.889
Solapur	0.647	0.032	244	238	4.9	0.584	0.710
Thane	0.684	0.033	234	230	4.8	0.620	0.748
Wardha	0.642	0.036	201	198	5.6	0.570	0.713
Washim	0.525	0.032	299	290	6.1	0.463	0.586
Yavatmal	0.531	0.031	279	282	5.8	0.471	0.592

Sampling errors, Maharashtra, 2002-04							
District	Estimate (R)	Sampling error (SE)	Number of cases Unweighted	Number of cases Weighted	Relative Errors (%)	95% Conf. Interval R-1.96 SE	95% Conf. Interval R+1.96 SE
Safe Delivery (last live/still birth of past 3 years)							
Ahmadnagar	0.715	0.032	264	271	4.5	0.653	0.777
Akola	0.625	0.032	254	256	5.1	0.563	0.687
Amravati	0.597	0.032	270	268	5.4	0.535	0.660
Aurangabad	0.605	0.030	305	311	5.0	0.546	0.665
Bhandara	0.595	0.032	250	254	5.4	0.533	0.657
Bid	0.562	0.029	346	345	5.2	0.505	0.618
Buldana	0.514	0.029	315	308	5.6	0.457	0.572
Chandrapur	0.471	0.034	244	252	7.2	0.404	0.537
Dhule	0.468	0.033	280	291	7.1	0.403	0.533
Gadchiroli	0.284	0.031	235	234	10.9	0.223	0.345
Gondiya	0.468	0.035	221	226	7.5	0.400	0.535
Hingoli	0.397	0.028	348	349	7.1	0.343	0.451
Jalgaon	0.631	0.031	274	272	4.9	0.569	0.692
Jalna	0.560	0.027	361	368	4.8	0.507	0.613
Kolhapur	0.847	0.024	221	228	2.8	0.799	0.894
Latur	0.540	0.028	345	346	5.2	0.485	0.596
Mumbai	0.910	0.023	203	212	2.5	0.864	0.956
Mumbai (Sub Urban)	0.903	0.022	188	194	2.4	0.860	0.946
Nagpur	0.761	0.030	225	232	3.9	0.703	0.819
Nanded	0.441	0.029	321	321	6.6	0.384	0.498
Nandurbar	0.332	0.028	307	307	8.4	0.278	0.387
Nashik	0.495	0.032	308	316	6.5	0.432	0.558
Osmanabad	0.500	0.030	337	336	6.0	0.441	0.559
Parbhani	0.518	0.030	316	309	5.8	0.459	0.576
Pune	0.795	0.029	223	224	3.6	0.739	0.851
Raigarh	0.659	0.036	190	193	5.5	0.589	0.729
Ratnagiri	0.728	0.036	177	180	4.9	0.657	0.800
Sangli	0.787	0.031	232	251	3.9	0.727	0.848
Satara	0.756	0.033	237	231	4.4	0.690	0.821
Sindhudurg	0.888	0.023	230	233	2.6	0.844	0.932
Solapur	0.704	0.031	244	238	4.4	0.644	0.764
Thane	0.722	0.032	234	229	4.4	0.660	0.785
Wardha	0.676	0.035	201	198	5.2	0.607	0.745
Washim	0.548	0.031	299	290	5.7	0.486	0.609
Yavatmal	0.559	0.031	279	283	5.5	0.499	0.619

Sampling errors, Maharashtra, 2002-04							
District	Estimate (R)	Sampling error (SE)	Number of cases Unweighted	Number of cases Weighted	Relative Errors (%)	95% Conf. Interval R-1.96 SE	95% Conf. Interval R+1.96 SE
Received BCG Vaccination (last and last but one living children, age 12-23 months)							
Ahmadnagar	0.960	0.023	75	75	2.4	0.914	1.006
Akola	0.963	0.022	68	69	2.3	0.919	1.006
Amravati	0.976	0.017	83	81	1.7	0.944	1.009
Aurangabad	0.988	0.009	94	100	0.9	0.971	1.006
Bhandara	0.970	0.024	89	90	2.5	0.922	1.018
Bid	0.967	0.017	113	112	1.7	0.934	1.000
Buldana	0.975	0.015	97	88	1.5	0.946	1.004
Chandrapur	0.989	0.011	69	75	1.1	0.967	1.011
Dhule	0.857	0.055	79	80	6.4	0.749	0.965
Gadchiroli	0.895	0.036	74	79	4.0	0.826	0.965
Gondiya	0.986	0.010	79	79	1.0	0.966	1.006
Hingoli	0.782	0.043	114	125	5.4	0.699	0.866
Jalgaon	0.982	0.018	68	66	1.9	0.946	1.017
Jalna	0.944	0.023	113	115	2.4	0.900	0.988
Kolhapur	1.000	0.000	63	62	0.0	1.000	1.000
Latur	0.930	0.022	134	131	2.3	0.888	0.973
Mumbai	0.990	0.010	59	59	1.0	0.969	1.010
Mumbai (Suburban)	0.980	0.015	59	60	1.5	0.951	1.009
Nagpur	1.000	0.000	63	65	0.0	1.000	1.000
Nanded	0.966	0.018	88	91	1.9	0.930	1.001
Nandurbar	0.882	0.030	101	102	3.4	0.823	0.941
Nashik	0.903	0.029	96	97	3.2	0.847	0.960
Osmanabad	0.960	0.022	109	113	2.3	0.916	1.004
Parbhani	0.945	0.026	86	85	2.7	0.894	0.996
Pune	1.000	0.000	64	67	0.0	1.000	1.000
Raigarh	0.989	0.011	55	55	1.1	0.967	1.011
Ratnagiri	1.000	0.000	50	49	0.0	1.000	1.000
Sangli	0.950	0.034	70	68	3.6	0.883	1.017
Satara	0.981	0.019	65	52	2.0	0.943	1.018
Sindhudurg	1.000	0.000	62	61	0.0	1.000	1.000
Solapur	0.948	0.023	82	79	2.4	0.904	0.993
Thane	0.962	0.022	70	66	2.3	0.919	1.005
Wardha	0.961	0.029	55	54	3.0	0.905	1.018
Washim	0.925	0.026	96	96	2.9	0.873	0.977
Yavatmal	0.917	0.027	91	92	3.0	0.863	0.970

Sampling errors, Maharashtra, 2002-04							
District	Estimate (R)	Sampling error (SE)	Number of cases Unweighted	Number of cases Weighted	Relative Errors (%)	95% Conf. Interval R-1.96 SE	95% Conf. Interval R+1.96 SE
Received Measles (last and last but one living children, age 12-23 months)							
Ahmadnagar	0.908	0.035	75	75	3.9	0.838	0.977
Akola	0.819	0.048	68	69	5.8	0.726	0.912
Amravati	0.904	0.033	83	81	3.6	0.839	0.968
Aurangabad	0.889	0.031	94	100	3.5	0.829	0.949
Bhandara	0.926	0.036	89	90	3.8	0.856	0.996
Bid	0.869	0.032	113	112	3.6	0.807	0.931
Buldana	0.897	0.030	97	88	3.3	0.838	0.956
Chandrapur	0.897	0.038	69	75	4.2	0.824	0.971
Dhule	0.709	0.060	79	80	8.5	0.591	0.827
Gadchiroli	0.816	0.046	74	79	5.6	0.726	0.906
Gondiya	0.933	0.025	79	79	2.7	0.884	0.983
Hingoli	0.619	0.048	114	125	7.8	0.524	0.714
Jalgaon	0.849	0.040	68	66	4.8	0.770	0.928
Jalna	0.858	0.031	113	115	3.6	0.796	0.919
Kolhapur	0.987	0.013	63	62	1.3	0.962	1.012
Latur	0.838	0.031	134	131	3.7	0.777	0.900
Mumbai	0.972	0.016	59	59	1.7	0.939	1.004
Mumbai (Suburban)	0.913	0.034	59	60	3.7	0.848	0.979
Nagpur	0.805	0.051	63	65	6.3	0.705	0.904
Nanded	0.796	0.041	88	91	5.1	0.716	0.876
Nandurbar	0.762	0.041	101	102	5.4	0.682	0.843
Nashik	0.706	0.049	96	97	6.9	0.610	0.802
Osmanabad	0.836	0.040	109	113	4.8	0.757	0.915
Parbhani	0.857	0.039	86	85	4.5	0.782	0.933
Pune	0.834	0.051	64	67	6.2	0.733	0.935
Raigarh	0.919	0.036	55	55	3.9	0.848	0.990
Ratnagiri	1.000	0.000	50	49	0.0	1.000	1.000
Sangli	0.861	0.052	70	68	6.0	0.759	0.962
Satara	0.883	0.047	65	52	5.3	0.791	0.976
Sindhudurg	1.000	0.000	62	61	0.0	1.000	1.000
Solapur	0.799	0.044	82	79	5.5	0.712	0.885
Thane	0.814	0.049	70	66	6.0	0.719	0.909
Wardha	0.847	0.052	55	54	6.1	0.746	0.948
Washim	0.798	0.047	96	96	5.9	0.706	0.890
Yavatmal	0.804	0.041	91	92	5.0	0.724	0.883

Sampling errors, Maharashtra, 2002-04							
District	Estimate (R)	Sampling error (SE)	Number of cases Unweighted	Number of cases Weighted	Relative Errors (%)	95% Conf. Interval R-1.96 SE	95% Conf. Interval R+1.96 SE
Birth order 3+ (birth in last three years)							
Ahmadnagar	0.350	0.033	269	282	9.4	0.285	0.415
Akola	0.357	0.031	269	271	8.7	0.297	0.417
Amravati	0.362	0.030	283	277	8.3	0.302	0.421
Aurangabad	0.353	0.028	328	338	7.9	0.299	0.408
Bhandara	0.270	0.028	272	273	10.4	0.215	0.324
Bid	0.384	0.028	359	356	7.3	0.330	0.439
Buldana	0.356	0.028	329	321	7.9	0.302	0.409
Chandrapur	0.328	0.031	259	268	9.5	0.267	0.388
Dhule	0.372	0.032	303	325	8.6	0.309	0.436
Gadchiroli	0.331	0.033	252	251	10.0	0.267	0.395
Gondiya	0.291	0.030	250	257	10.3	0.233	0.349
Hingoli	0.403	0.027	369	372	6.7	0.350	0.457
Jalgaon	0.345	0.030	286	289	8.7	0.286	0.405
Jalna	0.354	0.025	390	399	7.1	0.304	0.403
Kolhapur	0.184	0.026	230	237	14.1	0.132	0.236
Latur	0.482	0.028	370	372	5.8	0.427	0.536
Mumbai	0.207	0.032	207	212	15.5	0.143	0.270
Mumbai (Sub Urban)	0.252	0.035	173	180	13.9	0.183	0.321
Nagpur	0.283	0.031	244	246	11.0	0.222	0.343
Nanded	0.431	0.028	344	342	6.5	0.376	0.486
Nandurbar	0.478	0.029	326	325	6.1	0.422	0.534
Nashik	0.361	0.030	332	330	8.3	0.302	0.419
Osmanabad	0.400	0.028	376	377	7.0	0.345	0.455
Parbhani	0.397	0.029	331	321	7.3	0.341	0.453
Pune	0.219	0.029	241	241	13.2	0.162	0.276
Raigarh	0.264	0.033	187	190	12.5	0.199	0.329
Ratnagiri	0.224	0.034	172	179	15.2	0.157	0.290
Sangli	0.270	0.033	238	252	12.2	0.206	0.335
Satara	0.162	0.027	226	227	16.7	0.109	0.215
Sindhudurg	0.256	0.034	212	213	13.3	0.189	0.322
Solapur	0.330	0.030	267	259	9.1	0.271	0.389
Thane	0.359	0.034	229	222	9.5	0.293	0.425
Wardha	0.232	0.030	218	217	12.9	0.172	0.291
Washim	0.385	0.029	344	337	7.5	0.327	0.442
Yavatmal	0.285	0.027	308	309	9.5	0.233	0.337

Appendix - A

Sampling Error Estimation

The accuracy of programme indicators such as contraceptive prevalence rate, unmet need and institutional delivery, antenatal coverage etc. estimated from DLHS-RCH can be assessed in terms of stability of the estimated indicators as measured by the standard errors. Standard errors reflect only the appropriateness and suitability of sampling design adopted for RCH survey. However, the accuracy of estimated programme indicator are also affected to a great extent by non-sampling errors arising from lack of proper operationalisation and non-response cases, and is inherent in large scale surveys. The estimation producers of District Level Reproductive & Child Health survey takes into consideration design appropriateness and non-response rates. DLHS-RCH estimator of a programme indicators is design as

$$r = \frac{\sum_h \sum_j \sum_i w_{hji} y_{hji}}{\sum_h \sum_j \sum_i w_{hji} x_{hji}} = \frac{y}{x} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (1)$$

where the cell (h, j, i) stands for i^{th} observational unit in j^{th} primary sampling unit (PSU) in h^{th} stratum, basically rural-urban areas of a district are taken as strata. W_{hij} is the sampling weight of $(h, j, i)^{th}$ cell inflated by response rates. The variables y and x denote the main and the auxiliary characteristics required for computation of proportion or ratios.

The equation for estimation of variance of programme indicator (r) is obtained after Taylor series linearisation as

$$\text{var}(r) = \frac{1}{x^2}[\text{var}(y) + r^2 \text{var}(x) - 2r\,\text{cov}(y, x)] \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (2)$$

$$\text{var}(y) = \sum_h \frac{n_h}{n_h - 1}\left[\sum_j \sum_i (w_{hji} y_{hij})^2 - \frac{\left(\sum_j \sum_i w_{hji} y_{hji}\right)^2}{n_h}\right] \quad \ldots\ldots\ldots\ldots (3)$$

$$\text{cov}(y, x) = \sum_h \frac{n_h}{n_h - 1}\left[\sum_j \sum_i w_{hji}^2 y_{hji} x_{hji} - \frac{(\sum_j \sum_i w_{hji} y_{hji})(\sum_j \sum_i w_{hji} x_{hji})}{n_h}\right] \quad \ldots\ldots\ldots (4)$$

and n_h is the number of sampled PSUs representing rural or urban areas of a district/state.

List of Selected Programme Variables for Sampling Errors, RCH 2002-04

Variable	Estimate	Base Population
CPR (Any Method)	Proportion	Currently married women age 15-44 years
Unmet Need	Proportion	Currently married women age 15-44 years
Any ANC	Proportion	Last live/still births in the past three years
ANC3+	Proportion	Last live/still births in the past three years
Institutional Delivery	Proportion	Last live/still births in the past three years
Safe Delivery	Proportion	Last live/still births in the past three years
BCG	Proportion	Children age 12-23 months
Measles	Proportion	Children age 12-23 months
BO3+	Proportion	Currently married women age 15-44 years with births in past three years

Sampling errors, Maharashtra, 2002-04

Variables	Estimate (R)	Sampling error (SE)	Number of cases Unweighted	Number of cases Weighted	Design Effect	Relative Error (%)	95% Conf. Interval R-1.96 SE	95% Conf. Interval R+1.96 SE
Contraceptive Prevalence Rate (Currently Married Women age 15-44)								
Total	0.633	0.004	27,051	27,051	1.866	0.6	0.625	0.640
Rural	0.621	0.005	17,194	17,194	1.658	0.8	0.612	0.631
Urban	0.652	0.007	9,857	9,857	2.231	1.1	0.638	0.666
Unmet Need (Currently Married Women age 15-44)								
Total	0.126	0.003	27,051	27,052	1.901	2.2	0.121	0.132
Rural	0.124	0.003	17,194	17,195	1.629	2.6	0.117	0.130
Urban	0.130	0.005	9,857	9,857	2.353	4.0	0.120	0.141
Received Any Antenatal Check up (last live/still birth of past 3 years)								
Total	0.929	0.004	9,284	9,265	2.053	0.4	0.921	0.936
Rural	0.908	0.005	6,052	6,139	2.040	0.6	0.897	0.918
Urban	0.970	0.004	3,232	3,126	1.980	0.4	0.962	0.979
Received 3+ Antenatal Check up (last live/still birth of past 3 years)								
Total	0.720	0.006	9,284	9,266	1.801	0.9	0.708	0.733
Rural	0.665	0.008	6,052	6,139	1.712	1.2	0.650	0.681
Urban	0.829	0.009	3,232	3,127	1.921	1.1	0.811	0.847
Institutional Delivery (last live/still birth of past 3 years)								
Total	0.579	0.007	9,284	9,265	1.789	1.2	0.566	0.593
Rural	0.442	0.008	6,052	6,139	1.695	1.9	0.426	0.458
Urban	0.849	0.008	3,232	3,126	1.768	1.0	0.833	0.866
Safe Delivery (last live/still birth of past 3 years)								
Total	0.626	0.007	9,284	9,265	1.770	1.1	0.613	0.640
Rural	0.501	0.008	6,052	6,139	1.678	1.7	0.485	0.517
Urban	0.872	0.008	3,232	3,126	1.758	0.9	0.857	0.888
Received BCG Vaccination (last and last but one living children, age 12-23 months)								
Total	0.962	0.004	3,098	3,025	1.389	0.4	0.954	0.970
Rural	0.961	0.005	2,046	2,006	1.426	0.5	0.951	0.971
Urban	0.965	0.006	1,052	1,019	1.300	0.7	0.953	0.978
Received Measles (last and last but one living children, age 12-23 months)								
Total	0.854	0.009	3,098	3,025	1.866	1.0	0.837	0.871
Rural	0.859	0.010	2,046	2,006	1.745	1.2	0.839	0.878
Urban	0.845	0.016	1,052	1,019	2.098	1.9	0.813	0.876
Birth order 3+ (birth in last three years)								
Total	0.324	0.006	9,793	9,665	1.753	2.0	0.311	0.336
Rural	0.354	0.008	6,481	6,532	1.640	2.1	0.339	0.369
Urban	0.261	0.011	3,312	3,133	1.990	4.2	0.239	0.282

Sampling errors, Maharashtra, 2002-04							
District	Estimate (R)	Sampling error (SE)	Number of cases Unweighted	Number of cases Weighted	Relative Errors (%)	95% Conf. Interval R-1.96 SE	95% Conf. Interval R+1.96 SE
Contraceptive Prevalence Rate (Currently Married Women age 15-44)							
Ahmadnagar	0.617	0.021	731	728	3.4	0.576	0.658
Akola	0.667	0.018	756	756	2.7	0.632	0.702
Amravati	0.651	0.018	768	763	2.8	0.615	0.687
Aurangabad	0.576	0.019	784	780	3.3	0.539	0.613
Bhandara	0.700	0.017	781	781	2.4	0.667	0.733
Bid	0.585	0.017	928	923	2.9	0.551	0.619
Buldana	0.564	0.018	850	846	3.2	0.529	0.599
Chandrapur	0.608	0.019	744	740	3.1	0.571	0.646
Dhule	0.629	0.019	817	817	3.0	0.592	0.667
Gadchiroli	0.601	0.021	627	624	3.5	0.559	0.642
Gondia	0.651	0.018	735	735	2.8	0.615	0.686
Hingoli	0.570	0.017	924	924	3.0	0.536	0.603
Jalgaon	0.640	0.019	758	753	3.0	0.603	0.677
Jalna	0.570	0.017	966	966	3.0	0.538	0.603
Kolhapur	0.717	0.016	858	859	2.2	0.686	0.748
Latur	0.598	0.017	928	928	2.8	0.565	0.632
Mumbai	0.626	0.024	585	585	3.8	0.580	0.673
Mumbai (Sub Urban)	0.640	0.020	660	660	3.1	0.600	0.681
Nagpur	0.701	0.018	684	680	2.6	0.665	0.737
Nanded	0.552	0.018	841	836	3.3	0.516	0.587
Nandurbar	0.614	0.017	889	888	2.8	0.581	0.648
Nashik	0.582	0.021	765	760	3.6	0.542	0.623
Osmanabad	0.611	0.019	833	829	3.1	0.575	0.648
Parbhani	0.570	0.018	902	902	3.2	0.535	0.604
Pune	0.680	0.020	669	665	2.9	0.641	0.719
Raigarh	0.616	0.020	648	648	3.2	0.577	0.655
Ratnagiri	0.595	0.021	649	649	3.5	0.554	0.635
Sangli	0.651	0.021	721	718	3.2	0.610	0.692
Satara	0.676	0.020	732	729	3.0	0.636	0.716
Sindhudurg	0.561	0.023	614	610	4.1	0.516	0.605
Solapur	0.651	0.018	794	794	2.8	0.616	0.686
Thane	0.644	0.019	735	732	3.0	0.607	0.681
Wardha	0.736	0.017	732	728	2.3	0.702	0.770
Washim	0.691	0.017	870	870	2.5	0.659	0.724
Yavatmal	0.662	0.018	773	773	2.7	0.628	0.697

Sampling errors, Maharashtra, 2002-04							
District	Estimate (R)	Sampling error (SE)	Number of cases Unweighted	Number of cases Weighted	Relative Errors (%)	95% Conf. Interval R-1.96 SE	95% Conf. Interval R+1.96 SE
Unmet Need (Currently Married Women age 15-44)							
Ahmadnagar	0.222	0.018	731	727	8.1	0.187	0.256
Akola	0.118	0.012	756	756	10.2	0.095	0.142
Amravati	0.134	0.013	768	763	9.7	0.109	0.160
Aurangabad	0.144	0.013	784	780	9.0	0.118	0.169
Bhandara	0.104	0.012	781	781	11.5	0.081	0.127
Bid	0.154	0.013	928	923	8.4	0.129	0.179
Buldana	0.176	0.014	850	846	8.0	0.149	0.203
Chandrapur	0.153	0.014	744	740	9.2	0.124	0.181
Dhule	0.117	0.014	817	817	12.0	0.091	0.144
Gadchiroli	0.159	0.015	627	624	9.4	0.128	0.189
Gondia	0.139	0.013	735	735	9.4	0.113	0.165
Hingoli	0.125	0.012	924	924	9.6	0.102	0.148
Jalgaon	0.094	0.012	758	754	12.8	0.071	0.117
Jalna	0.128	0.011	966	966	8.6	0.106	0.150
Kolhapur	0.065	0.009	858	858	13.8	0.048	0.082
Latur	0.130	0.012	928	928	9.2	0.107	0.153
Mumbai	0.131	0.017	585	585	13.0	0.099	0.164
Mumbai (Sub Urban)	0.136	0.016	660	660	11.8	0.106	0.167
Nagpur	0.112	0.013	684	680	11.6	0.087	0.136
Nanded	0.130	0.012	841	837	9.2	0.107	0.154
Nandurbar	0.104	0.011	889	889	10.6	0.083	0.125
Nashik	0.092	0.011	765	760	12.0	0.070	0.114
Osmanabad	0.162	0.014	833	828	8.6	0.135	0.190
Parbhani	0.121	0.012	902	902	9.9	0.097	0.144
Pune	0.155	0.015	669	665	9.7	0.125	0.186
Raigarh	0.125	0.014	648	648	11.2	0.098	0.152
Ratnagiri	0.125	0.013	649	649	10.4	0.099	0.151
Sangli	0.127	0.015	721	717	11.8	0.097	0.157
Satara	0.146	0.015	732	730	10.3	0.117	0.174
Sindhudurg	0.196	0.018	614	611	9.2	0.160	0.231
Solapur	0.082	0.010	794	794	12.2	0.062	0.102
Thane	0.102	0.012	735	732	11.8	0.079	0.125
Wardha	0.095	0.011	732	729	11.6	0.072	0.117
Washim	0.090	0.010	870	870	11.1	0.072	0.109
Yavatmal	0.102	0.011	773	773	10.8	0.079	0.124

Sampling errors, Maharashtra, 2002-04							
District	Estimate (R)	Sampling error (SE)	Number of cases Unweighted	Number of cases Weighted	Relative Errors (%)	95% Conf. Interval R-1.96 SE	95% Conf. Interval R+1.96 SE
Received Any Antenatal Check up (last live/still birth of past 3 years)							
Ahmadnagar	0.879	0.025	264	272	2.8	0.829	0.928
Akola	0.967	0.012	254	255	1.2	0.944	0.990
Amravati	0.974	0.011	270	268	1.1	0.953	0.996
Aurangabad	0.906	0.018	305	310	2.0	0.870	0.941
Bhandara	0.988	0.007	250	253	0.7	0.974	1.000
Bid	0.858	0.021	346	344	2.4	0.818	0.899
Buldana	0.942	0.014	315	308	1.5	0.915	0.969
Chandrapur	0.969	0.012	244	252	1.2	0.946	0.992
Dhule	0.901	0.018	280	291	2.0	0.865	0.937
Gadchiroli	0.888	0.024	235	233	2.7	0.841	0.935
Gondia	0.992	0.006	221	226	0.6	0.981	1.000
Hingoli	0.946	0.014	348	349	1.5	0.919	0.973
Jalgaon	0.831	0.026	274	274	3.1	0.780	0.881
Jalna	0.943	0.013	361	366	1.4	0.918	0.969
Kolhapur	0.992	0.006	221	228	0.6	0.980	1.000
Latur	0.938	0.013	345	347	1.4	0.913	0.963
Mumbai	0.986	0.006	203	306	0.6	0.973	0.998
Mumbai (Sub Urban)	0.962	0.015	188	193	1.6	0.934	0.991
Nagpur	0.965	0.014	225	230	1.5	0.937	0.992
Nanded	0.890	0.019	321	322	2.1	0.853	0.927
Nandurbar	0.856	0.021	307	307	2.5	0.816	0.897
Nashik	0.815	0.026	308	315	3.2	0.764	0.866
Osmanabad	0.909	0.018	337	337	2.0	0.874	0.945
Parbhani	0.957	0.012	316	308	1.3	0.934	0.981
Pune	0.940	0.016	223	224	1.7	0.909	0.972
Raigarh	0.976	0.012	190	193	1.2	0.952	1.000
Ratnagiri	0.989	0.008	177	181	0.8	0.975	1.000
Sangli	0.971	0.013	232	251	1.3	0.945	0.997
Satara	0.966	0.014	237	231	1.4	0.938	0.995
Sindhudurg	0.998	0.002	230	233	0.2	0.995	1.000
Solapur	0.988	0.007	244	238	0.7	0.973	1.000
Thane	0.961	0.014	234	135	1.5	0.934	0.988
Wardha	0.991	0.007	201	199	0.7	0.978	1.000
Washim	0.954	0.012	299	290	1.3	0.930	0.977
Yavatmal	0.965	0.011	279	283	1.1	0.943	0.986

Sampling errors, Maharashtra, 2002-04							
District	Estimate (R)	Sampling error (SE)	Number of cases Unweighted	Number of cases Weighted	Relative Errors (%)	95% Conf. Interval R-1.96 SE	95% Conf. Interval R+1.96 SE
Received 3+ Antenatal Check up (last live/still birth of past 3 years)							
Ahmadnagar	0.661	0.033	264	272	5.0	0.596	0.727
Akola	0.722	0.030	254	256	4.2	0.664	0.780
Amravati	0.730	0.029	270	267	4.0	0.674	0.786
Aurangabad	0.656	0.029	305	309	4.4	0.600	0.713
Bhandara	0.787	0.027	250	253	3.4	0.734	0.839
Bid	0.548	0.029	346	344	5.3	0.491	0.605
Buldana	0.644	0.028	315	309	4.3	0.589	0.699
Chandrapur	0.795	0.028	244	253	3.5	0.741	0.849
Dhule	0.667	0.031	280	291	4.6	0.607	0.726
Gadchiroli	0.676	0.034	235	234	5.0	0.609	0.743
Gondia	0.794	0.028	221	227	3.5	0.739	0.848
Hingoli	0.666	0.027	348	350	4.1	0.613	0.718
Jalgaon	0.587	0.033	274	273	5.6	0.523	0.651
Jalna	0.645	0.026	361	367	4.0	0.593	0.697
Kolhapur	0.897	0.022	221	228	2.5	0.855	0.940
Latur	0.741	0.024	345	347	3.2	0.693	0.789
Mumbai	0.890	0.025	203	213	2.8	0.842	0.938
Mumbai (Sub Urban)	0.896	0.022	188	193	2.5	0.852	0.940
Nagpur	0.718	0.031	225	231	4.3	0.657	0.779
Nanded	0.636	0.028	321	321	4.4	0.580	0.692
Nandurbar	0.605	0.029	307	306	4.8	0.548	0.662
Nashik	0.509	0.033	308	314	6.5	0.445	0.573
Osmanabad	0.673	0.028	337	336	4.2	0.618	0.729
Parbhani	0.598	0.029	316	308	4.8	0.541	0.655
Pune	0.800	0.030	223	223	3.8	0.741	0.860
Raigarh	0.870	0.026	190	193	3.0	0.820	0.920
Ratnagiri	0.901	0.025	177	180	2.8	0.852	0.950
Sangli	0.766	0.033	232	250	4.3	0.702	0.831
Satara	0.856	0.026	237	231	3.0	0.805	0.908
Sindhudurg	0.895	0.020	230	233	2.2	0.855	0.935
Solapur	0.824	0.026	244	239	3.2	0.772	0.876
Thane	0.805	0.029	234	229	3.6	0.749	0.861
Wardha	0.830	0.028	201	198	3.4	0.774	0.885
Washim	0.566	0.031	299	290	5.5	0.505	0.627
Yavatmal	0.687	0.028	279	283	4.1	0.631	0.743

Sampling errors, Maharashtra, 2002-04

District	Estimate (R)	Sampling error (SE)	Number of cases Unweighted	Number of cases Weighted	Relative Errors (%)	95% Conf. Interval R-1.96 SE	95% Conf. Interval R+1.96 SE
Institutional Delivery (last live/still birth of past 3 years)							
Ahmadnagar	0.658	0.033	264	271	5.0	0.593	0.723
Akola	0.589	0.032	254	254	5.4	0.526	0.652
Amravati	0.564	0.032	270	268	5.7	0.501	0.626
Aurangabad	0.548	0.030	305	310	5.5	0.488	0.607
Bhandara	0.408	0.033	250	253	8.1	0.344	0.472
Bid	0.530	0.029	346	344	5.5	0.473	0.586
Buldana	0.441	0.029	315	308	6.6	0.384	0.499
Chandrapur	0.415	0.034	244	251	8.2	0.349	0.481
Dhule	0.380	0.032	280	291	8.4	0.317	0.443
Gadchiroli	0.205	0.028	235	233	13.7	0.150	0.259
Gondia	0.367	0.033	221	226	9.0	0.302	0.433
Hingoli	0.351	0.027	348	350	7.7	0.298	0.404
Jalgaon	0.517	0.033	274	272	6.4	0.452	0.581
Jalna	0.513	0.027	361	368	5.3	0.460	0.567
Kolhapur	0.765	0.029	221	227	3.8	0.708	0.822
Latur	0.512	0.028	345	347	5.5	0.456	0.568
Mumbai	0.863	0.029	203	212	3.4	0.806	0.920
Mumbai (Sub Urban)	0.891	0.023	188	193	2.6	0.845	0.936
Nagpur	0.731	0.031	225	232	4.2	0.670	0.791
Nanded	0.393	0.029	321	321	7.4	0.337	0.450
Nandurbar	0.285	0.027	307	306	9.5	0.233	0.337
Nashik	0.472	0.032	308	315	6.8	0.409	0.535
Osmanabad	0.467	0.030	337	336	6.4	0.408	0.526
Parbhani	0.459	0.030	316	309	6.5	0.400	0.517
Pune	0.792	0.029	223	223	3.7	0.736	0.848
Raigarh	0.634	0.036	190	194	5.7	0.564	0.705
Ratnagiri	0.689	0.037	177	181	5.4	0.615	0.762
Sangli	0.741	0.033	232	251	4.5	0.676	0.806
Satara	0.735	0.034	237	230	4.6	0.668	0.801
Sindhudurg	0.837	0.027	230	233	3.2	0.784	0.889
Solapur	0.647	0.032	244	238	4.9	0.584	0.710
Thane	0.684	0.033	234	230	4.8	0.620	0.748
Wardha	0.642	0.036	201	198	5.6	0.570	0.713
Washim	0.525	0.032	299	290	6.1	0.463	0.586
Yavatmal	0.531	0.031	279	282	5.8	0.471	0.592

Sampling errors, Maharashtra, 2002-04							
District	Estimate (R)	Sampling error (SE)	Number of cases Unweighted	Number of cases Weighted	Relative Errors (%)	95% Conf. Interval R-1.96 SE	95% Conf. Interval R+1.96 SE
Safe Delivery (last live/still birth of past 3 years)							
Ahmadnagar	0.715	0.032	264	271	4.5	0.653	0.777
Akola	0.625	0.032	254	256	5.1	0.563	0.687
Amravati	0.597	0.032	270	268	5.4	0.535	0.660
Aurangabad	0.605	0.030	305	311	5.0	0.546	0.665
Bhandara	0.595	0.032	250	254	5.4	0.533	0.657
Bid	0.562	0.029	346	345	5.2	0.505	0.618
Buldana	0.514	0.029	315	308	5.6	0.457	0.572
Chandrapur	0.471	0.034	244	252	7.2	0.404	0.537
Dhule	0.468	0.033	280	291	7.1	0.403	0.533
Gadchiroli	0.284	0.031	235	234	10.9	0.223	0.345
Gondia	0.468	0.035	221	226	7.5	0.400	0.535
Hingoli	0.397	0.028	348	349	7.1	0.343	0.451
Jalgaon	0.631	0.031	274	272	4.9	0.569	0.692
Jalna	0.560	0.027	361	368	4.8	0.507	0.613
Kolhapur	0.847	0.024	221	228	2.8	0.799	0.894
Latur	0.540	0.028	345	346	5.2	0.485	0.596
Mumbai	0.910	0.023	203	212	2.5	0.864	0.956
Mumbai (Sub Urban)	0.903	0.022	188	194	2.4	0.860	0.946
Nagpur	0.761	0.030	225	232	3.9	0.703	0.819
Nanded	0.441	0.029	321	321	6.6	0.384	0.498
Nandurbar	0.332	0.028	307	307	8.4	0.278	0.387
Nashik	0.495	0.032	308	316	6.5	0.432	0.558
Osmanabad	0.500	0.030	337	336	6.0	0.441	0.559
Parbhani	0.518	0.030	316	309	5.8	0.459	0.576
Pune	0.795	0.029	223	224	3.6	0.739	0.851
Raigarh	0.659	0.036	190	193	5.5	0.589	0.729
Ratnagiri	0.728	0.036	177	180	4.9	0.657	0.800
Sangli	0.787	0.031	232	251	3.9	0.727	0.848
Satara	0.756	0.033	237	231	4.4	0.690	0.821
Sindhudurg	0.888	0.023	230	233	2.6	0.844	0.932
Solapur	0.704	0.031	244	238	4.4	0.644	0.764
Thane	0.722	0.032	234	229	4.4	0.660	0.785
Wardha	0.676	0.035	201	198	5.2	0.607	0.745
Washim	0.548	0.031	299	290	5.7	0.486	0.609
Yavatmal	0.559	0.031	279	283	5.5	0.499	0.619

Sampling errors, Maharashtra, 2002-04

District	Estimate (R)	Sampling error (SE)	Number of cases Unweighted	Number of cases Weighted	Relative Errors (%)	95% Conf. Interval R-1.96 SE	95% Conf. Interval R+1.96 SE
Received BCG Vaccination (last and last but one living children, age 12-23 months)							
Ahmadnagar	0.960	0.023	75	75	2.4	0.914	1.006
Akola	0.963	0.022	68	69	2.3	0.919	1.006
Amravati	0.976	0.017	83	81	1.7	0.944	1.009
Aurangabad	0.988	0.009	94	100	0.9	0.971	1.006
Bhandara	0.970	0.024	89	90	2.5	0.922	1.018
Bid	0.967	0.017	113	112	1.7	0.934	1.000
Buldana	0.975	0.015	97	88	1.5	0.946	1.004
Chandrapur	0.989	0.011	69	75	1.1	0.967	1.011
Dhule	0.857	0.055	79	80	6.4	0.749	0.965
Gadchiroli	0.895	0.036	74	79	4.0	0.826	0.965
Gondia	0.986	0.010	79	79	1.0	0.966	1.006
Hingoli	0.782	0.043	114	125	5.4	0.699	0.866
Jalgaon	0.982	0.018	68	66	1.9	0.946	1.017
Jalna	0.944	0.023	113	115	2.4	0.900	0.988
Kolhapur	1.000	0.000	63	62	0.0	1.000	1.000
Latur	0.930	0.022	134	131	2.3	0.888	0.973
Mumbai	0.990	0.010	59	59	1.0	0.969	1.010
Mumbai (Suburban)	0.980	0.015	59	60	1.5	0.951	1.009
Nagpur	1.000	0.000	63	65	0.0	1.000	1.000
Nanded	0.966	0.018	88	91	1.9	0.930	1.001
Nandurbar	0.882	0.030	101	102	3.4	0.823	0.941
Nashik	0.903	0.029	96	97	3.2	0.847	0.960
Osmanabad	0.960	0.022	109	113	2.3	0.916	1.004
Parbhani	0.945	0.026	86	85	2.7	0.894	0.996
Pune	1.000	0.000	64	67	0.0	1.000	1.000
Raigarh	0.989	0.011	55	55	1.1	0.967	1.011
Ratnagiri	1.000	0.000	50	49	0.0	1.000	1.000
Sangli	0.950	0.034	70	68	3.6	0.883	1.017
Satara	0.981	0.019	65	52	2.0	0.943	1.018
Sindhudurg	1.000	0.000	62	61	0.0	1.000	1.000
Solapur	0.948	0.023	82	79	2.4	0.904	0.993
Thane	0.962	0.022	70	66	2.3	0.919	1.005
Wardha	0.961	0.029	55	54	3.0	0.905	1.018
Washim	0.925	0.026	96	96	2.9	0.873	0.977
Yavatmal	0.917	0.027	91	92	3.0	0.863	0.970

Sampling errors, Maharashtra, 2002-04							
District	Estimate (R)	Sampling error (SE)	Number of cases Unweighted	Number of cases Weighted	Relative Errors (%)	95% Conf. Interval R-1.96 SE	95% Conf. Interval R+1.96 SE
Received Measles (last and last but one living children, age 12-23 months)							
Ahmadnagar	0.908	0.035	75	75	3.9	0.838	0.977
Akola	0.819	0.048	68	69	5.8	0.726	0.912
Amravati	0.904	0.033	83	81	3.6	0.839	0.968
Aurangabad	0.889	0.031	94	100	3.5	0.829	0.949
Bhandara	0.926	0.036	89	90	3.8	0.856	0.996
Bid	0.869	0.032	113	112	3.6	0.807	0.931
Buldana	0.897	0.030	97	88	3.3	0.838	0.956
Chandrapur	0.897	0.038	69	75	4.2	0.824	0.971
Dhule	0.709	0.060	79	80	8.5	0.591	0.827
Gadchiroli	0.816	0.046	74	79	5.6	0.726	0.906
Gondia	0.933	0.025	79	79	2.7	0.884	0.983
Hingoli	0.619	0.048	114	125	7.8	0.524	0.714
Jalgaon	0.849	0.040	68	66	4.8	0.770	0.928
Jalna	0.858	0.031	113	115	3.6	0.796	0.919
Kolhapur	0.987	0.013	63	62	1.3	0.962	1.012
Latur	0.838	0.031	134	131	3.7	0.777	0.900
Mumbai	0.972	0.016	59	59	1.7	0.939	1.004
Mumbai (Suburban)	0.913	0.034	59	60	3.7	0.848	0.979
Nagpur	0.805	0.051	63	65	6.3	0.705	0.904
Nanded	0.796	0.041	88	91	5.1	0.716	0.876
Nandurbar	0.762	0.041	101	102	5.4	0.682	0.843
Nashik	0.706	0.049	96	97	6.9	0.610	0.802
Osmanabad	0.836	0.040	109	113	4.8	0.757	0.915
Parbhani	0.857	0.039	86	85	4.5	0.782	0.933
Pune	0.834	0.051	64	67	6.2	0.733	0.935
Raigarh	0.919	0.036	55	55	3.9	0.848	0.990
Ratnagiri	1.000	0.000	50	49	0.0	1.000	1.000
Sangli	0.861	0.052	70	68	6.0	0.759	0.962
Satara	0.883	0.047	65	52	5.3	0.791	0.976
Sindhudurg	1.000	0.000	62	61	0.0	1.000	1.000
Solapur	0.799	0.044	82	79	5.5	0.712	0.885
Thane	0.814	0.049	70	66	6.0	0.719	0.909
Wardha	0.847	0.052	55	54	6.1	0.746	0.948
Washim	0.798	0.047	96	96	5.9	0.706	0.890
Yavatmal	0.804	0.041	91	92	5.0	0.724	0.883

Sampling errors, Maharashtra, 2002-04							
District	Estimate (R)	Sampling error (SE)	Number of cases Unweighted	Number of cases Weighted	Relative Errors (%)	95% Conf. Interval R-1.96 SE	95% Conf. Interval R+1.96 SE
Birth order 3+ (birth in last three years)							
Ahmadnagar	0.350	0.033	269	282	9.4	0.285	0.415
Akola	0.357	0.031	269	271	8.7	0.297	0.417
Amravati	0.362	0.030	283	277	8.3	0.302	0.421
Aurangabad	0.353	0.028	328	338	7.9	0.299	0.408
Bhandara	0.270	0.028	272	273	10.4	0.215	0.324
Bid	0.384	0.028	359	356	7.3	0.330	0.439
Buldana	0.356	0.028	329	321	7.9	0.302	0.409
Chandrapur	0.328	0.031	259	268	9.5	0.267	0.388
Dhule	0.372	0.032	303	325	8.6	0.309	0.436
Gadchiroli	0.331	0.033	252	251	10.0	0.267	0.395
Gondia	0.291	0.030	250	257	10.3	0.233	0.349
Hingoli	0.403	0.027	369	372	6.7	0.350	0.457
Jalgaon	0.345	0.030	286	289	8.7	0.286	0.405
Jalna	0.354	0.025	390	399	7.1	0.304	0.403
Kolhapur	0.184	0.026	230	237	14.1	0.132	0.236
Latur	0.482	0.028	370	372	5.8	0.427	0.536
Mumbai	0.207	0.032	207	212	15.5	0.143	0.270
Mumbai (Sub Urban)	0.252	0.035	173	180	13.9	0.183	0.321
Nagpur	0.283	0.031	244	246	11.0	0.222	0.343
Nanded	0.431	0.028	344	342	6.5	0.376	0.486
Nandurbar	0.478	0.029	326	325	6.1	0.422	0.534
Nashik	0.361	0.030	332	330	8.3	0.302	0.419
Osmanabad	0.400	0.028	376	377	7.0	0.345	0.455
Parbhani	0.397	0.029	331	321	7.3	0.341	0.453
Pune	0.219	0.029	241	241	13.2	0.162	0.276
Raigarh	0.264	0.033	187	190	12.5	0.199	0.329
Ratnagiri	0.224	0.034	172	179	15.2	0.157	0.290
Sangli	0.270	0.033	238	252	12.2	0.206	0.335
Satara	0.162	0.027	226	227	16.7	0.109	0.215
Sindhudurg	0.256	0.034	212	213	13.3	0.189	0.322
Solapur	0.330	0.030	267	259	9.1	0.271	0.389
Thane	0.359	0.034	229	222	9.5	0.293	0.425
Wardha	0.232	0.030	218	217	12.9	0.172	0.291
Washim	0.385	0.029	344	337	7.5	0.327	0.442
Yavatmal	0.285	0.027	308	309	9.5	0.233	0.337

APPENDIX B

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APPENDIX B

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