## RAJASTHAN

# Reproductive and Child Iealth District Level Ilouselhold Survey 

2002-04


International Institute for Population Sciences, (Deemed University) Mumbai - 400088


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


Indian Institute of Health
Management Research Jaipur-302 011

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Indian Institute of Health Management Research, Jaipur - 302011

## Contributors

# Indian Institute of Health Management Research, Jaipur 

Ch. Satish Kumar
N. D. Sharma

Jai Singh Shekhawat
Shweta Chooramani

# International Institute for Population Sciences, Mumbai 

F. Ram
B. Paswan
L. Ladu Singh
K.C. Lakhara

Akash N. Wankhede
Pratap Mukherjee

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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 As a first step, family planning target has been withdrawn and an effort is being made to provide a package of reproductive services at different levels of health care centres.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 West Bengal and covered all the districts. The findings of selected indicators of reproductive and child health services from the state of West Bengal 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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## KEY INDICATORS, RAJASTHAN

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

| Sample size |  | Adequate Iron folic acid tablets/syrup ${ }^{3}$. | 8.0 |
| :---: | :---: | :---: | :---: |
| Households surveyed. | 33,833 | Full antenatal check-up ${ }^{4}$ | 5.0 |
| Currently married women age 15-44. | 32.911 | Delivery characteristics ${ }^{2}$ |  |
| Husband's of eligible women. | 20,980 | Delivery at home.. | 68.0 |
| Characteristics of households |  | Delivery at government health institutions. | 19.4 |
| Percent rural. | 69.4 | Delivery at private health institutions....... | 12.0 |
| Percent Hindu | 89.1 | Delivery attendant by skilled persons ${ }^{5}$ | 44.0 |
| Percent Muslim. | 7.9 | Child health |  |
| Percent other religion (Jain)......................... | 2.9 | Percent of children whose mother squeezed out milk |  |
| Percent scheduled caste..... | 19.9 |  | 60.7 |
| Percent scheduled tribe. | 12.1 | Percent of children ${ }^{7}$ with diarrhoea ${ }^{8}$ who received |  |
| Percent with electricity... | 64.9 | ORS. | 29.4 |
| Percent with flush toilet. | 24.1 | Percent of women whose child ${ }^{7}$ with pneumonia ${ }^{8}$ who |  |
| Percent with no toilet facility.. | 65.9 | sought treatment. | 70.5 |
| Percent living in Kachcha houses...................... | 28.8 | Percent of children who received |  |
| Percent living in Pucca houses......................... | 56.6 45.3 | vaccinations ${ }^{9}$ |  |
| Percent with low standard of living..................... | 26.7 | BCG. | 60.8 |
| Percent with high standard of living. | 33.0 | DPT (3 injections). | 35.7 |
| Percent with iodized salt ( $15+\mathrm{ppm}$ )....... | 33.0 | Polio (3 drops).... | 35.7 36.2 |
| Characteristics of currently married |  | Measles...... | 35.9 |
| women age 15-44 years |  | All vaccinations ${ }^{10}$ | 24.7 |
| Percent below age 30 | 54.7 | No vaccination at all. | 29.0 |
| Percent with age at first cohabitation below age 18. | 62.3 | Percentage of women who had |  |
| Percent illiterate... | 66.1 | Pregnancy complication ${ }^{2}$ | 35.9 |
| Percent having 10 or more years of schooling....... | 11.3 | Delivery complication ${ }^{2}$. | 18.9 |
| Percent with illiterate husband.. | 28.3 | Post delivery complication ${ }^{2}$. | 27.1 |
| Percent with husband 10+ years of schooling...... | 33.9 | Symptoms of RTI/STI. | 47.5 |
| Marriage |  | Problems of vaginal discharge | 25.1 |
| Mean age at marriage for boys....................... | 20.6 | Menstruation related problem. | 18.6 |
| Mean age marriage for girls.. | 17.3 | Awareness of RTIISTI and HIVIAIDS |  |
| Percent of boys married below age 21............. | 51.2 | Percent of women who have heard of RTI/STI. | 64.7 |
| Percent of girls married below age 18. | 49.4 | Percent of women who have heard of HIVIAIDS... | 32.7 |
| Fertility |  | Utilization of government health services |  |
| Mean children ever born women age 40-44 years... | 4.7 | Antenatal care. | 38.5 |
| Percent of births of order 3 and above ${ }^{1} \ldots$ | 47.4 | Treatment for pregnancy complication. | 55.5 |
| Current use of family planning method |  | Treatment for post-delivery complication. | 45.1 |
| Any method.. | 46.9 | Treatment for vaginal discharge. | 37.0 |
| Any modern method. | 42.3 | Treatment for children with diarrhoea | 40.7 |
| Pill. | 2.8 | Treatment for children with pneumonia. | 39.9 |
| IUD.. | 1.5 | Quality of family planning services |  |
| Condom. | 6.2 | Percent non-users ever advised to adopt the family |  |
| Female sterilization. | 31.2 | planning method | 9.6 |
| Male sterilization.. | 0.6 | Percent users told about side effects of method. | 31.4 |
| Any traditional method. | 4.5 | Percent users who received follow-up services.. | 26.4 |
| Rhythm/safe period. | 3.3 |  |  |
| Withdrawal.. | 0.8 |  |  |
| Unmet need for family planning |  | women |  |
| Percent with unmet need for spacing................ | 8.1 13.7 | Percent of husband knowing NSV........... |  |
| Percent with unmet need for limiting................ | 13.7 | Percent of men who have heard of RTI/STI. | 41.5 |
| Percent with total unmet need | 21.8 | Percent of men who have heard of HIV/AIDS. | 56.2 67.6 |
| Maternal care | 68.1 | Percentage who had any symptoms of RTI/STI... | 11.5 |
| Percent of women received antenatal check-ups Antenatal check-up at home. | 10.9 | Sought treatment for RTI/STI ..................... | 44.4 |
| Antenatal check-up in first trimester.. | 30.0 |  |  |
| Three or more visit for ANC............... | 33.3 |  |  |
| Two or more tetanus toxoid injections.................... | 59.1 |  |  |

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## SALIENT FINDINGS

For the assessment of district level Reproductive and Child Health indicators, Government of India proposed to undertake district level household surveys through nongovernmental agencies on an annual basis. The District Level Household Survey (DLHS) was the result of government's initiative. In Rajasthan, IHMR, India was entrusted the work of carrying out of the survey. The survey for Phase-1 of the DLHS covering 9 districts of the state was conducted during May 2002 to August 2002. The survey for Phase-2 covering the remaining districts of the state was carried out during Feb 2004 to June 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 33,833 households in Rajasthan. From these households, 32,911 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 20,980 husbands of eligible women were interviewed.

Of the total households interviewed in Rajasthan, nearly 31 percent were from urban areas. There were 89 percent Hindu households, 8 percent Muslim and a sum of three percent came under Jain and Sikh category in the sample. Twenty percent of the households belonged to either scheduled castes and 12 percent to scheduled tribes. Thirty percent of the households lived in Kachcha and about 15 percent are in Semi-pacca and more than half, 57 percent are in pucca houses. The majority of the households belonged to low economic status ( 45 percent in low SLI).

About 60 percent of population aged seven and above are literate. Percent literate among females is 44 where as it is three fourth for male. Proportion of non-literate is much higher among the older cohort compared to the younger ones. Nearly 40 percent of eligible women in the state are non-literate, and 15 percent have completed 10 or more years of schooling. In Rajasthan the level of literacy among the eligible women and their husbands are low. 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.

The reporting of the marriages during three yeas prior to survey gives the mean age at marriage among the boys and girls in the state as 20.6 and 17.3 years respectively. Fifty one percent of boys and 49 percent of girls in the state got married before attaining the minimum legal age at marriage of 21 and 18 years respectively. It is also found that, the percentage of girls who were married below the legal age at marriage was the highest in Sawai Madhopur (67 percent) and the lowest in Dungarpur ( 29 percent). In 17 out of 32 districts more than more than 50 percent girls were marrying below the legal age at marriage. In the case of boys, marriages below the legal age at marriage are the highest in Chittaurgarh district (68 percent) and lowest in Sirohi (30 percent).

About one third of the households (33 percent) use cooking salt that is iodized at the recommended level of 15 parts per million or higher level of iodine content whereas 46 percent
of households used salts that are not iodized at all. Udaipur has the lowest proportion of households (15 percent) using non-iodized salt, whereas Dhaulpur has the highest proportion of households (66 percent) using non-iodized salt. Around 33 percent of the households in the state used adequately iodized salt, the highest being in the district of Udaipur ( 72 percent). Merely 12 percent of the households in Churu, 14 percent in Sikar and Nagaur each, were using adequately iodized salt.

On an average, women on the verge of completion of reproductive period have given birth to 4.7 children. Completed fertility in Rajasthan varies from the low of 3.8 mean children ever born for Dungarpur to the highest of 6.1 children in Dhaulpur district.

The share of births of order 3 and above in the total births that occurred three years prior to survey is 47 percent. The proportion of births of order 3 and above ranges from the lowest of 33 percent in Hanumangarh to the highest of 66 percent in Dhaulpur.

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 68 percent of the women received at least one ante-natal care during pregnancy. Eleven percent of the women during their pregnancy were visited by health worker at their residence for providing ANC. Thirty eight percent of the women visited government health facilities and 16 percent received ANC from private health facilities. The percent of women who got some kind of ANC during pregnancy range between 41 percent in Barmer to nearly 87 percent in Bhilwara.

Though 68 percent of the women in Rajasthan received ANC, only 68, 39 and 32 percent women had check-up of abdomen, blood pressure and weight respectively. Fifty percent women received Iron and Folic Acid (IFA) tablets and 92 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 5 percent of women.

Minimum three ANC and timing of first check up is crucial for maternal and child care. In Rajasthan 30 percent of women got ANC in the first trimester and nearly 13 percent had minimum three antenatal check-ups. The percentage of women who received full antenatal care ranges from 1 percent in Dausa to 12 percent in Jaipur. The percentage of women who received at least three visits for antenatal check-ups ranges from 16 percent in Jaisalmer to 49 percent in Kota.

Nearly 31 percent of the total deliveries in Rajasthan were conducted in the health institutions; 7 percentages point up from RCH Round I. The majority of the institutional deliveries were conducted in government institutions (34 percent of total deliveries) as against in private institution 12 percent of total deliveries. As high as 68 percent of the total deliveries, that took place at home, were assisted by midwifery trained persons i.e. doctor/ nurse and ANM. The proportion of institutional delivery is lowest in Jaisalmer (12 percent) and followed by Barmer (14 percent) and it is highest in Jaipur ( 56 percent). In all the districts, comparatively higher proportion of the deliveries were safe deliveries when compared to those which took place in the government institutions. The percent of the institutional deliveries increases substantially with
women's education and economic status, though the variation in the institutional deliveries by women's education is much conspicuous than that by women's economic status.

In Rajasthan, 36, 19 and 27 percent of the women experienced pregnancy, delivery and post delivery complications respectively. About 46 percent of the women sought treatment for the pregnancy and two-fifth for the post-delivery complications. The incidence of delivery complication is higher than that of pregnancy and post delivery complications. The percentage of women who experienced at least one type of delivery complication ranges from 11 percent in Jhunjunun to 28 percent in Baran, and incidence of post delivery complication varies from 14 percent in Jhunjunun to 41 percent in Banswara.

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 Rajasthan, only 14 percent women started breastfeeding the child within two hours of birth and nearly 62 percent started after one day of birth. that in all the districts of Rajasthan, except Sikar, Sirohi, Tonk and Udaipur not more than 23 percent of the children were put to the breast within two hours of birth. Only five percent of the children were breastfed within two hours of birth in Alwar district.

In Rajasthan 61, 36 percent each of the children received the BCG vaccine, three doses of DPT, Polio and measles vaccine respectively. There is 25 percentage points drop from BCG to measles. 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 50 percent of the children, whereas 29 percent of the children did not receive a single vaccination under routine programme. About 22 percent of the children received supplementation of at least one dose of vitamin A and only a handful of children, 3 percent received IFA tablets/liquid for iron supplementation.

The percentage of children who are fully vaccinated ranges from 8 percent in Sawai Madhopur to 53 percent in Udaipur. In 20 out of 32 districts, the coverage rate of full immunization is below the state average of 25 percent. In twelve districts out of 32, the percentage of children not vaccinated is higher than the state average ( 29 percent).

In Rajasthan, 80 percent of the women were aware of diarrhoea management and 35 percent were aware of Oral Rehydration Salt (ORS). During the two-week period prior to survey, children of 6 percent of the women suffered from diarrhoea. And 44 percent women treated diarrhoea among children by giving ORS. In comparison to awareness about diarrhoea management, the awareness about danger sings of pneumonia is quite low. Only 23 percent of the women reported awareness about danger sings of pneumonia. Sixteen percent of the women reported that their children suffered from cough, cold and difficulty in breathing in two-week period prior to survey and 81 percent sought treatment.

The knowledge of family planning methods is universal in all districts of Rajasthan, with almost 100 percent women reporting knowledge of one method or the other. However, the knowledge of any spacing method is marginally low, but the proportion per se is quite high (90 percent). The knowledge of any modern methods is also universal in all the districts, though the
knowledge of all modern methods is only 55 percent. In Rajasthan state, awareness about female sterilization is highest ( 99 percent) followed by male sterilization ( 85 percent) and then comes awareness regarding pills with 84 percent.

In DLHS, knowledge about No-scalpel vasectomy has been asked to husbands of eligible women. Forty one of the husbands were aware of no-scalpel vasectomy in the state. The percentage variation on awareness of NSV ranges widely from 9.4 percent in Barmer, to state average of 41 percent to highest ( 66 percent) in Kota district.

The contraceptive prevalence rate (any methods) in the state is 47 percent, comprising of prevalence of about 42 percent of modern methods and 32 percent of traditional methods. Thirty two percent of the couples adopted sterilization. The percent user of the two male methods sterilization and condom is only 7 percent. There has been positive association between contraceptive use and female education, economic development and availability of health facility. The highest contraceptive prevalence is in Hanumangarh (66 percent) followed by Ganganagar ( 65 percent) and lowest is in Barmer ( 37 percent).

In Rajasthan, a total of 22 percent of women are found to have unmet need for family planning, with 14 percent for limiting and 8 percent for spacing. There are considerable interdistrict differences in the pattern of unmet need. The total unmet need varies from 8 percent in Hanumangarh to 37 percent in Barmer.

Only 10 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. Seventy two percent of women who were visited by ANM felt that ANM had given them sufficient time to discuss health-related matters.

In nearly 50 percent of the districts, less than 10 percent of the women reported the visit of ANM/LHV to their residence. 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 of the women who visited the health facility rated facility as excellent. On the other hand, nearly 26 percent of the women who did not visit the government health facility reported government health facility has poor quality of service and doctors and health workers don't examine properly.

District wise variation in the utilization of health services is quite prominent, as highest number of women visited government facility and least number visited private health facility in Ajmer district with 72 percent and 25 percent respectively. In most of the districts women approached government health facility. Sixty five percent of women visited private health facility in Bharatpur district which is highest in the state of Rajasthan.

In Rajasthan 65 and 33 percent of women are aware of RTI/STI and HIV/AIDS respectively. The corresponding level of awareness among husbands of eligible women is 56 and 68 percent. The percent of women who are aware of RTI/STI and HIV/AIDS is lowest in Jhalawar 12 and 25 percent respectively. While for RTI/STI and HIV/AIDS for eligible women
its highest in Alwar 93 and Kota 52 percent respectively. Awareness level of husbands of eligible respectively. A high level of awareness of HIV/AIDS among men exceeding 75 percent was reported in Bharatpur, Jaipur, Pali, Jhunjhunun, Kota and Sawai-Madhopur.

About 47 percent of women and 11 percent of husbands of eligible women in the state reported having at least one symptoms of RTI/STI. The reported symptoms of RTIs/STIs among women is lowest in Jodhpur ( 34 percent) and highest in Bharatpur ( 69 percent). In most of the districts the reported prevalence of RTI/STI among husbands was low. In comparison to women, fewer men from all districts of Rajasthan reported symptoms of RTIs/STIs. Men from Jhunjhunun, Sikar and Bikaner (5-6 percent) reported the lowest prevalence of symptoms of RTIs/STIs and men from Banswara (23 percent) reported the highest prevalence. The problems related to abnormal vaginal discharge ranges from 10 percent in Jaisalmer to 43 percent in Dausa. The percentage of women who have sought treatment for RTIs (abnormal vaginal discharge) ranges from nearly10 percent in Jaisalmer to 34 percent in Bharatpur, and for men who have sought treatment, it ranges from 30 percent in Bhilwara to 57 percent in Churu.

## CHAPTER I

## INTRODUCTION

### 1.1 Background and Objectives of the Survey

The Reproductive and Child Health (RCH) programme that has been launched by Government of India (GoI) in 1996-97 is expected 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 being 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 then 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 \& 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.

### 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 was 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 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 a 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 had been canvassed of round II of the DLHS-RCH survey, taking into consideration the views of all the regional agencies involved. The houselisting teams and 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 whether 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 the information collected on age, educational 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 collect 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 gives 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 provides 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 about awareness, Source of knowledge, aware of mode of transmission, curability, symptoms and treatment seeking behaviour. About HIV/AIDS; Awareness, Source of knowledge, aware of mode of transmission and prevention etc were canvassed.

Husband Questionnaire: In DLHS-RCH, round II, husband questionnaire was used to collect information from eligible women's husbands about age, educational status, knowledge and source of knowledge of RTI/STI and HIV/AIDS reported symptoms of RTI/STI and male participation. Apart from these information desires for children, reasons for not using Family Planning methods, future intention to use Family Planning methods and knowledge about no scalpel vasectomy (NSV) has also been 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 of educational and health facilities.

### 1.5 Fieldwork and Sample Coverage

The fieldwork for RCH Round II was done in two phases. During Phase I, 16 districts were covered from May 2002 to August 2002 and remaining 16 districts were covered during Phase II from March 2004 to July 2004.

During Round II, a total of 17,039 households were covered. From these surveyed households, 16,402 currently married women (aged 15-44 years) and 10,724 husbands of eligible women were interviewed.

### 1.6 Data processing

All the five types of completed questionnaires were brought to the headquarter of regional agencies 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 regional agency whereas national report is 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 $f_{1},{ }^{i},{ }_{2}{ }^{i}$ and $f_{3}{ }^{i}$ pertaining to $i^{\text {th }}$ PSU of the district. These probabilities are defined as
$f_{1}^{i}=$ Probability of selection of $\mathrm{i}^{\text {th }}$ PSU in a district

$$
=\frac{\left(n_{r}^{*} H_{i}\right)}{H}
$$

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 $\mathrm{i}^{\text {th }}$ PSU and $H=\sum_{H i}$, total number of household in a district.

$$
\begin{aligned}
f_{2}^{i}= & \text { Probability of selecting segment (s) from segmented PSU } \\
& \text { (in case the } \mathrm{i}^{\text {th }} \text { selected PSU is segmented) }
\end{aligned}
$$

$=$ (Number of ${ }_{i}$ segments selected after segmentation of PSU) / (number of segment created a PSU) The value of $f_{2}$ 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
$=\frac{28^{*} H R_{i}}{H L_{i}}$
Where $\mathrm{HR}_{\mathrm{i}}$ is the household response rate of the $\mathrm{i}^{\text {th }}$ sampled PSU and $\mathrm{HL}_{\mathrm{i}}$ is the number of households listed in $\mathrm{i}^{\text {th }}$ PSU in a district.

For urban PSU, $\mathrm{f}_{1}{ }^{i}$ 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 $\mathrm{i}^{\text {th }}$ PSU of the district is, $w^{i}=\frac{1}{f^{i}}$, while the normalized weight used in the generation of district indicators as

$$
n_{i}^{d}=\frac{\sum_{i} n_{i}}{\sum_{i} n_{i} * w^{i}} * w^{i}, \mathrm{i}=1,2,3 \ldots \ldots \ldots \ldots .40 .
$$

Where $n_{i}$ is the number of households interviewed in the $i^{\text {th }}$ 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 $\mathrm{i}^{\text {th }} \mathrm{psu}$ in $\mathrm{d}^{\text {th }}$ 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 work out as;
$n_{i}^{s}=n_{i}^{d} * \frac{\left(n_{i}^{d} / n_{S}\right)}{\left(N_{i}^{d} / N_{S C}\right)}$, where $n_{i}^{d}$ household sample in it district, $n_{S}$ is the total sample in the state, $N_{i}^{d}$ is the census population in the ith district and $N_{S C}$ 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 33,833 households are interviewed, about 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 almost 100 percent in every district.

| Table 1.1 NUMBER OF HOUSEHOLDS INTERVIEWED |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Month and year of fieldwork and number of households interviewed by district, Rajasthan, 2002-04 |  |  |  |  |  |  |
| State/District | Month and year of field work |  | Number of households interviewed |  |  | Response rate |
|  | From | To | Total | Rural | Urban |  |
| State | - | - | 33,833 | 23,475 | 10,358 | 99.6 |
| State-phase I | 05/2002 | 08/2002 | 16,793 | 11,942 | 4,851 | - |
| State-phase II | 03/2004 | 08/2004 | 17,039 | 11,532 | 5,507 | - |
| Ajmer | 07/2002 | 08/2002 | 1,041 | 619 | 422 | 99.6 |
| Baran | 06/2002 | 07/2002 | 1,050 | 736 | 314 | 99.6 |
| Barmer | 05/2002 | 06/2002 | 1,021 | 732 | 289 | 99.3 |
| Bharatpur | 07/2002 | 07/2002 | 1,086 | 765 | 321 | 99.9 |
| Bhilwara | 07/2002 | 08/2002 | 1,071 | 757 | 314 | 100.0 |
| Bikaner | 05/2002 | 06/2002 | 985 | 640 | 345 | 98.7 |
| Bundi | 06/2002 | 08/2002 | 1,058 | 740 | 318 | 99.7 |
| Chittaurgarh | 06/2002 | 07/2002 | 1,061 | 747 | 314 | 99.9 |
| Churu | 06/2002 | 07/2002 | 1,053 | 743 | 310 | 100.0 |
| Dungarpur | 06/2002 | 06/2002 | 1,045 | 733 | 312 | 99.8 |
| Jaisalmer | 05/2002 | 06/2002 | 1,007 | 874 | 133 | 99.8 |
| Jhalawar | 07/2002 | 07/2002 | 1,098 | 768 | 330 | 99.9 |
| Jhunjhunun | 07/2002 | 08/2002 | 1,048 | 841 | 207 | 99.2 |
| Nagaur | 06/2002 | 06/2002 | 1,048 | 745 | 303 | 99.3 |
| Sikar | 07/2002 | 07/2002 | 1,082 | 766 | 316 | 99.7 |
| Sirohi | 06/2002 | 07/2002 | 1,039 | 736 | 303 | 100.0 |
| Alwar | 07/2004 | 07/2004 | 1,076 | 749 | 327 | 99.4 |
| Banswara | 03/2004 | 03/2004 | 1,073 | 754 | 319 | 99.9 |
| Dausa | 07/2004 | 07/2004 | 1,077 | 758 | 319 | 99.8 |
| Dhaulpur | 06/2004 | 07/2004 | 1,073 | 750 | 323 | 99.7 |
| Ganganagar | 05/2004 | 05/2004 | 1,064 | 753 | 311 | 99.9 |
| Hamumangarh | 05/2004 | 06/2004 | 1,071 | 760 | 311 | 99.3 |
| Jaipur | 07/2004 | 08/2004 | 1,048 | 547 | 501 | 97.9 |
| Jalor | 04/2004 | 04/2004 | 1,020 | 723 | 297 | 99.7 |
| Jodhpur | 04/2004 | 05/2004 | 1,078 | 712 | 366 | 99.8 |
| Karauli | 06/2004 | 07/2004 | 1,061 | 747 | 314 | 99.7 |
| Kota | 05/2004 | 06/2004 | 1,041 | 508 | 533 | 99.1 |
| Pali | 05/2004 | 05/2004 | 1,039 | 744 | 295 | 99.7 |
| Rajsamand | 04/2004 | 04/2004 | 1,076 | 756 | 320 | 100.0 |
| Sawai Madhopur | 06/2004 | 06/2004 | 1,071 | 754 | 317 | 100.0 |
| Tonk | 05/2004 | 06/2004 | 1,093 | 765 | 328 | 99.8 |
| Udaipur | 03/2004 | 04/2004 | 1,078 | 752 | 326 | 99.4 |
| Note: Table based | d cases. |  |  |  |  |  |

In 33,833 interviewed households, interviews were completed with 32,911currentlymarried women who are the usual member of the household or stayed night before the household interview and 20,980 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 85 and 62 percent respectively. The variation in the
women's response rate by district was highest in Jhalawar (92 percent) and lowest in Nagaur (71 percent), similarly husband's response rate was again found to be highest in Jhalawar ( 73 percent) and lowest in Barmer (47 percent).

| Table 1.2 NUMBER OF WOMEN AND HUSBANDS INTERVIEWED |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of women and husbands interviewed by district, Rajasthan, 2002-04 |  |  |  |  |  |  |  |  |
| State/District | Number of women interviewed |  |  | Response rate | Number of husbands interviewed |  |  | $\begin{gathered} \text { Response } \\ \text { rate } \end{gathered}$ |
|  | Total | Rural | Urban |  | Total | Rural | Urban |  |
| State | 32,911 | 23,315 | 9,596 | 85.4 | 20,980 | 15,014 | 5,966 | 61.7 |
| Ajmer | 1,005 | 599 | 406 | 87.0 | 578 | 372 | 206 | 57.5 |
| Baran | 986 | 686 | 300 | 86.3 | 672 | 465 | 207 | 65.5 |
| Barmer | 988 | 717 | 271 | 83.9 | 487 | 361 | 126 | 47.1 |
| Bharatpur | 1,069 | 791 | 278 | 84.4 | 699 | 518 | 181 | 60.1 |
| Bhilwara | 1,003 | 721 | 282 | 88.7 | 636 | 475 | 161 | 64.2 |
| Bikaner | 1,073 | 742 | 331 | 81.5 | 625 | 417 | 208 | 54.7 |
| Bundi | 1,004 | 708 | 296 | 89.4 | 615 | 446 | 169 | 61.2 |
| Chittaurgarh | 1,040 | 737 | 303 | 88.7 | 653 | 477 | 176 | 61.6 |
| Churu | 1,178 | 834 | 344 | 81.1 | 704 | 505 | 199 | 55.3 |
| Dungarpur | 911 | 642 | 269 | 84.9 | 583 | 406 | 177 | 58.6 |
| Jaisalmer | 982 | 870 | 112 | 88.2 | 704 | 613 | 91 | 70.5 |
| Jhalawar | 994 | 692 | 302 | 92.0 | 745 | 516 | 229 | 73.2 |
| Jhunjhunun | 1,019 | 834 | 185 | 85.3 | 598 | 486 | 112 | 67.7 |
| Nagaur | 1,077 | 768 | 309 | 79.1 | 680 | 495 | 185 | 57.4 |
| Sikar | 1,176 | 860 | 316 | 85.8 | 682 | 469 | 213 | 64.3 |
| Sirohi | 1,004 | 705 | 299 | 86.1 | 595 | 418 | 177 | 59.7 |
| Alwar | 1,040 | 782 | 258 | 84.5 | 593 | 473 | 120 | 53.7 |
| Banswara | 1,059 | 732 | 327 | 86.9 | 800 | 568 | 232 | 71.6 |
| Dausa | 1,010 | 724 | 286 | 86.0 | 653 | 481 | 172 | 59.3 |
| Dhaulpur | 1,008 | 696 | 312 | 88.3 | 702 | 506 | 196 | 67.0 |
| Ganganagar | 1,123 | 821 | 302 | 86.3 | 806 | 585 | 221 | 68.2 |
| Hamumangarh | 1,130 | 822 | 308 | 79.4 | 691 | 533 | 158 | 58.0 |
| Jaipur | 962 | 552 | 410 | 87.0 | 560 | 312 | 248 | 55.2 |
| Jalor | 1,026 | 753 | 273 | 82.3 | 655 | 476 | 179 | 61.3 |
| Jodhpur | 1,093 | 752 | 341 | 84.1 | 664 | 435 | 229 | 57.7 |
| Karauli | 1,004 | 723 | 281 | 86.3 | 586 | 435 | 151 | 55.4 |
| Kota | 1,011 | 513 | 498 | 86.0 | 670 | 373 | 297 | 65.2 |
| Pali | 1,019 | 731 | 288 | 86.3 | 724 | 527 | 197 | 71.2 |
| Rajsamand | 945 | 672 | 273 | 84.2 | 608 | 424 | 184 | 60.5 |
| Sawai Madhopur | 975 | 710 | 265 | 89.0 | 675 | 497 | 178 | 69.3 |
| Tonk | 1,035 | 730 | 305 | 82.0 | 694 | 496 | 198 | 62.9 |
| Udaipur | 962 | 696 | 266 | 85.8 | 643 | 454 | 189 | 63.1 |

### 1.9 Basic Demographic Profile of the State

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

The state of Rajasthan, located in the northwestern part of the country with 56.5 million populations in 2001, is the largest state in India in terms of land area. The state is consisted of 32 districts, 241 sub-districts (Blocks) and 41,353 villages. The urban areas of the state comprise 222 towns during 2001. Jaipur is the capital of the state. According to 2001 census the population of Rajasthan is 56.5 million out of which 29.4 millions are males and 27.0 millions are females. The rural and urban breakup of the population shows that 76.6 percent of the population was enumerated in rural areas and 23.3 percent in urban areas. Keeping pace with the
national average, Rajasthan has recorded slight decline in the decadal growth rate from 28.4 per cent in 1981-91 to 28.3 percent during 1991-2001. Among the districts, Jaisalmer with 47.5 percent has the highest decadal growth rate whereas Rajsamand with 19.9 percent has the lowest decadal growth rate of total population during 1991-2001.

Percentage of both Scheduled Caste and Schedule Tribe population have experienced a negligible change during 1991-2001 and the proportion of schedule caste and scheduled tribe population in total population of 2001 are 17.2 percent and 12.6 percent respectively. Highest proportion of Schedule Caste population has been recorded in Ganganagar district (33.7 per cent) and that of Schedule Tribe population in Banswara district ( 72.2 percent). Dungarpur district has the lowest proportion of Schedule Caste population (4.1 percent) whereas Nagaur district has the lowest proportion of Schedule Tribe population ( 0.2 percent). The state of Rajasthan has a population density of 165 persons sq. km., which is just half than India's density of 325 persons per square km. Among the districts, Jaipur has the highest density ( 471 person/sq. km.) and Jaisalmer has the lowest (13 person/sq. km).

The sex ratio of the total population in the state has improved since 1991 Census from 910 to 921 per 1000 males. Dungarpur has recorded the highest sex ratio (1022) and Jaisalmer has the lowest (821) within the state.

The literacy rate in the State has shown a remarkable improvement. The literacy rate has increased to 60.4 percent when compared to 38.6 percent ten years back during 1991 Census. The literacy rate in urban ( 76.8 percent) is considerably higher in the state than that in rural areas (55.9 percent). Among the districts, Kota has the highest literacy rate of 74.4 percent. Banswara has the lowest literacy rate of 44.2 percent. The male literacy for the state is 75.7 percent and the female literacy rate is 43.9 percent. Both the rates have increased from 1991 census to 2001 census.

| Table 1.3 BASIC DEMOGRAPHIC INDICATOR |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Basic demographic indicator of India, state and districts, Census 2001 |  |  |  |  |  |  |  |
|  |  |  | Percentage |  |  | ntage liter |  |
| India/state/district | (in thousand) | urban | growth rate ${ }^{1}$ | $\text { ratio }^{2}$ | Male | Female | Persons |
| India | 1,028,737 | 28.0 | 21.5 | 933 | 75.3 | 53.7 | 64.8 |
| State | 56,507 | 23.4 | 28.3 | 921 | 75.7 | 43.9 | 60.4 |
| Ajmer | 2,182 | 40.1 | 26.1 | 931 | 79.4 | 48.9 | 64.6 |
| Baran | 1,022 | 16.8 | 26.2 | 909 | 75.8 | 41.6 | 59.5 |
| Barmer | 1,965 | 7.4 | 36.8 | 892 | 72.8 | 43.4 | 59.0 |
| Bharatpur | 2,101 | 19.5 | 27.0 | 854 | 80.5 | 43.6 | 63.6 |
| Bhilwara | 2,014 | 20.6 | 26.1 | 962 | 67.4 | 33.5 | 50.7 |
| Bikaner | 1,674 | 35.5 | 38.2 | 890 | 70.0 | 42.0 | 56.9 |
| Bundi | 963 | 18.7 | 24.8 | 907 | 71.7 | 37.8 | 55.6 |
| Chittaurgarh | 1,804 | 16.0 | 21.5 | 964 | 71.3 | 36.4 | 54.1 |
| Churu | 1,924 | 27.9 | 24.6 | 948 | 79.7 | 53.4 | 66.8 |
| Dungarpur | 1,108 | 7.3 | 26.6 | 1,022 | 66.0 | 31.8 | 48.6 |
| Jaisalmer | 508 | 15.0 | 47.5 | 821 | 66.3 | 32.1 | 51.0 |
| Jhalawar | 1,180 | 14.3 | 23.3 | 926 | 73.3 | 40.0 | 57.3 |
| Jhunjhunun | 1,914 | 20.6 | 20.9 | 946 | 86.1 | 59.5 | 73.0 |
| Nagaur | 2,775 | 17.2 | 29.3 | 947 | 74.1 | 39.7 | 57.3 |
| Sikar | 2,288 | 20.7 | 24.1 | 951 | 84.3 | 56.1 | 70.5 |
| Sirohi | 851 | 17.7 | 30.1 | 943 | 69.9 | 37.1 | 53.9 |
| Alwar | 2,993 | 14.5 | 30.2 | 886 | 78.1 | 43.3 | 61.7 |
| Banswara | 1,502 | 7.1 | 29.8 | 974 | 60.5 | 28.4 | 44.6 |
| Dausa | 1,317 | 10.3 | 32.4 | 899 | 79.4 | 42.3 | 61.8 |
| Dhaulpur | 983 | 18.0 | 31.1 | 827 | 75.1 | 41.8 | 60.1 |
| Ganganagar | 1,789 | 25.3 | 27.5 | 873 | 75.5 | 52.4 | 64.7 |
| Hamumangarh | 1,518 | 20.0 | 24.3 | 894 | 75.2 | 49.6 | 63.1 |
| Jaipur | 5,251 | 49.4 | 35.1 | 897 | 82.8 | 55.5 | 69.9 |
| Jalor | 1,449 | 7.6 | 26.8 | 964 | 64.7 | 27.8 | 46.5 |
| Jodhpur | 2,887 | 33.9 | 33.8 | 907 | 73.0 | 38.6 | 56.7 |
| Karauli | 1,210 | 14.2 | 30.0 | 855 | 79.5 | 44.4 | 63.4 |
| Kota | 1,569 | 53.5 | 28.5 | 896 | 85.2 | 60.4 | 73.5 |
| Pali | 1,820 | 21.5 | 22.4 | 981 | 72.2 | 36.5 | 54.4 |
| Rajsamand | 987 | 13.0 | 19.9 | 1,000 | 74.0 | 37.6 | 55.7 |
| Sawai Madhopur | 1,117 | 19.0 | 27.4 | 889 | 75.7 | 35.2 | 56.7 |
| Tonk | 1,212 | 20.9 | 24.2 | 934 | 70.5 | 32.2 | 52.0 |
| Udaipur | 2,633 | 18.6 | 27.4 | 971 | 73.6 | 43.3 | 58.6 |
| Note:- Source: Primary Census Abstract, Series 20, Census of India, 2001. ${ }^{1} 1991-2001,{ }^{2}$ Females per 1,000 males. |  |  |  |  |  |  |  |

## 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 producer 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 1,97,732 persons of whom 70 percent lived in the rural areas of Rajasthan. The state of Rajasthan depicts a young and growing population with 39 percent below the age of 15 years (Figure 2.1). There are more children below 15 years recorded in rural areas ( 58 percent) compared to those in urban areas ( 34 percent).


The overall sex ratio of 105 males per 100 females is recorded for the de facto population. The sex ratio is more skewed, 106 in favour of males in urban areas compared to 104 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, Rajasthan, 2002-04

| Age | Total |  |  | Rural |  |  | Urban |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Male | Female | Total | Male | Female | Total | Male | Female |
| < 1 | 2.4 | 2.5 | 2.2 | 2.5 | 2.7 | 2.3 | 2.1 | 2.2 | 2.0 |
| 1-4 | 10.1 | 10.4 | 9.7 | 10.7 | 11.0 | 10.3 | 8.8 | 9.0 | 8.5 |
| 5-9 | 13.4 | 13.9 | 12.9 | 14.2 | 14.8 | 13.6 | 11.4 | 11.7 | 11.2 |
| 10-14 | 12.8 | 13.1 | 12.4 | 13.3 | 13.6 | 12.9 | 11.7 | 11.9 | 11.4 |
| 15-19 | 10.7 | 10.7 | 10.6 | 10.4 | 10.4 | 10.5 | 11.3 | 11.5 | 11.0 |
| 20-24 | 8.9 | 8.4 | 9.5 | 8.5 | 7.8 | 9.1 | 10.1 | 9.7 | 10.4 |
| 25-29 | 7.4 | 7.0 | 7.8 | 7.1 | 6.7 | 7.6 | 8.0 | 7.6 | 8.4 |
| 30-34 | 6.3 | 5.9 | 6.6 | 6.0 | 5.6 | 6.4 | 6.9 | 6.5 | 7.2 |
| 35-39 | 5.8 | 5.8 | 5.8 | 5.5 | 5.5 | 5.5 | 6.4 | 6.5 | 6.3 |
| 40-44 | 4.8 | 4.7 | 4.9 | 4.6 | 4.5 | 4.7 | 5.3 | 5.0 | 5.6 |
| 45-49 | 3.7 | 3.9 | 3.4 | 3.4 | 3.6 | 3.2 | 4.2 | 4.6 | 3.8 |
| 50-54 | 3.7 | 3.6 | 3.8 | 3.7 | 3.5 | 3.8 | 3.8 | 3.7 | 3.8 |
| 55-59 | 2.6 | 2.5 | 2.7 | 2.5 | 2.4 | 2.6 | 2.7 | 2.5 | 2.9 |
| 60-64 | 2.9 | 2.9 | 2.8 | 2.9 | 3.0 | 2.9 | 2.7 | 2.7 | 2.8 |
| 65-69 | 1.7 | 1.7 | 1.8 | 1.7 | 1.6 | 1.8 | 1.9 | 1.9 | 1.9 |
| 70-74 | 1.6 | 1.6 | 1.5 | 1.6 | 1.7 | 1.5 | 1.4 | 1.4 | 1.5 |
| 75-79 | 0.6 | 0.6 | 0.5 | 0.6 | 0.6 | 0.5 | 0.6 | 0.6 | 0.6 |
| 80+ | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.9 | 0.8 | 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 | 1,97,732 | 1,01,287 | 96,445 | 1,38,179 | 70,586 | 67,594 | 59,553 | 30,702 | 28,851 |
| Sex ratio ${ }^{1}$ | 105 | NA | NA | 104 | NA | NA | 106 | 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 18,785 households surveyed in the state of Rajasthan 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. Ninety five percent of household heads are male invariant of place of resident while about 5 percent are femaleheaded households. Nearly 70 percent of household heads are in the $30-59$ years age group. The median age of household heads is 44 years for the state as a whole, while it is 44 years in rural areas and 47 years in urban areas. About 12 percent of household heads are younger than 30 years and 19 percent are at least 60 years old. Majority of the household heads are Hindu (89 percent), 8 percent are Muslim, and 3 percent belongs to other religions. Hindus constitute a higher proportion of population in urban areas ( 80 percent) than in rural areas ( 93 percent). Only 4 percent of the rural households are Muslim, and 16 percent of urban households.

| Table 2.2 HOUSEHOLD CHARACTERISTICS |  |  |  |
| :---: | :---: | :---: | :---: |
| Percent distribution of the household head by selected characteristics of the household head and household size, according to residence, Rajasthan, 2002-04 |  |  |  |
|  |  | Residence |  |
| Characteristic | Total | Rural | Urban |
| Sex of the household head |  |  |  |
| Male | 95.1 | 95.7 | 93.7 |
| Female | 4.9 | 4.3 | 6.3 |
| Age of the household head |  |  |  |
| < 30 | 12.1 | 13.4 | 9.2 |
| 30-44 | 39.3 | 40.0 | 37.8 |
| 45-59 | 29.6 | 28.3 | 32.7 |
| 60+ | 18.9 | 18.3 | 20.3 |
| Median age of the household head | 44.2 | 43.6 | 45.6 |
| Religion of the household head |  |  |  |
| Hindu | 89.1 | 93.3 | 79.6 |
| Muslim | 7.9 | 4.5 | 15.6 |
| Christian | 0.1 | 0.1 | 0.3 |
| Sikh | 1.4 | 1.5 | 1.0 |
| Buddhist | 1.4 0.0 | 0.0 | 0.0 |
| Jain | 1.4 | 0.5 | 3.4 |
| Zoroastrian | 0.0 | 0.0 | 0.0 |
| No Religion | 0.0 | 0.0 | 0.0 |
| Other | 0.1 | 0.1 | 0.1 |
| Missing | 0.0 | 0.0 | 0.0 |
| Caste/tribe of the household head |  |  |  |
| Scheduled caste | 19.9 | 21.3 | 16.7 |
| Scheduled tribe | 12.1 | 15.2 | 5.0 |
| Other backward class | 40.8 | 44.0 | 33.5 |
| Other \# | 27.1 | 19.4 | 44.7 |
| Don't know | 0.1 | 0.1 | 0.1 |
| Missing | 0.0 | 0.0 | 0.0 |
| Number of usual members |  |  |  |
| 1 | 1.9 | 1.7 | 2.3 |
| 2 | 5.8 | 5.7 | 6.0 |
| 3 | 7.6 | 7.4 | 8.1 |
| 4 | 14.6 | 13.6 | 16.9 |
| 5 | 19.0 | 18.3 | 20.5 |
| 6 | 16.5 | 17.0 | 15.4 |
| 7 | 12.3 | 12.9 | 10.8 |
| 8 | 7.7 | 8.3 | 6.3 |
| $9+$ | 14.7 | 15.1 | 13.9 |
| Mean household size | 5.7 | 5.8 | 5.5 |
| Total percent | 100.0 | 100.0 | 100.0 |
| Number of households | 33,833 | 23,475 | 10,358 |
| 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) |  |  |  |

Twenty percent of the households in Rajasthan belong to schedule caste, 12 percent to schedule tribe and majority ( 41 percent) belongs to other backward classes while the remaining 28 percent of the households are headed by other castes not under schedule caste, schedule tribe and other backward classes. About one-fifths of the household heads belong to schedule caste or tribe in rural areas and it is
only 17 percent in urban areas. The overall state average household size is 5.5 persons. The rural-urban differential in average household size is 5.8 in rural areas and 5.5 in urban areas.

### 2.3 Educational Level

The educational profile of Rajasthan 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, Rajasthan, 2002-04

|  |  |  | Years of schooling |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Nonliterate | but no schooling | 1-5 | 6-8 | 9-10 | $11 \text { or }$ more | Missing | Total Percent | Number of persons |



| Female |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 7-9 | 29.8 | 2.4 | 66.9 | 0.7 | 0.0 | 0.0 | 0.2 | 100.0 | 7,240 |
| 10-14 | 24.6 | 0.5 | 45.0 | 25.7 | 3.9 | 0.0 | 0.3 | 100.0 | 11,994 |
| 15-19 | 39.3 | 0.3 | 16.3 | 19.0 | 13.7 | 11.4 | 0.0 | 100.0 | 10,243 |
| 20-29 | 56.4 | 0.6 | 11.6 | 11.3 | 7.8 | 12.3 | 0.0 | 100.0 | 16,726 |
| 30-39 | 70.3 | 0.6 | 9.5 | 7.5 | 4.8 | 7.2 | 0.1 | 100.0 | 11,944 |
| 40-49 | 76.1 | 0.4 | 8.4 | 5.8 | 4.1 | 5.3 | 0.0 | 100.0 | 8,021 |
| 50+ | 86.8 | 0.7 | 6.3 | 3.0 | 1.5 | 1.8 | 0.0 | 100.0 | 13,534 |
| Total | 56.2 | 0.7 | 20.7 | 11.0 | 5.4 | 6.0 | 0.1 | 100.0 | 79,702 |
| Total |  |  |  |  |  |  |  |  |  |
| 7-9 | 24.1 | 2.5 | 72.2 | 1.1 | 0.0 | 0.0 | 0.2 | 100.0 | 15,309 |
| 10-14 | 16.5 | 0.3 | 47.8 | 30.8 | 4.3 | 0.0 | 0.3 | 100.0 | 25,282 |
| 15-19 | 25.4 | 0.3 | 14.8 | 24.5 | 20.3 | 14.7 | 0.0 | 100.0 | 21,102 |
| 20-29 | 37.9 | 0.5 | 12.2 | 16.0 | 14.2 | 19.2 | 0.0 | 100.0 | 32,286 |
| 30-39 | 50.0 | 0.6 | 11.5 | 12.1 | 11.5 | 14.4 | 0.0 | 100.0 | 23,811 |
| 40-49 | 55.8 | 0.6 | 11.7 | 10.6 | 9.5 | 11.9 | 0.0 | 100.0 | 16,734 |
| 50+ | 70.3 | 0.9 | 11.1 | 5.9 | 5.8 | 6.0 | 0.0 | 100.0 | 27,374 |
| Total | 40.7 | 0.7 | 23.4 | 15.2 | 9.8 | 10.1 | 0.1 | 100.0 | 161,898 |

Note: Table is based on de facto population.

Table 2.3 indicates that, about 41 percent of the population aged seven and above are non-literate. The proportion of non-literates is 56 percent for females compared to 26 percent for males. The proportion of non-literate 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).

Figure 2.2
Percentage Literate by Age and Sex


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, Rajasthan, 2002-04

| Age | Nonliterate | Literate but no schooling | Years of schooling |  |  |  | Missing | Total Percent | Number of persons |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1-5 | 6-8 | 9-10 | $\begin{aligned} & 11 \text { or } \\ & \text { more } \end{aligned}$ |  |  |  |
| RURAL Male |  |  |  |  |  |  |  |  |  |
| 7-9 | 20.6 | 2.8 | 74.9 | 1.6 | 0.0 | 0.0 | 0.2 | 100.0 | 5,944 |
| 10-14 | 9.7 | 0.2 | 51.6 | 34.2 | 4.0 | 0.0 | 0.3 | 100.0 | 9,623 |
| 15-19 | 14.0 | 0.3 | 14.4 | 32.0 | 25.8 | 13.5 | 0.0 | 100.0 | 7,316 |
| 20-29 | 23.0 | 0.5 | 14.8 | 23.5 | 19.6 | 18.7 | 0.0 | 100.0 | 10,226 |
| 30-39 | 37.0 | 0.8 | 15.1 | 17.2 | 16.5 | 13.2 | 0.0 | 100.0 | 7,878 |
| 40-49 | 47.6 | 1.0 | 16.4 | 14.9 | 12.0 | 8.1 | 0.0 | 100.0 | 5,757 |
| 50+ | 66.0 | 1.1 | 16.3 | 7.4 | 5.9 | 3.3 | 0.0 | 100.0 | 9,644 |
| Total | 31.1 | 0.9 | 27.8 | 19.6 | 12.1 | 8.4 | 0.1 | 100.0 | 56,389 |
| Female |  |  |  |  |  |  |  |  |  |
| 7-9 | 32.8 | 2.4 | 64.0 | 0.6 | 0.0 | 0.0 | 0.2 | 100.0 | 5,343 |
| 10-14 | 29.2 | 0.6 | 46.0 | 21.5 | 2.5 | 0.0 | 0.2 | 100.0 | 8,695 |
| 15-19 | 48.4 | 0.3 | 18.0 | 18.0 | 9.8 | 5.4 | 0.0 | 100.0 | 7,071 |
| 20-29 | 70.6 | 0.5 | 11.7 | 9.1 | 4.6 | 3.5 | 0.0 | 100.0 | 11,312 |
| 30-39 | 83.8 | 0.6 | 8.2 | 4.9 | 1.4 | 0.9 | 0.1 | 100.0 | 8,033 |
| 40-49 | 90.1 | 0.4 | 6.5 | 2.2 | 0.6 | 0.3 | 0.0 | 100.0 | 5,322 |
| 50+ | 95.5 | 0.5 | 3.0 | 0.8 | 0.2 | 0.1 | 0.0 | 100.0 | 9,431 |
| Total | 65.6 | 0.7 | 20.5 | 8.7 | 2.9 | 1.6 | 0.1 | 100.0 | 55,206 |
| Total |  |  |  |  |  |  |  |  |  |
| 7-9 | 26.4 | 2.6 | 69.7 | 1.1 | 0.0 | 0.0 | 0.2 | 100.0 | 11,287 |
| 10-14 | 19.0 | 0.4 | 49.0 | 28.2 | 3.3 | 0.0 | 0.2 | 100.0 | 18,318 |
| 15-19 | 30.9 | 0.3 | 16.2 | 25.1 | 17.9 | 9.5 | 0.0 | 100.0 | 14,386 |
| 20-29 | 48.0 | 0.5 | 13.2 | 15.9 | 11.7 | 10.7 | 0.0 | 100.0 | 21,538 |
| 30-39 | 60.7 | 0.7 | 11.6 | 11.0 | 8.9 | 7.0 | 0.1 | 100.0 | 15,911 |
| 40-49 | 68.0 | 0.7 | 11.7 | 8.8 | 6.5 | 4.4 | 0.0 | 100.0 | 11,079 |
| 50+ | 80.6 | 0.8 | 9.7 | 4.2 | 3.1 | 1.7 | 0.0 | 100.0 | 19,075 |
| Total | 48.2 | 0.8 | 24.2 | 14.2 | 7.5 | 5.0 | 0.1 | 100.0 | 1,11,595 |
|  |  |  |  |  |  |  |  |  | Contd. |

Around 77 percent of males and 67 percent females in the age group of 7-9 had 1-5 years of schooling. Nearly 26 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 (5 percent) and 11 or more years ( 6 percent) compared to the males having 14 percent for each. Just about one percent of the total population, almost one percent of males and similar percent of 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, Rajasthan, 2002-04

| Age | Nonliterate | Literate but no schooling | Years of schooling |  |  |  | Missing | Total Percent | Number of persons |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1-5 | 6-8 | 9-10 | 11 or more |  |  |  |
| URBAN |  |  |  |  |  |  |  |  |  |
| Male |  |  |  |  |  |  |  |  |  |
| 7-9 | 14.3 | 2.0 | 82.7 | 0.9 | 0.0 | 0.0 | 0.1 | 100.0 | 2,125 |
| 10-14 | 7.6 | 0.1 | 46.7 | 38.6 | 6.6 | 0.0 | 0.4 | 100.0 | 3,665 |
| 15-19 | 8.8 | 0.1 | 11.3 | 25.1 | 27.9 | 26.8 | 0.0 | 100.0 | 3,543 |
| 20-29 | 8.2 | 0.4 | 8.8 | 16.5 | 24.1 | 41.9 | 0.0 | 100.0 | 5,333 |
| 30-39 | 14.6 | 0.2 | 10.4 | 15.5 | 21.3 | 38.1 | 0.0 | 100.0 | 3,989 |
| 40-49 | 16.6 | 0.5 | 11.4 | 15.2 | 19.3 | 37.0 | 0.0 | 100.0 | 2,956 |
| 50+ | 27.1 | 1.3 | 14.8 | 11.6 | 19.5 | 25.6 | 0.0 | 100.0 | 4,196 |
| Total | 13.7 | 0.6 | 22.1 | 18.4 | 18.4 | 26.6 | 0.1 | 100.0 | 25,807 |
| Female |  |  |  |  |  |  |  |  |  |
| 7-9 | 21.3 | 2.2 | 74.9 | 1.3 | 0.0 | 0.0 | 0.3 | 100.0 | 1,898 |
| 10-14 | 12.4 | 0.2 | 42.5 | 36.8 | 7.5 | 0.0 | 0.6 | 100.0 | 3,298 |
| 15-19 | 19.1 | 0.2 | 12.5 | 21.2 | 22.3 | 24.6 | 0.0 | 100.0 | 3,172 |
| 20-29 | 26.9 | 0.6 | 11.3 | 15.9 | 14.6 | 30.6 | 0.0 | 100.0 | 5,415 |
| 30-39 | 42.6 | 0.6 | 12.0 | 12.9 | 11.7 | 20.2 | 0.0 | 100.0 | 3,911 |
| 40-49 | 48.6 | 0.4 | 12.1 | 12.8 | 10.9 | 15.2 | 0.0 | 100.0 | 2,699 |
| 50+ | 66.8 | 1.2 | 13.9 | 8.0 | 4.5 | 5.5 | 0.0 | 100.0 | 4,103 |
| Total | 35.1 | 0.7 | 21.2 | 16.1 | 11.0 | 15.8 | 0.1 | 100.0 | 24,497 |
| Total |  |  |  |  |  |  |  |  |  |
| 7-9 | 17.6 | 2.1 | 79.0 | 1.1 | 0.0 | 0.0 | 0.2 | 100.0 | 4,022 |
| 10-14 | 9.9 | 0.2 | 44.7 | 37.7 | 7.0 | 0.0 | 0.5 | 100.0 | 6,963 |
| 15-19 | 13.7 | 0.2 | 11.9 | 23.3 | 25.3 | 25.7 | 0.0 | 100.0 | 6,716 |
| 20-29 | 17.6 | 0.5 | 10.1 | 16.2 | 19.3 | 36.2 | 0.0 | 100.0 | 10,748 |
| 30-39 | 28.5 | 0.4 | 11.2 | 14.2 | 16.6 | 29.2 | 0.0 | 100.0 | 7,901 |
| 40-49 | 31.9 | 0.5 | 11.7 | 14.0 | 15.3 | 26.6 | 0.0 | 100.0 | 5,655 |
| 50+ | 46.8 | 1.3 | 14.4 | 9.8 | 12.1 | 15.7 | 0.0 | 100.0 | 8,299 |
| Total | 24.1 | 0.6 | 21.7 | 17.3 | 14.8 | 21.3 | 0.1 | 100.0 | 50,304 |

An examination of the educational attainment by place of residence revealed that the urban-rural differential was quite pronounced. In urban areas, only 24 percent of the total population is non-literate in comparison to 47 percent of the rural population. The numbers of non-literate females live in rural areas of Rajasthan accruing a share as high as 67 percent, while non-literate rural males is less than half of non-literate females ( 30 percent). Prevalence of non-literate is much less in urban areas with figures of 35 percent and 14 percent non-literate females and males respectively. A contrasting feature of rural-urban difference in educational level is that in rural areas most people had 1-5 years of schooling (24 percent), and those who
had 10 or more years of schooling was just 5 percent, whereas in urban areas a its four times of that in rural areas (21 percent) had this level of education.

### 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. About thirty six percent of females in the age group 15-19 years, followed by 96 percent in the age group 25-29 years, and 94 percent in the age group 30-44 years, are currently married. The proportion of never married males is higher than females with 37 and 25 percent respectively with a state average of 31 percent.

| Percent distribution of the household population aged 10 years and above by marital status, according to age and sex, Rajasthan, 2002-04 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Marital status |  |  |  | Total Percent | Number of persons |
| Age | Never married | Currently married | Married, gaunna not performed | Widowed/ divorced/ Separated |  |  |
| Male |  |  |  |  |  |  |
| 10-14 | 94.9 | 1.5 | 3.6 | 0.0 | 100.0 | 13,288 |
| 15-19 | 83.2 | 8.5 | 8.0 | 0.3 | 100.0 | 10,859 |
| 20-24 | 46.5 | 47.4 | 5.1 | 1.1 | 100.0 | 8,514 |
| 25-29 | 12.9 | 84.7 | 1.1 | 1.3 | 100.0 | 7,045 |
| 30-44 | 2.4 | 95.4 | 0.1 | 2.1 | 100.0 | 16,585 |
| 45-59 | 1.0 | 94.0 | 0.1 | 4.8 | 100.0 | 10,115 |
| 60+ | 1.2 | 83.6 | 0.1 | 15.1 | 100.0 | 7,721 |
| Total | 36.6 | 57.9 | 2.6 | 3.0 | 100.0 | 74,127 |
| Female |  |  |  |  |  |  |
| 10-14 | 90.7 | 2.1 | 7.1 | 0.1 | 100.0 | 11,994 |
| 15-19 | 54.6 | 36.3 | 8.7 | 0.4 | 100.0 | 10,243 |
| 20-24 | 13.2 | 84.9 | 1.0 | 0.9 | 100.0 | 9,182 |
| 25-29 | 1.7 | 96.1 | 0.2 | 1.9 | 100.0 | 7,544 |
| 30-44 | 0.3 | 94.0 | 0.1 | 5.5 | 100.0 | 16,714 |
| 45-59 | 0.2 | 84.2 | 0.3 | 15.4 | 100.0 | 9,515 |
| 60+ | 0.6 | 47.1 | 0.5 | 51.8 | 100.0 | 7,270 |
| Total | 24.8 | 63.7 | 2.7 | 8.9 | 100.0 | 72,462 |
| Total |  |  |  |  |  |  |
| 10-14 | 92.9 | 1.8 | 5.3 | 0.0 | 100.0 | 25,282 |
| 15-19 | 69.3 | 22.0 | 8.3 | 0.3 | 100.0 | 21,102 |
| 20-24 | 29.2 | 66.9 | 3.0 | 1.0 | 100.0 | 17,697 |
| 25-29 | 7.1 | 90.6 | 0.7 | 1.6 | 100.0 | 14,589 |
| 30-44 | 1.4 | 94.7 | 0.1 | 3.8 | 100.0 | 33,299 |
| 45-59 | 0.6 | 89.3 | 0.2 | 9.9 | 100.0 | 19,630 |
| 60+ | 0.9 | 65.9 | 0.3 | 32.9 | 100.0 | 14,990 |
| Total | 30.7 | 60.8 | 2.6 | 5.9 | 100.0 | 1,46,589 |
| Note: Table is based on de facto population |  |  |  |  |  |  |

The proportion of never married among males declines with increasing age and reaches the lowest by the time they are in the age group 45-59 years. A similar pattern has been observed in the case of females, who are in the age group of 45-59 years. The proportions of divorced, separated or widowed are negligible and limited to the older ages. About 52 percent of women
aged 60 years or above are widowed /divorced /separated. Among the population aged 10 years and above, about 58 percent of males and nearly 64 percent of females are currently married.

### 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.

| Table 2.5 MARRIAGE |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Mean age at marriage and percentage of marriages below legal at marriage by sex and by districts, Rajasthan, 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 | 20.6 | 17.3 | 51.2 | 49.4 |
| State - Rural | 19.5 | 16.5 | 61.5 | 58.8 |
| State - Urban | 23.1 | 19.6 | 26.3 | 23.8 |
| District |  |  |  |  |
| Ajmer | 20.4 | 16.6 | 50.4 | 52.2 |
| Alwar | 20.3 | 17.8 | 51.9 | 44.8 |
| Banswara | 20.8 | 18.6 | 50.3 | 30.2 |
| Baran | 20.6 | 17.0 | 53.7 | 56.5 |
| Barmer | 20.4 | 17.8 | 49.6 | 40.6 |
| Bharatpur | 20.9 | 17.6 | 53.3 | 51.9 |
| Bhilwara | 17.8 | 16.0 | 64.6 | 61.5 |
| Bikaner | 20.9 | 17.6 | 49.7 | 47.3 |
| Bundi | 19.0 | 16.2 | 68.0 | 62.9 |
| Chittaurgarh | 18.9 | 16.7 | 62.6 | 56.8 |
| Churu | 20.6 | 16.5 | 53.0 | 62.0 |
| Dausa | 19.5 | 17.0 | 62.9 | 56.7 |
| Dhaulpur | 21.1 | 17.4 | 46.3 | 50.7 |
| Dungarpur | 21.0 | 18.8 | 53.8 | 29.5 |
| Ganganagar | 21.1 | 18.9 | 48.8 | 27.3 |
| Hamumangarh | 20.7 | 17.9 | 52.4 | 44.7 |
| Jaipur | 21.4 | 17.5 | 42.1 | 47.7 |
| Jaisalmer | 21.2 | 16.9 | 47.3 | 52.3 |
| Jalore | 21.4 | 18.3 | 42.5 | 32.3 |
| Jhalawar | 20.7 | 16.2 | 50.5 | 58.8 |
| Jhunjhunun | 21.4 | 18.2 | 44.2 | 37.3 |
| Jodhpur | 20.4 | 17.5 | 52.8 | 45.4 |
| Karauli | 20.1 | 16.8 | 57.2 | 57.6 |
| Kota | 21.5 | 17.9 | 44.1 | 43.0 |
| Nagaur | 20.1 | 16.4 | 54.5 | 60.9 |
| Pali | 20.7 | 17.4 | 38.3 | 45.8 |
| Rajsamand | 20.1 | 17.1 | 56.4 | 51.4 |
| Sawai Madhopur | 19.4 | 16.6 | 63.8 | 67.4 |
| Sikar | 21.3 | 17.2 | 43.4 | 44.8 |
| Sirohi | 22.2 | 18.1 | 30.3 | 37.1 |
| Tonk | 19.3 | 16.1 | 62.8 | 66.7 |
| Udaipur | 21.4 | 18.1 | 50.9 | 42.2 |
| Note: Table based on de jure population.Reference period: - January $1^{\text {st }}, 1999$ to survey date for phase-1, and January $1^{\text {st }}, 2001$ to survey date for phase-2. |  |  |  |  |

Mean age at marriage for boys and girls in urban areas of Rajasthan are 23 and 20 years respectively. On the whole, as far as Rajasthan is concerned, both boys and girls seem to oblige the legal age marriage, the average age at marriage being 21years for boys and 17 years for girls. However, one in two boys and one in two girls got married below the corresponding specified legal age 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 Sirohi, 22 years for boys and almost 19 years for girls in Ganganagar and Dungarpur districts. The lowest mean age at marriage for boys and girls is recorded 18 and 16 years respectively, for the district of Bikaner.

It is also found that, the percentage of girls who were married below the legal age at marriage was the highest in Sawai Madhopur ( 67 percent) and the lowest in Dungarpur ( 29 percent). In 17 out of 32 districts more than more than 50 percent 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 Chittaugarh district (68 percent) and lowest in Sirohi (30 percent).

### 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, Rajasthan, 2002-04. |  |  |  |
|  |  | Residence |  |
| Morbidity | Total | Rural | Urban |
| Prevalence rate of blindness |  |  |  |
| Male |  |  |  |
| Partial | 5,323 | 5,341 | 5,280 |
| Complete | 309 | 335 | 246 |
| Night blindness | 489 | 551 | 342 |
| Female |  |  |  |
| Partial | 6,515 | 6,370 | 6,856 |
| Complete | 351 | 389 | 262 |
| Night blindness | 653 | 732 | 467 |
| Persons |  |  |  |
| Partial | 5,891 | 5,831 | 6,034 |
| Complete | 329 | 361 | 254 |
| Night blindness | 567 | 637 | 402 |
| Prevalence rate of tuberculosis |  |  |  |
| Male | 500 | 553 | 372 |
| Female | 272 | 268 | 280 |
| Person | 391 | 418 | 328 |
| Prevalence rate of malaria ${ }^{1}$ |  |  |  |
| Male | 1,138 | 1,356 | 632 |
| Female | 1,163 | 1,351 | 725 |
| Person | 1,150 | 1,354 | 676 |
| Note: All the rates refer to de jure population. Prevalence rate per 100, 000 population Reference period: - January $1^{\text {st }}, 1999$ to survey date for phase-1, and January $1^{\text {st }}, 2001$ 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 5,891 per 100,000 population in the state and is lower in rural areas $(5,831$ per 100,000$)$ than higher $(6,034$ per 100,000$)$ than state average in urban areas. It is more among females. The prevalence of complete blindness is 329 per 100,000 population with a rural-urban differential of 389 against 262 per 100,000. The prevalence of night blindness due to vitamin A deficiency is 567 per 100,000 population, and is much higher in rural areas (637) than in urban areas (402).

## Tuberculosis

The prevalence of tuberculosis is 391 per 100,000 population, with rural areas having a higher prevalence of 418 compared to 328 per 100,000 in urban areas. The prevalence of TB is higher among males ( 500 per 100,000) than among females (272 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 Rajasthan, 1,150 persons per 100,000 populations were reported to have suffered from malaria. Rural residents are almost two times more likely to suffer from malaria ( 1,354 per 100,000 ) than urban residents ( 676 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 Rajasthan. The prevalence of partial blindness varies considerably among the districts the lowest being 2,204 per 100,000 in Bikaner and the highest, 9,074 per 100,000 in Dausa.

Half of the 32 districts are above the state average of 5,891 per 100,000. The prevalence rate of complete blindness ranges from 107 per 100,000 in Jhunjhunun to 792 per 100,000 in Jaisalmer. Inter-district variations are substantial for tuberculosis and malaria.

The prevalence rate of tuberculosis is the highest in Karauli district (731 per 100,000 populations) and it is lowest in Jhunjhunun (147 per 100,000). In the case of malaria, the prevalence rate is highest in Jalore ( 2,649 per 100,000) and lowest in Ganganagar (206 per 100,000).

| Table 2.7 MORBIDITY RATES BY DISTRICTS |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Prevalence of blindness, tuberculosis, and malaria, by district, Rajasthan, 2002-04 |  |  |  |  |
|  |  | Prevalen | of morbidity |  |
| District | Partial blindness | Complete blindness | Tuberculosis | Malaria ${ }^{2}$ |
| Ajmer | 3,598 | 230 | 358 | 985 |
| Alwar | 7,255 | 392 | 397 | 887 |
| Banswara | 3,757 | 283 | 280 | 1,973 |
| Baran | 3,883 | 601 | 455 | 2,341 |
| Barmer | 3,489 | 601 | 258 | 865 |
| Bharatpur | 6,074 | 334 | 327 | 472 |
| Bhilwara | 8,496 | 573 | 505 | 2,080 |
| Bikaner | 2,204 | 180 | 209 | 798 |
| Bundi | 6,750 | 426 | 360 | 1,574 |
| Chittaurgarh | 3,920 | 337 | 386 | 1,441 |
| Churu | 3,219 | 309 | 259 | 356 |
| Dausa | 9,074 | 241 | 521 | 1,989 |
| Dhaulpur | 5,364 | 220 | 403 | 943 |
| Dungarpur | 6,657 | 355 | 581 | 2,036 |
| Ganganagar | 3,995 | 445 | 369 | 206 |
| Hamumangarh | 5,449 | 149 | 371 | 308 |
| Jaipur | 8,618 | 177 | 533 | 1,007 |
| Jaisalmer | 5,040 | 792 | 552 | 1,567 |
| Jalore | 6,092 | 654 | 385 | 2,649 |
| Jhalawar | 7,075 | 250 | 590 | 2,371 |
| Jhunjhunun | 5,480 | 107 | 147 | 522 |
| Jodhpur | 4,999 | 460 | 278 | 882 |
| Karauli | 7,650 | 447 | 731 | 1,713 |
| Kota | 7,261 | 294 | 474 | 1,719 |
| Nagaur | 4,866 | 296 | 285 | 373 |
| Pali | 7,019 | 229 | 314 | 1,624 |
| Rajsamand | 7,111 | 190 | 506 | 1,505 |
| Sawai Madhopur | 8,914 | 251 | 553 | 1,896 |
| Sikar | 6,094 | 150 | 227 | 343 |
| Sirohi | 4,821 | 476 | 549 | 1,412 |
| Tonk | 7,392 | 393 | 683 | 1,184 |
| Udaipur | 6,383 | 386 | 464 | 1,382 |
| Rajasthan | 5,891 | 329 | 391 | 1,150 |
| Note: All the rates refer to de jure population. ${ }^{1}$ Prevalence rate per 100, 000 population.Reference period: - January $1^{\text {st }}, 1999$ to survey date for phase-1, and January $1^{\text {st }}, 2001$ to survey date for phase- <br> 2. ${ }^{2}$ Last two weeks prior to the survey |  |  |  |  |

### 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. Almost sixty five percent of the households in Rajasthan have electricity connection and it is much more in urban areas ( 92 percent) than in rural areas ( 53 percent).

As regards household source of drinking water, 46 percent of the households get drinking water through taps, while 30 percent drink water from hand pumps/ bore-wells, and 19 percent drink water from wells. About 73 percent of households in urban areas get piped water for drinking, whereas in rural areas only 15 percent of the households have such provision.

| Table 2.8 HOUSING CHARACTERISTICS |  |  |  |
| :---: | :---: | :---: | :---: |
| Percent distribution of the household by housing characteristics and percentage of households owing selected durable goods, according to residence, Rajasthan, 2002-04 |  |  |  |
| Housing characteristic | Total | Residence |  |
|  |  | Rural | Urban |
| Electricity |  |  |  |
| Yes | 64.9 | 52.8 | 92.4 |
| No | 35.1 | 47.2 | 7.6 |
| Source of drinking water |  |  |  |
| Tap inside | 32.6 13.9 | 14.3 | 12.9 |
| Tap shared public | 29.6 | 38.3 | 10.0 |
| Hand pump/ bore well | 2.8 | 3.7 | 0.7 |
| Well covered | 16.6 | 23.0 | 2.1 |
| Well uncovered | 0.2 | 0.3 | 0.0 |
| River | 0.9 | 1.3 | 0.1 |
| Pond | 0.0 | 0.0 | 0.0 |
| Spring | 3.3 | 4.3 | 1.1 |
|  |  |  |  |
| Sanitation facility | 24.1 | 7.0 | 62.9 |
| Own flush toilet | 8.7 | 7.1 | 12.4 |
| Own pit toilet / latrine | 1.1 | 0.8 | 1.7 |
| Shared toilet of any type | 0.2 | 0.1 | 0.5 |
| Public / community toilet No toilet facility | 65.9 | 85.0 | 22.5 |
| Main type of fuel used for cooking |  |  |  |
| Liquid petroleum gas/ electricity | 23.0 | 5.7 | 62.3 |
| Kerosene | 3.4 | 2.7 | 4.7 |
| Wood | 73.3 | 91.4 | 32.4 |
| Other | 0.3 | 0.2 | 0.6 |
| Type of house |  |  |  |
| Kachcha | 28.8 | 38.9 | 6.0 |
| Semi - pucca | 14.6 | 18.2 | 6.3 |
| Pucca | 56.6 | 42.8 | 87.8 |
| Household assets |  |  |  |
| Fan | 56.4 | 41.2 | 90.8 |
| Radio/transistor | 31.7 | 25.3 | 46.3 |
| Sewing machine | 33.7 | 23.1 | 57.8 |
| Television | 37.2 | 21.2 | 73.5 |
| Telephone | 16.3 | 7.6 | 35.9 |
| Bicycle | 38.1 | 31.8 | 52.4 |
| Motor cycle/ scooter | 17.7 | 10.0 | 35.3 |
| Car / Jeep | 2.9 | 1.3 | 6.4 |
| Tractor | 3.9 | 5.1 | 1.2 |
| Standard of living index |  |  |  |
| Low | 45.3 | 61.3 | 9.0 |
| Medium | 28.0 | 28.4 | 27.1 |
| High | 26.7 | 10.3 | 63.9 |
| Number of households | 33,833 | 23,475 | 10,358 |

When it comes to sanitation facility, only 24 percent of the households have flush toilets, while 9 percent have pit based toilets or latrines, negligibly low 1 percent depend on shared toilets and nearly 66 percent of the households have no toilet facility at all. There is a large rural-
urban difference; as high as 85 percent of rural households have no toilet facility, compared to 22 percent of urban households.

| Table 2.9 HOUSING CHARACTERISTICS BY DISTRICT |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Selected housing characteristics by district, Rajasthan, 2002-04 |  |  |  |  |  |
|  | Percentage of households: |  |  |  |  |
| Districts | With electricity | With drinking water $^{1}$ | With toilet facility | Using Liquid petroleum gas/ electricity | Living in pucca house |
| Ajmer | 76.6 | 73.0 | 40.4 | 32.0 | 77.2 |
| Alwar | 76.3 | 82.8 | 28.3 | 20.2 | 70.0 |
| Banswara | 44.4 | 73.6 | 26.4 | 24.1 | 31.2 |
| Baran | 61.7 | 91.3 | 21.7 | 14.7 | 26.9 |
| Barmer | 38.0 | 74.8 | 24.6 | 18.5 | 31.7 |
| Bharatpur | 66.8 | 54.4 | 20.3 | 13.8 | 56.7 |
| Bhilwara | 65.0 | 66.8 | 22.4 | 19.8 | 44.0 |
| Bikaner | 58.6 | 86.7 | 46.1 | 26.0 | 59.8 |
| Bundi | 59.4 | 92.0 | 21.7 | 16.5 | 39.6 |
| Chittaurgarh | 73.4 | 88.0 | 27.2 | 23.0 | 46.1 |
| Churu | 54.3 | 81.8 | 41.3 | 17.3 | 69.6 |
| Dausa | 65.9 | 79.3 | 25.3 | 20.6 | 68.8 |
| Dhaulpur | 44.7 | 77.1 | 25.0 | 15.3 | 51.1 |
| Dungarpur | 56.3 | 83.8 | 28.7 | 23.9 | 32.0 |
| Ganganagar | 66.0 | 89.8 | 84.3 | 19.9 | 42.1 |
| Hamumangarh | 68.4 | 94.2 | 87.7 | 15.6 | 43.7 |
| Jaipur | 80.5 | 86.3 | 44.3 | 38.4 | 77.4 |
| Jaisalmer | 32.4 | 58.1 | 16.3 | 9.7 | 31.6 |
| Jalore | 56.8 | 83.0 | 26.2 | 20.6 | 36.6 |
| Jhalawar | 63.1 | 72.3 | 24.1 | 19.1 | 31.5 |
| Jhunjhunun | 76.2 | 81.4 | 34.8 | 25.7 | 86.4 |
| Jodhpur | 65.4 | 78.5 | 33.0 | 27.1 | 62.9 |
| Karauli | 60.2 | 70.6 | 22.6 | 14.2 | 44.9 |
| Kota | 88.2 | 97.2 | 46.0 | 39.5 | 61.0 |
| Nagaur | 63.5 | 72.3 | 37.8 | 22.0 | 75.7 |
| Pali | 75.7 | 80.8 | 30.7 | 23.9 | 65.1 |
| Rajsamand | 65.3 | 69.5 | 30.5 | 23.0 | 62.1 |
| Sawai Madhopur | 61.6 | 68.7 | 25.1 | 19.6 | 52.7 |
| Sikar | 74.6 | 83.3 | 37.3 | 26.8 | 80.7 |
| Sirohi | 71.5 | 81.4 | 28.7 | 24.6 | 48.4 |
| Tonk | 59.5 | 82.0 | 24.2 | 13.4 | 48.3 |
| Udaipur | 58.6 | 73.3 | 32.1 | 29.1 | 43.8 |
| Rajasthan | 64.9 | 79.0 | 34.1 | 23.0 | 56.6 |
| Note: ${ }^{1}$ That is piped or from a hand pump/bore well/covered well |  |  |  |  |  |

DLHS-RCH has also collected data on type of fuel used in the households for cooking. Twenty three percent of the households used liquid petroleum/gas or electricity for cooking in Rajasthan. Slightly less than three-fourth households rely on fire woods ( 73 percent), 3 percent on kerosene, and use other types of fuel for cooking is negligible. The use of liquid petroleum gas/electricity for cooking is reported more in urban areas (62 percent), and firewood or other sources for cooking are reported more in rural areas.

There is considerable variation in the quality of housing. On the basis of building material, type of floor, walls and roof, households are categorised into kachcha, semi-pucca and
pucca. Twenty nine percent of the households are living in kachcha houses, almost 15 percent in semi pucca houses and 57 percent in pucca houses. Eighty eight percent of urban households live in pucca houses compared to 43 percent of rural households.

The possession of consumer durable goods is an indication of a household's socioeconomic status. Table 2.8 shows that majority of the households in the state own bicycles ( 38 percent), an electric fan ( 56 percent), radio/transistor ( 32 percent) and television ( 37 percent).

Other durable goods found in the surveyed households are telephone (16 percent), sewing machine ( 34 percent), and motorcycle or scooter (18 percent). Car/jeep and tractor each are owned by three percent of households in Rajasthan. Ownership of most of the consumer durable items 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 as 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, nearly 45 percent of the households come under the low standard of living category, 28 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 medium and high standard of living is comparatively higher in urban areas than in rural areas, and the proportion of households with a low standard of living is much higher in rural households (61 percent) than in urban households (9 percent) in the state of Rajasthan.

### 2.9 Housing Characteristics by Districts

The 32 districts in Rajasthan are not uniform in terms of basic amenities and possession of consumer durables. Table 2.9 presents an inter-district comparison of housing characteristics. Out of 32 districts, 22 districts of Rajasthan have more than 60 percent of households with electricity. The household with electricity is highest in state capital ( 80 percent). Majority of the districts ( 27 out of 32 ) reported more than 70 percent households who are using piped water or water from a hand pump for drinking in except in five districts for Bharatpur (54 percent), Jaisalmer (58 percent), Bhilwara ( 67 percent), Rajasmand and Sawai Madhopur with 69 percent respectively.

Largely the districts in Rajasthan have inadequate toilet facility, in 28 of the 32 districts less than 40 percent of the households have toilet facilities and it is the least in Jaisalmer (16 percent ) and highest in Hanumangarh district (88 percent).

In Jaipur district the percentage of households using liquid petroleum gas/electricity for cooking is 38 percent and in the rest of the districts, it is relatively low ranging between 10 to 32 percent. The percentage of households living in pucca houses is quite low in all the districts of Rajasthan. In 25 of the 32 districts, more than 40 percent of the households live in pucca houses. Jodhpur has the highest percentage (86 percent) of households living in pucca houses.

### 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.

| Table 2.10 IODIZATION OF SALT |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Percent distribution of household heads by degree of lodization of salt, according to selected background characteristics, Rajasthan, 2002-04 |  |  |  |  |  |  |
| Background characteristic | $\begin{gathered} \text { Not } \\ \text { lodised } \end{gathered}$ | 7ppm | 15+ppm | Other ${ }^{1}$ | Total percent | Number of households |
| Place of Residence |  |  |  |  |  |  |
| Rural | 56.8 | 19.9 | 22.2 | 1.2 | 100.0 | 23,475 |
| Urban | 22.1 | 19.2 | 57.5 | 1.2 | 100.0 | 10,358 |
| Education of the household heads |  |  |  |  |  |  |
| Non-literate | 58.1 | 20.4 | 20.2 | 1.3 | 100.0 | 14,234 |
| 0-9@ years | 45.8 | 20.6 | 32.6 | 1.1 | 100.0 | 11,686 |
| 10 and above | 25.2 | 17.0 | 56.6 | 1.1 | 100.0 | 7,908 |
| Religion of household head |  |  |  |  |  |  |
| Hindu | 47.7 | 19.6 | 31.5 | 1.2 | 100.0 | 30,149 |
| Muslim | 38.5 | 20.7 | 39.8 | 1.0 | 100.0 | 2,677 |
| Sikh | 29.2 | 24.4 | 44.4 | 2.0 | 100.0 | 466 |
| Jain | 10.3 | 11.7 | 75.4 | 2.6 | 100.0 | 459 |
| Other | 32.8 | 8.5 | 53.7 | 5.1 | 100.0 | 82 |
| Caste/tribe of the household head\# |  |  |  |  |  |  |
| Scheduled caste | 54.0 | 20.0 | 25.0 | 1.0 | 100.0 | 6,732 |
| Scheduled tribe | 55.2 | 18.0 | 25.2 | 1.5 | 100.0 | 4,087 |
| Other backward class | 49.8 | 20.0 | 28.9 | 1.3 | 100.0 | 13,794 |
| Other | 31.0 | 19.6 | 48.5 | 0.9 | 100.0 | 9,184 |
| Standard of living index |  |  |  |  |  |  |
| Low | 61.7 | 19.8 | 17.0 | 1.5 | 100.0 | 15,329 |
| Medium High | 47.0 | 21.9 | 30.3 | 0.9 | 100.0 | 9,469 |
| High | 19.0 | 17.0 | 63.0 | 0.9 | 100.0 | 9,035 |
| Total | 46.2 | 19.7 | 33.0 | 1.2 | 100.0 | 33,833 |
| Note: ppm: Parts per million.Note: Table includes 5 household head with missing information on education and 2 on religion who are not shown separately. @ 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.() Based on less than 50 unweighted cases |  |  |  |  |  |  |

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 nearly 33 percent of households used salt that contained a minimum recommended 15 ppm or higher level of iodine content whereas 46 percent of households used salt that is not iodized at all and another 20 percent used salt, which was inadequately iodized.

In rural areas, 57 percent of households against 19 percent in urban areas used noniodized salts. Percentage of households using inadequately iodized salt is almost same in urban as well as rural areas. Number of households using non-iodized or inadequately iodized salt is closely associated with the educational level of the household head. Nearly 57 percent of households headed by persons who had more than 10 years of schooling reported the use of adequately iodized salts. Consumption of adequately iodised salt among households of other caste is 48 percent, followed by 30 percent in other backward class households and among scheduled caste and scheduled tribe households it is 25 percent each.

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 among Muslims households is higher ( 40 percent) as compared to Hindus ( 31 percent). Highest use of adequately iodised salts has been reported by Jain religion with three-fourth of the households ( 75 percent), followed by other and Sikh religion with 54 and 44 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. As high as 62 percent of households with low standard of living used non-iodized salt, 19 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 more than thrice 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. Udaipur has the lowest proportion of households (15 percent) using non-iodized salt, whereas Dhaulpur has the highest proportion of households (66 percent) using non-iodized salt. Percentage of households using inadequately iodized salt is the highest (51 percent) in Barmer and the lowest in Sawai Madhopur (8 percent). Around 33 percent of the households in the state used adequately iodized salt, the highest being in the district of Udaipur ( 72 percent). Merely 12 percent of the households in Churu , 14 percent in Sikar and Nagaur each , were using adequately iodized salt (see Map-2).

| Table 2.11 IDOIZATION OF SALT BY DISTRICT |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| District | Not idoized | 7ppm | 15+ppm | Other ${ }^{1}$ |
| Ajmer | 39.3 | 20.8 | 39.4 | 0.5 |
| Alwar | 51.7 | 12.0 | 35.3 | 1.0 |
| Banswara | 48.8 | 13.3 | 34.9 | 3.0 |
| Baran | 55.2 | 27.1 | 16.7 | 1.0 |
| Barmer | 28.1 | 51.2 | 17.0 | 3.8 |
| Bharatpur | 58.3 | 20.9 | 20.1 | 0.8 |
| Bhilwara | 63.1 | 12.6 | 23.2 | 1.1 |
| Bikaner | 40.7 | 37.5 | 21.5 | 0.3 |
| Bundi | 55.7 | 22.1 | 21.6 | 0.6 |
| Chittaurgarh | 31.1 | 23.2 | 45.1 | 0.6 |
| Churu | 58.5 | 28.6 | 12.1 | 0.9 |
| Dausa | 52.0 | 14.5 | 32.7 | 0.8 |
| Dhaulpur | 65.9 | 11.3 | 20.7 | 2.0 |
| Dungarpur | 33.4 | 34.6 | 31.1 | 0.9 |
| Ganganagar | 31.0 | 23.0 | 43.5 | 2.5 |
| Hamumangarh | 51.3 | 15.0 | 32.4 | 1.3 |
| Jaipur | 39.9 | 14.6 | 43.3 | 2.2 |
| Jaisalmer | 51.5 | 22.7 | 24.6 | 1.3 |
| Jalore | 25.9 | 17.0 | 55.5 | 1.5 |
| Jhalawar | 51.0 | 27.8 | 20.4 | 0.8 |
| Jhunjhunun | 58.2 | 20.8 | 21.0 | 0.1 |
| Jodhpur | 52.3 | 16.9 | 29.4 | 1.3 |
| Karauli | 63.3 | 11.0 | 25.2 | 0.5 |
| Kota | 36.9 | 9.8 | 53.0 | 0.3 |
| Nagaur | 55.0 | 30.2 | 14.5 | 0.3 |
| Pali | 29.3 | 11.4 | 58.1 | 1.2 |
| Rajsamand | 26.9 | 8.5 | 64.2 | 0.3 |
| Sawai Madhopur | 65.4 | 7.7 | 25.3 | 1.6 |
| Sikar | 64.1 | 21.6 | 14.2 | 0.2 |
| Sirohi | 30.5 | 28.3 | 40.4 | 0.7 |
| Tonk | 57.2 | 10.9 | 30.8 | 1.1 |
| Udaipur | 15.5 | 11.6 | 72.4 | 0.6 |
| Rajasthan | 46.2 | 19.7 | 33.0 | 1.2 |

### 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, if not available within 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, if not available within 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. Majority of the rural residents ( 95 percent) (the de jure rural population) in the state live in villages that have a primary school, 71 percent live in villages with middle school and 34 percent of the rural population live in villages with secondary schools and 17 percent with Gurujee scheme.Higher secondary schools are available for only one-fifth of the rural population. Sixteen percent of the rural population live in villages, which have Madarassas. Negligibly low percent ( 0.5 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, 22 percent of the villages have middle school, 33 percent have secondary school, 20 percent have higher secondary school and 17 percent have a 'Madarassa' within this distance. For 81 percent of the villages, the college is more than 10 kilometres away and madarassa are available at this distance for 53 percent of the villages.

| Percent distribution of rural household population by distance from the nearest education facility, Rajasthan, 2002-04 | Table 2.12 DISTANCE FROM THE NEAREST EDUCATION FACILITY |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Distance from the village: |  |  |  |  |
| Education facility | Within village | < 5 km | $5-9 \mathrm{~km}$ | 10+ km | Don't know/ missing | Total percent |
| Primary School | 94.8 | 3.8 | 0.7 | 0.5 | 0.1 | 100.0 |
| Middle School | 70.6 | 21.9 | 5.7 | 1.7 | 0.0 | 100.0 |
| Secondary School | 34.5 | 32.8 | 21.4 | 11.3 | 0.1 | 100.0 |
| Higher Secondary School | 19.7 | 21.2 | 30.1 | 28.9 | 0.1 | 100.0 |
| College | 0.5 | 6.1 | 8.2 | 81.3 | 3.9 | 100.0 |
| Gurujee Scheme | 16.9 | 34.6 | 5.8 | 40.1 | 2.5 | 100.0 |
| Madarsa | 16.0 | 17.3 | 10.4 | 53.4 | 3.0 | 100.0 |
| Note: Table based on rura | population |  |  |  |  |  |


| Table 2.13 DISTANCE FROM THE NEAREST HEALTH FACILITY |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Percent distribution of rural household population by distance from the nearest health facility, Rajasthan, 2002-04 |  |  |  |  |  |  |
| Health facility | Within village | Distance from the village: |  |  | Don't know/missing | Total percent |
|  |  | < 5 km | $5-9 \mathrm{~km}$ | 10+ km |  |  |
| Rural household population |  |  |  |  |  |  |
| Sub-centre | 59.7 | 26.9 | 8.8 | 4.6 | 0.0 | 100.0 |
| Primary health centre | 16.5 | 27.0 | 28.5 | 27.2 | 0.8 | 100.0 |
| Either sub-centre or PHC | 65.0 | 23.8 | 7.6 | 3.6 | 0.0 | 100.0 |
| Community health centre/ |  |  |  |  |  |  |
| Referral hospital | 2.7 | 13.3 | 15.2 | 66.3 | 2.5 | 100.0 |
| Government dispensary | 5.3 | 12.0 | 14.3 | 65.0 | 3.5 | 100.0 |
| Government hospital | 3.1 | 12.1 | 11.5 | 69.0 | 4.3 | 100.0 |
| Private clinic | 19.8 | 17.9 | 15.0 | 45.6 | 1.8 | 100.0 |
| Private hospital | 3.1 | 11.4 | 12.7 | 68.4 | 4.5 | 100.0 |
| ISM health facility | 23.6 | 19.2 | 8.0 | 45.9 | 3.4 | 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 two-third of the rural population live in villages with Sub-centres. Sixteen 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 65 percent. The proportion of rural population with other health facilities are just three percent for $\mathrm{CHCs} / \mathrm{RHs}$,

5 percent for Government dispensary, 3 percent for Government hospitals, 20 percent for private clinics, 3 percent for private hospitals and 24 percent for Indian System of Medicine.

| Table 2.14 AVAILABILITY OF SERVICES |  |
| :--- | :---: |
| Percentage of rural residents living in villages that have sleeted <br> services, Rajasthan, 2002-04 |  |
| Services |  |
|  |  |
|  | Percentage of rural <br> residents |
| Anganwadi centre |  |
| Anganwadi worker | 89.0 |
| Private doctor | 85.5 |
| Visiting doctor | 27.9 |
| Homeopathic doctor | 12.6 |
| Village health guide | 4.6 |
| Trained birth attendant | 6.4 |
| Traditional healer | 33.1 |
| Dai | 19.9 |
|  | 72.9 |
| Note: Table based on rural de jure population |  |

The proportion of rural population located within a distance of 5 kilometres from health facilities are 27 percent for sub-centres and primary health centres, 13 percent for $\mathrm{CHCs} / \mathrm{RHs}$, 12 percent for a both Government dispensary and hospitals, 18 percent for private clinic, 11 percent for private hospitals and 19 percent for ISM health facilities. Distance of particular health facilities is beyond 10 kilometres from surveyed villages in the case of Government hospitals ( 69 percent) and almost equal for private hospitals, ( 68 percent).

Table 2.14 shows the proportion of rural residents in the state that live in the villages with various health services. Almost 89 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 85 percent of rural households live in villages with anganwadi workers (Anganwadi workers provide integrated child development services) are available.

About 28 percent of the rural residents live in villages that have a private doctor, 13 percent live in villages with a visiting doctor, 5 percent with a homeopathy doctor, 6 percent with a village health guide, one-third (33 percent) with a trained birth attendant and one-fifth with a traditional healer. Little less than three-fourth of the rural residents live in villages that have a Dai (Dai provides the services for the delivery).

### 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 Rajasthan. In the 78 percent of the districts that is 25 out of 32 districts, all the rural population have access to primary schools. In the state of Rajasthan, 99 percent of the rural population live in villages having primary schools. Around 59 percent of the rural population in the state have sub-centres within the village, with the highest coverage of 90 percent in Jodhpur and the lowest of 30 percent of the population in Bharatpur. Highest availability of PHCs within the village is found in Tonk (29 percent). In Jodhpur, 96 percent of 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, Rajasthan, 2002-04 |  |  |  |  |  |  |  |
|  | Percentage of rural household population with: |  |  |  |  |  |  |
| Districts | Primary or middle school | Subcentre | PHCs | Any government health facility ${ }^{1}$ | Doctor ${ }^{2}$ | TBA ${ }^{3}$ | Anganwadi worker |
| Ajmer | 93.3 | 57.7 | 26.5 | 64.4 | 40.6 | 49.4 | 81.9 |
| Alwar | 100.0 | 56.7 | 16.5 | 58.7 | 30.0 | 28.8 | 74.9 |
| Banswara | 100.0 | 42.3 | 13.5 | 53.0 | 38.9 | 25.7 | 79.5 |
| Baran | 100.0 | 53.6 | 19.1 | 57.3 | 53.2 | 9.3 | 83.6 |
| Barmer | 100.0 | 69.5 | 18.9 | 85.4 | 19.7 | 54.5 | 100.0 |
| Bharatpur | 100.0 | 29.7 | 10.2 | 33.4 | 31.3 | 13.6 | 85.1 |
| Bhilwara | 100.0 | 74.9 | 6.5 | 74.9 | 17.1 | 45.2 | 83.5 |
| Bikaner | 100.0 | 70.9 | 16.4 | 83.0 | 25.1 | 20.1 | 95.3 |
| Bundi | 100.0 | 46.0 | 6.8 | 53.9 | 20.3 | 28.4 | 77.8 |
| Chittaurgarh | 92.8 | 54.0 | 10.4 | 60.8 | 31.1 | 38.6 | 96.0 |
| Churu | 100.0 | 66.8 | 14.3 | 72.8 | 13.6 | 27.2 | 88.4 |
| Dausa | 100.0 | 51.7 | 16.0 | 57.7 | 41.3 | 35.9 | 89.3 |
| Dhaulpur | 100.0 | 44.1 | 21.7 | 44.1 | 37.1 | 24.9 | 68.5 |
| Dungarpur | 100.0 | 53.6 | 3.5 | 57.1 | 6.0 | 28.5 | 91.4 |
| Ganganagar | 100.0 | 38.1 | 12.8 | 43.4 | 62.2 | 43.1 | 53.5 |
| Hamumangarh | 100.0 | 69.5 | 17.4 | 77.9 | 73.8 | 29.8 | 76.7 |
| Jaipur | 100.0 | 60.1 | 25.1 | 70.1 | 59.5 | 34.9 | 86.6 |
| Jaisalmer Jalore | 98.6 | 50.4 | 11.3 | 57.0 | 8.6 | 15.3 | 71.1 |
| Jhalawar | 100.0 | 67.8 | 20.3 | 74.6 | 14.1 | 25.5 | 86.5 |
| Jhunjhunun | 96.7 | 46.3 | 14.4 | 53.5 | 46.6 | 54.3 | 84.1 |
| Jodhpur | 100.0 | 44.3 | 14.1 | 56.8 | 11.2 | 53.9 | 82.8 |
| Karauli | 100.0 | 90.0 | 12.3 | 96.4 | 35.6 | 17.7 | 97.0 |
| Kota | 100.0 | 59.7 | 8.2 229 | 59.7 | 32.5 | 21.8 | 92.2 |
|  | 100.0 | 33.0 | 22.9 | 46.8 | 68.0 | 23.6 | 66.9 |
| Nagaur | 100.0 | 75.6 | 22.1 | 79.4 | 42.6 | 47.2 | 89.8 |
| Pali | 100.0 | 71.3 | 26.5 | 75.4 | 44.3 | 19.5 | 88.3 |
| Rajsamand | 100.0 | 45.9 | 19.4 | 45.9 | 30.5 | 3.0 | 81.3 |
| Sawai Madhopur | 100.0 | 54.1 | 9.6 | 56.8 | 37.6 | 34.1 | 78.5 |
| Sikar | 100.0 | 71.6 | 19.2 | 77.7 | 25.3 | 53.9 | 95.1 |
| Sirohi | 96.4 | 61.3 | 19.6 | 72.7 | 24.0 | 29.2 | 90.4 |
| Tonk | 100.0 | 44.1 | 29.3 | 56.1 | 38.9 | 30.2 | 87.2 |
| Udaipur | 100.0 | 72.9 | 13.0 | 79.9 | 35.5 | 34.1 | 90.2 |
| Rajasthan | 99.5 | 59.7 | 16.5 | 66.2 | 34.6 | 33.1 | 85.5 |
| 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 |  |  |  |  |  |  |  |

Only 6 percent of the rural population are visited either by private or by visiting doctors in the surveyed villages of Dungarpur district followed by 9 percent in Jaisalmer. Highest numbers of rural population ( 54 percent) are attended by trained birth assistants in Barmer as well as Jhalawar, while only 3 percent of rural population, availed themselves of such a provision in Rajasmand. All the surveyed village household of Barmer district were visited by anganwadi workers (100 percent ) and the lowest in Ganganagar (53 percent).

## MAP-1 <br> Percentage of Girl Marrying Below Legal Age at Marriage



## MAP-2

## Percentage of Households Using Salt that Contains 15 ppm Level of lodine



## 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 32,911 eligible women represents the state of Rajasthan in DLHS-RCH and nearly 70 percent of these women are drawn from rural areas. About 61 percent of the currently married women are in the age range of 20-34 years and almost similar age distribution 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 70 percent of the women having cohabited before 18 years of age, while it is 45 percent in urban areas. Looking at the distribution of marital duration it is noted that about 38 percent of the women across the state are married for more than 15 years.

Among the sample 32,911 representative women in Rajasthan, Hindus and Muslims constitute 89 percent and 9 percent respectively. More, Hindu women are found in rural areas ( 93 percent) than in urban areas ( 79 percent). The presence of women belonging to other religious groups is insignificant in proportional and absolute terms. Nineteen percent of the women belong to scheduled castes, 12 percent to scheduled tribes with a majority of 43 percent who belong to other backward classes. Only 27 percent women belongs to a general caste other than scheduled caste/tribe and other backward class. In rural areas, there are more women belonging to scheduled caste, 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 Rajasthan, 66 percent of women are non-literate and women of this literacy category constitute 77 percent in rural areas, while it is just 39 percent in urban areas.

## Table 3.1 BACKGROUND CHARACTERISTICS OF WOMEN

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

| Background characteristic | Total | Residence |  |
| :---: | :---: | :---: | :---: |
|  |  | Rural | Urban |
| Age group |  |  |  |
| 15-19 | 11.3 | 13.5 | 5.9 |
| 20-24 | 22.9 | 23.7 | 21.1 |
| 25-29 | 20.5 | 20.0 | 21.8 |
| 30-34 | 18.0 | 17.2 | 19.8 |
| 35-39 | 14.9 | 14.1 | 16.8 |
| 40-44 | 12.4 | 11.6 | 14.6 |
| Age at consummation of marriage |  |  |  |
| Below 18 years | 62.3 | 69.5 | 44.7 |
| 18 years \& above | 37.7 | 30.5 | 55.3 |
| Marital duration |  |  |  |
| 0-4 | 22.4 | 22.2 | 22.6 |
| 5-9 | 20.5 | 20.8 | 19.9 |
| 10-14 | 18.8 | 19.0 | 18.1 |
| 15+ | 38.3 | 37.9 | 39.3 |
| Religion |  |  |  |
| Hindu | 88.8 | 92.9 | 78.7 |
| Muslim | 8.6 | 5.1 | 17.2 |
| Christian | 0.1 | 0.1 | 0.2 |
| Sikh | 1.3 | 1.4 | 1.0 |
| Buddhist | 0.0 | 0.0 | 0.0 |
| Jain | 1.1 | 0.4 | 2.9 |
| Zoroastrian | 0.0 | 0.0 | 0.0 |
| No religion | 0.0 | 0.0 | 0.0 |
| Other | 0.1 | 0.1 | 0.1 |
| Caste/tribe |  |  |  |
| Scheduled caste | 18.7 | 19.4 | 16.9 |
| Scheduled tribe | 11.8 | 14.6 | 4.8 |
| Other backward class | 42.6 | 45.8 | 34.8 |
| Other \# | 26.9 | 20.0 | 43.5 |
| Don't know | 0.1 | 0.1 | 0.0 |
| Education (Years of schooling) |  |  |  |
| Non-literate | 66.1 | 77.3 | 38.8 |
| 0-9@ years | 22.6 | 19.0 | 31.3 |
| 10 years \& above | 11.3 | 3.6 | 29.9 |
| Missing | 0.1 | 0.1 | 0.0 |
| Husband's education (Years of schooling) |  |  |  |
| Non-literate | 28.3 | 34.1 | 14.2 |
| 0-9@ years | 37.2 | 39.4 | 32.1 |
| 10 years \& above | 33.9 | 25.8 | 53.5 |
| Don't know | 0.6 | 0.7 | 0.2 |
| Missing | 0.1 | 0.1 | 0.0 |
| Standard of living index |  |  |  |
| Low | 42.0 | 56.4 | 7.1 |
| Medium | 29.6 | 31.1 | 25.8 |
| High | 28.4 | 12.5 | 67.1 |
| Number of women | 32,911 | 23,315 | 9,595 |
| Note: \# Not belonging to a scheduled caste, scheduled tribe and an other backward class.@ Literate persons with no year of schooling are included. |  |  |  |

Twenty three percent of women across the state have completed 0-9 years of schooling. One fourth of rural women have completed 10 or more years of schooling percentage for such urban women is just double the percentage of rural women. Men are more literate than their spouses. In Rajasthan, 28 percent of the husbands of eligible women are non-literate and the corresponding figures are 34 percent in rural areas and 14 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 (42 percent) of women in the state live in low standard of living households and this is 56 percent in rural areas and 7 percent in urban areas. Distribution of women in medium and high standard of living is almost similar (28 and 29 percent). In urban areas, 67 percent of women belong to high standard of living households and the corresponding figure is 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 nonliterate 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 1-5 years or 6-8 years and not many had 11 or more years of schooling. For the women in the age group 15-19 years, 16 percent and 15 percent of them had 1-5 years and 6-8 years of schooling, while only 2 percent had 11 or more years of schooling. Among the senior women in the age group 40-44 years, distribution by year of schooling is more or less uniform with 9 percent, 6 percent, 4 percent and 6 percent of them having attended school for 1-5, 6-8, 9-10 and 11 or more years of schooling.

There is a significant rural-urban differential in the level of education of women in Rajasthan. A high number of ( 77 percent) of rural eligible women are non-literate and 10 percent, 7 percent, 3 percent and 2 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 39 percent non-literate and 12 percent, 15 percent, 14 percent and 20 percent respectively. Non-literacy between Hindu and Muslim women differ by just one percent with 67 and 68 percent respectively. Lowest percentage of 5 non-literates were found in Jain religion. For literate eligible women from all religious communities, maximum of them have either 1-5 or 6-8 years of schooling. The proportion of Hindu women with 1-5 years of schooling is 11 percent almost comparable, 12 percent for Muslim women, with two times higher in Sikh women ( 22 percent). Among the literate Muslim women hardly 4 percent of them have 11 or more years of schooling, while even a lower ( 7 percent) of literate Hindu women have attained this level of education.

The uneven level of educational attainment by caste can be noted from the recorded proportion of non-literate women among scheduled caste (79 percent), scheduled tribe (87 percent), other backward class ( 70 percent) and other caste or tribe ( 41 percent). The literate
women belonging to different castes or tribes are concentrated more in the range of 1-5 to 6-8 years of schooling. The husband's education is an important characteristic, which has strong association with the education of eligible women. As many as 94 percent of women whose husbands are non-literate are also non-literate, while only 30 percent of women whose husbands have 11 or more or years of schooling are non-literate. Approximately, 29 percent of literate women educated for 11 or more years of schooling have husbands who have the same level of education.

| 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, Rajasthan, 2002-04 |  |  |  |  |  |  |  |  |  |
| Background characteristic | Nonliterate | Literate but no schooling | Years of schooling |  |  |  |  |  |  |
|  |  |  | 1-5 years | 6-8 years | $\begin{gathered} 9-10 \\ \text { years } \end{gathered}$ | 11 or more years | Missing | Total percent | Number of women |
| Age group |  |  |  |  |  |  |  |  |  |
| 15-19 | 61.6 | 0.1 | 15.9 | 14.9 | 5.4 | 2.0 | 0.1 | 100.0 | 3,716 |
| 20-24 | 59.4 | 0.3 | 12.3 | 11.9 | 8.0 | 8.1 | 0.1 | 100.0 | 7,543 |
| 25-29 | 63.6 | 0.2 | 10.6 | 8.7 | 7.6 | 9.3 | 0.0 | 100.0 | 6,744 |
| 30-34 | 68.8 | 0.3 | 9.6 | 8.7 | 5.2 | 7.5 | 0.1 | 100.0 | 5,917 |
| 35-39 | 73.6 | 0.4 | 8.5 | 6.8 | 4.5 | 6.1 | 0.1 | 100.0 | 4,893 |
| 40-44 | 73.8 | 0.3 | 9.2 | 5.9 | 4.5 | 6.2 | 0.0 | 100.0 | 4,097 |
| Place of residence |  |  |  |  |  |  |  |  |  |
| Rural | 77.3 | 0.2 | 10.4 | 7.1 | 3.1 | 1.7 | 0.1 | 100.0 | 23,315 |
| Urban | 38.8 | 0.3 | 12.1 | 15.2 | 13.6 | 19.9 | 0.0 | 100.0 | 9,595 |
| Religion |  |  |  |  |  |  |  |  |  |
| Hindu | 67.0 | 0.3 | 10.6 | 9.2 | 6.1 | 6.8 | 0.1 | 100.0 | 29,211 |
| Muslim | 68.3 | 0.5 | 12.5 | 10.2 | 4.5 | 3.9 | 0.1 | 100.0 | 2,846 |
| Sikh | 45.9 | 0.2 | 22.5 | 15.7 | 8.7 | 7.0 | 0.0 | 100.0 | 427 |
| Jain | 4.9 | 0.3 | 7.8 | 17.7 | 21.7 | 47.7 | 0.0 | 100.0 | 362 |
| Other | 49.6 | 0.0 | 13.5 | 13.2 | 7.2 | 16.6 | 0.0 | 100.0 | 64 |
| Casteltribe \# |  |  |  |  |  |  |  |  |  |
| Scheduled caste | 79.4 | 0.3 | 9.5 | 6.2 | 2.9 | 1.7 | 0.0 | 100.0 | 6,147 |
| Scheduled tribe | 87.4 | 0.4 | 4.8 | 3.5 | 1.9 | 1.9 | 0.2 | 100.0 | 3,878 |
| Other backward class | 70.0 | 0.2 | 11.6 | 9.0 | 5.2 | 3.9 | 0.1 | 100.0 | 14,018 |
| Other | 41.3 | 0.3 | 13.5 | 15.2 | 11.8 | 17.9 | 0.0 | 100.0 | 8,843 |
| Husband's education |  |  |  |  |  |  |  |  |  |
| Non-literate | 94.5 | 0.2 | 3.6 | 1.2 | 0.2 | 0.1 | 0.1 | 100.0 | 9,300 |
| Literate but no schooling | 82.0 | 5.6 | 9.7 | 2.0 | 0.3 | 0.5 | 0.0 | 100.0 | 83 |
| 1-5 years | 83.4 | 0.4 | 10.8 | 3.7 | 1.1 | 0.5 | 0.1 | 100.0 | 4,316 |
| $6-8$ years | 67.6 | 0.3 | 16.1 | 11.9 | 3.1 | 1.0 | 0.0 | 100.0 | 5,810 |
| 9-10 years | 50.5 | 0.2 | 16.7 | 17.5 | 10.9 | 4.1 | 0.1 | 100.0 | 6,371 |
| 11 or more years | 28.9 | 0.4 | 11.2 | 15.1 | 15.8 | 28.6 | 0.0 | 100.0 | 6,821 |
| Total | 66.1 | 0.3 | 10.9 | 9.5 | 6.2 | 7.0 | 0.1 | 100.0 | 32,911 |
| Note: \# Total number may not add upto $N$ due to don't know and missing cases. Table includes 211 missing / do not know cases on husband's education were not shown separately. () based on less than 50 cases. |  |  |  |  |  |  |  |  |  |

### 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 Rajasthan, husbands of
eligible women are mostly in the age group 25-34 years. Fewer husbands of eligible women are 45 years or older. In Rajasthan, 89 percent of the eligible women's husbands belong to Hindu religion, just 8 percent are Muslims and presence of other religious groups is insignificant. Onefifth of eligible women's husbands in the state belong to the scheduled caste and it is little less in urban areas ( 17 percent). Nearly 26 percent of eligible women's husbands belong to castes other than scheduled caste, scheduled tribe and other backward classes. In urban areas husbands from other castes constitute 44 percent, while it is 19 percent in rural areas. As regards educational characteristics of the husbands of surveyed eligible women, more than 41 percent of them have completed 0-9 years of schooling and the proportion of non-literate such husband ranges from 14 percent in urban areas to 35 percent in rural areas, while the overall state figure is 29 percent.


The proportion of husbands living in households classified as low, medium and high standard of living index are 43 percent, 29 percent and 27 percent respectively. In rural areas, 58 percent of the husbands live in low standard of living households compared to 7 percent in urban areas. This is complementary in the case of husbands living in high standard of living households, 66 percent in urban and 12 percent in rural. In terms of household standard of living composition, those living in high standard of living dominate in urban (66 percent) and in rural Rajasthan most ( 58 percent) husbands live in low standard of living households. Around 21 percent of husbands across the state reported to have two living children. More husbands in urban areas ( 26 percent) reported to have two living child, while more husbands in rural areas (33 percent) have four or more living children. About 15 percent of husbands of rural eligible women have no child, and in urban its 11 percent.

### 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 distribution of non-literate husbands across age is more or less uniform, though it is marginally more for husbands above 35 years ( 34 percent) and for 45 years ( 41 percent) compared to 18 percent and 23 percent for husbands in the age groups $<25$ years and $25-34$ years respectively.

| Table 3.4 LEVEL OF EDUCATION OF MEN |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Percent distribution of husbands of eligible women by years of schooling, according to selected background characteristics, Rajasthan, 2002-04 |  |  |  |  |  |  |  |  |  |
|  |  | Literate but no schooling | Years of schooling |  |  |  |  |  |  |
| Background characteristic | Nonliterate |  | $\begin{gathered} 1-5 \\ \text { years } \end{gathered}$ | $\begin{gathered} \text { 6-8 } \\ \text { years } \end{gathered}$ | $\begin{gathered} 9-10 \\ \text { years } \end{gathered}$ | 11 or more years | Missing | Total percent | Number of men |
| Age group |  |  |  |  |  |  |  |  |  |
| < 25 | 18.2 | 0.2 | 15.3 | 26.4 | 21.4 | 18.6 | 0.0 | 100.0 | 3,230 |
| 25-34 | 23.3 | 0.3 | 13.9 | 20.6 | 19.5 | 22.5 | 0.0 | 100.0 | 7,743 |
| 35-44 | 34.4 | 0.6 | 16.0 | 16.2 | 13.8 | 19.0 | 0.0 | 100.0 | 6,786 |
| 45+ | 41.0 | 0.4 | 17.5 | 14.0 | 12.1 | 14.9 | 0.1 | 100.0 | 3,221 |
| Place of residence |  |  |  |  |  |  |  |  |  |
| Rural | 34.8 | 0.5 | 16.5 | 19.9 | 15.4 | 12.8 | 0.0 | 100.0 | 15,014 |
| Urban | 13.7 | 0.1 | 12.4 | 16.8 | 20.2 | 36.7 | 0.0 | 100.0 | 5,966 |
| Religion |  |  |  |  |  |  |  |  |  |
| Hindu | 28.7 | 0.4 | 15.1 | 19.2 | 16.8 | 19.7 | 0.0 | 100.0 | 18,663 |
| Muslim | 34.0 | 0.4 | 19.6 | 19.1 | 14.9 | 11.8 | 0.1 | 100.0 | 1,743 |
| Sikh | 29.3 | 0.0 | 12.8 | 21.1 | 18.4 | 18.4 | 0.0 | 100.0 | 312 |
| Jain | 0.3 | 0.0 | 1.4 | 5.7 | 23.4 | 69.2 | 0.0 | 100.0 | 220 |
| Other | (23.6) | (0.0) | (10.9) | (18.2) | (10.9) | (36.4) | (0.0) | (100.0) | 42 |
| Caste/tribe \# |  |  |  |  |  |  |  |  |  |
| Scheduled caste | 37.5 | 0.7 | 18.5 | 17.1 | 13.1 | 13.0 | 0.0 | 100.0 | 4,131 |
| Scheduled tribe | 44.1 | 0.3 | 16.0 | 15.5 | 11.6 | 12.6 | 0.0 | 100.0 | 2,512 |
| Other backward class | 29.3 | 0.3 | 16.4 | 21.4 | 17.0 | 15.5 | 0.1 | 100.0 | 8,880 |
| Other | 14.2 | 0.3 | 11.0 | 18.4 | 21.6 | 34.5 | 0.0 | 100.0 | 5,441 |
| Total | 28.8 | 0.4 | 15.3 | 19.0 | 16.8 | 19.6 | 0.0 | 100.0 | 20,980 |
| Note: \# Total number may not add upto N due to don't know and missing cases.() Based on less than 50 cases |  |  |  |  |  |  |  |  |  |

Among the literate husbands, irrespective of their age at the time of survey most of them have 18 years of schooling, 26 percent of those below 25 years and 12 percent of those above 45 years of age. A few of the younger husbands ( 19 percent) below 25 years have 11 or more years of schooling compared to 15 percent of those above 45 years. As in the case of eligible women, 34 percent of Muslim husbands are non-literate while the corresponding non-literate husbands of Hindu and other religions are 29 percent. The proportions of husbands of Hindu, Muslim, Sikh and Jain religions who have 11 or more years of schooling constitute 20 percent, 12 percent, 18 percent with highest literacy among Jain (69 percent) respectively. Most of the literate Muslim husbands (26 percent) have completed 1-5 years of schooling and the corresponding numbers are 21 percent and 10 percent respectively for Hindu and other religions husbands. 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 (48 percent) followed by scheduled caste husbands ( 39 percent). Among the scheduled caste and scheduled tribe husbands, 17 percent and 14 percent of them have 9 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, 20 percent of them are non-literate and 40 percent of them have 9 or more years of schooling.

### 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 children ever born by age of the women reveals that older women had experience more average live births than younger women. On an average, women in the reproductive age group have given birth to more male children than female children and similar a 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 4.7 for the state of Rajasthan and it comprises an average of 2.5 male children and 2.2 female children. Out of the 4.7 mean children ever born to women in the $40-44$ year age group an average of 4.0 children survived. By sex of children, out of 2.5 mean numbers of ever born males, 2.1 survived on an average and the corresponding mean number of females surviving was 1.9 out of 2.2.

Women with longer marital duration have higher mean children ever born. On an average, women who are married for 15 or more years have 4.4 children ever born and on an average 3.8 of them are surviving. There is a clear rural-urban divide in terms of mean children ever born with 3.0 children in rural areas and 2.7 children in urban areas. The mean children ever born to women who are Hindu, Muslim, Sikh, Jain and other religions are 2.9, 3.2, 2.4, 2.3 and 2.4 respectively. The corresponding mean surviving children are respectively $2.5,2.9,2.2,2.1$ and 2.1 for these religious groups. The average children ever born also vary by caste/tribe of the eligible women. For women belonging to scheduled caste and schedule tribe, the mean children ever born are 3.2 respectively, 2.9 for other backward classes and for other castes the corresponding figure is 2.6 . For all religious groups, the mean number of surviving children is slightly more than 2 shared almost by one surviving male and one surviving female children on an average.

| 3 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, Rajasthan, 2002-04 |  |  |  |  |  |  |  |
|  | Mean children ever born |  |  | Mean children surviving |  |  | Number of women |
| Background characteristic | Total | Male | Female | Total | Male | Female |  |
| Age group (years) |  |  |  |  |  |  |  |
| 15-19 | 0.4 | 0.2 | 0.2 | 0.4 | 0.2 | 0.2 | 3,716 |
| 20-24 | 1.6 | 0.8 | 0.7 | 1.4 | 0.7 | 0.7 | 7,543 |
| 25-29 | 2.9 | 1.5 | 1.4 | 2.6 | 1.4 | 1.2 | 6,744 |
| 30-34 | 3.7 | 2.0 | 1.8 | 3.3 | 1.7 | 1.6 | 5,917 |
| 35-39 | 4.3 | 2.3 | 2.0 | 3.8 | 2.0 | 1.8 | 4,893 |
| 40-44 | 4.7 | 2.5 | 2.2 | 4.0 | 2.1 | 1.9 | 4,097 |
| Marital duration |  |  |  |  |  |  |  |
| 0-4 | 0.6 | 0.3 | 0.3 | 0.6 | 0.3 | 0.3 | 7,357 |
| 5-9 | 2.1 | 1.1 | 1.0 | 1.9 | 1.0 | 0.9 | 6,762 |
| 10-14 | 3.3 | 1.7 | 1.6 | 3.0 | 1.6 | 1.4 | 6,177 |
| 15+ | 4.4 | 2.3 | 2.1 | 3.8 | 2.0 | 1.8 | 12,614 |
| Residence |  |  |  |  |  |  |  |
| Rural | 3.0 | 1.6 | 1.4 | 2.6 | 1.4 | 1.2 | 23,315 |
| Urban | 2.7 | 1.4 | 1.3 | 2.5 | 1.3 | 1.2 | 9,595 |
| Religion |  |  |  |  |  |  |  |
| Hindu | 2.9 | 1.5 | 1.4 | 2.5 | 1.3 | 1.2 | 29,211 |
| Muslim | 3.2 | 1.7 | 1.5 | 2.9 | 1.5 | 1.4 | 2,846 |
| Sikh | 2.4 | 1.3 | 1.1 | 2.2 | 1.2 | 1.0 | 427 |
| Jain | 2.3 | 1.1 | 1.1 | 2.1 | 1.1 | 1.1 | 362 |
| Other | 2.4 | 1.3 | 1.1 | 2.1 | 1.0 | 1.0 | 64 |
| Caste/tribe \# |  |  |  |  |  |  |  |
| Scheduled caste | 3.2 | 1.6 | 1.5 | 2.7 | 1.4 | 1.3 | 6,147 |
| Scheduled tribe | 3.2 | 1.7 | 1.5 | 2.7 | 1.4 | 1.3 | 3,878 |
| Other backward class | 2.9 | 1.5 | 1.4 | 2.5 | 1.3 | 1.2 | 14,018 |
| Other | 2.6 | 1.4 | 1.2 | 2.4 | 1.3 | 1.1 | 8,843 |
| Education |  |  |  |  |  |  |  |
| Non-literate | 3.3 | 1.7 | 1.6 | 2.9 | 1.5 | 1.4 | 21,757 |
| 0-9@ years | 2.2 | 1.2 | 1.1 | 2.1 | 1.1 | 1.0 | 7,425 |
| 10 years \& above | 1.7 | 1.0 | 0.8 | 1.7 | 0.9 | 0.8 | 3,707 |
| Standard of living index |  |  |  |  |  |  |  |
| Low | 3.2 | 1.7 | 1.5 | 2.8 | 1.4 | 1.3 | 13,828 |
| Medium | 2.9 | 1.5 | 1.4 | 2.5 | 1.4 | 1.2 | 9,733 |
| High | 2.5 | 1.3 | 1.2 | 2.3 | 1.2 | 1.1 | 9,350 |
| All women | 2.9 | 1.5 | 1.4 | 2.6 | 1.4 | 1.2 | 32,911 |
| Note: \# Total number may not add upto N due to don't know and missing cases. Table includes 21 women with missing information on education. @ Literate women with no year of schooling are included |  |  |  |  |  |  |  |

The mean children ever born is higher for non-literate women (3.3) than women who have completed $0-9$ years of schooling (2.2) 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, 2.1 and 1.7 respectively. Further the mean children ever born for women classified into low, medium and high standard of living by SLI are 3.2, 2.9 and 2.5 respectively. For the state of Rajasthan, the DLHS-RCH shows inverse association between mean children ever born and educational attainment of women and also the level of household economic comfort.

### 3.6 Completed Fertility by District

The level of completed fertility as measured by mean children, ever born to women of 40-44 years by districts in Rajasthan together with mean number of surviving children are shown in Table 3.6. On an average, women on the verge of completing reproductive period have given birth to 4.7 children in their reproductive life of which 4.0 children are surviving on an average. Completed fertility in Rajasthan varies from the low of 3.8 mean children ever born for Dungarpur to the highest of 6.1 children in Dhaulpur district. Completed fertility in terms of mean children ever born are high in the districts of Barmer (5.8), Dausa (5.7) and Karauli (5.9). Only 15 out of 32 districts have mean children ever born either equal to state’s average (4.7) or less than it. It is also true that in most of the districts mean number of male children is more than the mean of female children born to women in the 40-44 year age group. Dhaulpur (4.9) and Karauli (4.8) recorded highest mean number of surviving children. Looking at the absolute difference between mean children ever born and mean number of surviving children, it seems that infant and child mortality is quite high and varies among districts in Rajasthan.

| 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, Rajasthan, 2002-04 |  |  |  |  |  |  |
|  | Mea | ren ever | orn |  | ildren | viving |
| District | Total | Male | Female | Total | Male | Female |
| Ajmer | 4.5 | 2.2 | 2.3 | 3.7 | 1.9 | 1.9 |
| Alwar | 5.1 | 2.5 | 2.6 | 4.3 | 2.1 | 2.2 |
| Banswara | 4.2 | 2.3 | 1.9 | 3.5 | 2.0 | 1.6 |
| Baran | 5.4 | 2.8 | 2.5 | 4.5 | 2.4 | 2.1 |
| Barmer | 5.8 | 3.2 | 2.6 | 4.7 | 2.6 | 2.1 |
| Bharatpur | 5.3 | 2.7 | 2.6 | 4.4 | 2.3 | 2.1 |
| Bikaner | 4.9 | 2.6 | 2.3 | 4.4 | 2.4 | 2.1 |
| Bilwara | 4.1 | 2.2 | 1.9 | 3.5 | 1.9 | 1.6 |
| Bundi | 4.9 | 2.7 | 2.2 | 4.1 | 2.2 | 1.8 |
| Chittorgarh | 4.2 | 2.2 | 2.0 | 3.6 | 1.8 | 1.7 |
| Churu | 4.9 | 2.5 | 2.4 | 4.2 | 2.1 | 2.1 |
| Dausa | 5.7 | 3.0 | 2.7 | 4.5 | 2.3 | 2.2 |
| Dhaulpur | 6.1 | 3.2 | 2.9 | 4.9 | 2.7 | 2.2 |
| Dungarpur | 3.8 | 1.9 | 1.9 | 3.5 | 1.8 | 1.7 |
| Ganganagar | 3.9 | 2.0 | 1.9 | 3.5 | 1.9 | 1.6 |
| Hanumangarh | 4.0 | 2.2 | 1.8 | 3.6 | 2.0 | 1.7 |
| Jaipur | 4.8 | 2.4 | 2.4 | 4.0 | 2.0 | 2.0 |
| Jaiselmer | 5.3 | 3.1 | 2.2 | 4.6 | 2.7 | 1.9 |
| Jalore | 4.9 | 2.6 | 2.2 | 4.2 | 2.3 | 1.9 |
| Jhalwar | 4.6 | 2.6 | 2.0 | 3.9 | 2.1 | 1.7 |
| Jhunjhunu | 4.1 | 2.3 | 1.8 | 3.7 | 2.0 | 1.7 |
| Jodhpur | 4.7 | 2.6 | 2.1 | 4.1 | 2.3 | 1.8 |
| Karuali | 5.9 | 3.0 | 2.9 | 4.8 | 2.5 | 2.3 |
| Kota | 4.3 | 2.4 | 1.9 | 3.5 | 2.0 | 1.6 |
| Nagor | 4.8 | 2.4 | 2.4 | 4.1 | 2.0 | 2.1 |
| Pali | 5.0 | 2.6 | 2.4 | 4.1 | 2.1 | 2.0 |
| Rajsamand | 4.4 | 2.3 | 2.1 | 3.6 | 1.9 | 1.7 |
| Sawai Madhopur | 5.1 | 2.8 | 2.3 | 4.2 | 2.3 | 1.9 |
| Sikar | 4.6 | 2.6 | 2.1 | 4.2 | 2.3 | 1.9 |
| Sirohi | 4.2 | 2.3 | 1.9 | 3.7 | 2.1 | 1.6 |
| Tonk | 5.5 | 3.0 | 2.6 | 4.5 | 2.5 | 2.0 |
| Udaipur | 4.1 | 2.1 | 2.0 | 3.5 | 1.8 | 1.7 |
| Rajasthan | 4.7 | 2.5 | 2.2 | 4.0 | 2.1 | 1.9 |

### 3.7 Birth Order

Birth order distribution by selected background characteristics of women are provided in Table 3.7 and Figure 3.1. This distribution can be use 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, Rajasthan, 2002-04 |  |  |  |  |  |  |
|  | Birth order |  |  |  | Total percent | Number of births |
| Background characteristic | 1 | 2 | 3 | 4+ |  |  |
| Age of women |  |  |  |  |  |  |
| 15-19 | 78.8 | 18.8 | 2.4 | 0.0 | 100.0 | 1,457 |
| 20-24 | 39.7 | 35.1 | 17.8 | 7.4 | 100.0 | 6,043 |
| 25-29 | 10.7 | 22.4 | 27.7 | 39.2 | 100.0 | 4,116 |
| 30-34 | 2.0 | 10.0 | 15.9 | 72.0 | 100.0 | 1,866 |
| 35-39 | 0.5 | 5.0 | 8.5 | 86.1 | 100.0 | 699 |
| 40-44 | 0.3 | 3.4 | 5.5 | 90.8 | 100.0 | 228 |
| Place of residence |  |  |  |  |  |  |
| Rural | 25.9 | 23.6 | 18.3 | 32.1 | 100.0 | 10,644 |
| Urban | 33.8 | 27.4 | 17.7 | 21.1 | 100.0 | 3,765 |
| Education (Years of schooling) |  |  |  |  |  |  |
| Non-literate | 21.7 | 21.6 | 19.0 | 37.7 | 100.0 | 9,714 |
| 0-9@ years | 37.0 | 29.4 | 18.9 | 14.7 | 100.0 | 3,252 |
| 10 years \& above | 49.6 | 34.7 | 11.0 | 4.7 | 100.0 | 1,433 |
| Religion |  |  |  |  |  |  |
| Hindu | 28.0 | 24.7 | 18.4 | 28.8 | 100.0 | 12,627 |
| Muslim | 25.1 | 22.6 | 15.6 | 36.7 | 100.0 | 1,511 |
| Sikh | 41.4 | 31.2 | 17.5 | 9.9 | 100.0 | 124 |
| Jain | 44.2 | 30.9 | 19.2 | 5.6 | 100.0 | 119 |
| Other | (29.6) | (25.9) | (37.0) | (7.4) | 100.0 | 28 |
| Caste/tribe \# |  |  |  |  |  |  |
| Scheduled caste | 24.4 | 23.0 | 17.0 | 35.6 | 100.0 | 2,814 |
| Scheduled tribe | 22.7 | 21.7 | 18.7 | 36.9 | 100.0 | 2,108 |
| Other backward class | 28.6 | 24.3 | 19.0 | 28.2 | 100.0 | 5,969 |
| Other | 33.0 | 28.4 | 17.4 | 21.2 | 100.0 | 3,500 |
| Standard of living index |  |  |  |  |  |  |
| Low | 22.3 | 21.1 | 18.1 | 38.4 | 100.0 | 6,989 |
| Medium | 28.5 | 25.7 | 19.1 | 26.7 | 100.0 | 4,077 |
| High | 39.1 | 30.7 | 17.1 | 13.1 | 100.0 | 3,343 |
| Total | 28.0 | 24.6 | 18.2 | 29.2 | 100.0 | 14,409 |
| Note: Total includes 11 births with missing information on mother's education were not shown separately. \# 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 Rajasthan, 28 percent of the births born in the three years period preceding the survey were of first order, 25 percent of second order and the remaining 47 percent were of order 3 and higher order births. By current age of eligible women, 86 percent of births to women in the age group 35-39 years and 91 percent in the age group of 40-44 years are 4 and higher order births.

For women of 15-19 years, 79 percent births are of first order and 19 percent births are of second order. In the case of eligible women in urban areas almost 39 percent of the births are of 3 and higher, whereas this order births constitute proportionately higher percentage ( 50 percent) for rural women. Of the total births born to non-literate women, 47 percent are 3 and higher order births, again followed by approximately 34 percent for women with 0-9 years of schooling and nearly 16 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 religion differential in birth order distribution, it is observed that 52 percent of births born to Muslim women are 3 and higher birth order expectedly, higher than those who belongs to Hindu religion (47 percent). The occurrence of births of order 3 and above is slightly more among scheduled tribe ( 56 percent) than among scheduled caste ( 53 percent), other backward classes ( 47 percent) and other castes ( 39 percent) women.

Incidence of births of order 3 and above for women classified by household standard of living index are lowest ( 30 percent) for high, 46 percent for medium and 57 percent for low living standard households women.


### 3.8 Birth Order by District

Table 3.8 and Figure 3.2 shows the births order distribution by districts in Rajasthan. The proportion of births of order 3 and above ranges from the lowest of 33 percent in Hanumangarh to the highest of 66 percent in Dhaulpur. The districts, which have lower proportion of births of order 3 and above, are Ganganagar ( 34 percent), Kota ( 36 percent), Jaipur ( 37 percent), Chittaurgarh ( 40 percent), Alwar, Jhunjhunun and Sikar with almost 41 percent each respectively. The districts, which can be classified as having higher proportion of births of order 3 and above, are Karauli (57 percent), Barmer (56 percent), Jodhpur (55 percent), Bikaner, Rajsamand, Sirohi (53 percent for each), Baran (52 percent) and Banswara, Dausa, Dungarpur with 51 percent for each district respectively. The remaining districts fall midway between these districts 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, Rajasthan, 2002-04 |  |  |  |  |
|  | Birth order |  |  |  |
| District | 1 | 2 | 3 | 4+ |
| Ajmer | 30.5 | 23.4 | 17.6 | 28.4 |
| Alwar | 32.8 | 26.2 | 13.9 | 27.1 |
| Banswara | 26.1 | 22.7 | 19.6 | 31.6 |
| Baran | 25.2 | 22.4 | 17.3 | 35.2 |
| Barmer | 22.2 | 21.6 | 15.8 | 40.4 |
| Bharatpur | 23.5 | 22.3 | 17.1 | 37.0 |
| Bhilwara | 30.9 | 21.3 | 17.3 | 30.6 |
| Bikaner | 24.3 | 22.3 | 18.5 | 34.9 |
| Bundi | 29.3 | 22.1 | 18.4 | 30.2 |
| Chittaurgarh | 31.3 | 28.7 | 19.7 | 20.3 |
| Churu | 23.2 | 26.5 | 17.0 | 33.3 |
| Dausa | 27.8 | 21.0 | 16.8 | 34.4 |
| Dhaulpur | 18.6 | 15.1 | 16.9 | 49.4 |
| Dungarpur | 27.3 | 21.3 | 16.8 | 34.5 |
| Ganganagar | 33.9 | 32.5 | 20.1 | 13.5 |
| Hanumangarh | 34.4 | 32.8 | 15.0 | 17.8 |
| Jaipur | 35.0 | 27.5 | 19.6 | 17.9 |
| Jaisalmer | 23.6 | 22.3 | 15.9 | 38.3 |
| Jalore | 27.8 | 24.7 | 20.0 | 27.4 |
| Jhalawar | 29.4 | 25.9 | 19.1 | 25.6 |
| Jhunjhunun | 26.9 | 31.8 | 22.1 | 19.2 |
| Jodhpur | 24.1 | 20.8 | 23.2 | 31.9 |
| Karauli | 25.0 | 18.2 | 18.9 | 37.9 |
| Kota | 37.9 | 26.1 | 17.1 | 19.0 |
| Nagaur | 26.0 | 22.5 | 17.6 | 33.9 |
| Pali | 30.4 | 25.5 | 18.1 | 26.0 |
| Rajsamand | 23.1 | 23.7 | 20.8 | 32.4 |
| Sawai Madhopur | 24.7 | 22.3 | 17.5 | 35.5 |
| Sikar | 33.7 | 24.8 | 16.2 | 25.3 |
| Sirohi | 23.7 | 23.3 | 18.4 | 34.6 |
| Tonk | 28.4 | 26.7 | 15.4 | 29.5 |
| Udaipur | 25.8 | 29.7 | 18.3 | 26.2 |
| Rajasthan | 28.0 | 24.6 | 18.2 | 29.2 |



### 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 4,553 women with no living child, 23 percent are currently pregnant and 4 percent are using spacing methods, while 59 percent want to have children within two years, 1 percent want to have children after two years, four percent are undecided about the timing of birth and 2 percent desired not to have any children. Among the currently married women, the desire for additional children dwindles down with increasing number of living children. As many as 20 percent of the women having one living child are using spacing methods, 35 percent of them want additional children within two years, 5 percent after two years, 9 percent are undecided about the timing of the next child, 1 percent of them want no more additional children and 1 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 Rajasthan, out of the 32,911 surveyed representative women, 19 percent desired to have additional children within two years, one percent either want after two years and this percentage is negligibly same for those women who want no more children, 11 percent are currently pregnant and 15 percent are using either terminal or temporary contraceptive methods. A total of 8,717 women want additional children irrespective of the number of living children. Out of 3,167 women who have no living children and desire for additional children, 46 percent want a boy as the first child, only 2 percent desired for girl, for 17 percent, the sex of the child is immaterial and 35 percent leave it to God. With increasing number of living children, is male the dominating preferred sex of the next child though a sizeable proportion of women desiring additional children expressed that the sex of the child was immaterial.


| Percent distribution of currently married women by desire for children, according to number of living children, Rajasthan, 2002-04 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of living children |  |  |  |  |  |
| Desire for children | 0 | 1 | 2 | 3 | 4+ | Total |
| Desire for additional child |  |  |  |  |  |  |
| Wants another soon ${ }^{1}$ | 58.6 | 34.9 | 15.8 | 8.9 | 5.6 | 19.5 |
| Wants another later ${ }^{2}$ | 1.4 | 4.9 | 1.3 | 0.8 | 0.3 | 1.4 |
| Want another, undecided when | 4.2 | 8.9 | 3.9 | 2.0 | 1.2 | 3.3 |
| Undecided | 3.1 | 2.4 | 1.3 | 0.8 | 0.6 | 1.4 |
| Up to God | 2.2 | 1.0 | 0.6 | 0.7 | 0.8 | 1.0 |
| Want no more | 1.6 | 4.3 | 13.3 | 14.5 | 22.2 | 13.7 |
| Sterilized | 0.1 | 1.4 | 28.7 | 50.2 | 47.7 | 31.7 |
| Currently users ${ }^{3}$ | 4.3 | 20.2 | 23.6 | 14.9 | 12.9 | 15.1 |
| Currently pregnant | 22.9 | 20.4 | 9.8 | 5.7 | 5.2 | 10.7 |
| Declared infecund | 1.5 | 1.3 | 1.5 | 1.6 | 3.5 | 2.2 |
| Missing | 0.1 | 0.1 | 0.2 | 0.0 | 0.1 | 0.1 |
| Total percent | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number of women | 4,553 | 4,482 | 6,176 | 6,382 | 11,317 | 32,911 |
| Preferred sex of additional children |  |  |  |  |  |  |
| Boy | 45.7 | 53.9 | 64.3 | 72.9 | 74.4 | 56.7 |
| Girl | 2.4 | 12.3 | 10.9 | 9.0 | 5.2 | 7.4 |
| Doesn't matter | 16.7 | 10.0 | 9.3 | 4.6 | 4.0 | 11.2 |
| Upto God | 34.7 | 23.5 | 15.4 | 13.6 | 16.4 | 24.5 |
| Missing | 0.5 | 0.3 | 0.0 | 0.0 | 0.0 | 0.3 |
| Total percent | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number of women | 3,167 | 2,341 | 1,417 | 837 | 954 | 8,717 |

### 3.10 Pregnancy Outcomes

Table 3.10 shows distribution of pregnancy outcomes including live birth, stillbirth, induced abortion and spontaneous abortion by districts in Rajasthan. For the state as a whole, 92 percent of pregnancy results in live births, 2 percent in induced abortions, 4 percent in spontaneous abortion and 1 percent in stillbirth. More pregnancies in rural areas end in live births
( 93 percent) than in urban areas ( 90 percent), while the incidence of induced abortion is more in urban areas ( 4 percent) than in rural areas ( 1 percent). The proportion of pregnancies ending in live births ranges from 85 percent in Dausa to 97 percent in Jaisalmer. The district on the lower side of pregnancies ending in live birth includes Kota, Karauli and Hanumangarh with almost 86 percent of pregnancies in these districts ending in live births. Nagor and Banswara are the two other districts with more than 95 percent of pregnancies ending in live births. The incidence of stillbirth is highest in Pali and Bikaner (3 percent) and almost nil in Jhujhunun. Induced abortion is higher in the districts of Hanumangarh (5 percent), Kota (4 percent) and Bharatpur with a little less than 4 percent. Spontaneous abortion is least in Jaisalmer, about 2 percent and highest in Dausa (10 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, Rajasthan, $2002-04$ |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

## 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 nongovernmental 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 seven out of every ten women received antenatal check-ups during the three years preceding the survey, slightly more than RCH Round I (62 percent). Thirty nine percent of women received antenatal check-ups from doctors, and 19 percent from ANM/Nurse/LHV. Eleven percent women received antenatal check-ups at the doorstep from the ANMs or health worker.


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 ( 85 percent) than in rural areas (62percent), and the percentage of women who received antenatal check-ups from doctors is much higher in urban areas (67 percent) than in rural areas ( 28 percent), and on the other hand approximately 20 percent of rural women received antenatal check-ups from auxiliary nurse midwife, nurse or LHVs, the same for women in urban areas is 17 percent. Only nineteen percent of non-literate women received antenatal check-ups, 94 percent of women, who had completed high school received antenatal check-ups for their last pregnancy that resulted 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, Rajasthan, 2002-04 |  |  |  |  |  |  |  |
|  | Any ${ }^{1}$ antenatal check-up | Antenatal check-up only at home by ANM | Health personnel providing ANC ${ }^{2}$ |  |  |  |  |
| Background characteristic |  |  | Doctor | ANM/ Nurse/ LHV | Other health professional | Other ${ }^{3}$ | Number of women |
| Age group |  |  |  |  |  |  |  |
| Less than 20 years | 68.0 | 11.4 | 36.4 | 21.2 | 0.2 | 0.2 | 1,312 |
| 20-34 years | 69.2 | 10.7 | 39.8 | 19.2 | 0.3 | 0.4 | 11,120 |
| 35 years \& above | 56.8 | 12.4 | 27.6 | 17.1 | 0.3 | 1.1 | 1,008 |
| Children ever born |  |  |  |  |  |  |  |
| 1 | 77.2 | 8.0 | 50.9 | 19.3 | 0.2 | 0.5 | 3,432 |
| 2 | 72.5 | 9.3 | 43.7 | 19.9 | 0.4 | 0.2 | 3,253 |
| 3 | 68.9 | 11.2 | 36.4 | 21.7 | 0.2 | 0.8 | 2,576 |
| 4+ | 56.7 | 14.5 | 25.4 | 17.1 | 0.3 | 0.3 | 4,130 |
| Residence |  |  |  |  |  |  |  |
| Rural | 62.0 | 14.0 | 28.3 | 19.9 | 0.3 | 0.4 | 9,888 |
| Urban | 85.2 | 2.4 | 67.2 | 17.3 | 0.2 | 0.4 | 3,551 |
| Education |  |  |  |  |  |  |  |
| Non-literate | 59.0 | 13.4 | 26.9 | 18.7 | 0.3 | 0.5 | 9,030 |
| 0-9 @ years | 83.4 | 7.4 | 55.1 | 21.9 | 0.2 | 0.3 | 3,012 |
| 10 years \& above | 94.3 | 2.4 | 78.3 | 16.6 | 0.0 | 0.2 | 1,389 |
| Religion |  |  |  |  |  |  |  |
| Hindu | 67.3 | 11.5 | 36.9 | 19.4 | 0.3 | 0.4 | 11,787 |
| Muslim | 72.0 | 8.0 | 47.2 | 17.5 | 0.1 | 0.3 | 1,402 |
| Sikh | 75.6 | 4.1 | 53.1 | 18.5 | 0.0 | 0.6 | 115 |
| Jain | 97.4 | 0.9 | 81.8 | 19.0 | 0.0 | 0.4 | 115 |
| Caste/tribe\# |  |  |  |  |  |  |  |
| Scheduled caste | 65.6 | 12.3 | 33.9 | 19.8 | 0.2 | 0.4 | 2,579 |
| Scheduled tribe | 61.1 | 15.9 | 25.1 | 21.5 | 0.5 | 0.3 | 1,880 |
| Other backward class | 66.2 | 10.8 | 36.6 | 19.1 | 0.2 | 0.5 | 5,656 |
| Other | 77.5 | 7.2 | 53.2 | 17.7 | 0.3 | 0.4 | 3,308 |
| Standard of living index |  |  |  |  |  |  |  |
| Low | 55.0 | 15.0 | 21.9 | 18.2 | 0.4 | 0.4 | 6,480 |
| Medium | 72.6 | 10.2 | 41.6 | 21.1 | 0.2 | 0.4 | 3,746 |
| High | 89.3 | 3.5 | 68.5 | 18.9 | 0.2 | 0.4 | 3,214 |
| Availability of health facility ${ }^{4}$ in the village |  |  |  |  |  |  |  |
| No | 60.1 | 16.6 | 28.1 | 15.5 | 0.3 | 0.3 | 3,378 |
| Yes | 63.0 | 12.7 | 28.4 | 22.2 | 0.3 | 0.4 | 6,510 |
| Total | 68.1 | 10.9 | 38.5 | 19.2 | 0.3 | 0.4 | 13,440 |
| Note: * Women who had their last live/still birth since 1-1-1999/1-1-2001. Note: Total includes 48 women with zero parity and 9 women with missing information on education and 21 women in other religion 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 subcentre, primary health centre, community health centre or referral hospital, government hospital, and government dispensary within the village. |  |  |  |  |  |  |  |

The proportion of women who received antenatal check-ups from a doctor, increased steadily with the level of education and the standard of living index. Twenty seven percent of non-literate women as compared to 78 percent having education of more than 10 years received ANC from doctors. Similarly, 22 percent women belonging to households with a low standard of living against 68 percent of that from a high standard of living fall in this
category. The proportion of Jain women who received antenatal check-ups from doctors (82 percent) was much higher than that of Hindu women (37 percent). Fifty three percent of women from the 'other castes' category received antenatal check-ups from doctors, while it was 36 percent for other backward classes and 34 percent for scheduled caste women, and 25 percent for scheduled tribe women. Women from scheduled tribes were more likely to receive antenatal check-ups from auxiliary nurse midwives, or LHVs. Twenty one percent of scheduled tribe women received antenatal check-ups from ANMs, while it was almost 20 percent among scheduled castes, 19 percent among other backward class women, and 17 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. Around 38 percent of women received antenatal check-ups at Government health facility, including 14 percent through primary health centre and negligible number (0.2 percent) through sub-centre, and 16 percent at a private health facility. Other than this, a very very small proportion ( 0.2 percent) of women reported that they had received antenatal checkups at the Government Indian system of medicine, and 3 percent at private Indian system of medicine. 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 ( 41 percent) than older women 11 percent for age 20-34 and 12 percent for age 35 and above. Fifty percent women from urban areas availed government health facilities for antenatal check-ups that were much higher than women in rural areas (11 percent), and 29 percent from urban areas availed private health facilities for antenatal check-ups than women from rural areas ( 20 percent). It may be mentioned that about 16 percent of the women from rural areas ( 41 percent) and younger women aged below 20 years ( 13 percent) received antenatal check-ups at sub-centre. This indicates that the services are 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 educated with 0-9 years of schooling, Jain, other caste, living in households with a high standard of living and women from those villages where health facilities are not available.

## 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, Rajasthan, 2002-04

| Background characteristic | Antenat <br> al <br> check- <br> up only <br> at home | Place of antenatal check-ups ${ }^{1}$ |  |  |  |  |  |  | Number <br> of women |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Govern- |  |  |  |  | acility |  |  |
|  |  | health facility | health facility | PHC | SC | Govt. | Private | Other |  |
| Age group |  |  |  |  |  |  |  |  |  |
| Less than 20 years | 11.4 | 41.5 | 13.7 | 19.3 | 12.8 | 0.1 | 1.4 | 1.2 | 1,312 |
| 20-34 years | 10.7 | 38.8 | 17.0 | 13.4 | 9.8 | 0.3 | 3.6 | 1.5 | 11,120 |
| 35 years \& above | 12.4 | 32.0 | 10.9 | 15.3 | 12.5 | 0.3 | 2.4 | 1.1 | 1,008 |
| Children ever born |  |  |  |  |  |  |  |  |  |
| 1 | 8.0 | 44.0 | 22.5 | 12.8 | 7.3 | 0.4 | 3.6 | 0.9 | 3,432 |
| 2 | 9.3 | 40.4 | 19.6 | 12.9 | 8.9 | 0.2 | 3.7 | 1.8 | 3,253 |
| 3 | 11.2 | 41.4 | 13.4 | 13.7 | 12.9 | 0.1 | 4.0 | 1.5 | 2,576 |
| 4+ | 14.5 | 30.7 | 10.1 | 17.4 | 13.6 | 0.3 | 1.9 | 1.8 | 4,130 |
| Residence |  |  |  |  |  |  |  |  |  |
| Rural | 14.0 | 34.5 | 11.5 | 19.7 | 15.9 | 0.2 | 2.3 | 2.0 | 9,888 |
| Urban | 2.4 | 49.7 | 29.4 | 4.9 | 1.2 | 0.3 | 4.9 | 0.5 | 3,551 |
| Education |  |  |  |  |  |  |  |  |  |
| Non-literate | 13.4 | 33.6 | 10.4 | 18.1 | 14.7 | 0.1 | 2.0 | 1.8 | 9,030 |
| 0-9 @ years | 7.4 | 50.2 | 22.4 | 12.4 | 6.9 | 0.4 | 3.9 | 1.1 | 3,012 |
| 10 years \& above | 2.4 | 45.6 | 40.8 | 4.1 | 1.8 | 0.3 | 6.4 | 0.7 | 1,389 |
| Religion |  |  |  |  |  |  |  |  |  |
| Hindu | 11.5 | 38.1 | 15.3 | 14.8 | 11.3 | 0.3 | 3.2 | 1.5 | 11,787 |
| Muslim | 8.0 | 42.3 | 19.5 | 11.2 | 3.7 | 0.0 | 3.8 | 1.1 | 1,402 |
| Sikh | 4.1 | 30.4 | 37.0 | 4.4 | 8.9 | 0.0 | 7.2 | 1.0 | 115 |
| Jain | 0.9 | 47.1 | 47.5 | 4.2 | 1.8 | 0.4 | 3.0 | 0.0 | 115 |
| Caste/tribe\# |  |  |  |  |  |  |  |  |  |
| Scheduled caste | 12.3 | 40.0 | 11.4 | 16.2 | 12.6 | 0.2 | 1.6 | 2.1 | 2,579 |
| Scheduled tribe | 15.9 | 33.0 | 10.6 | 15.5 | 19.2 | 0.0 | 2.4 | 1.2 | 1,880 |
| Other backward class | 10.8 | 37.8 | 15.5 | 15.1 | 10.5 | 0.2 | 3.0 | 1.7 | 5,656 |
| Other | 7.2 | 42.8 | 24.5 | 10.9 | 5.2 | 0.5 | 5.0 | 0.8 | 3,308 |
| Standard of living index |  |  |  |  |  |  |  |  |  |
| Low | 15.0 | 30.9 | 7.9 | 19.5 | 19.2 | 0.3 | 1.6 | 1.6 | 6,480 |
| Medium | 10.2 | 43.3 | 16.6 | 17.2 | 9.0 | 0.1 | 2.4 | 2.0 | 3,746 |
| High | 3.5 | 48.3 | 32.6 | 6.3 | 2.8 | 0.3 | 5.7 | 0.8 | 3,214 |
| Availability of health facility ${ }^{5}$ in the village |  |  |  |  |  |  |  |  |  |
| No | 16.6 | 29.4 | 12.1 | 17.0 | 9.6 | 0.1 | 2.4 | 1.9 | 3,378 |
| Yes | 12.7 | 37.2 | 11.2 | 20.9 | 18.7 | 0.3 | 2.3 | 2.1 | 6,510 |
| Total | 10.9 | 38.5 | 16.2 | 14.0 | 10.2 | 0.2 | 3.3 | 1.4 | 13,440 |

Note: * Women who had their last live/still birth since 1-1-1999/1-1-2001.Note: Total includes 48 women with zero parity, 9 with missing information on education who were not shown separately. Total includes 21 women in other religion 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.

### 4.3 Antenatal Check-Ups by District

Table 4.3 indicates the antenatal coverage in Rajasthan that ranges from the highest of 87 percent in Bhilwara to the lowest of 36 percent in Jaisalmer. Almost all districts, except Jaisalmer more than 40 percent of women got some kind of antenatal check-ups for their last births during the three years preceding the survey. Antenatal check-ups received from doctor was low in Jaisalmer (13 percent), and Barmer (21 percent), and in all the remaining districts more than 25 percent of the women received antenatal check-ups from doctor and it is highest in Kota ( 67 percent) followed by Jaipur ( 59 percent). Except 4 out of 32 districts, Jhunjhunun (34 percent), Bhilwara, Ajmer (33 percent each), and Sikar (32 percent) less than 30 percent 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 Ajmer (61 percent) to the lowest of 19 percent in Jaisalmer, and only in four districts Kota, Dausa, Jaipur and Pali more than 25 percent of the women visited private health facility. In Rajasthan, 6 percent pregnant women in Jaipur district availed the Indian system of medicine (either government or private) for an antenatal check-up. In rest of the districts, less than 4 percent of women availed such services through the Indian system of medicine.

| Percentage of women* who received any antenatal care (ANC), by source and place of antenatal check-ups by district, Rajasthan, 2002-04 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Antenatal | Health providin | sonnel ANC | Place of | tenatal ch | k-ups |
| District | Any ${ }^{1}$ antenatal check-up | check-up only at home by ANM | Doctor | ANM/ Nurse | Government ${ }^{2}$ health facility | Private ${ }^{3}$ health facility | $\mathrm{ISM}^{4}$ facility |
| Ajmer | 82.5 | 8.9 | 40.4 | 33.1 | 61.1 | 11.6 | 0.6 |
| Alwar | 68.3 | 15.0 | 38.5 | 16.0 | 34.5 | 18.2 | 0.0 |
| Banswara | 71.6 | 6.0 | 39.7 | 27.0 | 43.7 | 21.5 | 1.1 |
| Baran | 71.9 | 9.1 | 42.0 | 19.8 | 42.8 | 17.2 | 1.4 |
| Barmer | 41.3 | 9.1 | 21.3 | 8.4 | 24.1 | 7.5 | 0.6 |
| Bharatpur | 70.0 | 24.3 | 27.6 | 18.1 | 30.5 | 11.5 | 1.8 |
| Bhilwara | 86.7 | 16.9 | 35.8 | 33.2 | 53.2 | 11.8 | 3.2 |
| Bikaner | 46.9 | 6.1 | 28.1 | 12.5 | 27.1 | 11.2 | 2.2 |
| Bundi | 78.4 | 18.6 | 38.4 | 21.5 | 44.2 | 14.0 | 1.3 |
| Chittaurgarh | 80.3 | 22.2 | 33.4 | 24.7 | 46.8 | 9.0 | 1.0 |
| Churu | 55.3 | 6.3 | 31.5 | 18.5 | 37.6 | 8.6 | 1.7 |
| Dausa | 68.3 | 4.8 | 53.2 | 10.5 | 37.8 | 26.7 | 0.2 |
| Dhaulpur | 66.1 | 28.0 | 31.6 | 7.6 | 21.7 | 15.8 | 0.3 |
| Dungarpur | 70.8 | 12.2 | 42.7 | 16.1 | 42.8 | 13.8 | 2.9 |
| Ganganagar | 57.5 | 5.2 | 37.0 | 15.6 | 25.9 | 21.0 | 4.9 |
| Hamumangarh | 60.8 | 7.6 | 36.2 | 16.5 | 31.0 | 21.3 | 0.4 |
| Jaipur | 84.1 | 3.3 | 59.2 | 25.4 | 47.7 | 25.9 | 6.1 |
| Jaisalmer | 35.7 | 8.7 | 13.3 | 13.2 | 19.3 | 5.5 | 1.8 |
| Jalore | 51.3 | 2.4 | 31.7 | 17.1 | 24.6 | 22.7 | 1.6 |
| Jhalawar | 74.8 | 13.3 | 37.7 | 23.4 | 47.4 | 10.8 | 2.1 |
| Jhunjhunun | 82.7 | 13.3 | 34.2 | 33.9 | 46.7 | 18.4 | 2.0 |
| Jodhpur | 59.6 | 9.5 | 40.8 | 10.6 | 35.3 | 11.0 | 3.3 |
| Karauli | 60.2 | 15.2 | 39.4 | 5.6 | 20.4 | 23.8 | 0.6 |
| Kota | 78.5 | 3.2 | 66.6 | 7.8 | 34.7 | 39.4 | 0.8 |
| Nagaur | 61.9 | 9.1 | 37.4 | 17.0 | 39.9 | 13.3 | 1.2 |
| Pali | 72.3 | 5.7 | 51.9 | 15.0 | 40.4 | 25.8 | 0.6 |
| Rajsamand | 77.1 | 15.1 | 48.5 | 11.9 | 49.1 | 12.0 | 0.6 |
| Sawai Madhopur | 77.2 | 15.6 | 48.6 | 15.8 | 36.2 | 24.0 | 1.8 |
| Sikar | 75.6 | 7.4 | 35.8 | 31.8 | 51.1 | 14.8 | 2.6 |
| Sirohi | 67.9 | 16.5 | 27.4 | 23.3 | 30.9 | 16.1 | 3.0 |
| Tonk | 71.8 | 11.0 | 46.1 | 14.8 | 51.0 | 9.5 | 0.7 |
| Udaipur | 61.6 | 12.1 | 38.1 | 13.8 | 36.4 | 11.3 | 3.1 |
| Rajasthan | 68.1 | 10.9 | 38.5 | 19.2 | 38.5 | 16.2 | 2.0 |
| 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. |  |  |  |  |  |  |  |

### 4.4 Reasons for Not Seeking Antenatal Check-Ups

Table 4.4 shows the percentage of women who had given live/still births during the three years preceding the survey and who did not receive any antenatal check-ups by the main reason for not seeking check-ups according to residence and availability of health facility in the village. Sixty nine percent of women stated that it was not necessary to have an antenatal check-up. It was surprising to see that a higher proportion of urban women ( 72 percent) than rural women (69 percent) felt that it was not necessary to have an antenatal check-up. Seventy one percent of the women stated that an antenatal check-up was not necessary in villages with
a health facility whereas 66 percent of women from those villages where a health facility is not available fall in this category. About 7 percent of women felt that it was lack of knowledge of these services to go for an antenatal check-up. Other factors contributing was not customary to go for an antenatal check-up (6 Percent) it costs too much ( 5 percent), it was situated too far, or there was no transportation (6 percent), no time to go and family did not allow to avail antenatal care ( 5 percent each). One percent of the women reported 'poor quality of services' as the main reason. Five percent of women from villages with a health facility reported that they had no time to go, and 5 percent of women reported that their family did not allow them to have an antenatal check-up. The corresponding figures were 4 percent of women each from villages without a health facility.

| Percentage of women* who did not receive any antenatal check-up by the main reason for not receiving an antenatal check-up, according to residence and availability of health facility in the village, Rajasthan, 2002-04 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Residence |  | Availability of health facility ${ }^{1}$ in the village |  |
| Reason | Total | Rural | Urban | No | Yes |
| Not Necessary | 69.4 | 69.0 | 72.2 | 65.8 | 70.8 |
| Not customary | 5.7 | 5.6 | 6.5 | 5.9 | 5.5 |
| Cost too much | 5.0 | 4.9 | 5.0 | 4.6 | 5.1 |
| Health facility too far/ No transport | 5.5 | 6.1 | 1.3 | 7.4 | 5.3 |
| Poor quality service | 1.1 | 1.3 | 0.2 | 1.5 | 1.2 |
| No time to go | 4.8 | 4.7 | 5.1 | 4.0 | 5.1 |
| Family did not allow | 4.7 | 4.7 | 4.6 | 4.0 | 5.1 |
| Lack of knowledge | 6.8 | 7.1 | 4.8 | 8.1 | 6.5 |
| Other | 3.7 | 3.5 | 4.6 | 3.5 | 3.6 |
| Number of women | 4,280 | 3,755 | 525 | 1,349 | 2,407 |
| Note: * Women who had their last live/still birth since 1-1-1999/1-1-2001. 1 includes sud-centre, primary health centre, community health centre or referral hospital, and government dispensary within the village. <br> percentage may add more than 100.0 due to multiple response |  |  |  |  |  |

### 4.5 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 4.5 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.

Sixty-eight percent of women had an abdominal examination as the part of the antenatal check-ups, 49 percent had their blood test, and urine test. Other common components of antenatal check-ups were blood pressure checked (38 percent), weighed ( 32 percent), Sonography/ultrasound (22 percent), internal examination (20 percent), and breast examination ( 12 percent). About 9 percent of women had height measured, 4 percent had an X-ray and only one 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.

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 4.5. Advice on diet was given to 82 percent of urban women as compared to 72 percent of rural women and 75 percent in general. Twenty nine percent of the women received advice on delivery care. Women were less likely to receive advice on danger signs of pregnancy ( 24 percent), on newborn care (13 percent), and on breastfeeding (12 percent). Advice on family planning was given to 7 percent of rural women and 9 percent of urban women.

| Table 4.5 COMPONENTS OF ANTENATAL CHECK-UPS |  |  |  |
| :---: | :---: | :---: | :---: |
| Percentage of women* who received an antenatal check-up by specific components of antenatal checkup, according to residence, Rajasthan, 2002-04 |  |  |  |
| Components of antenatal check-ups | Total | Rural | Urban |
| Antenatal measurements/tests |  |  |  |
| Weight measured | 31.6 | 22.0 | 50.9 |
| Height measured | 8.9 | 5.5 | 15.8 |
| Blood pressure checked | 37.8 | 28.9 | 55.8 |
| Blood tested | 49.3 | 39.1 | 70.0 |
| Urine tested | 48.8 | 37.5 | 71.8 |
| Abdomen examined | 68.3 | 64.3 | 76.4 |
| Internal examined | 19.2 | 14.1 | 29.5 |
| Breast examined | 12.2 | 9.0 | 18.7 |
| X-ray | 3.6 | 3.2 | 4.2 |
| Sonography /ultrasound | 21.7 | 12.8 | 39.6 |
| Amniocentesis | 1.3 | 0.9 | 2.2 |
| Antenatal advice |  |  |  |
| Diet | 75.5 | 72.1 | 82.4 |
| Danger signs of pregnancy | 23.6 | 20.7 | 29.4 |
| Delivery care | 29.1 | 25.8 | 35.8 |
| Breast feeding | 11.9 | 9.8 | 16.0 |
| New born care | 13.0 | 11.3 | 16.6 |
| Family planning | 7.8 | 7.4 | 8.6 |
| Number of women who received any antenatal check-up | 9,158 | 6,131 | 3,026 |

### 4.6 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 4.6. In Rajasthan, 33 percent of the women received at least three antenatal check-ups which includes 20 percent women who had four or more ANC check-ups. At least three antenatal check-up visits were received by 52 percent of women in urban areas compared with 27 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. Twenty four percent of non-
literate, 45 percent literate women (educated below high school) and 70 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 40 percent of women with parity one received three antenatal check-ups compared to less than 22 percent of the women with parity 4 and above.

Jain women (75 percent) were more likely to have at least three visits for antenatal check-ups than Sikh women (43 percent), Muslim women ( 34 percent) and from Hindu religions (33 percent). Coverage is substantially lower for women from scheduled-tribes (25 percent) than to women of other than scheduled tribe (28-46 percent). Having three or more antenatal visits also increased with the standard of living-21 percent for women with a low standard of living, 33 percent for women with a medium standard of living and 57 percent for women with a high standard of living. Availability of health facility in the village does not make any difference to the minimum three visits for antenatal check-ups.

Data on timing of first antenatal check-ups shows that about 30 percent of the women received their first antenatal check-up in the first trimester of pregnancy, and another 25 percent received their first check-up in the second trimester, and 13 percent of women received their first check-up in the third trimester. A relatively higher proportion of women in the urban areas (48 percent) as compared to those in rural areas ( 24 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. Twenty one percent of non-literate women had undergone their first antenatal check-up in the first trimester, and 64 percent of women who had completed at least 10 years of schooling received their first antenatal check-up in the first trimester. Thirty nine percent of the women with parity-1 were visited in first trimester and less than one-quarter (20 percent) women with parity- four and above had undergone antenatal check-up in first trimester. Hindu women were less likely to go for first antenatal check-up in first trimester of their pregnancy as compared to Muslim, Sikh and women Jain religion, and less than onequarter ( 23 percent) of scheduled tribe women were visited in first trimester for first antenatal check-ups compared with 24 percent to scheduled caste women, 28 percent of other backward class of women and 42 percent women from 'other' caste category. Nineteen percent women with low standard of living, 31 percent with medium standard of living, and 52 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 4.6 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 checkup, 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, Rajasthan, 2002-04 |  |  |  |  |  |  |  |  |  |  |
| Antenatal care indicators | Total | Residence |  | Education |  |  | Children ever born |  |  |  |
|  |  | Rural | Urban | Nonliterate | 0-9@ years | 10 years \& above | 1 | 2 | 3 | 4+ |
| Number of ANC visits |  |  |  |  |  |  |  |  |  |  |
| No visit | 31.9 | 38.0 | 14.8 | 41.0 | 16.6 | 5.7 | 22.8 | 27.4 | 31.1 | 43.3 |
| 1 | 11.5 | 12.2 | 9.8 | 12.4 | 11.3 | 6.5 | 11.3 | 10.0 | 12.2 | 12.4 |
| 2 | 23.3 | 23.1 | 23.8 | 22.8 | 27.4 | 17.7 | 23.6 | 24.1 | 22.9 | 22.6 |
| 3 | 12.8 | 11.8 | 15.3 | 11.7 | 15.2 | 14.6 | 13.3 | 14.6 | 13.7 | 10.2 |
| 4+ | 20.5 | 14.9 | 36.3 | 12.2 | 29.4 | 55.5 | 28.9 | 23.8 | 20.0 | 11.4 |
| Missing | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Stage of pregnancy at the time of the first antenatal check-up |  |  |  |  |  |  |  |  |  |  |
| No antenatal check-up | 31.9 | 38.0 | 14.8 | 41.0 | 16.6 | 5.7 | 22.8 | 27.4 | 31.1 | 43.3 |
| First trimester | 30.0 | 24.1 | 46.7 | 20.9 | 41.4 | 64.5 | 38.9 | 34.8 | 28.1 | 20.0 |
| Second trimester | 25.0 | 24.5 | 26.4 | 24.1 | 28.3 | 23.7 | 26.2 | 25.7 | 26.6 | 22.5 |
| Third trimester | 13.1 | 13.5 | 12.1 | 14.0 | 13.7 | 6.1 | 12.1 | 12.0 | 14.2 | 14.1 |
| Missing | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Women who received TT |  |  |  |  |  |  |  |  |  |  |
| No TT | 30.9 | 36.8 | 14.4 | 40.4 | 14.7 | 4.4 | 22.3 | 26.2 | 29.6 | 42.5 |
| 1 | 9.9 | 11.0 | 6.7 | 10.7 | 8.9 | 6.2 | 8.4 | 10.0 | 10.7 | 10.5 |
| 2+ | 59.1 | 52.1 | 78.7 | 48.8 | 76.2 | 89.4 | 69.2 | 63.6 | 59.5 | 47.0 |
| Do not remember/missing | 0.1 | 0.1 | 0.2 | 0.1 | 0.2 | 0.0 | 0.1 | 0.1 | 0.3 | 0.1 |
| Women who received IFA tablets/syrup |  |  |  |  |  |  |  |  |  |  |
| No IFA/syrup | 49.5 | 52.9 | 40.3 | 57.2 | 40.0 | 20.3 | 42.7 | 44.9 | 50.5 | 58.1 |
| Received but not consumed | 7.1 | 7.6 | 5.6 | 7.1 | 8.1 | 5.0 | 6.8 | 7.7 | 7.0 | 7.0 |
| Consumed one IFA per day | 27.1 | 25.5 | 31.6 | 22.8 | 31.8 | 45.5 | 30.5 | 30.3 | 26.1 | 22.6 |
| Received 100+ IFA tablets/syrup | 8.0 | 6.0 | 13.4 | 4.8 | 9.9 | 24.4 | 10.9 | 10.0 | 7.2 | 4.3 |
| Percentage of women who received full ${ }^{1}$ antenatal check-ups | 5.0 | 3.1 | 10.2 | 2.3 | 6.6 | 19.4 | 7.4 | 7.0 | 3.9 | 2.1 |
| Number of women | 13,440 | 9,888 | 3,551 | 9,030 | 3,012 | 1,389 | 3,432 | 3,253 | 2,576 | 4,130 |
| Note: Total includes 48 women with zero parity and 9 with missing information on education who were not shown separately. @ Literate women with no years of schooling are also included. ${ }^{1}$ At least three visits for antenatal check-ups, at least one TT injection received and were given adequate amount of IFA tablets/syrup. <br> Contd........ |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |


| Table 4.6 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, Rajasthan, 2002-04 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Antenatal care indicators | Religion |  |  |  | Caste\# |  |  |  | Standard of living index |  |  | Availability of health facility ${ }^{2}$ in the village |  |
|  | Hindu | Muslim | Sikh | Jain | Scheduled caste | Scheduled tribe | Other backward class | Other | Low | Medium | High | No | Yes |
| Number of ANC visits |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No visit | 32.7 | 28.1 | 24.4 | 2.6 | 34.4 | 38.8 | 33.8 | 22.5 | 44.9 | 27.4 | 10.7 | 39.9 | 37.0 |
| 1 | 11.5 | 12.1 | 9.6 | 4.9 | 13.3 | 13.4 | 11.9 | 8.4 | 12.7 | 11.0 | 9.6 | 12.5 | 12.0 |
| 2 | 23.1 | 25.7 | 22.7 | 17.4 | 23.8 | 22.6 | 23.5 | 23.1 | 20.9 | 28.4 | 22.3 | 22.6 | 23.4 |
| 3 | 12.6 | 13.9 | 11.0 | 19.0 | 13.4 | 10.9 | 12.0 | 14.6 | 10.6 | 13.9 | 15.9 | 12.0 | 11.8 |
| 4+ | 20.1 | 20.3 | 32.3 | 56.2 | 15.2 | 14.2 | 18.8 | 31.3 | 10.9 | 19.3 | 41.4 | 13.1 | 15.8 |
| Missing | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Stage of pregnancy at the time of the first antenatal check-up |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No antenatal check-up | 32.7 | 28.1 | 24.4 | 2.6 | 34.4 | 38.8 | 33.8 | 22.5 | 44.9 | 27.4 | 10.7 | 39.9 | 37.0 |
| First trimester | 29.4 | 30.4 | 54.1 | 66.3 | 23.8 | 23.3 | 28.3 | 41.7 | 18.5 | 31.0 | 52.3 | 23.7 | 24.2 |
| Second trimester | 25.0 | 26.1 | 14.2 | 21.1 | 26.3 | 24.9 | 24.7 | 24.5 | 23.2 | 26.6 | 26.8 | 24.4 | 24.5 |
| Third trimester | 12.9 | 15.4 | 7.3 | 10.0 | 15.5 | 12.8 | 13.2 | 11.3 | 13.4 | 15.0 | 10.3 | 12.0 | 14.2 |
| Missing | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Women who received TT |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No TT | 31.6 | 28.0 | 19.5 | 2.3 | 33.3 | 43.1 | 31.5 | 21.0 | 45.2 | 24.1 | 10.0 | 38.8 | 35.8 |
| 1 | 10.0 | 8.8 | 9.6 | 5.3 | 10.1 | 14.1 | 9.6 | 7.6 | 11.3 | 9.7 | 7.2 | 11.8 | 10.6 |
| 2+ | 58.2 | 63.2 | 70.8 | 90.3 | 56.2 | 42.7 | 58.9 | 71.2 | 43.4 | 66.1 | 82.8 | 49.3 | 53.5 |
| Do not remember/missing | 0.1 | 0.1 | 0.0 | 2.1 | 0.3 | 0.1 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Women who received IFA tablets/syrup |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No IFA/syrup | 49.0 | 56.5 | 45.9 | 23.7 | 52.8 | 53.3 | 51.8 | 40.9 | 58.1 | 47.6 | 34.6 | 55.9 | 51.3 |
| Received but not consumed | 7.3 | 5.4 | 4.9 | 6.3 | 7.3 | 6.3 | 51.8 7.1 | 40.9 7.4 | 7.0 | 7.8 | 6.5 | 55.9 8.0 | 51.3 7.4 |
| Consumed one IFA per day | 27.5 | 21.5 | 36.6 | 44.6 | 26.2 | 26.2 | 26.0 | 30.4 | 22.4 | 28.1 | 35.6 | 22.7 | 27.0 |
| Received 100+ IFA tablets/syrup | 7.9 | 6.5 | 13.3 | 23.5 | 5.3 | 7.5 | 7.0 | 12.1 | 4.5 | 6.7 | 16.4 | 5.5 | 6.3 |
| Percentage of women who received full ${ }^{1}$ antenatal checkups | 5.0 | 3.6 | 8.2 | 21.1 | 3.4 | 3.9 | 4.1 | 8.6 | 2.0 | 3.9 | 12.3 | 2.7 | 3.4 |
| Number of women | 11,787 | 1,402 | 115 | 115 | 2,579 | 1,880 | 5,656 | 3,308 | 6,480 | 3,746 | 3,214 | 3,378 | 6,510 |


 government dispensary within the village

Table 4.6 shows that half of the women in Rajasthan received IFA supplements (50 percent) of the last birth during three years preceding the survey. The coverage of IFA tablets is relatively higher in urban areas ( 60 percent) than in rural areas ( 47 percent). IFA coverage is much higher for women having 10 years and above education ( 80 percent), women with high standard of living (65 percent) and from belonging to Jain religion (76 percent). Again, during pregnancy in the last three years preceding the survey, only 8 percent of women received 100 or more IFA, 6 percent in rural areas and 13 percent in urban areas. Intake of 100 or more IFA is positively associated with education and standard of living index and negatively associated with parity. 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 4.6 shows that fifty nine percent of the women received two or more tetanus toxoid injections. Coverage of two or more TT injection is slightly higher in urban areas ( 79 percent) than that in rural areas ( 52 percent). The coverage of at least one tetanus toxoid injection for Jain women ( 96 percent) is more than that for Sikh women (80 percent), Muslim women ( 72 percent) and Hindu women ( 68 percent). Coverage of at least one tetanus toxoid injection is almost similar for schedule tribe ( 57 percent), schedule caste (66 percent), other backward classes (68 percent), and for 'other’ caste category women (79 percent).


Non-literate women received at least one tetanus toxoid injection for 60 percent of their last birth, whereas literate women with 9 years of schooling received at least one tetanus toxoid injection for 85 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. Ninety percent of women with a high standard of living received at least one tetanus toxoid injection, and 5476 percent women with low or medium 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 78 percent women of Parity- 1 compared with 56 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 5 percent of women in Rajasthan received full antenatal care. Coverage of full antenatal care is low for non-literate women, women with higher parity, Muslim women, women from scheduled caste and women with a low standard of living. Full antenatal coverage was also lower in rural areas (3 percent) than in urban areas (10 percent).

### 4.7 Antenatal Care Indicator by District

Table 4.7 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.

The utilisation of antenatal care services differs from district to district. In 4 out of 32 districts (Kota, Pali, Jaipur and Jhalawar) more than 40 percent of the women received their first antenatal check-up in the first trimester of pregnancy. The percentage of women who received at least three visits for antenatal check-ups ranges from 16 percent in Jaisalmer to 49 percent in Kota. In four districts namely Barmer, Jaisalmer, Dhualpur, and Churu, the coverage of at least three visits of ANC were less than 20 percent (see Map-3). Fifty percent of the women received at least one tetanus toxoid injection in the all districts, except in Jaisalmer ( 33 percent), Barmer ( 37 percent) and Bikaner ( 47 percent), but on the other hand, performance regarding receipt of 100 or more IFA is poor. In all the districts, the value ranges from 1 to 16 percent, and it is lowest in Karauli.

The percentage of women who received full antenatal care ranges from 1 percent in Dausa to 12 percent in Jaipur. In 19 of 31 districts, Baran, Barmer, Bharatpur, Bikaner, churu, Dausa, Dhaulpur, Dungarpur, Jalore, Jhunjunun, Jodhpur, Karauli, Kota, Nagaur, Rajsamand, Sawai Madhopur, Sikar, Tonk and Udaipur coverage rate of full antenatal care is below than that of the state average.

| Percentage of women* who received different type of antenatal care by district, Rajasthan, 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 |
| Ajmer | 26.2 | 42.7 | 81.3 | 8.4 | 6.4 |
| Alwar | 29.9 | 25.0 | 77.0 | 7.8 | 5.2 |
| Banswara | 33.3 | 33.4 | 65.3 | 13.6 | 7.9 |
| Baran | 36.2 | 40.2 | 69.9 | 8.1 | 4.7 |
| Barmer | 16.5 | 16.2 | 36.7 | 3.6 | 0.6 |
| Bharatpur | 28.7 | 21.7 | 68.7 | 3.5 | 1.8 |
| Bhilwara | 36.2 | 46.5 | 84.1 | 8.1 | 5.3 |
| Bikaner | 18.5 | 25.6 | 47.4 | 7.5 | 4.0 |
| Bundi | 33.3 | 37.8 | 75.0 | 9.5 | 6.1 |
| Chittaurgarh | 32.5 | 38.4 | 74.5 | 14.9 | 8.6 |
| Churu | 18.7 | 19.8 | 58.3 | 4.0 | 1.9 |
| Dausa | 29.1 | 27.8 | 80.0 | 2.2 | 0.9 |
| Dhaulpur | 30.1 | 18.3 | 68.9 | 4.0 | 1.1 |
| Dungarpur | 34.1 | 30.9 | 66.5 | 9.1 | 3.4 |
| Ganganagar | 33.0 | 29.0 | 69.4 | 12.6 | 8.5 |
| Hamumangarh | 32.4 | 27.0 | 77.0 | 11.8 | 5.2 |
| Jaipur | 40.5 | 46.1 | 79.3 | 14.7 | 12.1 |
| Jaisalmer | 40.5 13.0 | 18.2 | 79.3 32.9 | 14.7 9.0 | 12.1 5.2 |
| Jalore | 13.5 | 18.2 | 57.2 | 6.5 | 3.9 |
| Jhalawar | 40.2 | 38.4 | 74.3 | 7.6 | 5.5 |
| Jhunjhunun | 36.9 | 45.5 | 79.4 | 4.2 | 1.2 |
| Jodhpur | 23.5 | 30.0 | 58.5 | 5.7 | 4.3 |
|  | 34.8 | 25.1 | 75.1 | 1.4 | 0.7 |
| Kota | 48.0 | 48.6 | 88.3 | 5.9 | 4.0 |
| Nagaur | 26.0 | 35.5 | 60.0 | 5.2 | 4.4 |
|  | 42.5 | 37.9 | 77.9 | 11.3 | 5.7 |
| Sawai Madhopur | 32.3 | 34.0 | 79.7 | 5.1 | 3.4 |
| Sikar | 29.5 | 32.1 | 63.3 | 4.4 | 1.7 |
| Sirohi | 28.3 | 39.1 | 73.8 | 7.6 | 4.5 |
| Tonk | 27.1 | 36.3 | 63.2 | 16.0 | 9.8 |
| Udaipur | 32.4 29.5 | 38.5 320 | 75.2 | 5.2 | 3.1 |
|  | 29.5 | 32.0 | 69.8 | 5.4 | 2.7 |
| Rajsthan | 30.0 | 33.3 | 69.0 | 8.0 | 5.0 |
| 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 |  |  |  |  |  |

### 4.8 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 4.8 and Figure 4.3.


About 36 percent of the women experienced at least one pregnancy related problem. The proportion was higher among urban women (38 percent) than among rural women ( 35 percent). Women aged 30 years and above, and women with higher parity reported at least one pregnancy related problem similar to younger women and women with low parity do. This proportion is relatively high among women who had received some kind of antenatal care during the pregnancy. Forty percent of women who had an antenatal check-up reported that they had experienced at least one problem during their pregnancy while 26 percent of women did not receive any antenatal check-up during their pregnancy fall in this category. The major problems reported were 'swelling of hand and feet' (19 percent), 'paleness’ (19 percent), and 'visual disturbance' (12 percent). Only 1 percent reported 'abnormal position of foetus', and 'vaginal bleeding'(3 percent), 'convulsions', and 'weak or no movement of foetus' (4 percent each). Other problems related to pregnancy were reported by 4 percent of women. Swelling of hands and feet is more common among older women, women with parity-1 and parity-4 and above, and women with high a standard of living. The percentage of women who reported more anaemic state was belonging to the age group 30-34 years, and 3539 years, women from urban areas, women with a high standard of living and women who receive any kind of antenatal care during the pregnancy. Anaemia, visual disturbance, and convulsion increased steadily with increase of parity, whereas women with parity-1 reported vaginal bleeding, weak or no movement of foetus and abnormal position of foetus more.

The younger women (15-24 years of age) were more likely to report vaginal bleeding and abnormal position of foetus as pregnancy complications. 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 4.9 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. Fourty six percent of women reported that they had obtained advice or consulted someone for their problem. The proportion was higher among urban women ( 64 percent) than among rural women ( 40 percent), and 41 percent of women sought treatment from those villages where health facility was available as compared to 36 percent of women with non-availability of health facility within the village. Among women who sought treatment for pregnancy complications, 55 percent visited a government health facility including a primary health centre (10 percent) and sub-centre (5 percent). Thirty nine percent of them visited a private health facility, and 3 percent had gone to a facility with the Indian system of medicine, while another 4 percent obtained advice from another health facility. The proportion of women who visited a private health facility is higher in urban areas ( 46 percent) than in rural areas ( 34 percent).

| Table 4.9 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, Rajasthan, 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 | 46.3 | 39.6 | 63.6 | 36.1 | 41.5 |
| Number of women | 4,824 | 3,477 | 1,347 | 1,240 | 2,237 |
| Percentage sought treatment at health facility |  |  |  |  |  |
| Government health facility ${ }^{1}$ | 55.5 | 59.5 | 49.0 | 55.2 | 61.6 |
| Primary health centre | 9.6 | 14.0 | 2.4 | 12.9 | 14.6 |
| Sub centre | 5.5 | 8.4 | 0.9 | 4.8 | 10.1 |
| Private health facility ${ }^{2}$ | 38.8 | 34.0 | 46.4 | 37.3 | 32.4 |
| $I S M^{3}$ facility | 3.2 | 2.9 | 3.9 | 1.9 | 3.3 |
| Other | 3.5 | 4.9 | 1.1 | 6.7 | 4.0 |
| Percent distribution of women who obtained treatment from |  |  |  |  |  |
| Doctor | 80.9 | 76.2 | 88.4 | 77.2 | 75.8 |
| ANM/nurse/midwife/LHV | 16.7 | 21.0 | 9.7 | 19.4 | 21.8 |
| Other ${ }^{4}$ | 1.2 | 1.7 | 0.4 | 1.9 | 1.6 |
| Missing | 1.2 | 1.0 | 1.5 | 1.4 | 0.8 |
| Total percent | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number of women | 2,234 | 1,377 | 857 | 448 | 929 |
| 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, 81 percent went to a doctor and 17 percent to an auxiliary nurse midwife or nurse or LHV, and another 1 percent to someone else. Eighty eight percent of these women in urban areas, and 76 percent in rural areas were examined by a doctor, whereas ANM/Nurse/LHV examined 21 percent women in rural areas and 10 percent in urban areas.

### 4.9 Delivery Care

### 4.9.1 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 where (place) 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 4.10 and Figure 4.4 present the place of delivery. A little less than one-fifth of the birth (19 percent) took place in government health institutions, 12 percent in private health institutions, and a large proportion of births (68 percent) took place at home. Thirty two percent of the deliveries in urban areas and 15 percent of the deliveries in rural areas took place in health institutions. Deliveries in health facilities in Rajasthan rose from 23 percent in Round-I to 31 percent in Round-II.

The proportion of births occurring in health institutions is higher for young women under 35 years ( $32-34$ percent) than for women aged 35 years and above ( 21 percent). Institutional deliveries, particularly in private health facilities, increase sharply with education and the standard of living. Around 20 percent of the births to non-literate women and 78 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 (Figure 4.4). The proportion of institutional deliveries decreases as parity increases from parity one (49 percent) to parity four and above ( 17 percent). Institutional delivery is much lower for Muslim women (31 percent) and Hindus (19 percent) than for Sikh women ( 57 percent) and Jain women (90 percent). Only 22 percent births of women from scheduled-tribes are institutional deliveries as compared to 24 percent of births to women from scheduled-castes, 27 percent to other backward classes and 47 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 (58 percent) than among who had fewer antenatal check-ups (29-38 percent). Institutional deliveries are least prevalent among births to women who did not receive any antenatal check-ups (13 percent). As expected, a large proportion of births occurred through caesarean section ( 93 percent), and 54 percent of assisted deliveries took place at health institutions. Twenty five percent of births took place at health institutions in the village with availability of health facility compared to 24 percent of births from villages without any health facility.

## Table 4.10 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, Rajasthan, 2002-04

| Background characteristics | Health institutions |  | Home | Other | Missing | Total percent | Number of women |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Public | Private |  |  |  |  |  |
| Age group (in years) |  |  |  |  |  |  |  |
| Below 20 | 22.6 | 12.3 | 64.7 | 0.4 | 0.0 | 100.0 | 1,312 |
| 20-34 | 19.5 | 12.4 | 67.6 | 0.3 | 0.2 | 100.0 | 11,120 |
| 35 and above | 13.9 | 7.8 | 77.5 | 0.2 | 0.5 | 100.0 | 1,008 |
| Children ever born |  |  |  |  |  |  |  |
| 1 | 28.9 | 18.8 | 51.7 | 0.2 | 0.4 | 100.0 | 3,432 |
| 2 | 20.6 | 15.4 | 63.7 | 0.3 | 0.0 | 100.0 | 3,253 |
| 3 | 17.2 | 9.2 | 73.1 | 0.4 | 0.1 | 100.0 | 2,576 |
| 4+ | 11.8 | 5.5 | 82.1 | 0.4 | 0.2 | 100.0 | 4,130 |
| Residence |  |  |  |  |  |  |  |
| Rural | 14.9 | 7.6 | 77.2 | 0.3 | 0.1 | 100.0 | 9,888 |
| Urban | 32.0 | 24.4 | 42.5 | 0.5 | 0.5 | 100.0 | 3,551 |
| Education |  |  |  |  |  |  |  |
| Non-literate | 13.7 | 6.4 | 79.4 | 0.4 | 0.1 | 100.0 | 9,030 |
| 0-9@years | 27.2 | 16.9 | 55.5 | 0.3 | 0.1 | 100.0 | 3,012 |
| 10 years \& above | 39.6 | 38.4 | 20.7 | 0.4 | 0.9 | 100.0 | 1,389 |
| Religion |  |  |  |  |  |  |  |
| Hindu | 19.3 | 11.4 | 68.8 | 0.3 | 0.2 | 100.0 | 11,787 |
| Muslim | 18.1 | 12.6 | 68.4 | 0.6 | 0.4 | 100.0 | 1,402 |
| Sikh | 19.3 | 38.0 | 42.7 | 0.0 | 0.0 | 100.0 | 115 |
| Jain | 44.6 | 46.6 | 8.8 | 0.0 | 0.0 | 100.0 | 115 |
| Caste\# |  |  |  |  |  |  |  |
| Scheduled caste | 16.0 | 8.0 | 75.7 | 0.2 | 0.0 | 100.0 | 2,579 |
| Scheduled tribe | 15.2 | 7.1 | 77.1 | 0.6 | 0.0 | 100.0 | 1,880 |
| Other backward class | 17.5 | 11.5 | 70.2 | 0.4 | 0.3 | 100.0 | 5,656 |
| Other | 27.8 | 18.9 | 53.0 | 0.2 | 0.2 | 100.0 | 3,308 |
| Standard of living index |  |  |  |  |  |  |  |
| Low | 12.6 | 5.1 | 81.8 | 0.3 | 0.1 | 100.0 | 6,480 |
| Medium | 19.6 | 10.5 | 69.3 | 0.4 | 0.2 | 100.0 | 3,746 |
| High | 32.8 | 27.7 | 38.8 | 0.3 | 0.4 | 100.0 | 3,214 |
| Number of antenatal check-ups |  |  |  |  |  |  |  |
| No check-up | 8.1 | 4.5 | 86.7 | 0.2 | 0.5 | 100.0 | 4,283 |
| 1 | 18.9 | 10.6 | 70.2 | 0.3 | 0.0 | 100.0 | 1,548 |
| 2 | 20.4 | 10.8 | 68.4 | 0.3 | 0.1 | 100.0 | 3,134 |
| 3 | 24.4 | 13.3 | 61.7 | 0.6 | 0.0 | 100.0 | 1,715 |
| 4+ | 33.1 | 25.2 | 41.3 | 0.4 | 0.0 | 100.0 | 2,758 |
| Delivery characteristics 25.2 2, 0.0 |  |  |  |  |  |  |  |
| Normal | 17.7 | 10.6 | 71.3 | 0.4 | 0.0 | 100.0 | 12,585 |
| Caesarean | 51.1 | 42.1 | 6.8 | 0.0 | 0.0 | 100.0 | 537 |
| Assisted | 34.3 | 20.0 | 45.7 | 0.0 | 0.0 | 100.0 | 290 |
| Availability of health facility ${ }^{1}$ in the village |  |  |  |  |  |  |  |
| No | 15.2 | 8.6 | 76.0 | 0.2 | 0.1 | 100.0 | 3,378 |
| Yes | 17.7 | 7.1 | 77.8 | 0.3 | 0.1 | 100.0 | 6,510 |
| Total | 19.4 | 12.0 | 68.0 | 0.3 | 0.2 | 100.0 | 13,440 |

Note: Total includes 48 women with zero parity, 9 with missing information on education, 2 on number of ANC Visits and 28 on delivery characteristics who were not shown separately. Total includes 21 women in other religion 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. ${ }^{1}$ Includes sub-centre, primary health centre, community health centre or referral hospital, government hospital, and government dispensary within the village

### 4.9.2 Assistance During Home Delivery

Table 4.11 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 5 percent of home deliveries were attended by doctors, 14 percent by ANM or nurse or LHV, 5 percent by trained birth attendants, 51 percent by untrained dais, 24 percent were attended by relatives and friends and about 1 percent of home deliveries were not attended by anyone (Figure 4.4). Overall, health professionals attended 19 percent of deliveries that took place at home. The percentage of births (home delivery) attended by health professionals do not differ much between women age. About 19-22 percent of births attended by health professional for women age below 20 and 20-34 years and only 14 percent of births for women age 35 and above were attended by health professionals. In rural areas, 17 percent of births were attended by health professionals as compared to 30 percent of that in urban areas. The percentage of births attended by health professionals was decreased steadily with increasing with parity of women.

Births to literate women who had completed 10 or more years of schooling which were attended by health professionals is three times higher than those of non-literate women. Twenty one percent of home deliveries to women with a medium standard of living and 14 percent of deliveries to women with a low standard of living were attended by health professionals.


| Table 4.11 ASSISTANCE DURING HOME DELIVERY AND SAFE DELIVERY <br> 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, Rajasthan, 2002-04 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Background characteristics | Attendant assisting during home delivery ${ }^{1}$ |  |  |  |  |  | $\begin{aligned} & \text { Number } \\ & \text { of } \\ & \text { women } \end{aligned}$ | Percentage of safe ${ }^{2}$ delivery |
|  | Doctor | ANM/ Nurse/ LHV | TBA | Untrained dai | Relative / friends | None |  |  |
| Age group (in years) |  |  |  |  |  |  |  |  |
| Below 20 | 6.9 | 15.3 | 5.8 | 47.1 | 24.6 | 0.3 | 848 | 49.2 |
| 20-34 | 4.6 | 14.7 | 5.6 | 51.5 | 23.0 | 0.6 | 7,514 | 45.0 |
| 35 and above | 3.0 | 10.6 | 4.4 | 52.8 | 28.7 | 0.5 | 781 | 32.2 |
| Children ever born |  |  |  |  |  |  |  |  |
| 1 | 7.6 | 19.7 | 6.5 | 45.7 | 19.8 | 0.7 | 1,774 | 61.8 |
| 2 | 5.4 | 16.1 | 5.8 | 49.3 | 23.1 | 0.4 | 2,072 | 49.6 |
| 3 | 4.0 | 14.8 | 5.3 | 52.2 | 23.1 | 0.6 | 1,883 | 40.2 |
| 4+ | 3.1 | 10.2 | 4.8 | 54.8 | 26.4 | 0.7 | 3,391 | 28.3 |
| Residence |  |  |  |  |  |  |  |  |
| Rural | 4.7 | 12.1 | 4.3 | 52.7 | 25.5 | 0.7 | 7,632 | 35.4 |
| Urban | 4.8 | 25.8 | 11.2 | 43.6 | 14.4 | 0.1 | 1,511 | 69.5 |
| Education |  |  |  |  |  |  |  |  |
| Non-literate | 4.1 | 11.5 | 4.4 | 53.3 | 26.0 | 0.7 | 7,174 | 32.4 |
| 0-9@ years | 6.3 | 23.6 | 8.2 | 46.1 | 15.4 | 0.3 | 1,673 | 60.7 |
| 10 years \& above | 11.4 | 33.2 | 16.5 | 26.9 | 12.0 | 0.0 | 288 | 87.2 |
| Religion |  |  |  |  |  |  |  |  |
| Hindu | 4.8 | 13.7 | 5.4 | 50.4 | 25.1 | 0.6 | 8,115 | 43.4 |
| Muslim | 3.4 | 19.1 | 5.3 | 59.0 | 12.9 | 0.3 | 959 | 46.1 |
| Sikh | (8.3) | (18.3) | (25.0) | (40.0) | (5.0) | (3.3) | 49 | 68.0 |
| Caste\# |  |  |  |  |  |  |  |  |
| Scheduled caste | 3.7 | 10.8 | 6.5 | 54.6 | 24.1 | 0.3 | 1,952 | 35.1 |
| Scheduled tribe | 2.9 | 9.6 | 4.9 | 51.0 | 30.8 | 0.9 | 1,450 | 31.9 |
| Other backward class | 5.5 | 15.3 | 5.1 | 50.8 | 22.7 | 0.6 | 3,973 | 43.6 |
| Other | 5.5 | 20.3 | 5.7 | 48.3 | 19.4 | 0.8 | 1,752 | 60.4 |
| Standard of living index |  |  |  |  |  |  |  |  |
| Low | 4.3 | 9.7 | 3.8 | 53.4 | 28.2 | 0.7 | 5,302 | 29.2 |
| Medium | 5.0 | 16.3 | 6.5 | 51.8 | 19.9 | 0.5 | 2,595 | 44.8 |
| High | 5.8 | 30.5 | 10.5 | 40.7 | 12.1 | 0.4 | 1,246 | 74.6 |
| Number of antenatal check-ups |  |  |  |  |  |  |  |  |
| No check-up | 4.1 | 6.8 | 4.2 | 54.7 | 29.6 | 0.5 | 3,713 | 22.0 |
| 1 | 3.5 | 18.3 | 6.2 | 49.5 | 21.7 | 0.8 | 1,087 | 44.8 |
| 2 | 5.1 | 15.8 | 4.9 | 53.0 | 20.4 | 0.7 | 2,145 | 45.5 |
| 3 | 5.1 | 20.7 | 6.3 | 45.4 | 22.0 | 0.5 | 1,058 | 53.6 |
| 4+ | 6.9 | 26.6 | 9.0 | 43.3 | 13.8 | 0.5 | 1,139 | 72.1 |
| Delivery characteristics |  |  |  |  |  |  |  |  |
| Normal | 4.2 | 14.4 | 5.5 | 51.5 | 23.8 | 0.6 | 8,974 | 41.6 |
| Caesarean | (13.8) | (17.2) | (3.4) | (48.3) | (17.2) | (0.0) | 37 | 95.1 |
| Assisted | 37.9 | 10.1 | 3.2 | 30.3 | 17.5 | 0.9 | 132 | 76.3 |
| Availability of health facility ${ }^{3}$ in the village |  |  |  |  |  |  |  |  |
| No | 4.0 | 8.4 | 4.1 | 52.6 | 29.9 | 0.9 | 2,566 | 33.2 |
| Yes | 5.0 | 14.0 | 4.4 | 52.7 | 23.3 | 0.6 | 5,066 | 36.5 |
| Total | 4.7 | 14.4 | 5.5 | 51.2 | 23.7 | 0.6 | 9,143 | 44.4 |
| Note: Total includes 24 women with zero parity, 9 with missing information on education and 2 on number of ANC visits who were not shown separately.Total includes 10 Jain women and 11 women in other religion 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 |  |  |  |  |  |  |  |  |

Home deliveries are more likely to be attended by health professionals among Muslim women (23 percent) than among Hindu women (19 percent). Only 14 percent of births to women from scheduled castes, 13 percent to scheduled tribes, 21 percent to other backward
classes and 26 percent to women belonging to 'other castes' category were attended by health professionals. Eleven percent of home deliveries to women who did not have any antenatal check-ups were attended by health professionals compared to 35 percent of home deliveries to women who had four or more antenatal check-ups. About 19 percent of home deliveries that were normal were attended by health professionals, which differ substantially to births by either caesarean section or assisted (31-48 percent), but the result should be interpreted with caution due to the small number of cases. Nineteen percent of home deliveries were attended by health professionals in villages with availability of a health facility and 12 percent villages with non-availability of a health facility.

### 4.9.3 Delivery Assisted by Skilled Persons

The extent of safe deliveries varied substantially by background characteristics of women (Table 4.11 and Figure 4.5). More than half of the births ( 44 percent) were safe in Rajasthan. In urban areas less than three-fourths ( 69 percent) of the deliveries were safe as against little less than two-fifths ( 35 percent) in rural areas. About 45-49 percent of the deliveries were safe for younger women aged below 35 than to elderly women ( 32 percent). The proportion of safe deliveries was much lower among Hindu women ( 43 percent) than among Muslim women ( 46 percent) and women from Sikh religions ( 68 percent). Only 32 percent of births to women from scheduled-tribe were safe deliveries, compared to 35 percent to women from scheduled-castes, 44 percent to women from other backward classes, and 60 percent of births to women from 'other castes' category. Proportion of safe deliveries decreases as parity rises from 1 ( 62 percent) to 4 and above ( 28 percent). Safe deliveries were least prevalent among women who did not receive any antenatal check-ups ( 22 percent), and it is most prevalent among women who had four or more antenatal check-ups ( 72 percent).


The proportion of safe deliveries increased sizeably with women's education and standard of living. Only thirty-two percent of non-literate women had safe deliveries whereas its prevalence is 87 percent among women who had completed at least high school. Women with a high standard of living had 75 percent safe deliveries compared to 45 percent of women with a medium standard of living and 29 percent with a low standard of living. As compared to women who had caesarean and assisted deliveries (68-76 percent) , 42 percent of women with normal deliveries are safe deliveries. The proportion of safe deliveries was slightly higher in villages with a health facility than to women from those villages were health facilities are not available.

### 4.10 Reasons for Not Going to Health Institutions for Delivery

Table 4.12 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 bit less than three-quarters ( 70 percent) of the women stated that it was not necessary to deliver in health institutions. It is higher in proportion of rural women (70 percent) than urban women (68 percent) felt this way. Also, 71 percent of women stated that it was not necessary to deliver in health institutions when their villages were equipped with health facilities, when compared to 68 percent of women from villages where a health facility is not available. About 10 percent of the women felt that 'better care at home' to deliver in health institutions. Other factors contributing for not going to health institutions for delivery were, 'it cost too much' (5 percent), 'no transportation' or 'health facility is too far' (4 percent), 'no time to go’ (3 percent), 'family did not allow' (2 percent), it was not customary (3 percent), and 'other’ ( 2 percent). About 1 percent reported lack of knowledge regarding the delivery facilities. One percent women did not opt for institutional delivery due to poor quality of services. The corresponding figures were similar in urban and rural areas.

| 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, Rajasthan, 2002-04 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Availabilt facility ${ }^{1}$ in | of health <br> e village |
| Reason | Total | Rural | Urban | No | Yes |
| Not Necessary | 69.8 | 70.2 | 67.7 | 68.2 | 71.2 |
| Not customary | 3.3 | 3.3 | 3.3 | 3.5 | 3.2 |
| Cost too much | 4.6 | 4.4 | 5.5 | 5.0 | 4.1 |
| Health facility too far/ No transport | 3.6 | 4.1 | 1.3 | 5.2 | 3.5 |
| Poor quality service | 0.5 | 0.5 | 0.9 | 0.5 | 0.5 |
| No time to go | 3.0 | 2.9 | 3.8 | 2.8 | 2.9 |
| Family did not allow | 1.8 | 1.8 | 1.9 | 1.9 | 1.8 |
| Better care at home | 9.9 | 9.5 | 11.5 | 9.7 | 9.5 |
| Lack of knowledge | 1.2 | 1.3 | . 6 | 1.8 | 1.1 |
| Other | 2.2 | 1.9 | 3.6 | 1.4 | 2.1 |
| Total percent | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number of women | 9,143 | 7,632 | 1,511 | 2,566 | 5,066 |

### 4.11 Delivery Characteristics by District

Table 4.13 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 Jaisalmer (12 percent) and followed by Barmer (14 percent) and it is highest in Jaipur ( 56 percent).

| Table 4.13 DELIV Place of delivery, district, Rajasthan | TERISTICS BY <br> g home deliv | DISTRICT <br> es, and perc | tage of safe | veries by |
| :---: | :---: | :---: | :---: | :---: |
| 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 |
| Ajmer | 32.8 | 67.2 | 15.6 | 43.3 |
| Alwar | 25.4 | 74.1 | 13.1 | 35.1 |
| Banswara | 47.2 | 51.4 | 11.3 | 53.0 |
| Baran | 45.3 | 54.7 | 14.3 | 53.1 |
| Barmer | 13.7 | 86.1 | 24.3 | 34.6 |
| Bharatpur | 31.7 | 68.2 | 7.0 | 36.5 |
| Bhilwara | 23.9 | 75.8 | 19.5 | 38.7 |
| Bikaner | 16.4 | 83.3 | 14.0 | 28.1 |
| Bundi | 36.2 | 63.4 | 18.9 | 48.2 |
| Chittaurgarh | 27.1 | 72.9 | 20.2 | 41.8 |
| Churu | 14.4 | 85.6 | 19.4 | 31.0 |
| Dausa | 41.4 | 58.2 | 14.6 | 49.9 |
| Dhaulpur | 38.5 | 60.9 | 5.0 | 41.5 |
| Dungarpur | 30.9 | 68.8 | 17.2 | 42.7 |
| Ganganagar | 31.6 | 68.4 | 14.9 | 41.8 |
| Hamumangarh | 24.0 | 76.0 | 19.3 | 38.6 |
| Jaipur | 56.2 | 42.3 | 19.4 | 64.4 |
| Jaisalmer | 12.0 | 87.2 | 12.9 | 23.3 |
| Jalore | 20.6 | 79.1 | 31.6 | 45.6 |
| Jhalawar | 32.4 | 67.1 | 16.9 | 43.7 |
| Jhunjhunun | 33.2 | 66.8 | 26.5 | 50.9 |
| Jodhpur | 27.1 | 72.4 | 16.1 | 38.8 |
| Karauli | 36.4 | 62.7 | 10.6 | 43.1 |
| Kota | 54.8 | 43.6 | 15.5 | 61.6 |
| Nagaur | 27.4 | 72.6 | 31.7 | 50.4 |
| Pali | 33.9 | 65.8 | 33.3 | 55.9 |
| Rajsamand | 27.7 | 71.9 | 20.7 | 42.5 |
| Sawai Madhopur | 36.6 | 62.8 | 18.0 | 47.9 |
| Sikar | 34.6 | 65.0 | 28.8 | 53.3 |
| Sirohi | 34.1 | 65.4 | 29.2 | 53.2 |
| Tonk | 25.8 | 73.1 | 21.6 | 41.6 |
| Udaipur | 35.1 | 63.7 | 16.7 | 45.8 |
| Rajasthan | 31.4 | 68.0 | 19.1 | 44.4 |
| Note: *Table includes last live/still birth since 1-1-1999/1-1-2001. ${ }^{1}$ Includes |  |  |  |  |

Thirty one percent of births are institutional delivery in the state, but in 30 out of 32 districts, more than half of the births took place at home and Jaisalmer, Barmer and churu had more than 85 percent of home deliveries. Except in Bharatpur and Dhaulpur district, around 11-30 percent of home deliveries were attended by a health professional. The extent of safe
deliveries also varies by district, in 18 of 32 districts, the proportion of safe deliveries are below state average, it ranges from 23 percent in Jaisalmer to 64 percent in Jaipur. The proportion of safe deliveries is less than 30 percent in two districts i.e. Jaisalmer and Bikaner (see Map-4).

### 4.12 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. About nineteen percent of the women experienced at least one problem during delivery (Table 4.14 and Figure 4.6). The proportion of delivery complications is higher among urban women (20 percent) than among rural women (18 percent). Younger women below the age of 20 years, and women with low parity 1-2 reported delivery complications than older women aged 35 years and above and women with higher parity. This proportion is relatively high among women who had received some kind of antenatal care during their pregnancy. Fifteen percent of women who had not had any antenatal check-up reported that they experienced at least one problem during their pregnancy when compared to 17-26 percent of women who had received some kind of antenatal checkup. Among women who had assisted or caesarean delivery, 48-66 percent reported experiencing such problems, and 16 percent women with normal deliveries also cited complications during delivery. A relatively higher proportion of women who delivered in health institutions (29-33 percent) faced at least one delivery complication compared to those who delivered at home or other places (13-30 percent). The major problems reported were 'prolonged labour’ (10 percent), ‘excessive bleeding (6 percent) 'obstructed labour’ (4 percent) and 'premature labour' (3 percent). Only 2 percent reported 'breech presentation', and 1 percent reported 'other' problems related to delivery.

Figure 4.6
Percentage of women with Delivery Complication and by Symptoms


Premature labour, prolonged labour, obstructed labour and breech presentation are more common among younger women, and women with low parity. Rural women were more likely to report delivery complications such as excessive bleeding, prolonged labour, and obstructed labour, whereas premature labour and breech presentations are more prevalent among urban women. Premature labour, prolonged labour, obstructed labour and other health problems related to delivery were more among women whose last delivery was assisted with instruments, and breech presentation was more likely among those who had a caesarean, and excessive bleeding 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 obstructed labour compared with place of delivery other than medical institutions.

| Table 4.14 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, Rajasthan, 2002-04 |  |  |  |  |  |  |  |  |
| Background characteristics | Any delivery complication | Type of delivery complication; |  |  |  |  |  | Number of women |
|  |  | Premature labour | Excessive bleeding | Prolonged labour | Obstructed labour | Breech presentation | Other |  |
| Age group (in years) |  |  |  |  |  |  |  |  |
| Below 20 | 22.9 | 4.9 | 6.4 | 12.8 | 4.7 | 2.6 | 1.7 | 1,312 |
| 20-34 | 18.7 | 3.1 | 5.7 | 10.0 | 4.0 | 2.0 | 1.5 | 11,120 |
| 35 and above | 15.8 | 3.5 | 6.7 | 7.7 | 2.9 | 1.5 | 1.4 | 1,008 |
| Children ever born |  |  |  |  |  |  |  |  |
| 1 | 24.7 | 4.3 | 5.8 | 12.8 | 6.3 | 3.7 | 2.4 | 3,432 |
| 2 | 17.9 | 3.2 | 5.9 | 9.4 | 3.6 | 1.6 | 1.5 | 3,253 |
| 3 | 16.4 | 2.9 | 5.5 | 9.2 | 2.7 | 1.4 | 1.3 | 2,576 |
| 4+ | 15.9 | 2.7 | 6.1 | 8.8 | 2.9 | 1.4 | 0.9 | 4,130 |
| Residence |  |  |  |  |  |  |  |  |
| Rural | 18.3 | 3.0 | 6.2 | 10.2 | 3.6 | 2.0 | 1.2 | 9,888 |
| Urban | 20.5 | 4.0 | 4.9 | 9.8 | 5.2 | 2.3 | 2.3 | 3,551 |
| Number of antenatal check-ups |  |  |  |  |  |  |  |  |
| No check-up | 15.1 | 2.6 | 5.0 | 8.7 | 2.6 | 1.3 | 0.9 | 4,283 |
| 1 | 18.3 | 3.5 | 7.1 | 9.7 | 3.9 | 2.6 | 1.7 | 1,548 |
| 2 | 17.8 | 3.4 | 5.3 | 10.2 | 3.1 | 1.5 | 1.3 | 3,134 |
| 3 | 19.0 | 2.9 | 5.3 | 9.5 | 4.1 | 2.2 | 1.7 | 1,715 |
| 4+ | 26.1 | 4.4 | 7.5 | 12.6 | 7.1 | 3.4 | 2.4 | 2,758 |
| Delivery characteristics |  |  |  |  |  |  |  |  |
| Normal | 16.2 | 3.1 | 5.4 | 9.0 | 2.7 | 1.3 | 1.0 | 12,585 |
| Caesarean | 66.4 | 6.4 | 12.2 | 28.4 | 24.5 | 16.9 | 12.6 | 537 |
| Assisted | 47.9 | 7.5 | 13.3 | 24.5 | 24.5 | 7.7 | 5.5 | 290 |
| Place of delivery |  |  |  |  |  |  |  |  |
| Government sector | 29.0 | 5.7 | 7.3 | 15.0 | 7.8 | 3.9 | 2.9 | 2,607 |
| Private sector | 33.1 | 8.7 | 7.9 | 15.9 | 8.6 | 4.2 | 3.4 | 1,618 |
| Home | 13.5 | 1.7 | 5.1 | 7.7 | 2.1 | 1.2 | 0.8 | 9,143 |
| Other | (30.0) | (8.0) | (14.0) | (18.0) | (8.0) | (0.0) | (0.0) | 46 |
| Total | 18.9 | 3.3 | 5.9 | 10.1 | 4.0 | 2.1 | 1.5 | 13,440 |

### 4.13 Post Delivery Complications and Treatment

Table 4.15 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 judged by any of the following during the first six-weeks of delivery'high fever', 'lower abdominal pain', 'foul smelling vaginal discharge’, 'excessive bleeding', 'convulsion’, 'severe headache', and 'other' problems. Twenty seven 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 (29 percent) than in urban areas ( 23 percent). Older women aged 34 years and above, and women with higher parity 4 and over, had there deliveries assisted with instruments, and those whose deliveries took place at home, and those whose deliveries at home were attended by none are more prone to report at least one post delivery related problem.


Women reported lower abdominal pain (15 percent), high fever and severe headache (12 percent each), excessive vaginal bleeding ( 6 percent), foul smelling vaginal discharge (5 percent), and convulsion (3 percent). One percent of women reported other problems. Ruralurban differences in all symptoms of postpartum complication are large. All the postpartum complications, except convulsions, are more prevalent among older women aged 35 years and above than among women below 35 years. The symptoms of postpartum complications were increasing steadily with increased parity. There are minimal differences in the likelihood of having different symptoms in the postpartum period by place of delivery. Women who had the last delivery at home and were not assisted by anyone were more likely to have high fever, lower abdominal pain and other postpartum problems during the first six weeks of delivery. Symptoms like high fever 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 a 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 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, Rajasthan, 2002-04 |  |  |  |  |  |  |  |  |  |
|  |  | Type of post delivery complication; |  |  |  |  |  |  |  |
| Background characteristics | Any post delivery complication | High fever | Lower abdominal pain | Foul smelling vaginal dischar ge | Excessive bleeding | $\begin{aligned} & \text { Convul } \\ & \text {-sion } \end{aligned}$ | Severe headache | Other | Number of women |
| Age |  |  |  |  |  |  |  |  |  |
| Below 20 | 26.7 | 12.0 | 15.2 | 4.7 | 5.9 | 4.0 | 10.9 | 1.4 | 1,312 |
| 25-34 | 27.2 | 12.2 | 15.4 | 4.4 | 5.9 | 3.2 | 11.9 | 2.0 | 11,120 |
| 35 and above | 26.8 | 12.1 | 16.2 | 5.1 | 5.4 | 1.9 | 11.6 | 1.5 | 1,008 |
| Children ever born |  |  |  |  |  |  |  |  |  |
| 1 | 24.8 | 11.2 | 12.3 | 4.1 | 5.6 | 2.8 | 9.2 | 1.7 | 3,432 |
| 2 | 25.6 | 10.6 | 14.8 | 4.5 | 4.7 | 3.4 | 11.2 | 1.7 | 3,253 |
| 3 | 27.3 | 12.9 | 16.3 | 4.9 | 6.4 | 3.1 | 12.0 | 2.1 | 2,576 |
| 4+ | 29.9 | 13.7 | 17.7 | 4.6 | 6.5 | 3.4 | 14.2 | 2.0 | 4,130 |
| Residence |  |  |  |  |  |  |  |  |  |
| Rural | 28.6 | 13.2 | 16.6 | 4.8 | 6.2 | 3.4 | 12.8 | 1.8 | 9,888 |
| Urban | 22.9 | 9.5 | 12.2 | 3.6 | 4.7 | 2.5 | 9.1 | 2.1 | 3,551 |
| Delivery characteristics |  |  |  |  |  |  |  |  |  |
| Normal | 26.6 | 12.0 | 15.0 | 4.4 | 5.6 | 3.1 | 11.7 | 1.7 | 12,585 |
| Caesarean | 36.0 | 17.0 | 21.9 | 6.3 | 9.4 | 6.3 | 13.6 | 3.2 | 537 |
| Assisted | 35.8 | 14.9 | 21.1 | 5.5 | 9.7 | 0.5 | 13.9 | 5.0 | 290 |
| Place of delivery |  |  |  |  |  |  |  |  |  |
| Government sector | 27.6 | 11.8 | 15.7 | 5.6 | 5.8 | 2.8 | 11.8 | 2.5 | 2,607 |
| Private sector | 25.7 | 9.5 | 14.5 | 3.9 | 7.3 | 3.5 | 10.1 | 1.8 | 1,618 |
| Home | 27.2 | 12.8 | 15.5 | 4.3 | 5.6 | 3.2 | 12.1 | 1.7 | 9,143 |
| Other | (50.0) | (28.0) | (34.0) | (10.0) | (10.0) | (8.0) | (32.0) | (4.0) | 46 |
| Assistance during home delivery |  |  |  |  |  |  |  |  |  |
| Doctor | 33.8 | 18.6 | 22.6 | 6.4 | 6.3 | 4.6 | 18.3 | 2.1 | 430 |
| ANM/Nurse/LHV | 27.7 | 13.2 | 14.2 | 4.7 | 6.6 | 2.5 | 11.0 | 1.6 | 1,314 |
| TBA | 25.5 | 10.7 | 14.8 | 3.9 | 6.8 | 3.9 | 13.5 | 2.7 | 500 |
| Untrained dai | 26.4 | 12.1 | 14.5 | 3.9 | 5.4 | 3.2 | 11.7 | 1.7 | 4,681 |
| Relative/friends | 27.6 | 13.5 | 16.7 | 4.6 | 4.9 | 3.2 | 11.9 | 1.2 | 2,164 |
| None | 33.3 | 9.8 | 25.8 | 1.1 | 3.8 | 3.1 | 14.0 | 2.3 | 54 |
| Total | 27.1 | 12.2 | 15.4 | 4.5 | 5.8 | 3.2 | 11.8 | 1.9 | 13,440 |
| Note: Table include 48 women with zero parity, 28 missing cases on delivery characteristics and 25 on place of delivery who were not shown separately. () Based on less than 50 unweighted cases. |  |  |  |  |  |  |  |  |  |

Table 4.16 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. Forty percent of women reported that they had obtained advice or had consulted someone for their problems. The proportion was higher among urban women (52 percent) than among rural women ( 36 percent), and 37 percent of women sought treatment from those villages where health facility was available as compared to 35 percent of women who did not have a health facility within the village.

| 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, Rajasthan, 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 | 40.0 | 36.4 | 52.4 | 35.4 | 37.0 |
| Number of women | 3,644 | 2,829 | 815 | 1,031 | 1,798 |
| Percentage sought treatment at health facility |  |  |  |  |  |
| Government health facility ${ }^{1}$ | 45.1 | 46.5 | 41.8 | 40.5 | 49.8 |
| Primary health centre | 8.7 | 10.6 | 4.0 | 10.6 | 10.6 |
| Sub centre | 7.3 | 9.5 | 1.8 | 4.8 | 12.1 |
| Private health facility ${ }^{2}$ | 39.6 | 35.9 | 48.3 | 43.1 | 32.0 |
| ISM ${ }^{3}$ facility | 3.9 | 4.4 | 2.6 | 2.8 | 5.3 |
| Other | 12.3 | 14.2 | 7.7 | 14.0 | 14.3 |
| Percent distribution of women who obtained treatment from |  |  |  |  |  |
| Doctor | 73.1 | 69.5 | 82.0 | 78.2 | 64.6 |
| ANM/nurse/midwife/LHV | 19.6 | 22.3 | 13.0 | 15.4 | 26.1 |
| Other health professionals ${ }^{4}$ | 2.8 | 3.3 | 1.5 | 2.7 | 3.6 |
| Other | 4.5 | 5.0 | 3.4 | 3.7 | 5.6 |
| Total percent | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number of women | 1,457 | 1,030 | 427 | 365 | 665 |
| 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. <br> ${ }^{2}$ Include private hospital/clinic and non-governmental organization/ trust hospital. <br> ${ }^{3}$ Either government or private Indian system of medicine. <br> ${ }^{4}$ Other health professionals include Dai (trained or untrained), relative/friends and ISM practitioner. <br> ${ }^{5}$ 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 complications in the postpartum period, 61 percent visited a government health facility including primary health centre and sub-centre (8 percent each). About forty percent of women visited a private health facility, and 4 percent went to a facility with the Indian system of medicine (either government or private) and another 12 percent obtained advice from other health facilities. The proportion of women who visited a government health facility is relatively higher in rural areas (47 percent) than in urban areas ( 42 percent). On the other hand, the proportion of women seeking treatment from a private health facility is more among women who belonged to villages with non-availability of health facility within the village. Among women who sought treatment, 73 percent preferred to go to a doctor and 20 percent visited an auxiliary nurse midwife or nurse or LHV, 3 percent went to other health professionals, and 4 percent went to some one else. Eighty two percent of these women in urban areas, and 69 percent in rural areas went to a doctor, whereas
a visit to an ANM/nurse/LHV was 22 percent in rural areas and 13 percent in urban areas. There are also differences by availability of health facilities and non-availability of health facilities in the village. Sixty five percent of women who belonged to villages with availability of health facilities were seen by doctor compared to 78 percent of women belonging to villages with non-availability of health facilities.

### 4.14 Obstetric Morbidity by District

Table 4.17 presents the incidence of pregnancy, delivery and post-delivery complications and treatment seeking behaviour in case of pregnancy and post delivery complications by district. The extent of health problems/ complications women suffer during pregnancy, delivery and post delivery period indicates the state of obstetric morbidity. As mentioned earlier, in the state, 36 percent, 19 percent and 27 percent of the women experienced pregnancy, delivery and post delivery complications respectively. About 46 percent of the women sought treatment for pregnancy complications and 40 percent for post delivery complications. In every district, a minimum of one-third of the women experienced at least one of the symptoms of pregnancy complications.

In a few districts like, Karauli (49 percent), Kota (49 percent) Banswara (47 percent), Dausa (44 percent) and Bharatpur (42 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 percentage of women who experienced at least one type of delivery complication ranges from 11 percent in Jhunjunun to 28 percent in Baran, and incidence of post delivery complication varies from 14 percent in Jhunjunun to 41 percent in Banswara. The incidence of all three types of complications seems to be linked with each other in varying proportions.

In most of the districts of Rajasthan about three-quarters of the women received some kind of antenatal care. In spite of a large proportion of women having contact with a doctor or any other health workers during the antenatal period, in all districts (except Bundi, Kota, Jaipur and Pali) less than 55 percent of the women sought treatment for pregnancy complication. Similarly, among women who experienced at least one symptoms of postpartum complication, the proportion seeking treatment also varies across the districts, ranging from 24 percent in Udaipur to 73 percent in Kota.

| Extent of pregnancy, delivery and post delivery complications and treatment seeking behaviour by districts, Rajasthan, 2002-04 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Percentage of | omen ${ }^{1}$ |  |
| District | 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 |
| Ajmer | 34.0 | 46.5 | 14.7 | 18.8 | 42.6 |
| Alwar | 33.1 | 43.7 | 13.5 | 21.1 | 44.5 |
| Banswara | 46.8 | 44.7 | 27.6 | 41.0 | 35.1 |
| Baran | 39.4 | 54.1 | 27.7 | 37.8 | 51.0 |
| Barmer | 33.8 | 36.2 | 26.1 | 34.4 | 32.7 |
| Bharatpur | 42.3 | 34.4 | 19.5 | 40.3 | 42.1 |
| Bhilwara | 29.3 | 53.9 | 17.9 | 30.2 | 47.3 |
| Bikaner | 31.2 | 35.9 | 17.9 | 25.7 | 44.4 |
| Bundi | 33.8 | 55.7 | 17.7 | 30.0 | 39.5 |
| Chittaurgarh | 30.6 | 43.5 | 16.9 | 21.8 | 44.5 |
| Churu | 31.6 | 28.1 | 19.8 | 26.8 | 28.6 |
| Dausa | 44.4 | 52.2 | 15.2 | 30.4 | 32.5 |
| Dhaulpur | 30.0 | 29.5 | 17.7 | 24.3 | 38.5 |
| Dungarpur | 37.4 | 37.5 | 23.9 | 31.5 | 35.6 |
| Ganganagar | 37.6 | 52.0 | 19.7 | 26.8 | 49.7 |
| Hamumangarh | 36.6 | 55.2 | 19.6 | 28.2 | 55.3 |
| Jaipur | 34.0 | 59.5 | 18.6 | 15.5 | 42.3 |
| Jaisalmer | 32.4 | 29.2 | 25.5 | 35.4 | 32.9 |
| Jalore | 39.7 | 51.0 | 17.8 | 32.2 | 54.6 |
| Jhalawar | 35.1 | 30.9 | 25.3 | 31.9 | 49.2 |
| Jhunjhunun | 22.9 | 43.5 | 10.6 | 13.7 | 42.8 |
| Jodhpur | 33.4 | 52.0 | 14.2 | 23.4 | 35.3 |
| Karauli | 49.2 | 45.8 | 16.9 | 33.5 | 35.2 |
| Kota | 48.9 | 76.5 | 21.7 | 30.0 | 72.9 |
| Nagaur | 39.6 | 48.9 | 19.3 | 26.7 | 37.0 |
| Pali | 41.1 | 58.6 | 17.6 | 28.7 | 46.5 |
| Rajsamand | 39.6 | 55.5 | 21.5 | 31.0 | 43.8 |
| Sawai Madhopur | 40.8 | 45.8 | 21.6 | 27.0 | 40.2 |
| Sikar | 34.3 | 42.6 | 18.4 | 22.9 | 36.7 |
| Sirohi | 30.0 | 38.0 | 18.8 | 27.8 | 33.0 |
| Tonk | 30.8 | 47.9 | 11.7 | 25.4 | 42.6 |
| Udaipur | 41.5 | 42.6 | 25.4 | 36.6 | 23.6 |
| Rajasthan | 35.9 | 46.3 | 18.9 | 27.1 | 40.0 |
| 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. |  |  |  |  |  |

## MAP-3 <br> Percentage of Women Received Three or More Ante Natal Check-ups



## MAP-4 <br> Percentage of Delivery Attended by Skilled person



## 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 Rajasthan. Although, the practice of breastfeeding is common in Rajasthan, the initiation of breastfeeding within two hours of the birth of the child is not always followed. Fourteen percent of the children were breastfed within two hours of birth, and 37 percent were breastfed within one day of birth (including those who were breastfed within two hours of birth), while 62 percent of children were breastfed after one day of birth. As shown in Figure 5.1, about 37 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 13 percent children were put to the breast after three days. One percent of the children were never breastfed. Almost 61 percent women 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 21 percent of children in any socio-economic groups shown in Table 5.1 were breastfed within two hours of birth. Thirteen percent of children from scheduled tribe were breastfed within two hours of birth, and almost 38 percent 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.

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, Rajasthan, 2002-04

|  | Percentage started breastfeeding |  |  | Percentage whose mother |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Background characteristic | Within two hours of birth | Within one day of birth ${ }^{1}$ | After one day of birth | squeezed first milk from breast | Number <br> of children |


| Residence |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Rural | 12.6 | 32.1 | 67.4 | 60.7 | 8,607 |
| Urban | 19.9 | 50.3 | 49.3 | 60.9 | 3,154 |
| Mother's education |  |  |  |  |  |
| Non-literate | 11.8 | 31.2 | 68.3 | 61.7 | 7,795 |
| 0-9@ years | 18.1 | 44.3 | 55.3 | 60.6 | 2,696 |
| 10 and above | 24.2 | 57.4 | 42.2 | 54.8 | 1,262 |
| Religion |  |  |  |  |  |
| Hindu | 14.5 | 36.3 | 63.1 | 60.5 | 10,303 |
| Muslim | 14.5 | 41.2 | 58.5 | 62.5 | 1,226 |
| Sikh | 12.6 | 27.9 | 72.1 | 60.9 | 107 |
| Jain | 22.5 | 54.2 | 45.3 | 56.4 | 106 |
| Caste/tribe\# |  |  |  |  |  |
| Scheduled caste | 14.6 | 37.9 | 61.7 | 64.1 | 2,252 |
| Scheduled tribe | 13.0 | 26.8 | 72.8 | 61.3 | 1,658 |
| Other backward class | 13.0 | 35.7 | 63.9 | 61.3 | 4,912 |
| Other | 18.1 | 44.4 | 54.9 | 56.9 | 2,926 |
| Standard of living index |  |  |  |  |  |
| Low | 11.9 | 29.0 | 70.6 | 61.9 | 5,579 |
| Medium | 13.4 | 37.0 | 62.3 | 61.0 | 3,329 |
| High | 21.0 | 52.5 | 47.0 | 58.1 | 2,852 |
| Total | 14.5 | 37.0 | 62.5 | 60.7 | 11,761 |

Note: Table based on youngest living child born during the three years preceding the survey. Table includes 8 children with missing information on mother's education were not shown separately . ${ }^{1}$ 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. Total includes 19 children of other religion who are not shown separately.

A large proportion of children from rural areas (67 percent), Sikh children (58 percent), children of non-literate mothers ( 68 percent), and children from households with a low standard of living ( 62 percent) were put to the breast after one day of birth. The custom of squeezing the first milk from the breast before breastfeeding is widely practised in every group, but it is slightly higher among the mothers of scheduled caste children, and children whose mothers are non-literate. Children who live in households with a high standard of living are less likely than children in other households to have mothers who squeezed the first milk from the breast before breastfeeding.

There is no Rural-Urban differential of the custom of squeezing the first milk from the breast before breastfeeding. 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.


| Percentage of children under age3 years by exclusive breastfeeding, according to child's age in month, Rajasthan, 2002-04 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | of exclusive breastf | ding |  |
| Age in months | Exclusive breastfeeding | At least 4 months | At least 6 months | Number of children |
| <2 | 35.9 | * | * | 681 |
| 2-3 | 26.0 | * | * | 764 |
| 4-5 | 9.1 | 18.1 | * | 779 |
| 6-7 | 3.6 | 19.9 | 7.1 | 756 |
| 8-9 | 1.2 | 20.8 | 5.7 | 708 |
| 10-11 | 1.4 | 17.6 | 5.5 | 759 |
| 12-13 | 0.9 | 18.2 | 5.1 | 987 |
| 14-15 | 1.5 | 22.0 | 6.1 | 613 |
| 16-17 | 0.6 | 19.4 | 5.1 | 609 |
| 18-19 | 1.6 | 18.7 | 5.6 | 603 |
| 20-21 | 1.6 | 21.2 | 5.2 | 581 |
| 22-23 | 0.3 | 16.4 | 3.1 | 529 |
| 24-25 | 0.7 | 19.6 | 4.3 | 802 |
| 26-27 | 0.5 | 18.7 | 3.5 | 567 |
| 28-29 | 1.2 | 22.3 | 6.6 | 545 |
| 30-31 | 0.4 | 21.7 | 5.0 | 452 |
| 32-33 | 0.6 | 16.6 | 6.2 | 504 |
| 34-35 | 0.7 | 18.1 | 5.7 | 523 |
| < 4 months | 30.7 | * | * | 1,445 |
| 4-6 months | 7.9 | 18.5 | * | 1,170 |
| 7-9 Months | 1.4 | 20.7 | 5.6 | 1,073 |
| Note: Table based on youngest living child born during the three years preceding the survey |  |  |  |  |

In Rajasthan, only 31 percent of children under four months of age are exclusively breastfed. The percentage of infants exclusively breastfed drops steadily from almost 36 percent for children under 2 months of age to 9 percent for children who are 4-5 months old. Eighteen percent of children in the age group 4-6 months were exclusively breastfed up to 4 months.

### 5.1.1 Breastfeeding by Districts

Table 5.3 shows that in all the districts of Rajasthan, except Sikar, Sirohi, Tonk and Udaipur not more than 23 percent of the children were put to the breast within two hours of birth. Only five percent of the children were breastfed within two hours of birth in Alwar district. More than two-third of the children were put to the breast after one day of birth in Alwar, Baran, Barmer, Bhilwara, Chittaurgarh, Dausa, Dhaulpur, Ganganagar, Hanumangarh, Jhalawar, Jhunjhunun, Karauli, and Rajsamand districts. In 80 percent of the 32 districts, the mothers of more than 60 percent children squeezed the first milk before breastfeeding. There is a great deal of variation in the extent of exclusive breastfeeding for six months. It is highest in Ganganagar (21 percent) and almost negligible in Sawai Madhopur (1.4 percent), Baran (1.1 percent) and Jhunjhunun (1 percent).

| 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, Rajasthan, 2002-04 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percentage | tarted breastfe |  | Percentage whose |  |
| District | Within two hours of birth | Within one day of birth ${ }^{1}$ | After one day of birth | milk from breast | Exclusive breastfeeding ${ }^{2}$ |
| Ajmer | 14.3 | 44.4 | 55.1 | 66.0 | 2.9 |
| Alwar | 8.3 | 21.4 | 77.8 | 71.3 | 1.6 |
| Banswara | 15.0 | 26.0 | 73.5 | 54.9 | 4.5 |
| Baran | 25.2 | 39.5 | 60.1 | 80.6 | 1.1 |
| Barmer | 10.1 | 27.5 | 72.4 | 48.4 | 11.4 |
| Bharatpur | 14.7 | 49.3 | 50.3 | 34.9 | 3.2 |
| Bhilwara | 15.1 | 32.8 | 67.2 | 68.5 | 6.0 |
| Bikaner | 16.8 | 41.0 | 57.9 | 67.4 | 12.2 |
| Bundi | 13.0 | 37.1 | 62.3 | 63.3 | 0.9 |
| Chittaurgarh | 15.9 | 32.4 | 66.9 | 64.8 | 5.3 |
| Churu | 22.1 | 59.6 | 39.8 | 35.4 | 3.2 |
| Dausa | 6.0 | 25.0 | 75.0 | 69.9 | 2.0 |
| Dhaulpur | 6.0 | 17.8 | 82.2 | 76.2 | 3.1 |
| Dungarpur | 23.5 | 37.0 | 62.4 | 54.6 | 5.5 |
| Ganganagar | 12.4 | 23.9 | 74.6 | 68.8 | 21.0 |
| Hamumangarh | 9.2 | 20.2 | 79.8 | 60.4 | 9.8 |
| Jaipur | 15.3 | 42.5 | 57.5 | 65.7 | 3.1 |
| Jaisalmer | 18.2 | 36.2 | 63.7 | 66.7 | 13.2 |
| Jalore | 10.9 | 30.1 | 68.9 | 56.1 | 4.2 |
| Jhalawar | 13.1 | 28.9 | 70.7 | 64.9 | 10.2 |
| Jhunjhunun | 5.2 | 32.2 | 67.4 | 61.5 | 1.0 |
| Jodhpur | 16.9 | 45.7 | 53.8 | 62.0 | 3.9 |
| Karauli | 10.5 | 30.6 | 69.1 | 64.4 | 4.8 |
| Kota | 28.0 | 46.5 | 52.6 | 60.3 | 8.4 |
| Nagaur | 15.6 | 47.7 | 51.1 | 53.1 | 3.7 |
| Pali | 22.7 | 58.8 | 41.2 | 63.6 | 14.3 |
| Rajsamand | 13.3 | 24.2 | 75.0 | 75.4 | 3.3 |
| Sawai Madhopur | 14.1 | 36.4 | 64.2 | 70.7 | 1.4 |
| Sikar | 7.6 | 34.1 | 63.2 | 50.3 | 5.3 |
| Sirohi | 20.8 | 39.7 | 59.7 | 64.0 | 8.8 |
| Tonk | 17.0 | 44.4 | 54.6 | 66.4 | 2.0 |
| Udaipur | 23.5 | 37.0 | 62.7 | 62.0 | 4.9 |
| Rajasthan | 14.5 | 37.0 | 62.5 | 60.7 | 5.3 |

[^1]
### 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 12-25 months. Almost one fourth percent of the children are fully vaccinated, and a little more than a quarter ( 29 percent) have not received any routine vaccination. Coverage of each vaccination is much higher than the percentage fully vaccinated. BCG, the first dose of DPT and Polio vaccine has each been given almost 60 percent of the children (Figure 5.3). Only 36 percent of the children have received three doses of DPT and 36 percent of the children received 3 drops of Polio, and almost 36 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 as high as 44-percentage point for DPT and 24 percentage points for polio.

There has been some improvement in full vaccination coverage in Rajasthan since the time of Round I in 1998-99. These data indicate that despite the progress that has been made in immunization coverage for children in Rajasthan, coverage levels are still low and a large proportion of children who received some early vaccinations dropped out of the programme before receiving all of the recommended vaccinations.

| Table 5.4 VACCINATION OF CHILDREN |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | DPT |  |  | Polio |  |  | Full ${ }^{1}$ |  | Number |
| Background characteristic | Polio 0 | BCG | 1 | 2 | 3 | 1 | 2 | 3 | Measles | vaccination | vaccination | children |
| Residence |  |  |  |  |  |  |  |  |  |  |  |  |
| Rural | 24.5 | 54.2 | 54.3 | 43.1 | 29.2 | 54.2 | 44.1 | 29.6 | 29.1 | 18.0 | 33.7 | 3,087 |
| Urban | 60.2 | 79.3 | 76.8 | 71.7 | 54.3 | 77.8 | 72.0 | 54.0 | 55.1 | 43.5 | 16.0 | 1,097 |
| Sex of the child |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 35.1 | 62.5 | 62.4 | 53.0 | 37.1 | 62.3 | 53.6 | 37.1 | 38.9 | 26.2 | 27.0 | 2,281 |
| Female | 32.3 | 58.8 | 57.5 | 47.7 | 34.1 | 58.0 | 48.8 | 34.7 | 32.3 | 22.9 | 31.5 | 1,903 |
| Birth order |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 | 50.6 | 69.4 | 69.8 | 59.5 | 45.9 | 69.4 | 59.5 | 45.7 | 43.9 | 33.8 | 21.6 | 1,222 |
| 2 | 36.7 | 66.6 | 64.9 | 55.3 | 40.1 | 64.9 | 55.6 | 39.7 | 39.5 | 28.5 | 23.6 | 1,049 |
| 3 | 29.7 | 60.8 | 58.7 | 49.8 | 30.6 | 57.6 | 49.8 | 31.0 | 34.5 | 19.3 | 28.9 | 750 |
| 4+ | 16.3 | 46.5 | 46.8 | 37.4 | 24.4 | 48.5 | 40.2 | 25.9 | 25.1 | 15.2 | 41.8 | 1,163 |
| Mother's education |  |  |  |  |  |  |  |  |  |  |  |  |
| Non-literate | 21.3 | 49.1 | 49.1 | 38.3 | 23.2 | 49.4 | 39.4 | 23.6 | 24.2 | 13.4 | 38.9 | 2,775 |
| 0-9@ years | 49.4 | 78.5 | 76.8 | 67.0 | 50.7 | 77.0 | 68.0 | 51.4 | 50.5 | 37.1 | 12.9 | 958 |
| 10 years and above | 78.3 | 95.5 | 93.5 | 92.1 | 81.7 | 92.8 | 90.6 | 80.4 | 77.3 | 68.0 | 2.3 | 449 |
| Religion |  |  |  |  |  |  |  |  |  |  |  |  |
| Hindu | 32.5 | 60.0 | 59.4 | 49.2 | 34.1 | 59.5 | 50.1 | 34.5 | 34.8 | 23.3 | 29.4 | 3,656 |
| Muslim | 35.5 | 60.7 | 60.2 | 53.6 | 39.7 | 61.3 | 54.5 | 39.4 | 35.8 | 27.5 | 31.7 | 432 |
| Sikh | (59.6) | (93.6) | (93.6) | (93.6) | (85.1) | (87.2) | (87.2) | (78.7) | (83.0) | (68.1) | (2.1) | 44 |
| Jain | (91.3) | (97.8) | (95.7) | (93.5) | (84.8) | (97.8) | (95.7) | (87.0) | (80.4) | (69.6) | (0.0) | 44 |
| Caste/tribe\# |  |  |  |  |  |  |  |  |  |  |  |  |
| Scheduled caste | 25.1 | 58.5 | 60.4 | 47.4 | 31.1 | 60.7 | 49.1 | 32.5 | 33.0 | 22.3 | 30.4 | 798 |
| Scheduled tribe | 24.0 | 48.6 | 45.0 | 34.6 | 21.2 | 43.8 | 35.1 | 21.2 | 21.4 | 12.6 | 41.6 | 605 |
| Other backward class | 31.3 | 59.1 | 58.5 | 49.3 | 34.2 | 59.2 | 50.5 | 34.4 | 34.4 | 22.4 | 29.5 | 1,754 |
| Other | 50.8 | 72.8 | 71.8 | 64.7 | 50.6 | 71.9 | 64.5 | 50.3 | 49.4 | 37.6 | 19.8 | 1,024 |
| Standard of living index |  |  |  |  |  |  |  |  |  |  |  |  |
| Low | 18.7 | 46.6 | 46.2 | 35.3 | 21.7 | 46.1 | 36.5 | 22.3 | 21.9 | 12.0 | 41.3 | 2,021 |
| Medium | 33.4 | 63.6 | 63.6 | 52.8 | 35.3 | 63.5 | 53.3 | 35.9 | 36.2 | 23.8 | 25.6 | 1,156 |
| High | 64.6 | 86.1 | 84.4 | 78.7 | 64.5 | 85.4 | 79.1 | 63.7 | 63.7 | 51.2 | 8.4 | 1,006 |
| Total | 33.8 | 60.8 | 60.2 | 50.6 | 35.7 | 60.4 | 51.4 | 36.0 | 35.9 | 24.7 | 29.0 | 4,183 |
| Table includes only last and last but one living child born since 1.1.1999/1.1.2001. Total includes 2 children with missing information on mother education and 8 cases of 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 and missing cases. ${ }^{1}$ BCG, three injection of DPT, three doses of Polio (excluding Polio 0 ) and measles. () Based on less than 50 cases. |  |  |  |  |  |  |  |  |  |  |  |  |

The data indicates that the coverage of each type of vaccine is more in urban areas than in rural areas. Forty three percent of the children in urban areas had received all the recommended vaccinations by the time of the survey, compared with 18 percent in rural areas. Differentials in rural-urban against polio 0 may be observed from the table. Sixty percent of the children have received polio vaccine at the time of birth in urban areas whereas less than half of it ( 24 percent ) received the same in the rural areas.


Male children (26 percent) are more likely than female children (23 percent) to be fully vaccinated. Male children are also much more likely than female children to have received most of the individual vaccinations. 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. As with the use of child health care services, there is a positive relationship between mother's education and children's vaccination coverage.

Only 13 percent children of non-literate mothers are fully vaccinated compared to 37 percent of children with mothers' education below high school and almost double 68 percent of mothers who have at least completed high school. Unconventionally, Muslim children are more likely than Hindu children to have received each of the recommended vaccinations. Children from Scheduled Castes are more likely to have BCG, DPT-1, DPT-2, Polio-1, Polio-3 and
measles vaccinations, and children than from other Backward Classes are more likely to have Polio-1 and Polio-2. The standard of living index of the household has a strong positive relationship with vaccination coverage. Fifty one percent of children from households with a high standard of living are fully vaccinated, whereas only 36 percent of children are from households which belong to medium or low standard of living.


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 by one percent from approximately 25 percent for children in the age group 12-23 months to 26 percent for children in the age group 24-35 months. A rural-urban differential for the coverage of full vaccination is also observed. Almost similar percentage (18 and almost 19) of children in the age group 12-23 and 24-35 months are fully vaccinated in rural areas, and same trend is followed in urban areas (Figure 5.4). Only 43.5 percent of children in the age group 12-23 months and slightly higher that is, almost 45 percent in the age group of $24-35$ months received full vaccination in urban urban areas. Younger children aged 12-23 months are more likely to receive each type of vaccine except Polio-3, DPT-3 and measles.

Figure 5.4 Child vaccination by age


| 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, Rajasthan, 2002-04 |  |  |  |  |  |  |
|  | Total |  | Rural |  | Urban |  |
| Vaccination status | $12-23$ months | $\begin{gathered} 24-35 \\ \text { months } \end{gathered}$ | $\begin{gathered} 12-23 \\ \text { months } \end{gathered}$ | $\begin{gathered} \hline 24-35 \\ \text { months } \end{gathered}$ | $\begin{gathered} 12-23 \\ \text { months } \end{gathered}$ | $\begin{gathered} 24-35 \\ \text { months } \end{gathered}$ |
| Vaccination card shown to interviewer | 16.5 | 11.0 | 12.3 | 7.8 | 28.3 | 19.5 |
| Percentage vaccinated by 12 months of age |  |  |  |  |  |  |
| Polio 0 | 33.8 | 30.9 | 24.5 | 21.8 | 60.2 | 54.9 |
| BCG | 60.8 | 60.5 | 54.2 | 54.3 | 79.3 | 76.9 |
| Polio doses |  |  |  |  |  |  |
| No Polio | 38.9 | 40.0 | 45.0 | 45.5 | 21.8 | 25.4 |
| 1 | 9.0 | 7.1 | 10.1 | 8.2 | 5.8 | 4.3 |
| 2 | 15.5 | 14.4 | 14.6 | 14.9 | 18.1 | 12.9 |
| 3 | 36.2 | 37.8 | 29.8 | 30.7 | 54.2 | 56.9 |
| Don't remember/missing | 0.4 | 0.6 | 0.5 | 0.7 | 0.2 | 0.6 |
| DPT injection |  |  |  |  |  |  |
| No DPT | 39.4 | 40.8 | 45.2 | 46.6 | 23.1 | 25.4 |
| 1 | 9.6 | 7.7 | 11.2 | 8.7 | 5.1 | 5.1 |
| 2 | 14.8 | 14.0 | 13.9 | 14.4 | 17.4 | 13.2 |
| 3 | 35.7 | 36.9 | 29.2 | 29.8 | 54.3 | 55.8 |
| Don't remember/missing | 0.4 | 0.5 | 0.5 | 0.6 | 0.0 | 0.4 |
| Measles | 35.9 | 37.6 | 29.1 | 30.1 | 55.1 | 57.6 |
| Full ${ }^{1}$ vaccination | 24.7 | 26.0 | 18.0 | 18.9 | 43.5 | 44.9 |
| No vaccination at all | 29.0 | 29.4 | 33.7 | 33.6 | 16.0 | 18.2 |
| Number of children | 4,183 | 4,687 | 3,087 | 3,408 | 1,097 | 1,279 |
| 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 |  |  |  |  |  |  |

### 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. The sub-centre is the primary provider of childhood vaccinations in Rajasthan. Most of the children (almost 70 percent) were immunized at the government health facilities and only six percent at private health facilities. Further, among the children immunized, 22 percent of them had received vaccination from the sub-centre, almost 28 percent from municipal hospital, and approximately 18 percent from community health centre or from primary health centre. The percentage of children receiving vaccination from the private sector is considerably lower in rural areas (3 percent) than in urban areas (12 percent). Even in urban areas, however, 77 percent of children received their vaccination from the government health facility. Children from those villages where health facilities are available are slightly 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, Rjasthan, 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 | 27.6 | 16.2 | 51.6 | 16.2 | 16.2 |
| Community/primary health centre | 17.7 | 17.0 | 19.4 | 14.0 | 18.4 |
| Sub-centre | 22.2 | 30.3 | 5.2 | 23.0 | 33.7 |
| RCH/MCP camp | 1.0 | 1.2 | 0.4 | 1.6 | 1.1 |
| Private health sector |  |  |  |  |  |
| Private hospital | 2.9 | 1.7 | 5.4 | 2.2 | 1.5 |
| Private doctor | 3.3 | 1.6 | 6.9 | 1.9 | 1.5 |
| $\mathrm{ISM}^{2}$ health facility | 1.4 | 0.9 | 2.5 | 1.0 | 0.9 |
| Other | 22.5 | 29.4 | 7.6 | 38.5 | 25.0 |
| Do not remember | 0.7 | 0.8 | 0.5 | 0.9 | 0.8 |
| Missing | 0.7 | 0.9 | 0.5 | 0.8 | 0.9 |
| Total percent | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number of children | 8,792 | 5,980 | 2,812 | 1,947 | 4,032 |
| 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 Reason for Not Immunizing the Children

Table 5.7 presents the percent distribution of children under the age of three years who did not receive any vaccination by reason as reported by the mother according to place of residence and availability of health facilities in the village. About 38 percent of the children did not receive any vaccination because the mothers of children were unaware of the need for immunization, and about 18 percent of children were not vaccinated, as the mothers feel that they were too young. The other reasons for not immunizing the children as reported by the
mothers were place or time of vaccination was not known (9 percent), place or time of vaccination was inconvenient ( 7 percent), fear of side effects ( 5 percent), no faith in vaccination ( 3 percent) and ANM absent/ vaccine not available ( 8 percent), and other reasons ( 6 percent). The percentage of children who did not receive any vaccinations is lower in urban areas ( 35 percent) than in rural areas ( 39 percent), as they were unaware of the need for immunization as reported by their mothers. Children from those villages where health facilities are available are less likely to report that they were unaware of the need for immunization as compared to those villages where health facilities are not available. Where health facilities were available, fear of side effects and no faith in immunization were reported more as reasons for not immunizing the children compared to the areas without having the same.

| Table 5.7 REASON FOR NOT GIVING VACCINATION |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Percent distribution of children under age 3 who did not receive any vaccination by reason reported by mother for not giving vaccination, according to place of residence and availability of health facilities in the village, Rajasthan, 2002-04 |  |  |  |  |  |
|  |  | Residence |  | Availability of health facility ${ }^{1}$ in the village |  |
| Reason | Total | Rural | Urban | No | Yes |
| Unaware of need for immunization | 38.3 | 38.9 | 35.2 | 40.1 | 38.2 |
| Place/time unknown | 9.2 | 9.2 | 9.2 | 11.3 | 8.1 |
| Place/time inconvenient | 7.2 | 7.4 | 6.3 | 7.1 | 7.5 |
| Fear of side effect | 5.4 | 5.4 | 5.0 | 4.6 | 5.9 |
| No faith | 3.4 | 3.4 | 3.4 | 3.6 | 3.2 |
| ANM absent/vaccine not | 7.7 | 8.5 | 3.5 | 8.2 | 8.8 |
| Long waiting time | 0.3 | 0.2 | 0.7 | 0.0 | 0.2 |
| Child too young | 17.6 | 16.4 | 24.0 | 14.3 | 17.6 |
| Family problems | 4.7 | 4.2 | 7.4 | 4.1 | 4.3 |
| Other | 6.2 | 6.4 | 5.3 | 6.8 | 6.2 |
| Total percent | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number of children | 4,502 | 3,777 | 725 | 1,383 | 2,394 |
| 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. ${ }^{2}$ Includes mother too busy, family problems, including illness of mother, and illness of child. |  |  |  |  |  |
|  |  |  |  |  |  |

### 5.5 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 5.8 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 Rajasthan as a whole, 22 percent of the children received at least one dose of Vitamin A, and only three percent received IFA tablets/syrup. This indicates that a large number of children in Rajasthan did not receive Vitamin A supplements and very few children received IFA tablets/syrup supplementation.

| Table 5.8 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, Rajasthan, 2002-04 |

Children in the age group 24-35 months and 12-23 months are more equally likely to receive at least one dose of Vitamin A and IFA tablets/syrup. Male children are more likely to receive Vitamin A than female children and its same in case of IFA tablets/syrup. Children living in urban areas, children whose mother completed high school and above, children living in households with a high standard of living, and children living in those villages where health
facilities are available 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.

| Table 5.9 CHILDHOOD VACCINATION BY DSITRICT |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Percentage of children age 12-23 months with a vaccination card that shown to the interviewer and percentage who received specific vaccinations by district, Rajasthan, 2002-04 |  |  |  |  |  |  |  |  |
|  | Percentage vaccinated ${ }^{1}$ |  |  |  |  |  |  | Percentage |
| District | Polio 0 | BCG | DPT3 | Polio3 | Measles | Full ${ }^{2}$ | None | $\mathrm{A}^{3}$ |
| Ajmer | 35.1 | 71.4 | 46.5 | 47.0 | 44.0 | 33.4 | 15.7 | 23.2 |
| Alwar | 36.2 | 67.6 | 34.6 | 36.6 | 39.1 | 25.3 | 19.6 | 27.6 |
| Banswara | 55.7 | 56.7 | 27.9 | 27.7 | 29.8 | 22.2 | 40.3 | 23.0 |
| Baran | 39.6 | 62.8 | 34.4 | 35.4 | 34.0 | 22.9 | 26.1 | 21.0 |
| Barmer | 21.1 | 44.8 | 28.2 | 28.0 | 23.8 | 16.8 | 43.8 | 4.7 |
| Bharatpur | 30.7 | 51.1 | 22.1 | 22.1 | 17.7 | 13.2 | 35.1 | 2.0 |
| Bhilwara | 22.3 | 62.1 | 35.6 | 34.6 | 40.8 | 29.0 | 26.6 | 21.0 |
| Bikaner | 23.2 | 57.7 | 37.7 | 38.3 | 32.7 | 23.3 | 35.8 | 11.0 |
| Bundi | 38.2 | 67.5 | 41.4 | 41.4 | 47.6 | 37.3 | 21.2 | 17.3 |
| Chittaurgarh | 25.5 | 56.5 | 27.5 | 32.3 | 31.1 | 19.3 | 21.0 | 21.8 |
| Churu | 17.7 | 41.5 | 27.5 | 30.4 | 28.0 | 17.9 | 48.3 | 6.0 |
| Dausa | 35.9 | 54.7 | 30.0 | 29.3 | 36.3 | 21.9 | 34.0 | 37.7 |
| Dhaulpur | 32.2 | 60.9 | 29.1 | 31.4 | 34.0 | 17.3 | 29.4 | 18.8 |
| Dungarpur | 37.1 | 48.9 | 33.4 | 31.7 | 30.6 | 22.1 | 41.4 | 12.0 |
| Ganganagar | 43.3 | 81.7 | 65.8 | 62.3 | 59.6 | 52.8 | 9.9 | 41.8 |
| Hamumangarh | 18.9 | 67.6 | 53.3 | 54.1 | 43.4 | 36.1 | 19.1 | 44.4 |
| Jaipur | 48.5 | 65.4 | 42.8 | 42.8 | 50.2 | 35.0 | 23.5 | 39.4 |
| Jaisalmer | 19.3 | 41.3 | 24.6 | 23.4 | 22.1 | 10.3 | 38.7 | 9.6 |
| Jalore | 23.3 | 49.2 | 27.4 | 28.1 | 26.4 | 19.7 | 46.3 | 22.1 |
| Jhalawar | 32.4 | 62.4 | 44.6 | 42.2 | 36.2 | 25.2 | 20.9 | 17.2 |
| Jhunjhunun | 39.4 | 75.0 | 47.1 | 47.1 | 45.5 | 36.0 | 23.9 | 16.8 |
| Jodhpur | 25.0 | 59.1 | 28.4 | 27.5 | 29.6 | 17.1 | 33.8 | 19.9 |
| Karauli | 39.4 | 61.8 | 27.1 | 26.1 | 34.0 | 18.3 | 27.3 | 33.6 |
| Kota | 67.8 | 89.3 | 66.6 | 64.7 | 62.9 | 49.7 | 9.3 | 52.1 |
| Nagaur | 39.0 | 55.5 | 31.0 | 30.2 | 27.0 | 17.6 | 32.3 | 12.0 |
| Pali | 35.8 | 68.2 | 42.0 | 44.1 | 43.0 | 34.9 | 25.8 | 39.5 |
| Rajsamand | 23.5 | 68.8 | 32.5 | 31.7 | 37.8 | 24.4 | 25.5 | 32.0 |
| Sawai Madhopur | 28.4 | 45.4 | 16.0 | 16.0 | 19.8 | 8.4 | 47.7 | 19.3 |
| Sikar | 38.7 | 64.8 | 41.0 | 40.0 | 38.2 | 20.5 | 20.6 | 12.5 |
| Sirohi | 32.1 | 66.9 | 23.9 | 38.3 | 37.4 | 13.6 | 17.0 | 13.2 |
| Tonk | 31.7 | 66.5 | 39.0 | 38.2 | 39.1 | 23.8 | 21.1 | 22.4 |
| Udaipur | 40.4 | 62.8 | 40.1 | 37.9 | 34.5 | 25.5 | 31.4 | 29.1 |
| Rajasthan | 33.8 | 60.8 | 35.7 | 36.2 | 35.9 | 24.7 | 29.0 | 22.4 |
| Note: Table includes only last and last but one living child born since 1.1.1999/1.1.2001. ${ }^{1}$ 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. |  |  |  |  |  |  |  |  |

### 5.6 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 above in Table 5.9. 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 8 percent in Sawai Madhopur to 53 percent in Udaipur. In 20 out of 32 districts, the
coverage rate of full immunization is below the state average of 25 percent. As high as 48 percent of children in Jalore district were not vaccinated at all, and in 12 districts, the percentage of children not vaccinated is higher than the state average ( 29 percent). In nearly all the districts, fewer children have received the measles vaccine than any of the other vaccinations. The coverage of polio drops at the time of birth varies from the lowest in Churu (18 percent) to the highest in Kota (69 percent).

District wise variations in the percentage of children who received at least one dose of Vitamin A are also shown in Table 5.9. The percentage of children in the age group 12-35 months who received at least one dose of Vitamin 'A' supplements ranges from 2 percent in Bharatpur to 52 percent in Kota. Only 12 districts are above the state average to receive at least one dose of Vitamin A (22 percent).

### 5.7 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.

### 5.7.1 Awareness of Diarrhoea

Diarrhoea is a major killer disease of children under five years of age. 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 5.10.

In Rajasthan, about 84 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 73 percent in Round I, and 20 percent were aware of ORS, which was four percent point down from Round I. Fifteen percent of the women were aware of salt and sugar solution. Some of the women also reported that they would continue normal food ( 4 percent), continue breastfeeding ( 8 percent), and give plenty of fluids (almost 6 percent), and about 16 percent of women did not know what to give a child who had diarrhoea. As expected, awareness of ORS is higher among urban women ( 90 percent) than rural women ( 81 percent), and among high school and above educated women ( 95 percent) as compared to non-literate women ( 80 percent). Women belonging to Schedule Tribes ( 9 percent) are less likely to know about ORS than women belonging to other caste groups ( 35 percent). Forty five percent of women with children having a high standard of living know about ORS and it declines to 18 percent for women with a medium standard of living and 8 percent with a low standard of living. Awareness of ORS is more among middle age groups and among older women than among younger women. Women from villages with availability of health facilities are more aware of diarrhoea management than women from other villages.

| Table 5.10 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, Rajasthan, 2002-04 |  |  |  |  |  |  |  |  |
|  | Awareness of diarrhoea management | Type of practices to be followed do if child gets diarrhoea* |  |  |  |  | Do not know | Number of women |
| Background characteristic |  | Give ORS | Salt and sugar solution | Continue normal food | Continue breastfeding | Give plenty of fluids |  |  |
| Age |  |  |  |  |  |  |  |  |
| 15-24 | 83.4 | 19.8 | 14.8 | 3.9 | 8.1 | 5.9 | 16.6 | 6,396 |
| 25-34 | 84.9 | 21.4 | 16.7 | 4.7 | 8.2 | 6.0 | 15.0 | 5,742 |
| 35-44 | 80.1 | 12.7 | 12.2 | 4.1 | 6.9 | 5.5 | 20.0 | 955 |
| Residence |  |  |  |  |  |  |  |  |
| Rural | 81.5 | 13.2 | 10.0 | 3.5 | 7.8 | 4.9 | 18.5 | 9,573 |
| Urban | 90.1 | 38.6 | 30.3 | 6.5 | 8.8 | 8.9 | 9.7 | 3,521 |
| Mother's education |  |  |  |  |  |  |  |  |
| Non-literate | 80.3 | 8.8 | 7.8 | 2.8 | 6.7 | 3.5 | 19.7 | 8,700 |
| 0-9@ years | 89.1 | 31.0 | 23.0 | 6.0 | 10.4 | 8.9 | 10.9 | 2,970 |
| 10 and above | 94.6 | 66.2 | 47.0 | 10.0 | 11.7 | 14.7 | 5.0 | 1,415 |
| Religion |  |  |  |  |  |  |  |  |
| Hindu | 83.5 | 19.4 | 14.6 | 4.2 | 7.9 | 5.8 | 16.5 | 11,484 |
| Muslim | 86.0 | 21.1 | 20.1 | 4.3 | 9.4 | 7.1 | 13.8 | 1,363 |
| Sikh | 78.2 | 37.7 | 21.4 | 2.0 | 6.1 | 1.6 | 21.8 | 113 |
| Jain | 93.1 | 57.5 | 42.3 | 11.4 | 6.5 | 10.3 | 5.9 | 114 |
| Caste/tribe\# |  |  |  |  |  |  |  |  |
| Scheduled caste | 83.7 | 15.5 | 12.5 | 3.3 | 7.1 | 4.5 | 16.3 | 2,502 |
| Scheduled tribe | 74.2 | 9.8 | 7.4 | 2.3 | 4.0 | 2.7 | 25.9 | 1,833 |
| Other backward class | 84.7 | 16.3 | 12.2 | 3.3 | 7.6 | 5.5 | 15.1 | 5,487 |
| Other | 87.9 | 35.5 | 27.9 | 7.9 | 12.0 | 9.8 | 12.0 | 3,257 |
| Standard of living index |  |  |  |  |  |  |  |  |
| Low | 77.7 | 8.3 | 6.1 | 2.6 | 6.3 | 3.6 | 22.3 | 6,204 |
| Medium | 87.4 | 17.8 | 15.2 | 4.5 | 9.1 | 5.8 | 12.6 | 3,677 |
| High | 91.6 | 45.2 | 33.8 | 7.2 | 10.4 | 10.6 | 8.2 | 3,212 |
| Availability of health facility ${ }^{2}$ in the village |  |  |  |  |  |  |  |  |
| Yes | 81.2 | 14.6 | 11.2 | 3.8 | 9.0 | 6.0 | 18.7 | 6,295 |
| No | 82.0 | 10.4 | 7.8 | 2.8 | 5.4 | 2.7 | 18.0 | 3,278 |
| Total | 83.8 | 20.0 | 15.5 | 4.3 | 8.1 | 5.9 | 16.1 | 13,094 |
| 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. Total includes 9 missing cases on mother education and 20 missing woman with other religion which are not shown separately. ( ) Based on less than 50 cases. |  |  |  |  |  |  |  |  |

### 5.7.2 Treatment of Diarrhoea

During the two weeks before the survey, 16 percent of the women reported that their children suffered from diarrhoea (Table 5.11). Women, whose children had diarrhoea, were further asked about treatment with ORS, any other medical treatment and source of treatment. About 29 percent of the women mentioned that they gave ORS therapy, and 62 percent of the women said that their child had been treated at health facility. Use of ORS for the treatment of childhood diarrhoea in Rajasthan is relatively high among urban women than among rural women.

| Table 5.11 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, Rajasthan, 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 | 15.9 | 15.9 | 15.9 | 15.4 | 16.8 |
| Number of women | 13,094 | 9,573 | 3,521 | 6,295 | 3,278 |
| Percentage of women whose child suffered ${ }^{1}$ from diarrhoea treated with ORS | 29.4 | 25.5 | 40.2 | 27.8 | 21.4 |
| Percentage of women whose child suffered ${ }^{1}$ from diarrhoea sought treatment | 62.2 | 58.8 | 71.4 | 57.9 | 60.4 |
| Number of women | 2,082 | 1,520 | 561 | 968 | 552 |
| Source of treatment |  |  |  |  |  |
| Government health facility |  |  |  |  |  |
| Hospital/dispensary | 20.1 | 16.5 | 28.2 | 17.2 | 15.4 |
| UHC/UHP/UFWC | 1.3 | 1.4 | 1.0 | 1.1 | 1.9 |
| CHC/ Rural hospital | 3.4 | 3.6 | 3.0 | 3.8 | 3.3 |
| Primary health centre | 9.3 | 12.2 | 2.9 | 13.8 | 9.7 |
| Sub centre | 7.1 | 9.7 | 1.4 | 11.9 | 5.9 |
| Private health facility |  |  |  |  |  |
| NGO/Trust hospital/clinic | 0.3 | 0.2 | 0.5 | 0.4 | 0.0 |
| Private hospital clinic | 42.7 | 37.5 | 54.2 | 34.3 | 43.0 |
| ISM $^{3}$ facility | 16.4 | 14.6 | 20.5 | 13.6 | 16.4 |
| Home remedy | 5.5 | 5.8 | 4.7 | 5.4 | 6.5 |
| Other | 8.7 | 10.5 | 4.6 | 10.1 | 11.2 |
| Percent distribution of women who seek treatment by |  |  |  |  |  |
| Doctor | 76.0 | 71.8 | 85.4 | 69.0 | 76.6 |
| ANM/Nurse/LHV | 12.0 | 15.4 | 4.5 | 17.5 | 11.7 |
| Relative/friends | 2.8 | 3.6 | 0.9 | 3.9 | 3.1 |
| Dai (trained or untrained) | 0.2 | 0.3 | 0.0 | 0.3 | 0.2 |
| Chemist/medical shop | 6.2 | 5.8 | 6.9 | 5.2 | 6.8 |
| ISM | 1.6 | 2.1 | 0.4 | 2.5 | 1.5 |
| Missing | 1.3 | 1.0 | 1.9 | 1.6 | 0.0 |
| Total percent | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number of women | 1,295 | 894 | 401 | 561 | 334 |
| 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, about 43 percent of women visited private hospitals/clinics and 16 percent of women treated their children through the Indian System of Medicine.

### 5.7.3 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 5.12. It was found that a low proportion ( 72 percent) of women with births three years preceding the survey in Rajasthan were aware of danger signs of pneumonia. The figure was slightly up from 19 percent in Round I. A relatively high proportion of women in urban areas ( 77 percent) were aware of the danger signs of pneumonia as compared to women from rural areas ( 70 percent). Awareness of danger signs of pneumonia is higher among older women ( 72 percent), women from jain religion ( 87 percent), other castes category ( 79 percent), highly educated women ( 80 percent), women living in high standard of living household ( 80 percent), and women living in those villages with health facilities ( 70 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' (81 percent), 'chest in drawing' ( 80 percent), 'rapid breathing' ( 51 percent), 'pain in chest and productive cough' ( 24 percent), 'wheezing / whistling' ( 21 percent), , 'not able to drink or take a feed’ (13 percent), 'condition get worse than before’ (11 percent) and 'excessive drowsy and difficulty in keeping awake’ (9 percent).

### 5.7.4 Treatment of Pneumonia

Thirteen percent of women reported that their child had suffered from pneumonia during two weeks before the survey, the corresponding figures were almost same in rural areas and in urban areas (Table 5.13). The incidence of pneumonia varies little with availability of health facilities in the villages.

Table 5.13 also shows that the percentage of women whose children suffered from ARI symptoms in the last two weeks preceding the survey who sought advice/treatment and taken to a health facility or provider. Seventy percent of women received some advice or treatment whose children were ill with ARI. This percentage is relatively low in rural areas ( 67 percent) than in urban areas ( 80 percent) and village without health facilities ( 63 percent) than village with health facility (69 percent).

Among them who got advice for children ill with ARI, 48 percent of women visited private hospital/clinic, and about 40 percent went to government hospital/dispensary, whereas merely 2 percent of them obtained treatment through Indian System of Medicine.

## Table 5.12 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, Rajasthan, 2002-04

| Background characteristic | Percentage of women aware of danger signs of pneumonia |  | Danger signs |  |  |  |  |  |  |  | Number of women |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Number of women | Difficulty in breathing | Chest indrawing | 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 |  |
| Age |  |  |  |  |  |  |  |  |  |  |  |
| 15-24 | 69.1 | 6,396 | 80.8 | 79.4 | 13.3 | 8.9 | 23.6 | 12.1 | 21.2 | 51.8 | 4,415 |
| 25-34 | 75.4 | 5,742 | 81.5 | 79.8 | 13.4 | 10.3 | 25.1 | 10.6 | 20.9 | 50.4 | 4,327 |
| 35-44 | 72.0 | 955 | 81.9 | 79.7 | 14.8 | 8.1 | 25.2 | 10.3 | 22.9 | 49.9 | 687 |
| Residence |  |  |  |  |  |  |  |  |  |  |  |
| Rural | 70.1 | 9,573 | 79.7 | 78.8 | 12.6 | 8.9 | 23.5 | 10.8 | 20.6 | 50.8 | 6,713 |
| Urban | 77.2 | 3,521 | 84.8 | 81.6 | 15.6 | 10.8 | 26.6 | 12.5 | 22.8 | 51.6 | 2,717 |
| Mother's education |  |  |  |  |  |  |  |  |  |  |  |
| Non-literate | 68.3 | 8,700 | 79.4 | 79.0 | 11.9 | 8.6 | 22.4 | 9.9 | 20.1 | 49.9 | 5,939 |
| 0-9@ years | 79.1 | 2,970 | 83.7 | 80.2 | 14.4 | 10.3 | 27.4 | 13.4 | 22.2 | 51.5 | 2,348 |
| 10 and above | 80.5 | 1,415 | 85.6 | 81.9 | 19.6 | 12.6 | 28.5 | 13.9 | 24.7 | 55.9 | 1,138 |
| Religion |  |  |  |  |  |  |  |  |  |  |  |
| Hindu | 71.1 | 11,484 | 81.0 | 79.6 | 13.4 | 9.5 | 23.8 | 11.2 | 21.4 | 50.9 | 8,156 |
| Muslim | 78.9 | 1,363 | 82.9 | 81.4 | 13.5 | 8.8 | 27.1 | 12.1 | 19.7 | 51.7 | 1,076 |
| Sikh | 73.9 | 113 | 74.3 | 62.2 | 11.9 | 11.2 | 48.7 | 6.6 | 31.5 | 48.0 | 84 |
| Jain | 87.2 | 114 | 85.4 | 78.7 | 16.9 | 11.8 | 19.1 | 15.2 | 16.9 | 54.5 | 100 |
| Caste/tribe\# |  |  |  |  |  |  |  |  |  |  |  |
| Scheduled caste | 69.7 | 2,502 | 79.3 | 81.4 | 11.6 | 8.2 | 22.1 | 9.7 | 20.2 | 47.2 | 1,741 |
| Scheduled tribe | 57.7 | 1,833 | 76.3 | 75.2 | 12.3 | 9.8 | 21.6 | 10.0 | 20.9 | 49.7 | 1,057 |
| Other backward class | 73.8 | 5,487 | 80.3 | 78.9 | 12.5 | 8.7 | 24.9 | 11.5 | 20.2 | 50.8 | 4,048 |
| Other | 79.1 | 3,257 | 85.8 | 81.3 | 16.7 | 11.4 | 26.3 | 12.6 | 23.5 | 54.5 | 2,575 |
| Standard of living index |  |  |  |  |  |  |  |  |  |  |  |
| Low | 65.2 | 6,204 | 77.9 | 78.1 | 11.8 | 9.1 | 22.3 | 10.0 | 19.5 | 51.3 | 4,042 |
| Medium | 77.0 | 3,677 | 83.4 | 80.6 | 13.7 | 8.6 | 24.5 | 12.3 | 21.9 | 49.0 | 2,833 |
| High | 79.6 | 3,212 | 84.0 | 80.9 | 15.8 | 11.0 | 27.6 | 12.0 | 23.2 | 52.9 | 2,555 |
| Availability of health facility ${ }^{2}$ in the village |  |  |  |  |  |  |  |  |  |  |  |
| Yes | 70.0 | 6,295 | 82.2 | 78.7 | 14.1 | 9.4 | 23.4 | 11.2 | 21.7 | 50.9 | 4,404 |
| No | 70.4 | 3,278 | 75.0 | 79.0 | 9.8 | 8.0 | 23.6 | 9.9 | 18.3 | 50.7 | 2,309 |
| Total | 72.0 | 13,094 | 81.2 | 79.6 | 13.5 | 9.5 | 24.4 | 11.3 | 21.2 | 51.1 | 9,430 |



 women with missing on women education of aware of pneumonia and danger sign respectively.

| 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, Rajasthan, 2002-04 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Sought treatment/ source of treatment | Total | Residence |  | Availability of health fcaility ${ }^{2}$ in the village |  |
|  |  | Rural | Urban | No | Yes |
| Percentage of women whose child suffered from cough, cold and difficulty in breathing | 13.4 | 13.5 | 13.1 | 13.9 | 13.3 |
| Number of women | 13,094 | 9,573 | 3,521 | 3,278 | 6,295 |
| Percentage of women sought treatment whose child suffered from cough and cold | 70.5 | 67.2 | 79.9 | 63.4 | 69.2 |
| Number of women | 1,755 | 1,293 | 461 | 455 | 838 |
| Source of treatment |  |  |  |  |  |
| Government health facility |  |  |  |  |  |
| Hospital/dispensary | 20.8 | 18.4 | 26.4 | !5.3 | 19.9 |
| UHC/UHP/UFWC | 0.7 | 0.8 | 0.5 | !. 5 | 0.4 |
| $\mathrm{CHC} /$ Rural hospital | 4.5 | 4.7 | 4.0 | 4.3 | 4.9 |
| Primary health centre | 10.0 | 13.6 | 1.7 | $!0.4$ | 15.1 |
| Sub centre | 4.4 | 5.9 | 1.0 | 4.0 | 6.8 |
| Private health facility |  |  |  |  |  |
| NGO/Trust hospital/clinic | 0.1 | 0.2 | 0.0 | 0.0 | 0.3 |
| Private hospital clinic | 48.1 | 43.3 | 59.5 | 50.2 | 39.9 |
| ISM $^{3}$ facility | 2.3 | 2.6 | 1.7 | 3.6 | 2.1 |
| Home remedy | 4.7 | 5.0 | 4.0 | 5.8 | 4.5 |
| Other | 7.1 | 7.7 | 5.5 | 5.5 | 8.8 |
| Percent distribution of women who seek treatment by |  |  |  |  |  |
| Doctor | 79.8 | 76.6 | 87.4 | 82.6 | 73.6 |
| NM/Nurse/LHV | 8.6 | 11.4 | 2.2 | 7.8 | 13.2 |
| Dai (trained or untrained) | 0.6 | 0.8 | 0.3 | 1.6 | 0.4 |
| Relative/friends | 1.2 | 1.2 | 1.3 | 2.0 | 0.8 |
| Chemist/medical shop | 4.4 | 4.0 | 5.1 | 2.2 | 4.9 |
| ISM practitioner | 1.0 | 1.2 | 0.4 | 1.1 | 1.2 |
| Other | 3.2 | 3.8 | 2.0 | 2.2 | 4.6 |
| Missing | 1.1 | 1.0 | 1.2 | 0.4 | 1.3 |
| Total percent | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number of women | 1,237 | 869 | 369 | 288 | 581 |
| 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 |  |  |  |  |  |

### 5.7.5 Awareness of Diarrhoea, ORS and Pneumonia and Incidence of Diarrhoea and Pneumonia by District

Table 5.14 presents the awareness of diarrhoea management, awareness of ORS, and incidence of diarrhoea by district. Although awareness of diarrhoea management is high in almost all districts but awareness about ORS is low. Awareness of ORS is also not common, and it is lowest in Bharatpur ( 9 percent). Women in Baran, Karauli, Barmer and Churu were also have relatively low level of awareness of ORS. The incidence of diarrhoea is about 16 percent in
the state as a whole and it varies from 35 percent in Bharatpur to almost 9 percent in Bikaner. Table 5.14 also shows differentials in the awareness of danger signs of pneumonia and incidence of pneumonia. In comparison to awareness about diarrhoea management, the awareness of danger signs of pneumonia is quite low. It is the lowest in Dungarpur ( 36 percent) and highest in Jhunjhunun ( 97 percent). Incidence of ARI symptoms is comparatively high in nearly all the districts in Rajasthan. It is highest in Udaipur (28 percent), Banswara (27 percent), Karauli (23 percent ) and lowest in Bhilwara (4 percent), Baran and Jhunjhunun (6 percent each), Jaipur ( 7 percent), Sirohi and Jhalawar ( 8 percent each).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.

| Table 5.14 AWARENESS OF DIARRHOEA MANAGEMENT AND PNEUMONIA BY DISTRICT |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Percentage of women by awareness of diarrhoea management, ORS, and sought treatment for diarrhoea whose child |
| had suffered from diarrhoea during last two weeks prior to survey by district, Rajasthan, 2002-04 |

## MAP - 5 <br> Percentage of Children (age 12-23 months) who have received Full Vaccination



## 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 Rajasthan. The knowledge of any method and any modern method do not vary much by residence. The knowledge of modern spacing method among currently married women is around 100 percent. There are large differentials in knowledge of all modern methods with respect to the aforesaid background characteristics. For instance, about 48 percent of women from rural areas are aware about all modern methods compared to 73 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, Rajasthan, 2002-04. |  |  |  |  |  |
| Contraceptive methods | Total | Residence |  | Availability of health facility in the village ${ }^{3}$ |  |
|  |  | Rural | Urban | No | Yes |
| Any method | 99.7 | 99.7 | 99.9 | 99.8 | 99.7 |
| Any modern method | 99.7 | 99.6 | 99.9 | 99.8 | 99.6 |
| Any modern spacing method ${ }^{1}$ | 90.5 | 87.6 | 97.4 | 87.3 | 87.8 |
| All modern methods ${ }^{2}$ | 55.5 | 48.5 | 72.6 | 47.3 | 49.1 |
| Female sterilization | 99.1 | 99.0 | 99.3 | 98.9 | 99.0 |
| Tubectomy | 50.7 | 48.5 | 56.1 | 48.4 | 48.5 |
| Laparoscopy | 72.5 | 68.9 | 81.4 | 66.7 | 69.9 |
| Male sterilization | 85.2 | 83.0 | 90.5 | 81.6 | 83.7 |
| Vasectomy | 48.9 | 45.5 | 57.0 | 45.8 | 45.4 |
| No-scalpel vasectomy | 38.2 | 33.5 | 49.6 | 35.2 | 32.6 |
| IUD/Loop | 69.8 | 63.6 | 84.9 | 63.6 | 63.7 |
| Pills | 84.2 | 80.1 | 94.4 | 78.8 | 80.7 |
| Daily | 58.4 | 52.6 | 72.6 | 53.9 | 51.9 |
| Weekly | 48.0 | 42.3 | 61.7 | 44.5 | 41.2 |
| Condom/Nirodh | 76.6 | 71.6 | 88.9 | 71.0 | 71.9 |
| Sponge (today) | 2.4 | 1.7 | 4.2 | 2.1 | 1.5 |
| Injectables | 7.5 | 6.5 | 10.1 | 8.0 | 5.7 |
| Norplant | 0.7 | 0.6 | 1.0 | 0.9 | 0.5 |
| Contraceptive herbs | 3.9 | 3.7 | 4.4 | 3.9 | 3.5 |
| Any traditional method | 17.9 | 15.1 | 24.7 | 13.3 | 16.0 |
| Any other Indian system of medicinal contraceptives | 0.6 | 0.4 | 0.9 | 0.4 | 0.5 |
| Number of women | 32,911 | 23,315 | 9,595 | 7,811 | 15,504 |
| 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. |  |  |  |  |  |

Female sterilisation is the most widely known method of all contraceptive methods in Rajasthan followed by male sterilization. Overall, 99 percent of currently married women are aware of female sterilization and 85 percent knew about male sterilization. There is no rural urban difference in knowledge of female sterilization but it is not the case of male sterilization. A sizable number of urban women ( 90 percent) know about male sterilization as compared to 83 percent of rural women. There are differentials in spacing methods such as IUD/Loop, Pill and condom users with respect to the background characteristics. The bestknown spacing methods are Pills ( 84 percent) and condoms ( 77 percent) respectively. Only 70 percent of women know about the IUD/Loop. There is a large differential in knowledge of spacing methods by residence only 72 percent of the rural women know condom compared to 89 percent of urban women. The modern spacing methods, Pill and IUD are known by 80 and 64percent of rural women respectively while the corresponding figures in urban areas are 94 and 85 percent respectively of eligible women respondents.

The knowledge of these spacing methods remains low as compared to knowledge of sterilization. In Rajasthan, only 18 percent of the women are aware of a traditional method and negligible percent of women ( 0.6 percent) are aware of other contraceptives of the Indian

System of Medicine. It is also observed that women from villages with a health facility are slightly more aware about modern spacing methods.


### 6.1.1 Knowledge of Family Planning Methods by Districts

Table 6.2 shows the knowledge of contraceptive methods by districts in Rajasthan. In all districts more than 98 percent of women know about contraceptives including modern methods. Almost similar range ( 98 to 100 percent) is noticed in the knowledge of all modern methods by districts. There is not much variation in the knowledge of female sterilization, which is the lowest in Banswara ( 94 percent) and the highest ( 100 percent) in five districts, Baran, Bharatpur, Bundi, Jhunjhunun and Sikar respectively. Eighteen other districts also reported high almost 99 percent of knowledge of female sterilization.

Knowledge about IUD/Loop and condom is as low as 23 percent respectively in Jalore district, whereas its 94 percent for IUD in Jhunjhunun as well as Jaipur and highest (almost 100 percent) in Dhaulpur for condoms. Awareness on use of pills as contraceptive is fairly high in Jhunjhunun ( 97 percent) and extremely low in Jalore (41 percent). In Rajasthan state, awareness about female sterilization is highest ( 99 percent) followed by male sterilization ( 85 percent) and then comes awareness regarding pills with 84 percent. Further, there are 19 out of 32 districts where awareness about pills is greater than state’s average ( 84 percent). As far as awareness on any traditional methods are concerned, its around 54 percent in Jodhpur and Jaipur while its extremely low in Jhunjhunun district ( 2 percent).

| Percentage of currently married women age 15-44 years who know any contraceptive method by specific method and district, Rajasthan, 2002-04 |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Districts | Any method | Any modern ${ }^{1}$ method | Any modern spacing ${ }^{2}$ method | $\begin{aligned} & \text { All } \\ & \text { modern } \\ & \text { methods } \end{aligned}$ | Male steriliz -ation | Female sterilization | IUD | Pill | Condom /Nirodh | Any traditional method |
| Ajmer | 100.0 | 100.0 | 95.4 | 51.7 | 77.8 | 99.9 | 77.8 | 89.7 | 74.0 | 28.8 |
| Alwar | 100.0 | 100.0 | 99.4 | 60.8 | 93.1 | 99.9 | 70.7 | 90.2 | 91.1 | 21.8 |
| Banswara | 100.0 | 100.0 | 100.0 | 66.6 | 95.9 | 93.9 | 76.0 | 94.8 | 93.7 | 10.8 |
| Baran | 100.0 | 100.0 | 97.0 | 60.6 | 89.2 | 100.0 | 76.1 | 95.2 | 77.6 | 5.9 |
| Barmer | 99.5 | 99.5 | 85.5 | 37.7 | 74.1 | 99.3 | 56.0 | 82.0 | 51.5 | 3.5 |
| Bharatpur | 100.0 | 100.0 | 92.7 | 42.3 | 75.4 | 100.0 | 62.8 | 80.5 | 77.8 | 3.5 |
| Bhilwara | 99.8 | 99.8 | 90.8 | 52.7 | 80.7 | 99.7 | 69.1 | 87.4 | 74.5 | 1.7 |
| Bikaner | 99.4 | 99.4 | 93.6 | 48.7 | 79.1 | 98.8 | 64.4 | 89.8 | 70.9 | 2.0 |
| Bundi | 100.0 | 100.0 | 94.0 | 52.4 | 84.0 | 100.0 | 68.0 | 88.4 | 78.0 | 7.7 |
| Chittaurgarh | 99.8 | 99.8 | 87.5 | 37.9 | 65.7 | 99.4 | 60.4 | 76.4 | 68.6 | 5.6 |
| Churu | 99.6 | 99.6 | 84.6 | 33.6 | 67.5 | 98.8 | 50.2 | 77.1 | 67.0 | 2.0 |
| Dausa | 100.0 | 100.0 | 99.7 | 83.7 | 95.9 | 99.4 | 92.7 | 94.3 | 94.1 | 4.9 |
| Dhaulpur | 100.0 | 100.0 | 99.9 | 68.1 | 97.3 | 99.5 | 79.7 | 83.1 | 99.8 | 26.4 |
| Dungarpur | 99.5 | 99.5 | 70.7 | 22.7 | 47.4 | 97.8 | 39.1 | 63.0 | 48.7 | 4.4 |
| Ganganagar | 100.0 | 100.0 | 99.9 | 61.1 | 95.7 | 97.6 | 69.4 | 89.5 | 92.6 | 10.3 |
| Hamumangarh | 100.0 | 100.0 | 99.2 | 62.1 | 95.7 | 98.9 | 67.4 | 93.6 | 94.1 | 22.6 |
| Jaipur | 99.9 | 99.9 | 98.1 | 84.4 | 95.7 | 99.5 | 94.3 | 95.9 | 92.8 | 53.7 |
| Jaisalmer | 98.0 | 98.0 | 74.3 | 26.9 | 62.6 | 97.4 | 48.2 | 63.5 | 49.5 | 2.4 |
| Jalore | 100.0 | 100.0 | 44.3 | 15.2 | 95.6 | 99.1 | 23.1 | 41.5 | 22.8 | 2.4 |
| Jhalawar | 100.0 | 100.0 | 86.1 | 31.3 | 71.5 | 99.9 | 43.9 | 80.8 | 67.3 | 3.4 |
| Jhunjhunun | 100.0 | 100.0 | 98.3 | 81.2 | 92.3 | 100.0 | 94.3 | 97.0 | 88.8 | 1.9 |
| Jodhpur | 100.0 | 100.0 | 99.6 | 77.4 | 92.8 | 99.2 | 91.3 | 93.9 | 92.4 | 51.3 |
| Karauli | 100.0 | 100.0 | 97.9 | 78.6 | 95.3 | 99.9 | 88.1 | 94.2 | 90.6 | 4.8 |
| Kota | 100.0 | 100.0 | 99.4 | 68.9 | 92.8 | 99.6 | 88.7 | 93.5 | 86.3 | 4.9 |
| Nagaur | 99.8 | 99.8 | 93.5 | 53.7 | 81.7 | 99.6 | 74.2 | 88.6 | 69.1 | 4.3 |
| Pali | 100.0 | 100.0 | 97.6 | 53.7 | 93.6 | 99.5 | 62.1 | 80.7 | 96.5 | 2.1 |
| Rajsamand | 99.7 | 99.7 | 60.5 | 24.4 | 52.5 | 99.3 | 45.4 | 54.9 | 40.8 | 41.4 |
| Sawai Madhopur | 100.0 | 100.0 | 99.9 | 53.9 | 91.6 | 99.7 | 65.8 | 86.9 | 94.7 | 53.5 |
| Sikar | 100.0 | 100.0 | 96.0 | 65.2 | 84.2 | 100.0 | 86.8 | 93.7 | 79.3 | 4.3 |
| Sirohi | 99.7 | 99.7 | 78.1 | 31.1 | 58.4 | 99.5 | 52.9 | 66.3 | 55.8 | 2.8 |
| Tonk | 100.0 | 100.0 | 98.5 | 69.7 | 95.7 | 99.7 | 77.8 | 96.4 | 88.4 | 40.8 |
| Udaipur | 97.6 | 97.0 | 55.5 | 25.6 | 95.6 | 95.7 | 35.6 | 51.0 | 36.2 | 30.9 |
| Rajasthan | 99.7 | 99.7 | 90.5 | 55.5 | 85.2 | 99.1 | 69.8 | 84.2 | 76.6 | 17.9 |
| 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. |  |  |  |  |  |  |  |  |  |  |

### 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 Rajasthan is shown in Table 6.3. Forty one percent of the husbands know about the no-scalpel vasectomy. In rural areas, 35 percent of husbands know about NSV compared to 57 percent in urban areas. For women residing in villages with a health facility, almost 37 percent of their husbands are aware of No-scalpel vasectomy and it is slightly less, that is, 32 percent for those living in villages without health facilities. Among the husbands who know about NSV,72 percent reported that NSV is simpler than a conventional family planning method, 62 percent feel that reported as NSV does not lead to any complication and 55 percent reported that NSV does not affect a man's 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, Rajasthan, 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 | 41.5 | 35.3 | 57.3 | 32.1 | 36.9 |
| Number of husbands | 20,980 | 15,014 | 5,966 | 5,040 | 9,974 |
| Who know that NSV is simpler than conventional vasectomy | 71.7 | 72.2 | 71.0 | 69.5 | 73.3 |
| Who feel that NSV does not lead to any complication | 62.1 | 61.4 | 63.2 | 60.8 | 61.7 |
| Who feel that NSV does not affect man's sexual performance | 54.8 | 52.7 | 58.0 | 51.8 | 53.1 |
| Number of husbands | 8,715 | 5,294 | 3,422 | 1,617 | 3,676 |

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 Rajasthan are provided in Table 6.4. The percentage variation on awareness of NSV ranges widely from 9.4 percent in Barmer, to state average of 41 percent to highest ( 66 percent) in Kota district. Half of the 32 districts have more than 40 percent knowledge about NSV. The NSV does not lead to any complications was reported by 91 percent the husbands in Bikaner, while it is merely 31 percent in Jhalawar district, followed by 38 percent Dungarpur. The husbands who reported that the NSV does not affect a man's sexual performance were highest 79 percent in Jhunjhunun district and 31 percent in Jhalawar district.
$\left.\begin{array}{|llllll|}\hline \text { Table 6.4 NO-SCALPEL VASECTOMY BY DISTRICT } \\ \text { Percentage of husband of eligible women by knowledge of NSV by district, Rajasthan, 2002-04 }\end{array}\right]$

### 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 Rajasthan. At the time of DLHS-RCH, 47 percent of currently married women were using some method of contraception, 5 percentage points up from Round I. Current contraceptive use is quite higher in urban areas ( 58 percent) than in rural areas ( 42 percent). Use of modern method is reported by 42 percent of the women, the breakdown of which is 32 percent for permanent methods and 10 percent for spacing methods. Among the users of sterilization methods most prefer female sterilization, which invalidates the use of male sterilization ( 0.6 percent). The use of traditional methods is reported by 4 percent of the women of which 1 percent are using withdrawal and 3 percent follow the rhythm or periodic abstinence practice.



Current use of contraception is highest among other castes ( 54 percent) followed by other backward class women ( 47 percent), women of scheduled castes ( 43 percent) and least being schedule tribes women with 36 percent. The current use is also high among the women who have 10 or more years of schooling ( 61 percent) than the women who have less than 10 years of schooling (49 percent) and also among non-literate women (44 percent). Similarly, current contraceptive use varies positively with respect to the standard of living of the women, increasing the prevalence rate from 36 percent to 61 percent for women from the lowest to the highest standard of living households. The availability of the health facility in the village is an important factor in motivating eligible women to use contraceptives. Surprisingly there was no relation between the availability of health facility in the village and the percentage of women who are using contraception, as the percentage is same in both the cases. Forty two percent of the women were current user of contraception denying the fact whether there was a health facility in the village or not, as it made no difference in the percentage of users. The current use of the traditional method is higher among women with a higher education level and its almost similar if we compare it based on their living standards (5 percent).

### 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 Rajasthan. 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 contraception exceeds 40 percent of eligible women except for the district of Barmer ( 24 percent) , Jaisalmer ( 27 percent), Sirohi and Jalore ( 34 percent each), Dungarpur ( 37 percent), Dhaulpur and Bikaner with 38 percent each, Chittaurgarh ( 39 percent) (see Map-6). The state figure of current spacing methods use is 10 percent and it ranges from 5 percent in Jaisalmer district to 17 percent in Kota and Ganganagar district. The variation in contraceptive prevalence at district level is basically due to the variation in the use of spacing methods while both modern and traditional contraceptive uses do not show much variation across districts.

| Percentage of currently married women age 15-44 years currently using any contraceptive method by district, Rajasthan, 2002-04 |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Districts | Any method | Any modern ${ }^{1}$ method | Any modern spacing $^{2}$ method | Male sterilization | Female sterilization | IUD | Pill | Condom / Nirodh | Any traditional ${ }^{3}$ method |
| Ajmer | 46.0 | 43.3 | 12.5 | 1.5 | 28.9 | 2.4 | 4.1 | 6.0 | 2.7 |
| Alwar | 50.8 | 46.7 | 8.0 | 0.8 | 37.4 | 1.5 | 0.9 | 5.5 | 4.2 |
| Banswara | 44.4 | 42.4 | 9.7 | 0.2 | 32.2 | 1.0 | 2.1 | 6.6 | 2.0 |
| Baran | 45.8 | 43.0 | 8.3 | 0.2 | 34.3 | 0.5 | 2.6 | 5.2 | 2.8 |
| Barmer | 24.5 | 23.4 | 6.5 | 0.1 | 16.7 | 1.6 | 2.4 | 2.5 | 1.1 |
| Bharatpur | 47.4 | 34.3 | 9.2 | 0.2 | 24.6 | 1.3 | 1.3 | 6.6 | 13.1 |
| Bhilwara | 41.4 | 36.4 | 9.6 | 0.0 | 26.6 | 1.2 | 2.7 | 5.7 | 5.0 |
| Bikaner | 38.3 | 36.1 | 8.7 | 0.4 | 27.0 | 0.6 | 3.2 | 5.0 | 2.3 |
| Bundi | 42.7 | 38.7 | 9.4 | 0.3 | 28.7 | 0.5 | 2.5 | 6.4 | 4.0 |
| Chittaurgarh | 38.7 | 35.2 | 10.6 | 1.0 | 23.1 | 2.6 | 3.4 | 4.6 | 3.5 |
| Churu | 44.6 | 41.3 | 8.5 | 2.0 | 30.8 | 0.9 | 3.0 | 4.6 | 3.3 |
| Dausa | 51.2 | 47.4 | 8.5 | 0.3 | 38.6 | 1.1 | 1.2 | 6.1 | 3.8 |
| Dhaulpur | 37.9 | 29.7 | 10.6 | 0.0 | 19.0 | 0.7 | 1.3 | 8.5 | 8.2 |
| Dungarpur | 37.0 | 34.7 | 11.7 | 0.9 | 21.9 | 1.8 | 5.3 | 4.7 | 2.3 |
| Ganganagar | 65.4 | 63.8 | 17.3 | 0.3 | 46.2 | 4.3 | 3.7 | 9.2 | 1.6 |
| Hamumangarh | 66.5 | 63.1 | 14.5 | 0.4 | 48.2 | 2.6 | 3.4 | 8.5 | 3.4 |
| Jaipur | 62.4 | 56.2 | 12.0 | 0.7 | 43.5 | 1.6 | 3.1 | 7.2 | 6.2 |
| Jaisalmer | 27.0 | 25.7 | 5.3 | 0.5 | 19.8 | 1.5 | 1.3 | 2.5 | 1.3 |
| Jalore | 34.4 | 33.2 | 7.5 | 0.1 | 25.5 | 1.9 | 1.0 | 4.7 | 1.2 |
| Jhalawar | 51.3 | 46.8 | 13.9 | 0.7 | 31.9 | 1.2 | 2.7 | 10.0 | 4.6 |
| Jhunjhunun | 57.4 | 54.1 | 9.8 | 1.9 | 42.4 | 1.0 | 3.2 | 5.7 | 3.3 |
| Jodhpur | 47.0 | 37.1 | 11.9 | 0.2 | 24.9 | 1.7 | 3.4 | 6.8 | 9.9 |
| Karauli | 39.9 | 35.2 | 5.8 | 0.1 | 29.3 | 0.5 | 0.6 | 4.8 | 4.6 |
| Kota | 54.5 | 51.0 | 17.3 | 0.2 | 33.3 | 0.4 | 3.9 | 13.0 | 3.6 |
| Nagaur | 45.7 | 42.8 | 9.4 | 0.4 | 32.7 | 1.2 | 3.2 | 4.9 | 2.9 |
| Pali | 42.8 | 40.6 | 12.0 | 0.2 | 28.2 | 2.0 | 3.4 | 6.6 | 2.2 |
| Rajsamand | 45.0 | 37.0 | 10.2 | 0.2 | 26.4 | 2.2 | 2.7 | 5.4 | 7.9 |
| Sawai Madhopur | 47.8 | 39.1 | 9.8 | 0.1 | 28.9 | 0.8 | 2.5 | 6.5 | 8.7 |
| Sikar | 45.7 | 44.6 | 7.1 | 0.9 | 36.6 | 0.4 | 2.5 | 4.1 | 1.1 |
| Sirohi | 33.7 | 32.7 | 7.7 | 0.4 | 24.6 | 1.6 | 3.4 | 2.7 | 1.0 |
| Tonk | 49.7 | 44.3 | 14.2 | 0.1 | 29.6 | 1.6 | 4.9 | 7.7 | 5.5 |
| Udaipur | 44.1 | 35.8 | 11.8 | 0.8 | 22.9 | 1.7 | 2.7 | 7.4 | 8.2 |
| Rajasthan | 46.9 | 42.3 | 10.4 | 0.6 | 31.2 | 1.5 | 2.8 | 6.2 | 4.5 |
| 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 |  |  |  |  |  |  |  |  |  |

The pattern of use of contraceptive methods in Rajasthan is different from the general existing pattern in India. The contraceptive prevalence rate of 4 percent for traditional methods in the state is much lower than that in other states in the country. The use of oral Pills is 3 percent in the state with highest ( 5 percent) in Tonk and Dungarpur districts. There are 28 districts out of 32 where condom use is more than 5 percent except in Barmer, Jaisalmer, Jalore, Sikar and Sirohi districts.

### 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 used 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 8 percent and this attains a peak of 68 percent in the age group, 35-39 years. The use of traditional method is 5 percent for the women aged 35-39 years and 40-44 years respectively.

| 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, Rajasthan, 2002-04 |  |  |  |  |  |  |  |
|  | Percentage of women/husbands using |  |  |  | Perce women/h contrace | of nds by status |  |
| Demographic Characteristic | Any modern ${ }^{1}$ method | Any traditional ${ }^{2}$ method | Any method | Not using any method | Ever used | Never used | Number of women |
| Age-group |  |  |  |  |  |  |  |
| 15-19 | 4.9 | 2.8 | 7.8 | 92.2 | 10.8 | 89.2 | 3,716 |
| 20-24 | 20.9 | 4.0 | 24.9 | 75.1 | 30.8 | 69.2 | 7,543 |
| 25-29 | 44.9 | 4.9 | 49.7 | 50.3 | 55.7 | 44.3 | 6,744 |
| 30-34 | 60.0 | 5.1 | 65.0 | 35.0 | 69.2 | 30.8 | 5,917 |
| 35-39 | 64.0 | 4.8 | 68.8 | 31.2 | 71.5 | 28.5 | 4,893 |
| 40-44 | 60.1 | 5.4 | 65.6 | 34.4 | 69.2 | 30.8 | 4,097 |
| Surviving children |  |  |  |  |  |  |  |
| 0 | 2.6 | 1.7 | 4.4 | 95.6 | 7.5 | 92.5 | 4,886 |
| 1 | 17.6 | 4.6 | 22.3 | 77.7 | 29.0 | 71.0 | 4,947 |
| 2 | 48.8 | 5.2 | 54.0 | 46.0 | 59.6 | 40.4 | 7,026 |
| 3 or more | 59.1 | 5.1 | 64.2 | 35.8 | 68.0 | 32.0 | 16,051 |
| Surviving sons |  |  |  |  |  |  |  |
| 0 | 9.5 | 3.1 | 12.6 | 87.4 | 17.6 | 82.4 | 8,889 |
| 1 | 39.8 | 5.1 | 44.9 | 55.1 | 50.7 | 49.3 | 10,038 |
| 2 or more | 65.0 | 5.0 | 70.0 | 30.0 | 73.3 | 26.6 | 13,983 |
| Surviving daughters |  |  |  |  |  |  |  |
| 0 | 27.7 | 3.6 | 31.3 | 68.7 | 35.5 | 64.5 | 11,480 |
| 1 | 51.3 | 4.3 | 55.6 | 44.4 | 60.4 | 39.6 | 10,606 |
| 2 or more | 49.0 | 5.8 | 54.8 | 45.2 | 59.4 | 40.6 | 10,825 |
| All women | 42.3 | 4.5 | 46.9 | 53.1 | 51.4 | 48.6 | 32,911 |
| 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 of methods in Rajasthan. The use of any method of contraception is 70 percent for the women who have two or more sons and is significantly higher than the women who have two or more daughters ( 55 percent). The same trend can be observed in the case of use of any modern method which is 65 percent for the women who have two or more surviving sons and it is higher than the women who have two or more daughters (49 percent).

### 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 Rajasthan 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 18 percent and it gradually picks up with the age of husband, to a peak of 67 percent in the age group, 35-44 years. Similar age patterns of contraceptive use are observed in the case of modern methods
also. Among the husbands in the age group, 35 years and above the use of traditional methods is 5 percent and comparable to it, only 4 percent among the husbands in the younger age group of below 25 years. The use of modern methods ranges from 14 percent for husbands below 25 years of age to 62 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, Rajasthan, 2002-04. |  |  |  |  |  |
|  | Percentage of husbands/women using |  |  |  |  |
| Demographic <br> Characteristic | Any modern ${ }^{1}$ method | Any traditional ${ }^{2}$ method | Any method | Not using any method | Number of men |
| Age-group |  |  |  |  |  |
| <25 | 14.1 | 4.3 | 18.5 | 81.5 | 3,230 |
| 25-34 | 42.5 | 4.7 | 47.2 | 52.8 | 7,743 |
| 35-44 | 61.8 | 5.3 | 67.1 | 32.9 | 6,786 |
| 45+ | 58.0 | 4.8 | 62.8 | 37.1 | 3,221 |
| Surviving children |  |  |  |  |  |
| 0 | 5.3 | 2.0 | 7.3 | 92.7 | 2,873 |
| 1 | 21.5 | 5.3 | 26.7 | $73.3$ | $2,750$ |
| 3 or more | 53.6 | 5.5 | $59.0$ | $41.0$ | $\begin{array}{r} 4,496 \\ 10.861 \end{array}$ |
| 3 or more | 61.3 | 5.3 | 66.6 | 33.4 | 10,861 |
| Surviving sons |  |  |  |  |  |
| 0 | 12.3 | 3.3 | 15.6 | 84.4 | 5,193 |
| 1 | 44.8 | 5.6 | 50.3 | 49.7 | 6,361 |
| 2 or more | 67.1 | 5.3 | 72.3 | 27.6 | 9,426 |
| Surviving daughters |  |  |  |  |  |
| 0 | 32.2 | 4.0 | 36.2 | 63.8 | 6,773 |
| 1 | 55.5 | 4.7 | 60.1 | 39.8 | 6,816 |
| 2 or more | 52.1 | 5.8 | 57.9 | 42.1 | 7,391 |
| All men | 46.8 | 4.9 | 51.6 | 48.4 | 20,980 |
| 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 provides information about reasons for not using male contraceptive methods in Rajasthan. Among all the husbands interviewed, 72 percent reported about female methods. Reporting of female methods is higher in rural areas ( 78 percent) than in urban areas ( 63 percent). The reasons cited for not preferring the male methods are greater popularity of female methods ( 50 percent), fear of weakness ( 40 percent), fear of operation (3 percent), fear of method failure ( 2 percent) and as low as one percent reported fear of impotency and lack of sexual pleasure as the reasons for not using male methods. However, there is not much rural-urban differential in the reasons for not using male methods, except in the case of fear of weakness. The expression for fear of weakness is higher in rural areas ( 45 percent) than in urban areas ( 28 percent).

| Percentage of husbands with their choice of family planning methods and reasons for not accepting male methods according to residence, Rajasthan, 2002-04 |  |  |  |
| :---: | :---: | :---: | :---: |
| Female method users and reason for not |  |  |  |
| accepting male methods | Total | Rural | Urban |
| Percentage of husband who have reported female methods | 72.3 | 77.6 | 62.4 |
| Number of men | 10,828 | 7,062 | 3,766 |
| Reasons for not accepting male methods* |  |  |  |
| Fear of impotency | 1.1 | 1.1 | 1.0 |
| Lack of sexual pleasure | 1.1 | 0.8 | 1.7 |
| Fear of method failure | 1.9 | 1.4 | 2.9 |
| Fear of operation | 3.2 | 3.7 | 2.2 |
| Fear of weakness | 40.3 | 45.4 | 28.3 |
| Female methods are more popular | 49.6 | 46.0 | 58.0 |
| Other | 10.6 | 9.7 | 12.9 |
| Number of men | 7,832 | 5,483 | 2,348 |
| Note: * Percentages may add to more than 100.0 because multiple responses could be recorded. |  |  |  |

### 6.4 Source of Contraceptive Methods

To asses the 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 Rajasthan 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. Government/municipal hospitals are the main source for female sterilization (38 percent) followed by family planning camps or RCH camp (35percent), then community health centres or primary health centres (18 percent), and private hospital ( 6 percent). For male sterilization as well the aforesaid are the main sources with the exception of 25 percent obtaining the service from sub-centre.

Among the IUD users, 30 percent reported the source as government/municipal hospital and 23 percent from the community primary health centres, 7 percent from subcentre and 21 percent from private hospital. It is found that the chemist is the main source for Pills ( 56 percent) and condom ( 77 percent).

| Percent distribution of current users of modern contraceptive methods by method and source of supply, Rajasthan, 2002-04 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Contra | ptive me |  |  |  |
| Source | Female sterilization | Male sterilization | $\begin{aligned} & \hline \text { IUD/ } \\ & \text { Loop } \\ & \hline \end{aligned}$ | Pills | Condom / Nirodh | All modern methods ${ }^{1}$ |
| Government medical centre | 92.5 | 92.9 | 67.7 | 33.3 | 12.6 | 76.1 |
| Government/Municipal hospital | 38.3 | 47.2 | 30.5 | 8.0 | 3.2 | 31.0 |
| CHC/PHC | 18.4 | 25.4 | 23.5 | 5.6 | 2.2 | 15.5 |
| Sub-centre | 0.4 | 0.4 | 6.7 | 9.2 | 2.8 | 1.6 |
| Government doctor | 0.3 | 0.4 | 3.2 | 1.9 | 0.2 | 0.5 |
| Government nurse/ ANM | 0.1 | 0.0 | 2.1 | 7.5 | 3.4 | 1.1 |
| Family planning/RCH camp | 34.6 | 18.6 | 1.6 | 0.4 | 0.3 | 25.9 |
| Out reach/MCP clinic in village | 0.2 | 0.0 | 0.0 | 0.2 | 0.2 | 0.2 |
| Mobile clinic | 0.2 | 0.9 | 0.1 | 0.4 | 0.5 | 0.3 |
| Private medical centre | 7.1 | 3.9 | 31.3 | 5.7 | 3.4 | 7.2 |
| Private hospital | 5.7 | 3.9 | 21.5 | 0.9 | 0.9 | 5.2 |
| Private doctor | 1.2 | 0.0 | 5.7 | 4.1 | 1.4 | 1.6 |
| Private nurse | 0.1 | 0.0 | 4.1 | 0.7 | 1.0 | 0.4 |
| Chemist | NA | NA | NA | 55.7 | 77.0 | 15.0 |
| Other | 0.4 | 2.0 | 0.7 | 4.3 | 4.1 | 1.2 |
| Do not know | 0.0 | 1.1 | 0.1 | 0.8 | 2.9 | 0.5 |
| Missing | 0.0 | 0.0 | 0.3 | 0.2 | 0.1 | 0.0 |
| Total percent | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number of users | 10,255 | 191 | 479 | 922 | 2,029 | 13,876 |

Note: ${ }^{1}$ Includes female sterilization, male sterilization, IUD, Pills or condom. CHC: Community health centre, PHC: Primary health centre. NA: Not applicable.

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

Rajasthan, 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. The analysis of the method specific problems reveals that 19 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 ( 45 percent), weakness or inability to work ( 43 percent), white discharge ( 30 percent), dizziness ( 24 percent), irregular periods ( 18 percent), excessive bleeding ( 15 percent), nausea/vomiting ( 8 percent), weight gain ( 7 percent), spotting (4 percent) and breast tenderness ( 3 percent). With regard to the modern spacing methods, 10 percent and 13 percent of women had problems in using Pills and IUD respectively. The most common problems of Pill users were dizziness (49 percent), weakness or inability to work ( 25 percent), white discharge ( 12 percent), nausea or vomiting ( 23 percent), body ache or backache ( 25 percent) and irregular periods (14 percent).

| Percentage of women informed about side effects, had side effects with the method by use of method, Rajasthan, 2002-04 |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  | pe of meth |  |
| Health problems/side effect | Female sterilizations | IUD/loop | Pill |
| Women who were informed about all the available methods | 53.3 | N.A | N.A |
| Women who were informed about the side effects before adoption of the method | 34.3 | 40.6 | 28.8 |
| Women who had side effect/health problem due to use of contraceptive method | 19.5 | 13.1 | 10.5 |
| Number of current users | 10,255 | 479 | 922 |
| Type of health problems/side effects ${ }^{1}$ |  |  |  |
| Weakness/inability to work | 42.7 | 19.5 | 25.5 |
| Body ache/ backache | 45.0 | 32.0 | 25.1 |
| Cramps | 9.2 | 8.3 | 2.1 |
| Weight gain | 7.3 | 12.6 | 13.0 |
| Dizziness | 24.0 | 15.4 | 48.6 |
| Nausea/vomiting | 7.9 | 4.8 | 22.6 |
| Breast tenderness | 2.8 | 1.3 | 3.1 |
| Irregular periods | 17.8 | 20.6 | 14.5 |
| Excessive bleeding | 15.1 | 24.0 | 13.4 |
| Spotting | 3.7 | 1.2 | 5.9 |
| White discharge | 29.8 | 15.6 | 12.3 |
| Other | 0.1 | 0.0 | 0.0 |
| Number of users with side effects | 1,996 | 62 | 97 |
| Note: ${ }^{1}$ Percentages may add to more than 100.0 because multiple problems could be recorded. N.A: Not applicable. |  |  |  |

### 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 49 percent of the sterilized women sought treatment and just half of it ( 24 percent) in the case of Pills. Ninety two percent of the sterilized women reported satisfaction with sterilization. In the case of satisfaction with spacing methods (Pills and IUD), similar percentage as in case of satisfaction with sterilization. Those women who had sought treatment for contraceptive use related problems, majority of them have taken treatment from government hospitals/dispensaries.

For female sterilization related health problems, 36 percent from government hospitals/dispensaries, 34 percent had taken treatment from private hospitals/clinics and handful of 5 percent from Indian System of Medicine health facilities.

| 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 sough treatment with side effects, with the method by use of method, Rajasthan, 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 | 31.8 | 17.7 | 14.6 |  |
| Women who are satisfied with method of current use | 91.9 | 92.1 | 91.8 |  |
| Number of current users | 10,255 | 479 | 922 |  |
| Women who sought treatment for the health problem | 48.7 | 44.5 | 24.2 |  |
| Number of women with side effects | 1,996 | 62 | 97 |  |
| Source of treatments |  |  |  |  |
| Government health facility |  |  |  |  |
| Government hospital/dispensary | 35.9 | (40.0) | * |  |
| UHC/UHP/UFWC <br> CHC/Rural hospital | 1.3 7.9 | (0.0) | * |  |
| CHC/Rural hospital PHC | 7.6 | (0.0) | * |  |
| Sub-centre | 9.5 | (5.7) | * |  |
| Out reach/MCP clinic in village | 2.7 0.1 | (2.9) | * |  |
| Private health facility |  |  |  |  |
| NGO/trust hospital clinic | 0.1 | (0.0) | * |  |
| Private hospital/clinic | 34.3 | (42.9) | * |  |
| ISM health facility ${ }^{1}$ | 4.3 | (2.9) | * |  |
| Chemist/Medical shop | 3.1 | (0.0) | * |  |
| Home remedy Other | 2.0 | $(0.0)$ | * |  |
| Other | 4.6 | (5.7) | * |  |
| Number of women with side effects | 973 | 28 | 23 |  |

### 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 10 percent of the women were advised by ANM/health worker to adopt any family planning method in Rajasthan. Among rural women also, 10 percent were advised by ANM/health worker to adopt any method and it is higher than the urban women (8 percent) who were advised so.

The recommended contraceptive methods by ANM/health worker is dominated by female sterilization ( 64 percent) and Pill (19 percent). Only six percent were advised either to adopt IUD/loop and Condom/Nirodh ( 7 percent) as spacing methods. Male sterilization has been advised to just 4 percent. This pattern of advice also emerges irrespective of residence and availability of health facility in the village.

| 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, Rajasthan, 2002-04 |

### 6.7.1 Future Intentions

Among the non-users, 32 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 almost comparable in urban areas and rural areas with 33 and 31 percent respectively.

Among the women who intended to use permanent methods of contraception, 82 percent preferred female sterilization whereas only one percent of the women preferred male sterilization. In case of temporary methods, the preferred methods by women are oral Pills (10 percent), rhythm/periodic abstinence (less than 1 percent), condoms (3 percent), IUD ( 2 percent) and other methods ( 1 percent). Forty two percent of the husbands intended to use contraception in the future, among them 41 percent belong to rural areas and 44 from urban areas. Method wise choice in intention to use contraception is dominated female sterilization being reported by 78 percent, condom ( 7 percent), followed by Pills (4 percent), withdrawal (less than 1 percent) and rhythm/periodic abstinence (1 percent).

| Percentage of current non-users** who were intended to use contraception in future by preferred method according to place of residence, Rajasthan, 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 | 31.6 | 31.2 | 32.6 | 41.7 | 41.0 | 44.3 |
| Number of non-users | 16,775 | 12,906 | 3,869 | 9,981 | 7,830 | 2,151 |
| Percent distribution of nonuser who were preferred to use family methods by preferred method |  |  |  |  |  |  |
| Female sterilization | 82.1 | 84.6 | 74.1 | 77.7 | 81.1 | 66.4 |
| Male sterilization | 0.8 | 0.9 | 0.5 | 3.4 | 2.8 | 5.3 |
| IUD/copper-T/loop | 1.8 | 1.4 | 3.3 | 1.4 | 1.4 | 1.4 |
| Oral pills | 10.1 | 8.9 | 13.7 | 3.6 | 3.2 | 5.0 |
| Condom/Nirodh | 2.6 | 1.9 | 4.8 | 8.7 | 6.6 | 15.9 |
| Rhythm/periodic abstinence | 0.3 | 0.2 | 0.5 | 1.3 | 1.2 | 1.6 |
| Withdrawal | 0.1 | 0.0 | 0.1 | 0.1 | 0.2 | 0.0 |
| Other | 1.5 | 1.3 | 2.0 | 3.3 | 3.1 | 3.8 |
| Missing | 0.8 | 0.7 | 1.0 | 0.3 | 0.3 | 0.4 |
| Total percent | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number of non-users | 5,282 | 4,022 | 1,260 | 4,145 | 3,197 | 948 |
| 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 Rajasthan. Among the current non-users, around 12 percent of the women intended to use contraception within the next twelve months. Only 5 percent of women wanted to use within one to two years whereas 15 percent reported their intention to use contraceptives after two years.

About 32 percent are not sure of their intention to use, where as 36 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. Around 50 percent of the women who have no living children reported that they are yet to decide about the use of contraceptives.


### 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, around 56 percent of the women mentioned that they discontinued the use because they had wanted child, method failed/became pregnant (9 percent), weakness/inability to work (5 percent), irregular periods (2 percent), method was inconvenient and dizziness (11 percent) and other reasons (11 percent). For urban women 9 percent have reported method failure/become pregnant due to discontinuation. In urban areas, 4 percent of women reported lack of pleasure for discontinuing the use and where as the same is 2 percent among rural women.

| Percent distribution of women who were past users (current non-users) by reason for discontinuation of the contraceptive method according to place of residence, Rajasthan, 2002-04 |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  | Place of residence |  |
| Reasons | Total | Rural | Urban |
| Reason for discontinuation |  |  |  |
| Wanted child | 55.9 | 56.6 | 55.0 |
| Method failed/became pregnant | 8.4 | 8.3 | 8.6 |
| Supply not available | 1.0 | 1.3 | 0.6 |
| Difficult to get method | 0.6 | 1.0 | 0.2 |
| Weakness/inability to work | 5.4 | 4.7 | 6.3 |
| Body ache/ Backache | 1.3 | 1.2 | 1.4 |
| Cramps | 0.2 | 0.1 | 0.4 |
| Weight gain | 0.9 | 1.2 | 0.5 |
| Dizziness | 1.8 | 2.6 | 0.8 |
| Nausea/vomiting | 1.4 | 1.4 | 1.4 |
| Breast tenderness | 0.3 | 0.3 | 0.4 |
| Irregular periods | 3.9 | 3.4 | 4.4 |
| Excessive bleeding | 2.3 | 3.0 | 1.5 |
| Spotting | 0.2 | 0.1 | 0.2 |
| White discharge | 0.2 | 0.2 | 0.2 |
| Lack of pleasure | 1.7 | 0.9 | 2.7 |
| Method was inconvenient Other | 3.0 | 2.1 | 4.2 |
| Other <br> Missing | 11.4 | 11.5 | 11.4 |
|  | 0.1 | 0.1 | 0.0 |
| Total percent | 100.0 | 100.0 | 100.0 |
| Number of past users | 1,490 | 830 | 660 |

### 6.8.1 Reasons for Not Using Contraceptive Methods

DLHS asked women and husbands who are currently not using any contraception and main reasons why they were not currently using a method. The reported main reasons for not using contraceptives are, health does not permit (11 percent), opposed to family planning (8 percent), afraid of sterilization (6 percent), cannot walk after sterilization, difficult to become pregnant and lack of knowledge about family planning methods with 3 percent for each respectively and against the religion (2 percent). Highest ( 56 percent) of the women reported other reasons for not using contraception.

| Percentage of current non-users who were currently not using contraceptive method by reason according to place of residence, Rajasthan, 2002-04 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Women |  |  | usband |  |
| Reason | Total | Rural | Urban | Total | Rural | Urban |
| Lack of Knowledge about FP method | 3.2 | 3.5 | 2.1 | 6.9 | 7.3 | 5.3 |
| Against the Religion | 1.5 | 1.5 | 1.8 | 3.3 | 3.2 | 3.8 |
| Opposed to family planning | 8.7 | 8.6 | 8.9 | 3.5 | 3.7 | 2.8 |
| Not like existing method | 2.7 | 2.6 | 3.0 | 4.2 | 3.8 | 5.7 |
| Afraid of sterilization | 5.6 | 6.2 | 3.4 | 2.4 | 2.5 | 2.4 |
| Can not work after sterilization | 3.4 | 3.6 | 2.7 | 3.7 | 4.5 | 1.0 |
| Worry about side effects | 1.5 | 1.6 | 1.4 | 1.4 | 1.6 | 0.9 |
| Costs too much | 1.2 | 1.2 | 1.1 | 1.3 | 1.4 | 1.0 |
| Health does not permit | 10.7 | 10.5 | 11.2 | 13.2 | 13.2 | 13.2 |
| Hard/inconvenient to get method | 0.9 | 1.1 | 0.5 | 1.3 | 1.4 | 1.0 |
| Inconvenient to use method | 0.9 | 0.8 | 1.4 | 1.6 | 1.3 | 2.9 |
| Difficult to become pregnant | 3.4 | 3.5 | 3.0 | 9.3 | 10.1 | 6.3 |
| Wife is pregnant ${ }^{1}$ | - | - | - | 1.0 | 1.1 | 0.7 |
| Other | 55.6 | 54.6 | 59.1 | 46.0 | 44.3 | 52.5 |
| Missing | 0.7 | 0.7 | 0.4 | 0.7 | 0.7 | 0.7 |
| Total percent | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number of current non-users | 7,218 | 5,515 | 1,703 | 3,454 | 2,726 | 728 |
| Note: ${ }^{1}$ Not applicable for women. * Excluding not decided cases on timing of next child. |  |  |  |  |  |  |

### 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. 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 for limiting and spacing. Table 6.18 provides the information about unmet need for limiting and spacing in Rajasthan by background characteristics.

The unmet need is high for women below 20 years, mainly for spacing rather than for limiting. Unmet need is also relatively high for women aged 20-24 years ( 24 percent) for both spacing and limiting. Among the older women of age 25-29 years, 23 percent have unmet need, and mostly for limiting. Among the women age 30 years and above, unmet need is exclusively for limiting. The rural women have high unmet need (23 percent) than the urban women (18 percent). The unmet need for family planning is higher ( 24 percent) among the non-literate women than among the women with 0-9 years of schooling ( 20 percent) and 10 or more years of schooling (14 percent) women.

| Percentage of currently married women with unmet need for family planning services by selected background characteristics, Rajasthan, 2002-04 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Unmet need for FP |  |  | Number of |
| Background Characteristic | Spacing ${ }^{1}$ | Limiting ${ }^{2}$ | Total | women |
| Age |  |  |  |  |
| 15-19 | 20.8 | 2.5 | 23.4 | 3,716 |
| 20-24 | 15.1 | 9.1 | 24.3 | 7,543 |
| 25-29 | 6.8 | 15.9 | 22.6 | 6,744 |
| 30-34 | 3.0 | 16.0 | 19.0 | 5,917 |
| 35-39 | 2.0 | 18.9 | 20.9 | 4,893 |
| 40-44 | 0.7 | 19.1 | 19.8 | 4,097 |
| Residence |  |  |  |  |
| Rural | 9.1 | 14.4 | 23.5 | 23,315 |
| Urban | 5.7 | 12.0 | 17.7 | 9,595 |
| Education |  |  |  |  |
| Illiterate | 8.1 | 15.7 | 23.8 | 21,757 |
| 0-9 @ years | 9.3 | 10.4 | 19.7 | 7,425 |
| 10 years and above | 6.2 | 8.2 | 14.4 | 3,707 |
| Religion |  |  |  |  |
| Hindu | 8.0 | 13.7 | 21.6 | 29,211 |
| Muslim | 11.2 | 15.7 | 26.9 | 2,846 |
| Sikh | 2.6 | 7.3 | 9.8 | 427 |
| Jain | 5.4 | 7.0 | 12.4 | 362 |
| Others | 2.3 | 10.0 | 12.2 | 64 |
| Caste/tribe\# |  |  |  |  |
| Scheduled caste | 7.9 | 14.7 | 22.5 | 6,147 |
| Scheduled tribe | 9.5 | 17.8 | 27.3 | 3,878 |
| Other backward class | 8.2 | 12.7 | 21.0 | 14,018 |
| Others | 7.5 | 12.8 | 20.3 | 8,843 |
| Number of living children |  |  |  |  |
| 0 | 10.2 | 1.5 | 11.8 | 4,886 |
| 1 | 20.7 | 5.0 | 25.6 | 4,947 |
| 2 | 8.5 | 14.7 | 23.2 | 7,026 |
| 3 | 4.3 | 14.9 | 19.2 | 6,952 |
| 4+ | 2.9 | 23.2 | 26.1 | 9,099 |
| Standard of living Index |  |  |  |  |
| Low | 9.9 | 16.8 | 26.8 | 13,828 |
| Medium | 8.0 | 12.6 | 20.6 | 13,733 |
| High | 5.7 | 10.1 | 15.8 | 9,350 |
| All women | 8.1 | 13.7 | 21.8 | 32,911 |
| 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. ${ }^{2}$ <br> 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. <br> Total unmet need refers to unmet for limiting and spacing. <br> @ 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. |  |  |  |  |
|  |  |  |  |  |

Women in low standard of living have high (27 percent) unmet need than the women of medium ( 21 percent) and high standard of living (16 percent). Unmet need is much highest for the women with more than four living child (26 percent). Among the women with no children (10 percent), one child (21 percent) the unmet need is mainly for spacing, where as for women with two children or more unmet need is exclusively for limiting (15 percent).

### 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 22 percent and it ranges from 8 percent in Hanumangarh to 37 percent in Barmer. In 18, out of 32 districts unmet need for family planning is more than state average. Unmet need for limiting was found lowest in Hanumangarh ( 8 percent) followed by Ganganagar (10 percent), Jaipur (11 percent), Tonk (15 percent), Sawai Madhopur (16 percent), Kota (17 percent) and Alwar (18 percent ) and highest in Barmer (37 percent).

| Table 6.19 UNMET NEED BY DISTRICT |  |  |  |
| :---: | :---: | :---: | :---: |
| Percentage of currently married women with unmet need by district Rajasthan, 2002-04 |  |  |  |
|  |  | met need |  |
| Districts | Spacing | Limiting | Total |
| Ajmer | 9.3 | 16.6 | 25.9 |
| Alwar | 4.6 | 13.0 | 17.6 |
| Banswara | 6.5 | 17.4 | 23.9 |
| Baran | 10.5 | 14.3 | 24.8 |
| Barmer | 17.2 | 19.4 | 36.6 |
| Bharatpur | 6.8 | 12.0 | 18.8 |
| Bhilwara | 11.7 | 15.6 | 27.4 |
| Bikaner | 12.5 | 15.8 | 28.3 |
| Bundi | 9.5 | 14.6 | 24.1 |
| Chittaurgarh | 13.8 | 21.1 | 34.9 |
| Churu | 12.5 | 11.7 | 24.2 |
| Dausa | 5.0 | 13.4 | 18.4 |
| Dhaulpur | 6.6 | 18.2 | 24.8 |
| Dungarpur | 14.8 | 17.6 | 32.4 |
| Ganganagar | 3.3 | 6.4 | 9.7 |
| Hamumangarh | 2.5 | 5.5 | 8.0 |
| Jaipur | 2.8 | 8.2 | 11.0 |
| Jaisalmer | 16.2 | 19.9 | 36.0 |
| Jalor | 9.1 | 13.5 | 22.7 |
| Jhalawar | 9.6 | 13.4 | 23.0 |
| Jhunjhunun | 10.1 | 11.2 | 21.2 |
| Jodhpur | 6.4 | 13.2 | 19.5 |
| Karauli | 6.2 | 15.8 | 22.0 |
| Kota | 5.5 | 11.8 | 17.2 |
| Nagaur | 10.2 | 14.5 | 24.7 |
| Pali | 6.2 | 14.1 | 20.3 |
| Rajsamand | 6.6 | 14.6 | 21.2 |
| Sawai Madhopur | 3.6 | 12.5 | 16.1 |
| Sikar | 11.2 | 14.4 | 25.6 |
| Sirohi | 16.4 | 15.4 | 31.8 |
| Tonk | 4.2 | 10.3 | 14.6 |
| Udaipur | 7.1 | 15.3 | 22.5 |
| Rajasthan | 8.1 | 13.7 | 21.8 |

## MAP-6 <br> Current Use of Any Family Planning Method



## 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. Ten percent of the women in Rajasthan reported that the health worker visited them at their residence at least once in last three months preceding the survey. Women below 35 years of age seemed more likely to report a home visit than women in age group of 35-44 years. Eleven percent of women in the age group 15-24 years reported at least one home visit compared to only 8 percent of women in the age group 35 years and older. The percentage of women in Rajasthan receiving home visits is higher in rural areas ( 12 percent) than in urban areas ( 6 percent). Women who were non-literate ( 11 percent) and women with a low standard of living (13 percent) seemed more likely to report home visits. More Sikh women (18 percent) reported home visits than Hindu women (10 percent) followed by other religious group(14 percent) and Muslims (8 percent). There was not much variation by caste/tribe. Home visits were less common for women residing in the villages with a health facility.

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, 90 percent received services from ANM/LHV, 7 percent from male health worker and 4 percent from a doctor. There was significant rural-urban differential by visit of households by health worker. Seventy two percent of women who received services at home were satisfied with the time spent with them and 86 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, Rajasthan, 2002-04

| Background characteristic | Percent age 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 | 11.0 | 11,260 | 3.3 | 92.0 | 5.9 | 71.8 | 87.4 | 1,239 |
| 25-34 | 11.2 | 12660 | 4.8 | 90.5 | 7.0 | 74.1 | 85.3 | 1,421 |
| 35-44 | 7.9 | 8,991 | 5.9 | 88.0 | 8.4 | 70.3 | 84.6 | 708 |
| Residence |  |  |  |  |  |  |  |  |
| Rural | 12.1 | 23,315 | 3.8 | 92.5 | 5.5 | 71.9 | 86.7 | 2,828 |
| Urban | 5.6 | 9,595 | 8.2 | 80.1 | 14.3 | 75.5 | 81.8 | 539 |
| Education |  |  |  |  |  |  |  |  |
| Non-literate | 10.6 | 21,757 | 3.6 | 91.7 | 6.4 | 71.2 | 85.5 | 2,315 |
| 0-9@ years | 10.2 | 7,425 | 5.8 | 89.0 | 7.8 | 72.4 | 86.5 | 759 |
| 10 and above | 7.8 | 3,707 | 8.0 | 85.5 | 8.3 | 83.1 | 87.8 | 290 |
| Religion |  |  |  |  |  |  |  |  |
| Hindu | 10.3 | 29,211 | 4.4 | 90.9 | 6.8 | 72.7 | 86.5 | 3,018 |
| Muslim | 8.2 | 2,846 | 4.6 | 86.8 | 8.4 | 68.3 | 77.8 | 233 |
| Sikh | 18.5 | 427 | 5.1 | 89.6 | 5.5 | 71.4 | 86.7 | 79 |
| Jain | 7.7 | 362 | (6.1) | (81.8) | (12.1) | (72.7) | (87.9) | 28 |
| Other | 14.4 | 64 | * | * | * | * | * | 9 |
| Caste/tribe\# |  |  |  |  |  |  |  |  |
| Scheduled caste | 10.4 | 6,147 | 6.7 | 89.5 | 7.4 | 74.4 | 88.8 | 638 |
| Scheduled tribe | 15.3 | 3,878 | 3.4 | 93.6 | 4.6 | 73.3 | 89.6 | 592 |
| Other backward class | 10.0 | 14,018 | 2.9 | 91.9 | 6.5 | 72.0 | 84.8 | 1,399 |
| Other | 8.3 | 8,843 | 6.4 | 86.2 | 9.0 | 71.0 | 82.7 | 737 |
| Standard of living index |  |  |  |  |  |  |  |  |
| Low | 12.7 | 13,828 | 3.6 | 92.3 | 5.8 | 71.9 | 87.2 | 1,755 |
| Medium | 9.4 | 9,733 | 3.8 | 91.5 | 7.2 | 71.3 | 85.2 | 913 |
| High | 7.5 | 9,350 | 7.6 | 84.9 | 9.3 | 75.3 | 83.8 | 699 |

Availability of health
facility ${ }^{2}$ in the village

| No | 11.2 | 7,811 | 3.8 | 91.2 | 7.0 | 71.8 | 88.4 | 875 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Yes | 12.6 | 15,504 | 3.8 | 93.1 | 4.8 | 71.9 | 86.0 | 1,954 |
| Total | 10.2 | 32,911 | 4.5 | 90.5 | 6.9 | 72.4 | 85.9 | 3,367 |

Note: Total includes 21 women with missing information on education of women visited by health worker and 3 women with missing information of satisfied category were not shown separately. *Total includes 9 cases on Other religion were not shown separately due to very few cases. ${ }^{1}$ 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.

The proportion of women who were satisfied with the amount of time spent, and advices provided by health workers varied across various background characteristics. As compared to older women younger women were less likely to report about satisfaction with amount of time spent by the health workers during home visits. Seventy two percent of women in the age group, 15-24 years and 74 percent in the age group 25-34 years reported satisfaction with the time spent by health workers as compared to 70 percent of women aged 35 years and older. Eighty-seven percent of women in the age group 15-24 years reported
satisfaction with services followed by a little lesser 85 percent of women in the age group 2534 and 35-44 years respectively. Urban women ( 82 percent) were more likely than rural women ( 87 percent) to report that they satisfaction with the time spent by health workers during home visits, but they were lesser satisfied with service/ advices received. Women who were non-literate, women from sikh religions and schedule caste women, and women with a low standard of living are less likely to report satisfied with amount of time spends by health workers during home visits. Women residing in the village with availability of health facility are slightly less satisfied with the time spent than women from those villages where health facilities are not available.

### 7.2 Home Visit by Health Workers by Districts

In half of the districts in Rajasthan, health workers visited less than 10 percent of the women at home (Table 7.2 and Figure 7.1). Highest percentage of women are visited at their home in Jalore district ( 36 percent) followed by Banswara ( 25 percent) and Pali ( 23 percent). In geographically large and far flung districts like Jodhpur, Bikaner ( 6 percent each) while Jaisalmer and Barmer, 8 to 9 percent of women were visited at their home, respectively. Surprisingly, least number of visits have been made in Jaipur, only 4 percent. Among women who were visited by health worker at home, 90 percent of them approached by ANM/LHV at the state level, highest being in Rajsamand district (98 percent). In almost all the districts at more than four-fifth of the home visits were done by ANM/LHV. In Dausa district, male health workers approached 34 percent of women and except five districts (Hanumangarh, Jalore, Karauli, Kota, Nagaur, Pali) not more than 10 percent of the women are approached by male health worker at their home.

In only 3 out of 32 districts (Bhilwara, Churu, Dungarpur) less than 50 percent of the women said they were satisfied with the amount of time spent with them by the health worker. Largely, in most of the districts 70 to 90 percent women reported to be satisfied with the time spent with them. Jhunjhunun district reported highest satisfaction in terms of time spent ( 97 percent) as well as in satisfaction level of women with services ( 99 percent). On a positive note the percentage of women satisfied with the services rendered by the health workers is fairly higher than their satisfaction level in terms of the time spent with them. Not even a single district reported less than three-fourth satisfaction level for the services received by them.


| 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, Rajasthan, 2002-04 |  |  |  |  |  |  |
|  | Percentage with home visit | Home visit by ${ }^{1}$ |  |  | Percentage of women satisfied with |  |
| District |  | Doctor | ANM / LHV | Male health worker | Time spent | Service |
| Ajmer | 9.1 | 11.5 | 88.5 | 0.0 | 80.6 | 89.2 |
| Alwar | 5.8 | 4.1 | 94.7 | 1.2 | 90.1 | 92.4 |
| Banswara | 25.1 | 2.8 | 95.2 | 3.7 | 80.6 | 89.0 |
| Baran | 8.0 | 2.8 | 94.5 | 2.7 | 66.3 | 86.6 |
| Barmer | 8.4 | 9.6 | 89.3 | 1.1 | 58.6 | 82.7 |
| Bharatpur | 8.2 | 3.8 | 96.1 | 0.9 | 56.4 | 89.2 |
| Bhilwara | 10.0 | 7.7 | 91.5 | 0.8 | 32.9 | 89.8 |
| Bikaner | 6.2 | 10.2 | 88.3 | 1.4 | 50.3 | 75.7 |
| Bundi | 12.2 | 5.7 | 94.3 | 0.0 | 55.4 | 84.8 |
| Chittaurgarh | 12.2 | 16.2 | 83.8 | 1.3 | 78.5 | 95.7 |
| Churu | 5.4 | 6.6 | 93.1 | 3.7 | 49.7 | 86.2 |
| Dausa | 9.8 | 2.0 | 84.9 | 34.3 | 82.5 | 87.5 |
| Dhaulpur | 11.4 | 4.0 | 87.0 | 9.0 | 79.6 | 90.1 |
| Dungarpur | 9.6 | 5.0 | 93.9 | 1.9 | 48.6 | 86.9 |
| Ganganagar | 10.9 | 4.9 | 93.5 | 1.3 | 71.5 | 84.8 |
| Hamumangarh | 14.3 | 5.5 | 75.2 | 21.3 | 63.2 | 89.9 |
| Jaipur | 4.1 | 2.7 | 88.3 | 9.0 | 93.5 | 95.9 |
| Jaisalmer | 8.9 | 13.1 | 87.0 | 4.0 | 76.4 | 86.2 |
| Jalore | 36.5 | 2.6 | 86.4 | 11.4 | 74.8 | 80.2 |
| Jhalawar | 8.6 | 7.5 | 93.8 | 1.3 | 53.6 | 93.1 |
| Jhunjhunun | 5.4 | 2.7 | 97.3 | 0.0 | 96.8 | 99.4 |
| Jodhpur | 5.8 | 2.3 | 90.2 | 7.5 | 71.3 | 77.7 |
| Karauli | 14.4 | 0.0 | 87.5 | 21.8 | 87.1 | 91.4 |
| Kota | 19.2 | 0.4 | 89.9 | 9.6 | 74.1 | 75.2 |
| Nagaur | 6.8 | 4.4 | 96.6 | 9.8 | 69.1 | 85.7 |
| Pali | 23.3 | 0.0 | 86.5 | 15.2 | 69.3 | 70.4 |
| Rajsamand | 11.2 | 0.0 | 98.2 | 1.8 | 86.9 | 92.5 |
| Sawai Madhopur | 8.5 | 1.7 | 90.9 | 9.5 | 72.5 | 78.2 |
| Sikar | 5.2 | 6.1 | 93.9 | 3.2 | 72.2 | 97.5 |
| Sirohi | 11.6 | 6.6 | 92.6 | 1.3 | 72.1 | 88.0 |
| Tonk | 9.6 | 3.6 | 96.4 | 0.7 | 82.3 | 91.3 |
| Udaipur | 10.2 | 4.9 | 90.4 | 7.1 | 84.8 | 86.1 |
| Rajasthan | 10.2 | 4.5 | 90.5 | 6.9 | 72.4 | 85.9 |
| Note: ${ }^{1}$ Percentage add to more than 100.0 due to multiple responses |  |  |  |  |  |  |

### 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 2,079 pregnant woman or women with children born during the reference period, and other women includes 856 current users and 432 current non-users, who were visited by health workers at home.

| 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, Rajasthan, 2002-04 |  |  |  |  |
|  | Pregnant women | Other women |  | Total |
| Topic discussed | or women with children after reference period ${ }^{2}$ | Current contraceptive users | Current nonusers |  |
| During home visit |  |  |  |  |
| Family planning | 18.0 | 24.2 | 19.1 | 19.7 |
| Breastfeeding | 3.1 | 1.4 | 1.4 | 2.4 |
| Supplementary feeding | 3.4 | 2.7 | 1.1 | 2.9 |
| Immunization | 59.5 | 34.5 | 35.0 | 50.0 |
| Nutrition | 4.4 | 5.4 | 3.3 | 4.5 |
| Diseases prevention | 10.4 | 26.1 | 22.3 | 15.9 |
| Treatment of health problem | 11.6 | 20.9 | 25.3 | 15.7 |
| Antenatal care | 9.9 | 2.6 | 3.0 | 7.2 |
| Delivery care | 4.4 | 1.2 | 1.1 | 3.2 |
| Postpartum care | 4.3 | 1.3 | 1.1 | 3.1 |
| Childcare | 10.5 | 7.9 | 6.1 | 9.2 |
| Sanitation / cleanliness | 5.7 | 9.8 | 7.7 | 7.0 |
| Oral rehyderation | 0.4 | 1.0 | 0.7 | 0.6 |
| Other | 9.9 | 14.8 | 12.0 | 11.4 |
| Number of women | 2,079 | 856 | 432 |  |
|  |  |  |  | 3,367 |
| During visit to health facility |  |  |  |  |
| Family planning | 7.3 | 5.7 | 1.6 | 6.1 |
| Breastfeeding | 0.5 | 0.0 | 0.0 | 0.3 |
| Supplementary feeding | 0.6 | 0.0 | 0.2 | 0.3 |
| Immunization | 23.2 | 1.3 | 2.2 | 13.9 |
| Nutrition | 2.3 | 0.5 | 1.7 | 1.7 |
| Diseases prevention | 25.6 | 47.4 | 42.2 | 34.3 |
| Treatment of health problem | 29.3 | 57.9 | 59.6 | 41.8 |
| Antenatal care | 20.5 | 2.2 | 3.3 | 12.8 |
| Delivery care | 7.5 | 0.9 | 1.7 | 4.7 |
| Postpartum care | 3.8 | 0.6 | 0.8 | 2.4 |
| Childcare | 17.0 | 7.0 | 4.8 | 12.4 |
| Sanitation / cleanliness | 1.4 | 1.5 | 2.2 | 1.6 |
| Oral rehyderation | 0.4 | 0.4 | 0.1 | 0.3 |
| Other | 3.8 | 7.0 | 10.0 | 5.6 |
| Number of women | 2,296 | 1,210 | 520 | 4,025 |
| 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 $1^{\text {st }} 1999$ and for phase II, January $1^{\text {st }} .2001$ |  |  |  |  |

The major focus of discussion during home visits was immunization (50 percent) and family planning (18 percent). In addition, discussions were also made on treatment of health problem (12 percent) and disease prevention (10 percent each), childcare (10 percent), antenatal care 10 percent and sanitation/cleanliness ( 6 percent) and nutrition ( 4 percent). Discussions about family planning were mentioned more often by current users of contraception ( 24 percent) and by current non- users (19 percent) each than pregnant women or women with child born after reference period (18 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, family planning, treatment of health problems, disease prevention, childcare and antenatal care. A higher proportion of current contraceptive users and current non-users discussed, disease prevention, treatment of health problems, sanitation/cleanliness and other health related matters during home visit by health workers
past three months preceding the survey. The topic discussed most often during visits to health facility by women was treatment of health problems (29 percent), disease prevention (26 percent), immunization ( 23 percent), antenatal care ( 20 percent), childcare ( 17 percent), and delivery care ( 7 percent). Only four percent women reported that they discussed postpartum during the visit. During visit to health facility about 30 percent of the pregnant women or women with children born during reference period discussed on treatment of health problem, 26 percent discussed about disease prevention, 23 percent discussed immunization, 21 percent discussed antenatal care and 17 percent discussed postpartum care. 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 36 percent of women needed to visit health facility but did not visit in comparison with 24 percent of women who needed to visit health facility and visited in past three months of the survey.

| 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, Rajasthan, 2002-04 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Residence |  | Availability of health facility ${ }^{1}$ in the village |  |
| Health facility | Total | Rural | Urban | No | Yes |
| Percentage of women who needed to visit health facility and not visited | 36.1 | 38.6 | 30.1 | 40.8 | 37.5 |
| Percentage of women who needed to visit health facility and visited | 24.5 | 22.1 | 30.3 | 20.9 | 22.7 |
| Number of women | 32,911 | 23,315 | 9,595 | 7,811 | 15,504 |
| Government health facility |  |  |  |  |  |
| Hospital / CHC / FRU /RH | 25.7 | 20.5 | 35.0 | 19.3 | 21.0 |
| Dispensary | 3.3 | 2.7 | 4.5 | 3.7 | 2.2 |
| Primary health center | 12.6 | 16.8 | 5.2 | 13.1 | 18.5 |
| Sub-center | 6.3 | 9.6 | 0.5 | 5.0 | 11.8 |
| Private health facility |  |  |  |  |  |
| Hospital | 39.5 | 36.8 | 44.2 | 43.6 | 33.7 |
| Dispensary | 6.8 | 7.6 | 5.3 | 9.7 | 6.6 |
| ISM ${ }^{2}$ hospital/dispensary | 4.0 | 3.7 | 4.4 | 3.3 | 3.9 |
| Other | 1.7 | 2.2 | 0.8 | 2.1 | 2.2 |
| Missing | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 |
| Total percent | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number of women | 8,050 | 5,147 | 2,903 | 1,633 | 3,513 |
| 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 |  |  |  |  |  |

The proportion of women who visited health facility was higher in urban areas ( 30 percent) than in rural areas ( 22 percent). Among them who visited any health facility, 39 percent of women reported that they had visited a private hospital, ( 44 percent in urban areas and 37 percent in rural areas). On the contrary, more women preferred visiting a government health facility with near to 48 percent of which 26 percent visited government health facility such as, hospital/CHC/FRU/RH, 13 percent visited primary health centre, 6 percent visited sub-centres and only three percent visited to government dispensary. Just four percent of the women reported that they visited Indian system of medicine hospital/ dispensary either government or private. The availability of health facility in the village slightly increases the utilization of government health facility while availability of health in the village has no relationship with the utilization of the private health facility in the village in the past three months of the survey.

### 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. In twenty eight districts out of 32, percentage of currently married women who needed to visit a health facility, but they did not visited, was less than 50 percent except for four districts Bhilwara ( 58 percent), Barmer ( 56 percent), Rajsamand (55 percent) and Pali (54 percent). The percentage of women who need to visit health facility and visited didn't exceeded more than 30 percent in 80 percent of the all the districts of Rajasthan. In Jaisalmer, only 7 percent of women visited health facility when needed. Less than two-fifth women visited health facility in districts like, Barmer, Bhilwara, Bikaner, Chittaurgarh, Churu, Dungarpur, Jhalawar, Nagaur, Sikar and Sirohi.

Highest number of women visited government facility and least number visited private health facility in Ajmer district with 72 percent and 25 percent respectively. In most of the districts women approached government health facility. Sixty five percent of women visited private health facility in Bharatpur district which is highest in the state of Rajasthan.

$\left.\begin{array}{|lllll|}\hline \text { Table 7.5 VISIT TO HEALTH FACILITY BY DISTRICT } \\ \text { Percentage of women who needed to visit health facility, but not visited and percentage of women who visited } \\ \text { health facility by type of health facility by district, Rajasthan } 2002-04\end{array}\right]$

### 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 (12 percent), nurse (8 percent), and other staff including paramedical staff (5 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, Rajasthan, 2002-04 |  |  |  |
| Quality indicator | Poor | Good | Excellent |
| The convenience of the health facility location | 12.8 | 82.3 | 4.8 |
| Length ${ }^{1}$ of time spend towards waiting | 16.1 | 73.7 | 10.2 |
| Personal manner ${ }^{2}$ of the physician ${ }^{5}$ | 6.1 | 81.7 | 12.2 |
| The technical skills and quality ${ }^{3}$ of the physician ${ }^{5}$ | 6.2 | 83.3 | 10.5 |
| Personal manner ${ }^{2}$ of nurse | 8.6 | 83.3 | 8.0 |
| The technical skills and quality ${ }^{3}$ of nurse | 8.5 | 83.3 | 8.2 |
| Personal manner of other staff ${ }^{5}$ | 10.1 | 84.9 | 5.0 |
| The technical skills and quality of other ${ }^{4}$ staff | 11.9 | 84.1 | 3.9 |
| The explanation of what was done to her | 7.3 | 85.4 | 7.2 |
| Medical, surgical and diagnostic equipment | 12.8 | 81.6 | 5.6 |
| General comfort | 13.6 | 80.9 | 5.5 |

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. 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. Twenty-six percent of the currently married women reported poor quality of services as well as improper examination by doctors/health workers as the reason for not visiting the government health centre for their health problems. Ten percent of the women further quoted inconveniently located government health facility and as expected this reason is more reported by rural women ( 12 percent) than urban women ( 8 percent), and women from those village where health facilities are available (12 percent).

About 7 percent reported that they did not feel necessity to visit the government health centre due to rare/ non-availability of doctors/health workers and equally similar percentage reasoned that medicine not/rarely given or of bad quality. Other reasons for not visiting government health centres were: heavy rush time and not suited ( 5 percent each). Services are charged, this reason is quoted by a negligible percentage of women for not preferring government health facility.

### 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. Ten percent of currently non-users said that they had advices or discussion on method of family planning with ANM or family
planning health worker (Table 7.8). The most frequently discussed method was female sterilization (64 percent) and pills (19 percent). Only seven percent of women received advices to adopt condom and three percent for male sterilization as a contraceptive method. Male sterilization method was found to be more discussed in urban setting with 6 percent, which is two times higher than that of rural settings ( 3 percent). Similar trend based on residence setting has been followed by IUD and condoms. Discussions about traditional method, such as rhythm or withdrawal were rare .

| Table 7.7 REASON FOR NOT PREFERRING GOVERNMENT HEALTH FACILITY <br> 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, Rajasthan, 2002-04 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Resi | nce | Availa health f the v | ty of lity ${ }^{1}$ in ge |
| Reason | Total | Rural | Urban | No | Yes |
| Not conveniently located | 10.5 | 11.9 | 8.4 | 12.5 | 11.5 |
| Time is not suited | 5.4 | 5.3 | 5.5 | 4.7 | 5.7 |
| Poor quality of services | 26.0 | 25.5 | 27.0 | 24.6 | 26.0 |
| Heavy rush | 4.7 | 3.9 | 6.0 | 4.4 | 3.5 |
| Non/rare-availability of doctors/health workers | 6.6 | 7.4 | 5.3 | 7.3 | 7.5 |
| Doctors/health workers do not examine properly | 26.1 | 24.2 | 29.1 | 25.4 | 23.5 |
| Medicine not/rarely given or of bad quality | 7.4 | 8.8 | 5.3 | 10.7 | 7.6 |
| Doctors/paramedical staff does not behave properly | 0.8 | 0.6 | 1.1 | 0.6 | 0.7 |
| Services are charged | 1.6 | 1.9 | 1.0 | 1.5 | 2.2 |
| Referred by government doctor | 0.7 | 0.7 | 0.8 | 0.4 | 0.8 |
| Other | 10.1 | 9.9 | 10.5 | 7.8 | 11.1 |
| Total percent | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number of women | 4,015 | 2,468 | 1,547 | 922 | 1,546 |
| Note: ${ }^{1}$ Includes sub-center, primary health center, Community health center or referral hospital, government hospital, and government dispensary within the village |  |  |  |  |  |


| 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, Rajasthan, 2002-04 |  |  |  |
| :---: | :---: | :---: | :---: |
| Method | Total | Rural | Urban |
| Percentage of non-users who were advised to adopt family planning method | 9.6 | 10.1 | 7.9 |
| Number of women | 16,775 | 12,906 | 3,869 |
| Method |  |  |  |
| Female sterilization | 63.7 | 68.3 | 44.2 |
| Male sterilization | 3.4 | 2.8 | 6.0 |
| IUD | 5.7 | 4.8 | 9.7 |
| Pills | 18.8 | 17.1 | 26.2 |
| Condom | 7.0 | 5.8 | 11.9 |
| Rhythm/periodic abstinence | 0.2 | 0.3 | 0.0 |
| Withdrawal | 0.2 | 0.2 | 0.0 |
| Other | 0.6 | 0.5 | 1.2 |
| Missing | 0.4 | 0.3 | 0.8 |
| Total percent | 100.0 | 100.0 | 100.0 |
| Number of women | 1,613 | 1,306 | 307 |

### 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 5 percent of condom users and 4 percent of pills users reported that they had a problem in getting these methods. Just double proportion of rural women (6 percent) had problems in getting a supply of condom than urban women (3 percent).

| Table 7.9 AVAILABILITY OF REGULAR SUPPLY OF CONDOMS/PILLS |  |  |
| :--- | :--- | :--- |
| Percentage of current condom or pill users who ever had a problem getting a <br> supply of condoms/pills by residence, Rajasthan, 2002-04 |  |  |
| Percentage who had a <br> Method/residence <br> problem getting supply |  |  |
| Number of users |  |  |
| Condom |  |  |
| Rural |  |  |
| Urban | 6.5 | 437 |
| Total | 3.3 | 485 |
| Pills | 4.8 | 922 |
| Rural |  |  |
| Urban | 4.8 | 722 |
| Total | 3.7 | 1,307 |

### 7.10 Quality of Care of Family Planning Services

Several aspects of quality of care of family planning services were also 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.

| Table 7.10 INFORMATION OF OTHER MODERN METHOD BEFORE STERILIZATION |  |  |  |  |
| :--- | :--- | :--- | :--- | ---: |
| Percentage of current users of sterilization who were informed about other modern method by <br> the source where they get sterilized, according to the source of sterilization and residence, <br> Rajasthan, 2002-04 |  |  |  |  |
|  |  |  | Rural | Urban |
| Source of sterilization |  |  |  |  |

Around 57 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. Around fifteen percent of sterilized women received such information by a ANM or health worker in the government health facilities compared to around 45 percent of women who were sterilized in private health facilities, and 48 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 53 percent of such women were informed about alternative methods by others but not by a health worker working in government or private health sector.

| 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, Rajasthan, 2002-04 |  |  |  |
| :---: | :---: | :---: | :---: |
| Information/follow-up | Total | Rural | Urban |
| Told about side effects |  |  |  |
| Sterilization | 34.5 | 35.7 | 31.5 |
| Other modern method | 22.1 | 26.9 | 18.7 |
| Any modern method | 31.4 | 34.3 | 26.4 |
| Received follow-up |  |  |  |
| Sterilization | 31.5 | 37.5 | 16.8 |
| Other modern method | 10.6 | 19.1 | 4.9 |
| Any modern method | 26.4 | 34.6 | 12.0 |

Another important fact of informed contraceptive choice is being fully informed about any side effects and any other problems associated with the method. In Rajasthan, only 31 percent of users of any modern method were informed about possible side effects or health problems associated with their current method. Thirty six percent of acceptors of sterilization in rural area and 31 percent in urban area reported that they were informed about side effects. Among users of modern method other than sterilization, 27 percent of rural users and 19 percent of urban users were informed about side effects. It is clear from the result that ANM or health workers in Rajasthan 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 slightly higher than user of modern methods. About 37 of sterilization users in rural area and just half of it, 17 percent in urban area reported that they received follow-up services by ANM or health worker. Almost eleven percent of the users of other modern method received follow-up services. In all, only one-fifth of the users of any modern method in rural area and simply, 8 percent in urban areas received follow-up services.

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.

### 7.11 Quality of Care Indicators for Contraceptive Users by District

The percentage of sterilization-users who were told about alternate method is highest in Jhunjhunun ( 98 percent) but surprisingly it is lowest in the state capital, Jaipur (13 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 nearly 17 percent in Jalore to a high of 63 percent in Jhunjhunun. For other modern contraceptive methods, more than 30 percent users in Baran, Ganganagar, Jhunjhunun, Rajasmand, Sikar and Sirohi and a minimum of 6 percent of users in Dausa were told about the side effects of the method.

| Table 7.12 QUALITY OF CARE INDICATORS FOR CONTRACEPTIVE USERS BY DISTRICT <br> 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, Rajasthan, 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 |
|  |  | Sterilization | Other modern method | Sterilizat -ion | Other modern method | adopt contraceptive method |
| Ajmer | 90.9 | 40.6 | 26.1 | 36.9 | 12.9 | 15.0 |
| Alwar | 41.6 | 50.5 | 27.0 | 25.2 | 3.9 | 6.5 |
| Banswara | 32.3 | 17.1 | 13.8 | 36.9 | 5.1 | 11.1 |
| Baran | 91.7 | 48.1 | 31.2 | 41.4 | 15.4 | 11.0 |
| Barmer | 74.2 | 42.3 | 28.8 | 41.9 | 16.8 | 9.0 |
| Bharatpur | 87.3 | 31.9 | 22.0 | 39.0 | 8.6 | 7.1 |
| Bhilwara | 88.4 | 28.3 | 16.4 | 46.7 | 13.7 | 15.5 |
| Bikaner | 81.0 | 28.0 | 16.6 | 24.9 | 3.6 | 7.2 |
| Bundi | 96.3 | 42.9 | 20.7 | 51.4 | 13.4 | 15.2 |
| Chittaurgarh | 83.0 | 42.3 | 27.7 | 44.8 | 15.8 | 9.6 |
| Churu | 77.9 | 23.8 | 16.1 | 25.9 | 3.0 | 6.3 |
| Dausa | 33.1 | 32.8 | 6.0 | 40.6 | 6.2 | 9.9 |
| Dhaulpur | 44.8 | 58.3 | 21.3 | 35.9 | 6.6 | 5.4 |
| Dungarpur | 77.0 | 30.8 | 27.7 | 17.5 | 11.9 | 11.9 |
| Ganganagar | 21.4 | 29.0 | 32.6 | 21.9 | 16.4 | 9.7 |
| Hamumangarh | 39.8 | 53.3 | 30.2 | 26.8 | 11.6 | 7.6 |
| Jaipur | 12.8 | 23.0 | 11.4 | 9.7 | 2.4 | 4.0 |
| Jaisalmer | 66.5 | 25.3 | 28.1 | 44.5 | 25.7 | 7.4 |
| Jalore | 34.2 | 16.7 | 13.9 | 58.7 | 15.0 | 7.9 |
| Jhalawar | 70.3 | 21.2 | 20.1 | 37.4 | 12.9 | 12.3 |
| Jhunjhunun | 97.6 | 62.9 | 46.2 | 38.3 | 21.7 | 11.9 |
| Jodhpur | 27.3 | 24.8 | 20.0 | 16.8 | 11.6 | 7.5 |
| Karauli | 27.9 | 33.3 | 13.9 | 59.4 | 7.0 | 13.4 |
| Kota | 34.2 | 29.2 | 9.1 | 38.2 | 3.6 | 11.2 |
| Nagaur | 86.0 | 40.9 | 20.7 | 36.9 | 12.0 | 13.8 |
| Pali | 34.0 | 27.9 | 15.2 | 44.1 | 8.6 | 11.5 |
| Rajsamand | 37.2 | 37.5 | 32.7 | 35.7 | 7.8 | 11.6 |
| Sawai Madhopur | 15.7 | 21.1 | 17.3 | 23.6 | 10.9 | 6.8 |
| Sikar | 94.1 | 39.0 | 37.5 | 34.6 | 22.1 | 12.4 |
| Sirohi | 71.5 | 37.0 | 40.1 | 43.5 | 21.7 | 7.6 |
| Tonk | 23.6 | 28.2 | 18.6 | 24.0 | 8.0 | 3.7 |
| Udaipur | 43.1 | 28.8 | 25.9 | 33.2 | 16.0 | 8.1 |
| Rajasthan | 53.3 | 34.5 | 22.1 | 31.5 | 10.6 | 9.6 |
| Note: ${ }^{1}$ At the time of accepting the current method. ${ }^{2}$ By a health worker or ANM/Nurse after accepting the current method. |  |  |  |  |  |  |

Follow-up services are much better for acceptors of sterilization than for other modern methods in most of the districts of Rajasthan. 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 low 4 percent in Jaipur to a high of more than three times higher (15 percent) in Ajmer, Bhilwara and Bundi.

### 7.12 Quality of Care of Maternal Health Care

Overall, the quality of care for family planning and health services is far from satisfactory in many of the district of Rajasthan; 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. 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 care 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-UPSERVICES FOR POSTPARTUM CHECK-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, Rajasthan, 2002-04 |  |  |  |
| Advise/follow-up service | Total | Rural | Urban |
| Percentage of women who were advised to have delivery at health facility | 26.5 | 20.7 | 42.5 |
| Percentage of women who were visited within 2 weeks of delivery | 12.8 | 14.0 | 9.2 |
| Percentage of women who were visited at least once within 6 weeks of delivery | 14.0 | 15.5 | 9.9 |
| Number of women | 13,440 | 9,888 | 3,551 |
| Note: * Women who had live birth/still birth after 1.1.1999/2001. Total includes 30, 24 \& 28 missing cases in women who were advice to have delivery at health facility, visited within 2 weeks of delivery and visited at least once within 6 weeks of delivery, respectively. |  |  |  |

Twenty six 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. Women from urban areas ( 42 percent) were more likely than rural areas (21 percent) to get advised to deliver their child at health facility. Thirteen percent of the women reported that they were visited by an ANM within two weeks of delivery; such visit was only 9 percent in urban areas and 15 percent in rural areas. Only 15 percent of the women in rural area and 10 percent in urban areas received at least one follow-up service within six weeks of delivery.

In district wise variation, the percentage varies from as low as 10 percent in Jalore to as high as 48 percent in Jaipur (Table 7.14). In six of the 32 districts, less than two-fifth women were advised for deliver their child in health facility. Not more than one quarter women were received postpartum check-up within 2 weeks of delivery in any district of Rajasthan, and the proportion of women who had at least one postpartum check-up within six weeks of delivery varied from a low of nearly 7 percent in Sawai Madhopur to high of 29 percent in Bhilwara with state average being 14 percent.

| 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, Rajasthan, 2002-04 |  |  |  |
|  | Percentage of women |  |  |
| District | 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 |
| Ajmer | 28.9 | 11.5 | 12.3 |
| Alwar | 18.2 | 8.4 | 12.8 |
| Banswara | 30.0 | 14.4 | 17.4 |
| Baran | 35.8 | 12.6 | 15.1 |
| Barmer | 15.1 | 10.7 | 11.5 |
| Bharatpur | 13.2 | 10.7 | 12.1 |
| Bhilwara | 25.4 | 26.6 | 27.5 |
| Bikaner | 18.6 | 4.9 | 6.2 |
| Bundi | 27.4 | 14.4 | 14.4 |
| Chittaurgarh | 23.6 | 16.6 | 18.6 |
| Churu | 13.8 | 13.6 | 13.6 |
| Dausa | 24.3 | 9.2 | 10.1 |
| Dhaulpur | 21.7 | 7.0 | 8.2 |
| Dungarpur | 31.5 | 13.2 | 14.7 |
| Ganganagar | 22.1 | 15.9 | 17.1 |
| Hamumangarh | 20.3 | 16.9 | 17.3 |
| Jaipur | 48.0 | 5.8 | 7.1 |
| Jaisalmer | 12.1 | 9.0 | 9.2 |
| Jalore | 10.1 | 14.3 | 15.3 |
| Jhalawar | 26.9 | 14.6 | 16.0 |
| Jhunjhunun | 29.4 | 12.9 | 12.6 |
| Jodhpur | 26.6 | 8.0 | 8.7 |
| Karauli | 25.2 | 10.4 | 12.5 |
| Kota | 42.3 | 9.5 | 9.8 |
| Nagaur | 23.8 | 14.7 | 15.7 |
| Pali | 27.9 | 14.1 | 14.1 |
| Rajsamand | 34.8 | 27.2 | 29.3 |
| Sawai Madhopur | 32.0 | 5.7 | 6.6 |
| Sikar | 28.9 | 14.3 | 15.5 |
| Sirohi | 24.1 | 19.5 | 20.7 |
| Tonk | 24.6 | 15.1 | 15.7 |
| Udaipur | 33.9 | 18.5 | 20.3 |
| Rajasthan | 26.5 | 12.8 | 14.0 |

## 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 asses 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. Sixty five percent of the women in Rajasthan were aware of RTI/STI. The proportion of women who were aware of RTI/STI is much higher in urban areas (75 percent) than in rural areas ( 60 percent). Figure 8.1. Awareness of RTI/STI is much lower among younger women, non-literate women, women from Sikh religion, scheduled tribe women and women from households with a low standard of living. Awareness of RTI/STI increases from 60 percent among non-literate women to 83 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 55 percent among women with a low standard of living to 77 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. More than three-quarters (86 percent) 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 community meeting (14 percent), television (12 percent), newspaper/books/magazines (10 percent). Only 5 percent of women received this information from doctors and 3 percent from health workers, and about 6 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 Rajasthan, the percentage of men who heard of RTI/STI is lower than that of women (Figure 8.1). Fifty six percent of the men heard of RTI/STI. Men from urban areas and older men were relatively more aware of RTI/STI. Men who belong to Hindu religion and mainly from scheduled tribes are 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. Twenty nine percent of non-literate men were aware of RTI/STI as compared to 82 percent of men who had completed 10 or more years of schooling. Forty two percent of men from households with a low standard of living were aware of RTI/STI as compared to three fourth share of men with a high standard of living.


Relatives or friends are the most prominent source of RTI/STI for men in Rajasthan. Fifty five percent of men who knew about RTI/STI received information from relatives or friends. Other important sources of information about RTI/STI are newspaper or books or magazines ( 44 percent), television ( 38 percent) followed by slogans or posters or pamphlets or wall hoardings ( 28 percent), and radio (18 percent). Fifteen percent of the men received this information from a doctor, 12 percent from community meetings, 8 percent from health workers and 3 percent mentioned that they had received information about RTI/STI from school-teachers. About 6 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 media such as 'television' is also an important source of information of RTI/STI for men who are from urban areas and belong to Buddhist 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 nine percent of non-literate men had heard of RTI/STI from television which increased to 57 percent for men who have completed 10 or more years of schooling.


| 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, Rajasthan, 2002-04. |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Percentage who have heard about RTI/STI | Number of men | Among those who have heard about RTI/STI, percentage who received information from. |  |  |  |  |  |  |  |  |  | Number of men who have heard about RTI/STI |
| Background characteristic |  |  | Televi-Radio |  | Newspaper / Books/ Magazines | Slogan/ <br> Pamphlets/ <br> Posters/ <br> Wall <br> Hoardings | Doctor | Health worker | School teacher | Community Meeting | Relative/ Friends | Others |  |
| Age group (years) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| < 25 | 53.8 | 3,230 | 18.2 | 36.3 | 46.8 | 30.1 | 14.1 | 5.5 | 4.6 | 11.2 | 57.9 | 4.4 | 1,737 |
| 25-34 | 59.4 | 7,743 | 19.1 | 40.2 | 48.0 | 30.6 | 15.1 | 8.6 | 3.5 | 12.0 | 55.3 | 5.3 | 4,596 |
| 35-44 | 55.7 | 6,786 | 17.8 | 36.7 | 41.5 | 27.5 | 15.8 | 7.9 | 2.8 | 12.3 | 54.2 | 5.9 | 3,777 |
| 45+ | 52.1 | 3,221 | 14.0 | 33.5 | 38.2 | 23.3 | 17.1 | 8.9 | 2.3 | 14.5 | 56.7 | 8.4 | 1,679 |
| Residence 14.0 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Rural | 50.9 | 15,014 | 17.5 | 27.7 | 36.9 | 24.8 | 16.0 | 8.3 | 3.2 | 14.2 | 60.3 | 6.5 | 7,639 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Non-literate | 28.9 | 6,049 | 6.0 | 9.0 | 2.3 | 3.5 | 12.3 | 5.8 | 1.3 | 15.0 | 73.2 | 9.2 | 1,748 |
| 0-9@years | 57.1 | 8,049 | 13.9 | 27.5 | 32.6 | 23.4 | 14.7 | 6.7 | 2.2 | 13.9 | 60.5 | 5.3 | 4,975 |
| 10 and above | 81.6 | 6,206 | 25.8 | 57.3 | 70.5 | 42.1 | 17.3 | 9.9 | 5.0 | 9.9 | 44.6 | 5.0 | 5,065 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Hindu | 55.4 | 18,663 | 18.1 | 37.1 | 44.7 | 28.7 | 15.6 | 8.3 | 3.4 | 12.7 | 55.4 | 5.7 | 10,344 |
| Muslim | 59.9 | 1,7,743 | 14.8 | 38.0 | 37.9 | 25.2 | 13.8 | 5.4 | 2.1 | 9.1 | 60.3 | 6.6 | 1,044 |
| Sikh | 60.5 | +312 | 16.3 | 39.1 | 39.2 | 19.9 | 22.1 | 4.0 | 1.5 | 16.6 | 40.3 | 6.5 | 189 |
| Jain | 83.8 | 220 | 18.5 | 59.6 | 70.2 | 40.6 | 12.2 | 5.9 | 4.5 | 6.3 | 52.7 | 4.2 | 184 |
| Other | (60.0) | 42 | (15.2) | (57.6) | (54.5) | (39.4) | (15.2) | (15.2) | (6.1) | (15.2) | (48.5) | (3.0) | 27 |
| Casteltribe\# (60.0) ${ }^{(15.2)}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Scheduled caste | 50.6 | 4,131 | 16.0 | 30.8 | 35.5 | 25.0 | 13.9 | 7.0 | 2.6 | 12.5 | 58.2 | 6.4 | 2,091 |
| Scheduled tribe | 43.7 | 2,512 | 12.7 | 24.9 | 33.4 | 21.4 | 20.6 | 10.0 | 3.1 | 15.7 | 59.4 | 8.2 | 1,098 |
| Other backward class | 55.7 | 8,880 | 17.9 | 34.5 | 40.9 | 26.7 | 14.0 | 7.5 | 3.2 | 12.8 | 58.7 | 5.5 | 4,945 |
| Other | 67.1 | 5,441 | 20.3 | 49.5 | 57.5 | 35.0 | 16.8 | 8.4 | 3.7 | 10.6 | 48.6 | 5.0 | 3,649 |
| Standard of living index |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Low | 41.7 | 9,112 | 11.4 | 13.7 | 23.5 | 17.8 | 14.9 | 7.9 | 2.9 | 15.5 | 66.6 | 6.9 | 3,799 |
| Medium | 60.3 | 6,106 | 20.7 | 36.6 | 42.3 | 29.7 | 15.2 | 7.7 | 2.7 | 12.3 | 57.3 | 5.5 | 3,682 |
| High | 74.8 | 5,762 | 21.0 | 59.4 | 64.5 | 36.9 | 16.2 | 8.2 | 4.0 | 9.6 | 44.2 | 5.0 | 4,308 |
| Total | 56.2 | 20,980 | 17.8 | 37.6 | 44.4 | 28.5 | 15.5 | 8.0 | 3.3 | 12.3 | 55.5 | 5.8 | 11,789 |
| Note: Table includes 7 cases missing information on aware of RTI/STI are not shown separately. \# Total figure 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 cases. |  |  |  |  |  |  |  |  |  |  |  |  |  |

### 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, 58 percent of them did not know anything further about the mode of transmission of this disease. This proportion is relatively higher among rural women, young women, non-literate women, and women from Sikh religion, women from scheduled-tribes and women coming from households with low standard of living. Sixty two percent of rural women do not know about the mode of transmission of RTI/STI compared to 49 percent of urban women. Heterosexual intercourse and lack of personnel hygiene were mentioned by 11 and 19 percent of women respectively as mode of transmission of RTI/STI. Only 2 percent of women reported homosexual intercourse and 22 percent reported other modes of transmission of RTI/STI.

| Percentage of currently married women age 15-44 who have heard of RTI/STI, knowledge of mode of transmission by selected background characteristics, Rajasthan, 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 | 1.3 | 9.1 | 16.8 | 19.0 | 63.4 | 1,947 |
| 20-24 | 1.5 | 11.4 | 19.7 | 19.5 | 59.1 | 4,748 |
| 25-29 | 2.4 | 11.3 | 18.2 | 22.0 | 57.2 | 4,444 |
| 30-34 | 1.4 | 11.0 | 19.8 | 23.7 | 55.1 | 4,048 |
| 35-39 | 1.7 | 11.7 | 18.6 | 23.6 | 56.6 | 3,292 |
| 40-44 | 1.6 | 9.1 | 17.5 | 25.5 | 56.6 | 2,811 |
| Residence |  |  |  |  |  |  |
| Rural | 1.2 | 7.8 | 15.5 | 21.8 | 61.9 | 14,110 |
| Urban | 2.7 | 16.9 | 24.9 | 22.9 | 49.1 | 7,180 |
| Education |  |  |  |  |  |  |
| Non-literate | 0.9 | 6.0 | 13.3 | 21.8 | 64.3 | 12,883 |
| 0-9@ years | 1.9 | 13.6 | 21.2 | 22.3 | 52.8 | 5,333 |
| 10 years and above | 4.5 | 26.3 | 36.8 | 23.5 | 37.9 | 3,067 |
| Religion |  |  |  |  |  |  |
| Hindu | 1.7 | 10.6 | 18.4 | 22.0 | 58.2 | 18,755 |
| Muslim | 1.2 | 10.5 | 18.6 | 24.6 | 55.3 | 1,924 |
| Sikh | 3.3 | 6.7 | 15.8 | 21.2 | 60.1 | 261 |
| Jain | 3.9 | 30.4 | 38.8 | 20.8 | 35.5 | 301 |
| Other | (4.3) | (23.9) | (23.9) | (19.6) | (47.8) | 48 |
| Caste/tribe\# |  |  |  |  |  |  |
| Scheduled caste | 1.2 | 7.1 | 13.2 | 22.4 | 62.7 | 3,916 |
| Scheduled tribe | 1.0 | 5.8 | 12.4 | 20.2 | 67.1 | 1,984 |
| Other backward class | 1.3 | 8.8 | 17.0 | 23.1 | 59.0 | 9,329 |
| Other | 2.9 | 18.0 | 26.9 | 21.3 | 49.1 | 6,055 |
| Standard of living index |  |  |  |  |  |  |
| Low | 0.9 | 6.1 | 13.4 | 21.5 | 64.4 | 7,574 |
| Medium | 1.3 | 8.9 | 16.2 | 22.2 | 60.5 | 6,544 |
| High | 2.9 | 17.7 | 26.5 | 22.9 | 47.8 | 7,172 |
| Total | 1.7 | 10.8 | 18.7 | 22.2 | 57.6 | 21,290 |
| Note: 7 women with missing information on education are not shown separately. \# Total figure may not add up to N due to do not know and missing cases. ( ) Based on less than 50 cases. @ Literate women with no year of schooling are also included. |  |  |  |  |  |  |

Table 8.4 presents the knowledge of mode of transmission of RTI/STI among men. Among men who had heard of RTI/STI, 24 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 older (45+ age group) men, non-
literate men, Muslim men, men from scheduled tribes, and men from households with a low standard of living. Among the men who knew the modes of transmission of RTI/STI, 52 percent mentioned heterosexual intercourse, thirty percent reported lack of personnel hygiene, and 5 percent mentioned homosexual intercourse, and 16 percent reported other modes of transmission.

| Percentage of husbands of currently married women who have heard of RTI/STI , knowledge of mode of transmission by selected background characteristics, Rajasthan, 2002-04 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percentage by knowledge of mode of transmission |  |  |  | Do not know | Number of men who have heard of RTI/STI |
| Background characteristic | Homosexual intercourse | Heterosexual intercourse | Lack of personnel hygiene | Other |  |  |
| Age |  |  |  |  |  |  |
| <25 | 3.8 | 52.0 | 27.5 | 14.7 | 25.0 | 1,737 |
| 25-34 | 5.5 | 55.0 | 30.6 | 14.2 | 23.2 | 4,596 |
| 35-44 | 6.0 | 51.6 | 30.8 | 16.9 | 23.0 | 3,777 |
| 45+ | 4.7 | 46.0 | 27.4 | 19.3 | 26.3 | 1,679 |
| Residence |  |  |  |  |  |  |
| Rural | 4.8 | 47.6 | 27.6 | 17.2 | 27.5 | 7,639 |
| Urban | 6.2 | 60.6 | 33.7 | 13.4 | 17.0 | 4,150 |
| Education |  |  |  |  |  |  |
| Non-literate | 1.7 | 27.4 | 18.6 | 21.6 | 41.1 | 1,748 |
| 0-9@ years | 3.9 | 46.9 | 24.8 | 15.7 | 28.2 | 4,975 |
| 10 years and above | 7.9 | 65.9 | 38.5 | 14.0 | 13.6 | 5,065 |
| Religion |  |  |  |  |  |  |
| Hindu | 5.3 | 52.2 | 30.1 | 16.0 | 23.5 | 10,344 |
| Muslim | 3.6 | 49.4 | 26.5 | 15.9 | 27.1 | 1,044 |
| Sikh | 7.5 | 52.9 | 25.9 | 18.7 | 26.8 | 189 |
| Jain | 13.0 | 62.9 | 36.6 | 8.4 | 19.2 | 184 |
| Other | (6.1) | (69.7) | (15.2) | (9.1) | (21.2) | 27 |
| Caste/tribe\# |  |  |  |  |  |  |
| Scheduled caste | 3.6 | 48.8 | 26.1 | 16.8 | 25.0 | 2,091 |
| Scheduled tribe | 3.3 | 41.7 | 26.7 | 19.3 | 30.0 | 1,098 |
| Other backward class | 5.5 | 50.7 | 28.8 | 16.5 | 25.5 | 4,945 |
| Other | 6.6 | 59.3 | 34.0 | 13.4 | 19.1 | 3,649 |
| Standard of living index |  |  |  |  |  |  |
| Low | 3.9 | 39.9 | 24.6 | 18.6 | 32.3 | 3,799 |
| Medium | 5.1 | 52.2 | 27.8 | 16.2 | 24.3 | 3,682 |
| High | 6.7 | 62.9 | 36.0 | 13.2 | 16.0 | 4,308 |
| Total | 5.3 | 52.2 | 29.8 | 15.9 | 23.8 | 11,789 |
| Note: \# Total figure may not add up to N due to do not know and missing cases.@ Literate men with no years of schooling are also included. |  |  |  |  |  |  |

### 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 and Figure 8.2 show that more than one-third of currently married women ( 47 percent) reported at least one reproductive health problem. The problems reported by 23 percent of women were 'some mass coming out of vagina' as well as 'low backache', 'pain in lower abdomen not related to menses' (17 percent), 'frequent / painful passage of urine’ (14 percent), 'itching over vulva' ( 9 percent) and 'painful sexual intercourse' ( 6 percent). Other symptoms of reproductive health reported by women were 'fever' (7 percent), 'boils/ ulcers/ warts around vulva’ (4 percent), 'any involuntary escape of urine while coughing or sneezing' (4 percent) and 'swelling in the groin' (3 percent). Very few women reported 'bleeding after sexual intercourse’ and 'swelling/lump in breast’. The prevalence of reproductive health problems is more common among rural than urban women.

| Percentage of currently married women age $15-44$ who reported any symptoms RTI/STI and specific symptoms during three months prior to survey, according to residence, Rajasthan, 2002-04 |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  | Residence |  |
| Symptoms | Total | Rural | Urban |
| Percentage of women reported any RTI/STI symptoms | 47.5 | 49.4 | 42.9 |
| Symptoms |  |  |  |
| Itching over vulva | 9.0 | 9.5 | 8.0 |
| Boils/ ulcers/ warts around vulva | 3.5 | 3.8 | 2.8 |
| Pain in lower abdomen not related to menses | 17.0 | 17.8 | 15.1 |
| Low backache | 22.9 | 23.1 | 22.2 |
| Pain during sexual intercourse | 5.7 | 6.0 | 5.0 |
| Bleeding after sexual intercourse | 1.4 | 1.6 | 0.9 |
| Swelling in the groin | 3.2 | 3.5 | 2.3 |
| Frequent / painful passage of urine | 14.1 | 15.4 | 11.1 |
| Fever | 6.5 | 7.2 | 5.0 |
| Some mass coming out of vagina | 23.4 | 25.4 | 18.6 |
| Any involuntary escape of urine while coughing or sneezing | 4.5 | 4.8 | 3.9 |
| Swelling / lump in breast | 1.6 | 1.8 | 1.2 |
| Number of women | 32,911 | 23,315 | 9,595 |

Figure 8.2
Symptomps of RTIISTI among Women


Raiasthan. DLHS-RCH. 2002-04


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. Eleven 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 among rural men (14 percent) is more than two times as compared to urban men (6 percent). The specific problem of reproductive health experienced by men is 'difficulty / pain while urinating or very frequent urination (6 percent),
'discharge from penis’ (4 percent), 'itching / irritation around genital’ (3 percent) and 'sore / rash / redness on genitals or anal area’ (2 percent ), and 'swelling of testis or in groin area’(1 percent).


Among men who reported reproductive health problems, two-fifth of them sought treatment. There is a huge rural-urban differential in seeking treatment for reproductive health problems. Among them 44 percent visited a government health facility, including a primary health centre ( 7 percent) and sub-centre ( 2 percent) and 33 percent visited a private health facility. A small number of men were treated by the Indian system of medicine (9 percent), 13 percent obtained treatment from a chemist or medical shop, and 7 percent of the men reported that they were treated at other sources. A relatively higher proportion of men from urban areas utilised the government health facility, private health facility and chemist or
medical shop for treatment; utilisation of the Indian system of medicine is two times higher among rural men (10 percent) than among urban men ( 5 percent).

A large proportion of men saw a doctor ( 71 percent), 74 percent in urban areas and 71 percent in rural areas. Twelve percent of men preferred chemist medical shop for treatment, 4 percent by a male health worker as well as ISM practitioner, 3 percent by relative/friends and 2 percent each for traditional healer and home remedies. Another 7 percent of the men obtained treatment from other sources.

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 asymptomatic prevalence of vaginal discharge related problems among currently married women in Rajasthan during the three months preceding the survey according to residence. One fourth of the women reported problems related to vaginal discharge. The prevalence of vaginal discharge problem is relatively higher among rural women (27 percent) than among urban women ( 20 percent).

Among the women who had reported symptoms of vaginal discharge, 21 percent went for treatments, higher percentage ( 31 percent) from urban areas compared to their rural counterparts (19 percent). A considerable proportion (43 percent) visited private health facilities followed by home remedy ( 11 percent). Only 37 percent went to a government health facility, including 7 percent to the Primary Health Centre and 3 percent to Sub Centre, 11 percent took home remedies and 6 similar percent of the women visited other places for treatment. The proportion of women who visited a private health facility is higher in rural areas ( 41 percent) than in urban areas ( 47 percent), and the proportion of women who visited a facility rendering the Indian system of medicine, is slightly higher in urban areas (7 percent) than in rural areas ( 5 percent). A significantly higher proportion ( 80 percent) of women in the state of Rajasthan obtained treatment from doctors for their problems.


### 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. The Table shows that around 19 percent women in Rajasthan had menstruation problems, and the figures are 19 percent and 17 percent in the rural and urban areas respectively. Among the women who had reported menstrual problems in Rajasthan, 48, 27 and 16 percent reported painful periods, excessive bleeding and scanty bleeding as symptoms respectively. The magnitude of these symptoms is more or less the same among urban as well as rural women. Among the women who had menstrual problems, twenty six percent sought treatment in the state, and the figures for urban and rural areas are 35 percent and 23 percent respectively.


The government health facility and private health facility are the main sources of treatment for menstrual problems. Around 47 percent of women sought treatment at a government health facility and 44 percent sought treatment at a private health facility. Most of the women went to a doctor for treatment ( 77 percent). Women in urban areas are more likely to approach doctor for health treatment ( 83 percent) then rural women ( 74 percent ).

### 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 Jodhpur ( 34 percent) and highest in Bharatpur ( 69 percent). The problems related to abnormal vaginal discharge ranges from 10 percent in Jaisalmer to 43 percent in Dausa. In comparison to women, fewer men from all districts of Rajasthan reported symptoms of RTIs/STIs. Men from Jhunjhunun, Sikar and Bikaner (5-6 percent) reported the lowest prevalence of symptoms of RTIs/STIs and men from Banswara ( 23 percent) reported the highest prevalence. Lower prevalence of RTI/STI symptoms among men can be attributed to their better health seeking behaviour which is a little less than double of women’s health seeking behaviour for RTI/STI symptoms.

The percentage of women who have sought treatment for RTIs (abnormal vaginal discharge) ranges from nearly10 percent in Jaisalmer to 34 percent in Bharatpur, and for men who have sought treatment; it ranges from 30 percent in Bhilwara to 57 percent in Churu.

| Percentage of currently married women and their husbands who reported reproductive health problems and percentage who sought treatment for the problems by district, Rajasthan, 2002-04 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percentage of women |  |  | Percentage of men |  |
| District | 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 |
| Ajmer | 45.8 | 23.6 | 21.7 | 8.8 | 42.7 |
| Alwar | 52.0 | 32.4 | 12.9 | 10.9 | 42.6 |
| Banswara | 52.4 | 27.9 | 19.3 | 22.6 | 45.2 |
| Baran | 52.1 | 30.9 | 31.3 | 8.7 | 43.1 |
| Barmer | 53.9 | 19.3 | 12.4 | 10.6 | 45.2 |
| Bharatpur | 68.6 | 40.2 | 34.5 | 11.5 | 47.7 |
| Bhilwara | 49.0 | 21.0 | 16.4 | 7.2 | 29.8 |
| Bikaner | 40.4 | 15.7 | 19.3 | 5.6 | 33.1 |
| Bundi | 60.9 | 36.5 | 21.1 | 14.0 | 36.3 |
| Chittaurgarh | 45.4 | 17.6 | 22.1 | 11.3 | 37.0 |
| Churu | 47.9 | 20.1 | 22.8 | 5.1 | 57.5 |
| Dausa | 65.2 | 42.7 | 13.3 | 19.6 | 46.2 |
| Dhaulpur | 50.2 | 30.7 | 14.1 | 17.3 | 31.2 |
| Dungarpur | 45.2 | 15.0 | 23.6 | 10.1 | 51.5 |
| Ganganagar | 36.1 | 16.4 | 28.0 | 12.0 | 42.8 |
| Hamumangarh | 44.2 | 20.8 | 23.7 | 12.9 | 46.9 |
| Jaipur | 46.7 | 31.9 | 20.8 | 13.5 | 35.9 |
| Jaisalmer | 43.4 | 10.1 | 9.9 | 18.7 | 43.8 |
| Jalore | 46.7 | 19.4 | 19.0 | 12.2 | 42.5 |
| Jhalawar | 48.5 | 22.4 | 31.4 | 6.7 | 46.9 |
| Jhunjhunun | 48.4 | 27.9 | 22.8 | 4.2 | 46.5 |
| Jodhpur | 34.0 | 14.5 | 25.6 | 9.6 | 45.7 |
| Karauli | 59.2 | 37.0 | 17.7 | 20.3 | 30.6 |
| Kota | 48.6 | 26.3 | 20.7 | 9.9 | 46.5 |
| Nagaur | 44.3 | 16.2 | 24.1 | 9.9 | 33.9 |
| Pali | 45.8 | 25.4 | 22.5 | 10.5 | 47.7 |
| Rajsamand | 42.1 | 20.6 | 22.2 | 10.7 | 43.3 |
| Sawai Madhopur | 50.6 | 38.0 | 20.2 | 18.2 | 35.6 |
| Sikar | 50.3 | 31.6 | 21.2 | 5.5 | 34.3 |
| Sirohi | 40.5 | 15.3 | 30.9 | 11.0 | 34.7 |
| Tonk | 41.4 | 29.5 | 24.1 | 15.9 | 34.8 |
| Udaipur | 44.1 | 24.7 | 27.5 | 15.7 | 33.7 |
| Rajasthan | 47.5 | 25.1 | 21.4 | 11.5 | 40.2 |

### 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. Thirty three percent of currently married women in Rajasthan have heard of HIV/AIDS, which is higher than RCH Round - I. In Round-I only percent of currently married women were aware of HIV/AIDS.

Awareness of HIV/AIDS is much lower among rural women, non-literate women, Hindu women, women from scheduled tribes, women from households with a low standard of living, and younger women. Sixty four percent of urban women had heard about HIV/AIDS compared to only one-fifth of rural women. Awareness of HIV/AIDS steadily increased with increase in educational level and household standard of living. Thirteen percent of non-literate women had heard of HIV/AIDS against 95 percent of women who had completed 10 or more years of schooling. Only 9 percent of the women with a low standard of living had heard of HIV/AIDS against 70 percent of women with a high standard of living. Except one fourth of younger women (below the age of 20) and little higher ( 29 percent) of women in age group of 40-44, all other age group women have knowledge of HIV/AIDS ranging from $31-36$ percent. Hindu women ( 31 percent) were least aware of HIV/AIDS compared to women from Muslim ( 40 percent), Sikh ( 47 percent), Jain ( 87 percent) and 'other’ religions ( 53 percent). Women from 'other caste’ category were more knowledgeable about of HIV/AIDS (55 percent) than women belonging to other backward classes (28 percent), scheduled-caste (23 percent) and scheduled tribe women (14 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 83 percent of women reported that television was their source of information about HIV/AIDS, followed by relatives or friends ( 42 percent), newspapers, books or magazines ( 36 percent), slogans or pamphlets, posters or wall hoardings ( 23 percent) and radio ( 20 percent). Eight percent of the women reported that a doctor had informed them about HIV/AIDS and 6 percent of the women received information of HIV/AIDS from a health worker. A comparatively high proportion of rural women received information about HIV/AIDS from the radio, doctor, health worker, and relatives or friends.

## Table 8.10 SOURCE OF KNOWLEDGE ABOUT HIVIAIDS AMONG WOMEN

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

| Background characteristic | Percentage who have heard about HIVIAIDS | Number of Women | Among those who have heard about HIV/AIDS, percentage who received information from. |  |  |  |  |  |  |  |  |  | Number of women who have heard about HIVIAIDS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Radio | Television | Newspaper/ Books/ Magazines | Slogan/ <br> Pamphlets/ <br> Posters/ Wall <br> Hoardings | Doctor | Health worker | School teacher | Communit y Meeting | Relative/ <br> Friends | Others |  |
| Age group (years) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 15-19 | 24.7 | 3,716 | 19.9 | 76.1 | 30.8 | 19.8 | 6.5 | 5.5 | 5.6 | 6.0 | 41.1 | 4.0 | 917 |
| 20-24 | 36.0 | 7,543 | 21.2 | 83.0 | 39.5 | 24.8 | 7.6 | 5.2 | 5.2 | 9.9 | 42.5 | 4.3 | 2,715 |
| 25-29 | 36.4 | 6,744 | 21.2 | 84.6 | 38.1 | 25.2 | 8.1 | 5.5 | 2.8 | 8.7 | 42.6 | 3.4 | 2,457 |
| 30-34 | 33.4 | 5,917 | 20.3 | 82.5 | 36.4 | 23.5 | 7.1 | 6.3 | 2.3 | 8.2 | 40.8 | 3.1 | 1,976 |
| 35-39 | 30.7 | 4,893 | 19.3 | 83.8 | 33.1 | 21.2 | 8.3 | 6.7 | 1.9 | 10.5 | 42.1 | 3.9 | 1,501 |
| 40-44 | 29.5 | 4,097 | 16.1 | 83.1 | 34.6 | 21.8 | 7.4 | 5.7 | 2.0 | 11.4 | 39.7 | 3.5 | 1,207 |
| Residence |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Rural | 19.7 | 23,315 | 20.0 | 68.6 | 24.9 | 17.1 | 7.3 | 8.2 | 3.2 | 12.1 | 47.9 | 5.6 | 4,596 |
| Urban | 64.4 | 9,595 | 20.2 | 93.4 | 45.0 | 28.1 | 7.8 | 4.0 | 3.4 | 7.1 | 37.1 | 2.3 | 6,177 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Non-literate | 13.4 | 21,757 | 12.2 | 64.6 | 3.1 | 1.9 | 3.7 | 4.1 | 0.5 | 9.6 | 47.8 | 5.3 | 2,922 |
| 0-9@ years | 58.4 | 7,425 | 19.7 | 84.5 | 31.9 | 21.9 | 5.8 | 5.9 | 1.7 | 8.7 | 39.9 | 3.7 | 4,339 |
| 10 and above | 94.6 | 3,707 | 27.1 | 95.9 | 69.8 | 43.2 | 13.0 | 7.0 | 7.8 | 9.5 | 38.9 | 2.4 | 3,506 |
| Religion |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Hindu | 31.1 | 29,211 | 20.5 | 81.7 | 36.9 | 23.6 | 7.7 | 6.2 | 3.5 | 9.4 | 42.1 | 4.0 | 9,093 |
| Muslim | 39.7 | 2,846 | 15.3 | 88.7 | 25.8 | 18.0 | 4.7 | 2.9 | 2.2 | 7.7 | 39.1 | 2.1 | 1,131 |
| Sikh | 47.2 | 427 | 25.3 | 82.9 | 27.8 | 12.1 | 10.6 | 6.1 | 1.9 | 8.5 | 28.7 | 4.6 | 202 |
| Jain | 86.7 | 362 | 20.8 | 92.8 | 66.0 | 44.2 | 12.6 | 3.6 | 3.7 | 9.7 | 47.1 | 0.8 | 314 |
| Other | 53.3 | 64 | (27.8) | (86.1) | (52.8) | (33.3) | (16.7) | (8.3) | (11.1) | (19.4) | (52.8) | (5.6) | 34 |
| Caste/tribe\# |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Scheduled caste | 23.0 | 6,147 | 17.3 | 78.8 | 20.2 | 11.9 | 5.7 | 5.3 | 1.8 | 9.1 | 37.4 | 4.7 | 1,413 |
| Scheduled tribe | 14.0 | 3,878 | 17.5 | 71.6 | 23.1 | 15.6 | 5.0 | 6.8 | 4.1 | 10.5 | 48.4 | 4.9 | 543 |
| Other backward class | 28.3 | 14,018 | 18.7 | 79.8 | 29.9 | 18.9 | 6.4 | 4.8 | 2.9 | 8.4 | 43.2 | 4.2 | 3,968 |
| Other | 54.8 | 8,843 | 22.3 | 87.7 | 48.0 | 31.4 | 9.4 | 6.5 | 4.0 | 9.8 | 41.0 | 2.9 | 4,846 |
| Standard of living index |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Low | 9.2 | 13,828 | 14.7 | 47.5 | 14.2 | 10.1 | 6.4 | 8.7 | 2.2 | 12.0 | 55.7 | 6.6 | 1,268 |
| Medium | 30.0 | 9,733 | 16.8 | 74.3 | 22.7 | 15.5 | 5.7 | 6.8 | 3.0 | 10.6 | 43.8 | 5.2 | 2,923 |
| High | 70.4 | 9,350 | 22.6 | 93.4 | 46.8 | 29.5 | 8.7 | 4.8 | 3.7 | 8.1 | 38.1 | 2.5 | 6,582 |
| Total | 32.7 | 32,911 | 20.1 | 82.8 | 36.4 | 23.4 | 7.6 | 5.8 | 3.3 | 9.2 | 41.7 | 3.7 | 10,773 |

Note: Total includes 21 cases missing information on education are not shown separately. \# Total figure may not add up to N due to do not know and missing cases. @ Literate women with no year of
schooling are also included

| Background Characteristic | Percentage who have heard about HIVIAIDS | Number of men | Among those who have heard about HIVIAIDS, percentage who received information from. |  |  |  |  |  |  |  |  |  | Number of men who have heard about HIVIAIDS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Radio | Television | Newspaper/ Books/ Magazines | Slogan/ <br> Pamphlets/ <br> Posters/ Wall <br> Hoardings | Doctor | Health worker | School teacher | $\begin{aligned} & \text { Commun- } \\ & \text { ity } \\ & \text { Meeting } \\ & \hline \end{aligned}$ | Relative/ Friends | Others |  |
| Age group (years) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <25 | 75.1 | 3,230 | 34.3 | 63.3 | 55.3 | 44.2 | 12.6 | 7.8 | 7.5 | 9.9 | 49.0 | 4.0 | 2,424 |
| 25-34 | 74.0 | 7,743 | 33.5 | 64.9 | 58.1 | 48.9 | 16.4 | 9.1 | 5.1 | 12.3 | 47.9 | 3.6 | 5,730 |
| 35-44 | 63.2 | 6,786 | 31.8 | 65.5 | 56.7 | 46.5 | 16.7 | 9.6 | 3.5 | 11.6 | 43.3 | 3.9 | 4,287 |
| 45+ | 54.0 | 3,221 | 28.8 | 63.9 | 57.4 | 45.0 | 18.7 | 10.1 | 3.4 | 14.5 | 44.6 | 5.7 | 1,739 |
| Residence |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Rural | 59.1 | 15,014 | 33.7 | 53.7 | 50.9 | 43.5 | 16.5 | 9.8 | 5.0 | 13.9 | 50.3 | 4.0 | 8,871 |
| Urban | 89.0 | 5,966 | 30.6 | 83.0 | 67.5 | 52.6 | 15.4 | 8.1 | 4.6 | 8.7 | 39.7 | 4.2 | 5,309 |
| Education |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Non-literate | 27.1 | 6,049 | 18.5 | 30.5 | 8.4 | 8.2 | 9.8 | 5.3 | 1.2 | 16.0 | 64.0 | 5.5 | 1,636 |
| 0-9@ years | 97.6 | 8,717 | 26.9 | 55.9 | 45.8 | 41.4 | 13.5 | 7.4 | 2.8 | 12.4 | 48.7 | 3.4 | 6,499 |
| Religion |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Hindu | 66.5 | 18,663 | 32.9 | 63.6 | 57.7 | 47.3 | 16.3 | 9.3 | 5.0 | 12.2 | 46.3 | 4.0 | 12,414 |
| Muslim | 73.8 | 1,743 | 30.0 | 69.2 | 50.0 | 42.0 | 14.6 | 7.5 | 3.2 | 9.8 | 49.1 | 4.4 | 1,286 |
| Sikh | 75.0 | 312 | 29.8 | 72.4 | 45.5 | 34.5 | 17.1 | 6.8 | 5.1 | 16.4 | 38.1 | 3.8 | 234 |
| Jain | 96.8 | 220 | 30.3 | 90.8 | 80.0 | 65.8 | 13.4 | 8.9 | 4.8 | 8.2 | 40.6 | 2.2 | 213 |
| Other | (80.0) | 42 | (31.8) | (59.1) | (56.8) | (43.2) | (15.9) | (20.5) | (9.1) | (6.8) | (38.6) | (9.1) | 33 |
| Caste/tribe\# |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Scheduled caste | 61.2 | 4,131 | 30.0 | 56.7 | 46.5 | 39.9 | 14.6 | 8.7 | 4.3 | 11.7 | 46.7 | 3.6 | 2,529 |
| Scheduled tribe | 47.3 | 2,512 | 25.6 | 46.0 | 50.6 | 43.0 | 16.9 | 11.9 | 5.1 | 11.2 | 50.4 | 5.9 | 1,187 |
| Other backward class | 66.8 | 8,880 | 34.3 | 62.8 | 54.1 | 44.9 | 15.6 | 8.5 | 4.6 | 12.7 | 49.4 | 4.2 | 5,936 |
| Other | 83.1 | 5,441 | 33.6 | 76.5 | 68.8 | 54.6 | 17.5 | 9.5 | 5.3 | 11.2 | 40.9 | 3.6 | 4,523 |
| Standard of living index |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Low | 44.8 | 9,112 | 26.5 | 33.8 | 38.0 | 35.0 | 14.7 | 8.9 | 3.8 | 15.0 | 55.8 | 3.3 | 4,080 |
| Medium | 75.6 | 6,106 | 34.4 | 63.6 | 54.0 | 46.9 | 15.2 | 9.4 | 4.4 | 11.7 | 47.7 | 3.9 | 4,615 |
| High | 95.2 | 5,762 | 35.5 | 88.6 | 73.9 | 55.8 | 18.0 | 9.1 | 6.0 | 9.9 | 38.0 | 4.7 | 5,485 |
| Total | 67.6 | 20,980 | 32.6 | 64.7 | 57.1 | 46.9 | 16.1 | 9.1 | 4.8 | 11.9 | 46.3 | 4.0 | 14,180 |
| Note: Total includes 7 case missing information on education are not shown separately. \# Total figure 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 cases. |  |  |  |  |  |  |  |  |  |  |  |  |  |



Table 8.11 shows the percentage of husbands of currently married women who had heard about HIV/AIDS. In Rajasthan, the proportion of men who had heard about HIV/AIDS is much higher than that of women. Sixty eight percent of men had heard of HIV/AIDS as compared to thirty three percent of women (Figure 8.4).

About sixty eight percent of urban men had heard about HIV/AIDS as compared to only 59 percent of rural men. Awareness of HIV/AIDS varies by men's age, and it is higher for the age group, below 25 years. Awareness of HIV/AIDS is much lower among nonliterate men, Hindu 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 27 percent of non-literate men had heard of HIV/AIDS, and it increased up to three fourth for literate men and up to 97 percent of men who had completed 10 or more years of schooling. Thus, it is positively related to education of men.

Table 8.11 also shows the percentage of husbands of currently married women who were aware of HIV/AIDS by different sources. As reported by the men of Rajasthan, the most prominent source of information of HIV/AIDS were television ( 65 percent) followed by newspapers, books or magazines ( 57 percent) and slogans or pamphlets, posters or wall hoardings (47 percent), other important sources of HIV/AIDS are relatives or friends (46 percent), radio ( 33 percent), and doctor ( 16 percent). Twelve percent of men reported that community meeting were the source of information about HIV/AIDS and 9 percent men had received information of HIV/AIDS from a health worker.

About 5 percent reported that they were informed by school teacher and four percent received such information from a school teacher. Comparatively, a higher proportion of rural men received information about HIV/AIDS from the radio, doctor, health worker, community meetings and friends and relatives, than urban men. The information on awareness of HIV/AIDS through mass media, such as television and newspapers, and books or magazines, was received more by older men (aged 45 and above), urban men, and men from other religions and 'other castes' category, with at least 10 years of schooling, and men from households with a high standard of living. On the other hand, relative or friends were the
main source of information for rural men, younger men below age 25 , non-literate men, Muslim men, men from a scheduled tribes men and men from households with a low standard of living.

### 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, 13 percent of them did not know about the mode of transmission.

| Percentage currently married women age 15-44 who have heard of HIV/AIDS, knowledge of mode of transmission by selected background characteristics, Rajasthan, 2002-04 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percentage by knowledge of mode of transmission |  |  |  |  |  |  | Number of women who have heard of HIVIAID S |
| Background characteristic | Homo <br> sexual intercourse | Hetero <br> sexual intercourse | Needles/ blade/ skin puncture | Mother to child | Transfusion of infected blood | Other | Do <br> not <br> know |  |
| Age |  |  |  |  |  |  |  |  |
| 15-19 | 9.3 | 76.8 | 37.8 | 19.1 | 33.1 | 4.3 | 15.5 | 917 |
| 20-24 | 11.7 | 80.5 | 45.9 | 23.6 | 39.8 | 3.7 | 11.4 | 2,715 |
| 25-29 | 12.2 | 80.8 | 43.4 | 23.7 | 37.5 | 3.1 | 11.9 | 2,457 |
| 30-34 | 12.0 | 76.7 | 41.9 | 20.9 | 37.4 | 2.8 | 13.0 | 1,976 |
| 35-39 | 13.5 | 75.5 | 40.8 | 20.4 | 35.6 | 3.4 | 14.7 | 1,501 |
| 40-44 | 9.3 | 76.9 | 39.1 | 22.4 | 36.8 | 2.4 | 15.5 | 1,207 |
| Residence |  |  |  |  |  |  |  |  |
| Rural | 8.3 | 76.2 | 35.1 | 18.6 | 30.2 | 3.1 | 16.2 | 4,596 |
| Urban | 14.1 | 80.1 | 47.9 | 24.9 | 42.7 | 3.4 | 10.7 | 6,177 |
| Education |  |  |  |  |  |  |  |  |
| Non-literate | 7.7 | 67.8 | 21.2 | 10.1 | 17.0 | 2.4 | 22.8 | 2,922 |
| 0-9@ years | 10.1 | 77.7 | 39.0 | 18.5 | 31.5 | 2.7 | 14.1 | 4,339 |
| 10 years and above | 16.8 | 88.3 | 64.4 | 36.8 | 61.5 | 4.8 | 3.7 | 3,506 |
| Religion |  |  |  |  |  |  |  |  |
| Hindu | 11.5 | 78.7 | 42.8 | 22.5 | 37.8 | 3.3 | 12.9 | 9,093 |
| Muslim | 10.4 | 74.8 | 36.0 | 16.3 | 30.1 | 3.2 | 16.5 | 1,131 |
| Sikh | 16.6 | 80.0 | 44.9 | 22.1 | 39.2 | 3.7 | 10.3 | 202 |
| Jain | 14.0 | 85.3 | 50.1 | 31.6 | 46.5 | 2.8 | 9.0 | 314 |
| Other | (19.4) | (77.8) | (72.2) | (41.7) | (55.6) | (5.6) | (8.3) | 34 |
| Caste/tribe\# |  |  |  |  |  |  |  |  |
| Scheduled caste | 10.1 | 71.1 | 29.9 | 15.2 | 22.7 | 1.7 | 18.0 | 1,413 |
| Scheduled tribe | 13.4 | 71.3 | 29.5 | 16.5 | 32.3 | 1.3 | 18.4 | 543 |
| Other backward class | 9.5 | 78.4 | 37.7 | 17.7 | 32.3 | 3.2 | 14.0 | 3,968 |
| Other | 13.6 | 81.4 | 51.4 | 28.5 | 46.4 | 4.0 | 10.3 | 4,846 |
| Standard of living index |  |  |  |  |  |  |  |  |
| Low | 6.3 | 67.4 | 22.7 | 10.7 | 19.3 | 2.5 | 25.3 | 1,268 |
| Medium | 9.1 | 77.1 | 33.8 | 17.3 | 27.5 | 2.9 | 14.6 | 2,923 |
| High | 13.8 | 81.2 | 50.1 | 26.5 | 45.2 | 3.6 | 10.1 | 6,582 |
| Total | 11.7 | 78.4 | 42.4 | 22.2 | 37.4 | 3.3 | 13.1 | 10,773 |

Note: Total includes 5 cases missing information on education are not shown separately. \# Total figure may not add up to N due to do not know and missing cases.@ Literate women with no year of schooling are also included.

This proportion is relatively higher among rural women, older women (40-44 years), nonliterate women, Muslim women, women from scheduled castes and schedule tribes also among women with a low standard of living. Sixteen percent of the rural women do not know about the mode of transmission of HIV/AIDS compared to 11 percent of urban women.

Among women who reported different ways of transmission of HIV/AIDS, a large proportion ( 78 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 ( 42 percent), transfusion of infected blood ( 37 percent), 22 percent of the women mentioned mother to child transmission and 12 percent of women reported homosexual intercourse as a mode of HIV/AIDS transmission. Only 3 percent stated that there were other ways of transmission of HIV/AIDS.

| Percentage of husbands of currently married women who have heard of HIVIAIDS , knowledge of mode of transmission by selected background characteristics, Rajasthan, 2002-04 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Background characteristic | Percentage by knowledge of mode of transmission |  |  |  |  |  |  | Number of men who have heard of HIVIAIDS |
|  | Homosexu <br> al intercours e | Heterosexual intercourse | Needles/ blade/ skin puncture | Mother to child | Transfusion of infected blood | Other | Do not know |  |
| Age |  |  |  |  |  |  |  |  |
| <25 | 9.3 | 84.2 | 40.1 | 9.0 | 29.3 | 4.2 | 8.9 | 2,424 |
| 25-34 | 9.5 | 85.9 | 39.8 | 9.8 | 31.0 | 5.9 | 9.0 | 5,730 |
| 35-44 | 9.8 | 84.4 | 38.9 | 8.9 | 29.9 | 4.9 | 9.3 | 4,287 |
| 45+ | 9.4 | 82.6 | 36.3 | 9.2 | 29.0 | 6.2 | 11.5 | 1,739 |
| Residence |  |  |  |  |  |  |  |  |
| Rural | 8.7 | 82.8 | 32.2 | 7.4 | 25.0 | 5.3 | 11.6 | 8,871 |
| Urban | 11.0 | 88.1 | 50.8 | 12.4 | 38.8 | 5.4 | 5.6 | 5,309 |
| Education |  |  |  |  |  |  |  |  |
| Non-literate | 5.6 | 69.6 | 9.7 | 2.4 | 6.5 | 5.6 | 23.9 | 1,636 |
| 0-9@ years | 7.3 | 82.1 | 26.0 | 4.3 | 18.5 | 5.4 | 12.1 | 6,499 |
| 10 years and above | 13.1 | 91.7 | 61.2 | 16.6 | 49.0 | 5.2 | 2.5 | 6,042 |
| Religion |  |  |  |  |  |  |  |  |
| Hindu | 9.4 | 84.8 | 39.6 | 9.4 | 30.3 | 5.4 | 9.3 | 12,414 |
| Muslim | 10.2 | 82.7 | 30.7 | 6.0 | 26.5 | 4.3 | 10.6 | 1,286 |
| Sikh | 10.2 | 85.7 | 39.7 | 9.9 | 22.7 | 5.2 | 11.0 | 234 |
| Jain | 15.6 | 90.7 | 64.6 | 23.9 | 48.0 | 4.6 | 4.0 | 213 |
| Other | (9.1) | (81.8) | (34.1) | (4.5) | (31.8) | (6.8) | (13.6) | 33 |
| Caste/tribe\# |  |  |  |  |  |  |  |  |
| Scheduled caste | 7.5 | 84.3 | 31.5 | 6.3 | 22.6 | 4.2 | 11.1 | 2,529 |
| Scheduled tribe | 4.8 | 84.4 | 25.9 | 5.0 | 20.8 | 6.6 | 11.4 | 1,187 |
| Other backward class | 9.8 | 83.9 | 38.5 | 9.3 | 28.6 | 5.5 | 9.6 | 5,936 |
| Other | 11.6 | 86.2 | 47.9 | 12.0 | 38.8 | 5.5 | 7.5 | 4,523 |
| Standard of living index |  |  |  |  |  |  |  |  |
| Low | 7.9 | 77.4 | 18.4 | 3.4 | 13.7 | 5.7 | 16.5 | 4,080 |
| Medium | 8.8 | 85.4 | 36.7 | 7.5 | 27.1 | 4.8 | 9.2 | 4,615 |
| High | 11.4 | 89.7 | 56.6 | 15.1 | 44.9 | 5.5 | 4.1 | 5,485 |
| Total | 9.6 | 84.8 | 39.2 | 9.3 | 30.1 | 5.3 | 9.4 | 14,180 |

Note: Total includes 2 case missing information on education are not shown separately. \# Total figure 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 cases.

Table 8.13 presents the knowledge about mode of transmission of HIV/AIDS among men 9 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 older men (45 +), rural men, non-literate men, Muslim religion and men from scheduled caste and schedule tribe and also among men from households with a low standard of living. Among whom reported ways of transmission of HIV/AIDS, 85 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 ( 39 percent), transfusion of infected blood (30 percent), mother to child, if pregnancy occurs during a stage of HIV (9 percent), and 10 percent of men mentioned that homosexual intercourse could also be a mode of transmission of HIV/AIDS. Five percent stated that there were other ways 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.

Among women who reported about awareness of HIV/AIDS, more than 17 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. Twenty nine percent of non-literate women reported that they did not know of any way to avoid infection as compared to 6 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 13 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 Muslim women, scheduled tribe women and middle aged women (35-39 years).

Among women who mentioned ways to avoid HIV/AIDS, three fourth proportion of women said that "sex with only one partner is the way to avoid it". Other ways to prevent HIV/AIDS mentioned by women were 'using a condom correctly during each sexual intercourse' and 'checking blood prior to transfusion'(39 percent), 'sterilizing needles and syringe before injecting (35 percent), and 14 percent of the women reported that the 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 proportionately higher in urban areas, among Hindu religion, those belonging to other backward class, among women who have a high level of education and women with a high standard of living.

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, 9 percent of them did not know of any method to avoid infection, compared to 17 percent women in the state.

| Among currently married women age 15-44 who have heard about HIVIAIDS, the percentage of women reported HIVIAIDS can be avoided in specific ways by selected background characteristics, Rajasthan, 2002-04 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percentage reported HIVIAIDS can be avoided by: |  |  |  |  |  |  |  |
| Background characteristic | Sex <br> With <br> 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 HIVIAIDS | Other | Do not know to avoid HIVIAIDS | Number of women |
| Age |  |  |  |  |  |  |  |  |
| 15-19 | 72.8 | 34.0 | 33.5 | 28.7 | 14.1 | 4.7 | 18.7 | 917 |
| 20-24 | 75.9 | 41.8 | 43.2 | 39.2 | 14.8 | 5.3 | 16.2 | 2,715 |
| 25-29 | 76.6 | 41.4 | 37.0 | 34.3 | 14.3 | 4.2 | 15.6 | 2,457 |
| 30-34 | 76.4 | 41.3 | 38.8 | 34.2 | 14.2 | 6.0 | 16.4 | 1,976 |
| 35-39 | 73.9 | 36.7 | 37.3 | 33.0 | 14.0 | 4.6 | 19.3 | 1,501 |
| 40-44 | 74.3 | 34.0 | 37.5 | 32.5 | 13.4 | 4.3 | 17.8 | 1,207 |
| Residence |  |  |  |  |  |  |  |  |
| Rural | 72.2 | 32.1 | 32.0 | 26.8 | 11.2 | 4.8 | 21.0 | 4,596 |
| Urban | 77.8 | 44.8 | 43.7 | 40.5 | 16.5 | 5.0 | 13.9 | 6,177 |
| Education |  |  |  |  |  |  |  |  |
| Non-literate | 65.1 | 19.1 | 17.4 | 14.4 | 5.5 | 4.3 | 29.4 | 2,922 |
| 0-9@ years | 74.0 | 36.7 | 34.2 | 29.9 | 11.0 | 4.2 | 17.4 | 4,339 |
| 10 years and above | 85.8 | 59.6 | 62.0 | 57.4 | 25.6 | 6.3 | 6.0 | 3,506 |
| Religion |  |  |  |  |  |  |  |  |
| Hindu | 75.7 | 39.7 | 39.4 | 34.7 | 14.6 | 4.9 | 16.6 | 9,093 |
| Muslim | 72.6 | 33.8 | 29.6 | 28.8 | 9.5 | 3.2 | 21.4 | 1,131 |
| Sikh | 76.2 | 40.0 | 38.3 | 37.4 | 11.8 | 12.4 | 13.6 | 202 |
| Jain | 77.8 | 48.8 | 50.5 | 50.0 | 22.8 | 6.2 | 12.1 | 314 |
| Other | (80.6) | (50.0) | (52.8) | (61.1) | (16.7) | (5.6) | (13.9) | 34 |
| Caste/tribe\# |  |  |  |  |  |  |  |  |
| Scheduled caste | 68.8 | 29.4 | 25.3 | 22.4 | 9.0 | 5.8 | 22.2 | 1,413 |
| Scheduled tribe | 70.5 | 30.2 | 27.6 | 21.3 | 11.9 | 4.1 | 23.6 | 543 |
| Other backward class | 74.6 | 36.2 | 33.9 | 30.3 | 11.4 | 4.5 | 18.0 | 3,968 |
| Other | 78.6 | 45.8 | 47.8 | 43.3 | 18.4 | 5.0 | 13.8 | 4,846 |
| Standard of living index |  |  |  |  |  |  |  |  |
| Low | 66.2 | 19.8 | 20.3 | 15.4 | 7.4 | 4.9 | 28.8 | 1,268 |
| Medium | 71.6 | 32.2 | 29.6 | 25.8 | 10.7 | 4.0 | 20.6 | 2,923 |
| High | 78.9 | 46.3 | 46.3 | 42.3 | 17.1 | 5.3 | 13.0 | 6,582 |
| Total | 75.4 | 39.4 | 38.7 | 34.7 | 14.3 | 4.9 | 16.9 | 10,773 |
| Note: Total includes 5 cases missing information on education are not shown separately. \# Total figure 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. |  |  |  |  |  |  |  |  |

In Rajasthan a higher proportion of men reported that 'sex with only one partner' is the way to avoid HIV/AIDS. Other ways to prevent by HIV/AIDS mentioned by men are 'using condoms correctly during each sexual inter course' (47 percent), 'sterilizing needles and syringes for injection' ( 35 percent each) and 'checking blood prior to transfusion’ (33 percent). All the specific ways to avoid becoming infected by HIV/AIDS reported by men are proportionally higher in urban areas than in rural areas, and among men who belong to 'other caste' category, men with a high level of education and men with a high standard of living. Jain men were more likely to report using a condom correctly during each sexual intercourse.

| Among husbands of currently married women who have heard about HIVIAIDS, the percentage of men reported HIVIAIDS can be avoided in specific ways by selected background characteristics, Rajasthan, 2002-04 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Percentage reported HIVIAIDS 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 HIVIAIDS | Other | Do not know to avoid HIV/AIDS | Number of men |
| Age |  |  |  |  |  |  |  |  |
| <25 | 81.2 | 52.0 | 31.4 | 35.3 | 6.1 | 4.9 | 9.1 | 2,424 |
| 25-34 | 82.3 | 48.9 | 34.3 | 35.9 | 6.1 | 5.4 | 9.2 | 5,730 |
| 35-44 | 82.6 | 45.2 | 32.0 | 33.7 | 6.4 | 5.5 | 9.7 | 4,287 |
| 45+ | 80.7 | 42.6 | 30.9 | 31.8 | 5.8 | 7.2 | 10.2 | 1,739 |
| Residence |  |  |  |  |  |  |  |  |
| Rural | 80.6 | 41.7 | 26.9 | 28.6 | 5.0 | 5.6 | 11.8 | 8,871 |
| Urban | 84.2 | 57.3 | 42.4 | 44.7 | 8.0 | 5.5 | 5.5 | 5,309 |
| Education |  |  |  |  |  |  |  |  |
| Non-literate | 70.3 | 19.1 | 6.5 | 6.9 | 1.3 | 7.1 | 23.5 | 1,636 |
| 0-9@ years | 78.9 | 38.1 | 20.2 | 22.6 | 2.8 | 5.8 | 12.3 | 6,499 |
| 10 years and above | 88.5 | 65.4 | 53.3 | 55.2 | 11.1 | 4.9 | 2.5 | 6,042 |
| Religion |  |  |  |  |  |  |  |  |
| Hindu | 81.8 | 47.3 | 33.0 | 35.0 | 6.2 | 5.6 | 9.5 | 12,414 |
| Muslim | 83.6 | 46.4 | 27.9 | 27.5 | 5.2 | 6.1 | 8.8 | 1,286 |
| Sikh | 78.7 | 53.3 | 24.0 | 36.1 | 4.5 | 2.3 | 12.9 | 234 |
| Jain | 87.0 | 61.9 | 52.3 | 56.8 | 12.1 | 2.8 | 6.2 | 213 |
| Other | (72.7) | (40.9) | (34.1) | (31.8) | (0.0) | (6.8) | (13.6) | 33 |
| Caste/tribe\# |  |  |  |  |  |  |  |  |
| Scheduled caste | 80.3 | 41.6 | 25.6 | 27.9 | 3.3 | 5.0 | 11.2 | 2,529 |
| Scheduled tribe | 79.3 | 36.8 | 24.5 | 22.1 | 3.5 | 7.9 | 12.4 | 1,187 |
| Other backward class | 81.7 | 47.4 | 31.3 | 33.5 | 6.0 | 5.7 | 10.0 | 5,936 |
| Other | 83.9 | 53.9 | 40.7 | 43.3 | 8.6 | 5.1 | 6.9 | 4,523 |
| Standard of living index |  |  |  |  |  |  |  |  |
| Low | 76.2 | 29.8 | 15.6 | 15.9 | 2.1 | 6.5 | 16.7 | 4,080 |
| Medium | 82.7 | 45.6 | 28.8 | 31.5 | 5.2 | 5.9 | 9.4 | 4,615 |
| High | 85.7 | 62.4 | 48.7 | 51.2 | 10.0 | 4.5 | 4.1 | 5,485 |
| Total | 82.0 | 47.5 | 32.7 | 34.7 | 6.2 | 5.6 | 9.4 | 14,180 |

### 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 shows the percentage of women with misconceptions about spreading HIV/AIDS through specific ways by selected background characteristics. Sharing eating utensils and sharing clothes are commonly reported as the way of getting HIV/AIDS infection by women in all the groups, and this percentage is higher among rural areas than in urban areas. Non-literate women who have completed nine years of schooling, women from
households with a low standard of living, Sikh women, and women from scheduled caste mentioned this method of transmission more often. Other misconceptions about the spreading of HIV/AIDS were 'sharing clothes', 'kissing' (16 percent each), 'mosquito, flea, or bedbugs biting' (15 percent), 'stepping on urine/stool' (11 percent) and 'shaking hands' (10 percent). The percentage of all these misconceptions is also higher among women who belong to scheduled tribes, scheduled castes, among Muslim women, non-literate women and women with a low standard of living.

| Table 8.16 MISCONCEPTION ABOUT TRANSMISSION OF HIVIAIDS AMONG WOMEN Among currently married women age 15-44 who have heard about HIV/AIDS, the percentage of women having misconception about the transmission of HIV/AIDS by selected background characteristics, Rajasthan, 2002-04 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percentage having misconception about the transmission of HIV/AIDS |  |  |  |  |  |  |  |
| Background characteristic | Shaking hands | Hugging | Kissing | Sharing clothes | Sharing eating utensils | Stepping on <br> Urine / stool | Mosquito, flea, or bedbugs biting | Number of women |
| Residence |  |  |  |  |  |  |  |  |
| Rural | 14.6 | 17.4 | 20.6 | 21.8 | 22.1 | 15.3 | 20.2 | 4,596 |
| Urban | 7.5 | 9.9 | 12.0 | 11.6 | 12.1 | 8.3 | 11.7 | 6,177 |
| Education |  |  |  |  |  |  |  |  |
| Non-literate | 14.2 | 15.7 | 19.2 | 21.0 | 21.2 | 14.6 | 19.2 | 2,922 |
| 0-9@ years | 11.5 | 14.7 | 16.7 | 17.0 | 17.9 | 11.9 | 15.9 | 4,339 |
| 10 years and above | 6.3 | 9.0 | 11.6 | 10.4 | 10.4 | 7.8 | 11.3 | 3,506 |
| Religion |  |  |  |  |  |  |  |  |
| Hindu | 10.4 | 13.2 | 15.7 | 15.9 | 16.4 | 11.1 | 15.4 | 9,093 |
| Muslim | 9.6 | 10.8 | 14.6 | 14.8 | 14.2 | 10.6 | 13.2 | 1,131 |
| Sikh | 25.7 | 25.0 | 25.8 | 25.9 | 28.6 | 23.0 | 29.9 | 202 |
| Jain | 7.2 | 11.2 | 12.9 | 14.6 | 13.5 | 8.8 | 10.5 | 314 |
| Other | (8.3) | (13.9) | (8.3) | (19.4) | (19.4) | (22.2) | (25.0) | 34 |
| Caste/tribe\# |  |  |  |  |  |  |  |  |
| Scheduled caste | 10.1 | 13.4 | 16.3 | 17.7 | 18.2 | 11.8 | 15.3 | 1,413 |
| Scheduled tribe | 12.6 | 16.2 | 19.2 | 16.9 | 19.1 | 12.7 | 18.7 | 543 |
| Other backward class | 11.4 | 13.1 | 16.3 | 16.4 | 16.3 | 11.7 | 16.2 | 3,968 |
| Other | 9.7 | 12.7 | 14.6 | 14.9 | 15.6 | 10.6 | 14.2 | 4,846 |
| Standard of living index |  |  |  |  |  |  |  |  |
| Low | 16.2 | 19.2 | 22.7 | 23.5 | 25.2 | 17.5 | 21.3 | 1,268 |
| Medium | 13.0 | 15.2 | 18.0 | 19.3 | 19.3 | 12.9 | 17.4 | 2,923 |
| High | 8.3 | 11.0 | 13.3 | 13.0 | 13.3 | 9.3 | 13.2 | 6,582 |
| Total | 10.5 | 13.1 | 15.7 | 15.9 | 16.3 | 11.3 | 15.3 | 10,773 |
| Note: Total includes 5 cases missing information on education and 3 women with do not category in caste are not shown separately. \# Total figure may not add up to N due to do not know and missing cases.@ Literate women 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. Unlike, women, men in all the groups reported that HIV/AIDS is transmitted through insect bites, mosquitoes, through flea or bedbugs. Twenty eight percent of the men in Rajasthan felt so. The percentage who reported that HIV/AIDS could be transmitted through the biting by mosquitoes or flees or bedbugs was much higher among rural men ( 31 percent) than among urban men ( 25 percent). Literate men who have completed nine years of schooling, men from households with a low standard of living, Hindu men, and scheduled tribe men are of the impression that HIV/AIDS spreads when one is bitten by mosquitoes, fleas or bedbugs. Other misconceptions about the spread of HIV/AIDS are 'sharing eating utensils' (27 percent), ‘kissing’ (25 percent), ‘sharing clothes’ (24 percent), 'hugging’ (18 percent), 'stepping on urine/stool' (16 percent) and 'shaking hands’ (13 percent). All the misconceptions reported
by men are relatively higher than those reported by women. The percentage of all these misconceptions is also higher among men who belong to scheduled-tribe or caste, men belonging to Muslim religion, non-literate men and men with a low standard of living.

| Among husbands currently about the transmission of H | ried wom IDS by | who have cted back | ard abou und cha | V/AIDS, ristics, | percenta asthan, 20 | of men hav -04 | ng miscon | ption |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Background characteristic | Percentage having misconception about the transmission of HIVIAIDS |  |  |  |  |  |  | Number of men |
|  | Shaking hands | Hugging | Kissing | Sharing clothes | Sharing eating utensils | Stepping on Urine / stool | Mosquito , flea, or bedbugs biting |  |
| Residence |  |  |  |  |  |  |  |  |
| Rural | 15.5 | 21.5 | 29.8 | 29.2 | 32.0 | 19.5 | 30.7 | 8,871 |
| Urban | 8.9 | 12.0 | 17.8 | 16.1 | 17.9 | 11.2 | 24.6 | 5,309 |
| Education |  |  |  |  |  |  |  |  |
| Non-literate | 22.0 | 26.5 | 36.8 | 38.3 | 41.7 | 25.8 | 34.4 | 1,636 |
| 0-9@ years | 15.3 | 20.8 | 29.5 | 28.6 | 31.5 | 18.8 | 30.2 | 6,499 |
| 10 years and above | 8.2 | 12.5 | 17.7 | 15.8 | 17.6 | 11.2 | 24.9 | 6,042 |
| Religion |  |  |  |  |  |  |  |  |
| Hindu | 13.1 | 18.2 | 25.8 | 24.6 | 27.0 | 16.5 | 28.8 | 12,414 |
| Muslim | 13.2 | 17.0 | 21.8 | 22.3 | 25.6 | 15.7 | 27.9 | 1,286 |
| Sikh | 15.4 | 19.2 | 26.1 | 25.1 | 26.6 | 21.0 | 21.9 | 234 |
| Jain | 5.9 | 6.2 | 15.4 | 11.8 | 12.4 | 8.2 | 16.7 | 213 |
| Other | (15.9) | (15.9) | (29.5) | (27.3) | (34.1) | (25.0) | (47.7) | 33 |
| Caste/tribe\# |  |  |  |  |  |  |  |  |
| Scheduled caste | 13.5 | 17.4 | 27.1 | 26.7 | 29.1 | 18.0 | 29.7 | 2,529 |
| Scheduled tribe | 19.9 | 23.3 | 30.7 | 31.1 | 32.3 | 20.1 | 31.0 | 1,187 |
| Other backward class | 13.3 | 18.7 | 26.4 | 25.3 | 28.3 | 17.0 | 29.9 | 5,936 |
| Other | 10.7 | 15.8 | 21.4 | 19.7 | 21.8 | 13.6 | 25.0 | 4,523 |
| Standard of living index |  |  |  |  |  |  |  |  |
| Low | 19.5 | 24.8 | 35.1 | 35.2 | 38.0 | 22.9 | 33.4 | 4,080 |
| Medium | 13.4 | 18.9 | 26.5 | 25.6 | 28.4 | 17.7 | 28.9 | 4,615 |
| High | 8.0 | 12.1 | 17.1 | 15.0 | 16.9 | 10.4 | 24.4 | 5,485 |
| Total | 13.0 | 17.9 | 25.3 | 24.3 | 26.7 | 16.4 | 28.4 | 14,180 |

Note: Table total includes 2 case missing information on education and 166 cases about do not know in caste category are not shown separately. \# Total figure 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 cases

### 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. Around 28 percent women and 23 percent men have the notion that HIV/AIDS is curable, whereas 53 percent women and 65 percent men replied that the disease is not curable. Nineteen percent women and 12 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, other backward classes and from households of high standard of living are showing better performance as far as the knowledge of curability of HIV/AIDS is concerned.

| Table 8.18 KNOWLEDGE OF CURABILITY ABOUT HIVIAIDS |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Among currently married women and their husband, who have heard about HIVIAIDS, Percent distribution of respondents by knowledge of curability about HIVIAIDS, according to some selected background characteristics, Rajasthan, 2002-04 |  |  |  |  |  |  |  |  |
|  | Percent distribution of women |  |  | Number of women | Percent distribution of men |  |  | Number of Men |
| Background characteristic | Yes | No | Do not know |  | Yes | No | Do not know |  |
| Residence |  |  |  |  |  |  |  |  |
| Rural | 27.5 | 49.7 | 22.8 | 4,596 | 23.5 | 62.5 | 13.9 | 8,871 |
| Urban | 28.5 | 55.3 | 16.2 | 6,177 | 23.1 | 68.7 | 8.2 | 5,309 |
| Education |  |  |  |  |  |  |  |  |
| Non-literate | 22.8 | 46.3 | 30.9 | 2,922 | 24.7 | 46.8 | 28.5 | 1,636 |
| 0-9@ years | 29.2 | 50.4 | 20.4 | 4,339 | 25.0 | 60.0 | 15.0 | 6,499 |
| 10 years and above | 31.1 | 61.5 | 7.4 | 3,506 | 21.3 | 75.0 | 3.7 | 6,042 |
| Religion |  |  |  |  |  |  |  |  |
| Hindu | 28.2 | 53.2 | 18.6 | 9,093 | 23.4 | 64.9 | 11.7 | 12,414 |
| Muslim | 25.1 | 50.8 | 24.1 | 1,131 | 22.6 | 64.8 | 12.6 | 1,286 |
| Sikh | 30.5 | 49.0 | 20.5 | 202 | 23.8 | 60.5 | 15.8 | 234 |
| Jain | 34.0 | 56.1 | 10.0 | 314 | 22.2 | 72.7 | 5.1 | 213 |
| Other | (25.0) | (50.0) | (25.0) | 34 | (34.1) | (50.0) | (15.9) | 33 |
| Caste/tribe\# |  |  |  |  |  |  |  |  |
| Scheduled caste | 27.1 | 47.7 | 25.2 | 1,413 | 25.0 | 60.7 | 14.3 | 2,529 |
| Scheduled tribe | 28.8 | 47.4 | 23.8 | 543 | 24.7 | 60.2 | 15.1 | 1,187 |
| Other backward class | 28.3 | 51.5 | 20.2 | 3,968 | 22.4 | 65.1 | 12.5 | 5,936 |
| Other | 28.1 | 56.2 | 15.7 | 4,846 | 23.4 | 68.1 | 8.5 | 4,523 |
| Standard of living index |  |  |  |  |  |  |  |  |
| Low | 25.4 | 46.1 | 28.5 | 1,268 | 26.4 | 53.6 | 20.0 | 4,080 |
| Medium | 27.3 | 48.7 | 24.0 | 2,923 | 22.9 | 65.3 | 11.8 | 4,615 |
| High | 29.0 | 56.1 | 14.9 | 6,582 | 21.6 | 72.8 | 5.6 | 5,485 |
| Total | 28.1 | 52.9 | 19.0 | 10,773 | 23.4 | 64.9 | 11.8 | 14,180 |

Note: Total includes 5 case missing information on education of women and 2 cases of missing information on men are not shown separately of women and men respectively. \# Total figure may not add up to N due to do not know and missing cases. @ Literate persons with no year of schooling are also included.

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

Table 8.19 shows the percentage distribution of currently married women were and their husbands who are aware of RTI/STI and HIV/AIDS by districts.

According to DLHS, 65 percent and 33 percent of women ware aware of RTI/STI and HIV/AIDS respectively and the corresponding figures for husbands of eligible women are 56 and 68 percent respectively. The awareness of RTI/STI among women is higher than that among men by 9 percentage points and men have more knowledge than women about HIV/AIDS by 35 percentage points.

In general, in all of the districts men are more aware of RTI/STI and HIV/AIDS than women. The highest level of awareness about RTI/STI among women was reported in Alwar (93 percent) followed by Jaipur and Sawai Madhopur (around 93 percent each) to the lowest in Jhalawar (12 percent). Among men the highest level of awareness of RTI/STI was reported in Bharatpur ( 83 percent), followed by Baran ( 74 percent) and Jaipur ( 69 percent) and to the lowest in Jhalawar again ( 25 percent).

The proportion of husbands of eligible women for currently married women ages 1544 who are aware of HIV/AIDS in the districts of state Rajasthan are also presented Table 8.19. Among women the awareness about HIV/AIDS ranges from the highest of 52 percent in

Kota to the lowest of 10 percent in Jaisalmer. With the exception of Baran, Barmer, Churu, Jalawar and Karauli in every districts a minimum of one fourth women reported awareness of HIV/AIDS. A high level of awareness of HIV/AIDS among men exceeding 75 percent was reported in Bharatpur, Jaipur, Pali, Jhunjhunun, Kota and Sawai Madhopur.

| Table 8.19 AWARENESS OF RTIISTI AND HIVIAIDS BY DISTRICT district, Rajasthan, 2002-04 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Percentage of women |  | Percentage of men |  |
| District | Aware of RTI/STI | Aware of HIVIAIDS | Aware of RTI/STI | Aware of HIVIAIDS |
| Ajmer | 70.9 | 39.5 | 67.3 | 67.7 |
| Alwar | 93.2 | 29.1 | 61.2 | 69.8 |
| Banswara | 44.1 | 29.8 | 35.2 | 53.8 |
| Baran | 84.7 | 23.3 | 73.9 | 60.5 |
| Barmer | 47.0 | 18.7 | 46.7 | 53.5 |
| Bharatpur | 59.0 | 27.9 | 82.9 | 78.4 |
| Bhilwara | 46.5 | 24.9 | 45.2 | 50.0 |
| Bikaner | 59.3 | 28.3 | 55.5 | 68.0 |
| Bundi | 79.1 | 30.0 | 66.6 | 59.2 |
| Chittaurgarh | 47.8 | 29.2 | 57.5 | 57.2 |
| Churu | 29.7 | 21.8 | 55.5 | 62.0 |
| Dausa | 89.0 | 25.4 | 54.1 | 73.5 |
| Dhaulpur | 91.2 | 26.5 | 53.2 | 68.1 |
| Dungarpur | 25.0 | 34.0 | 41.3 | 62.3 |
| Ganganagar | 47.6 | 37.8 | 51.7 | 70.5 |
| Hamumangarh | 83.7 | 37.4 | 56.1 | 71.9 |
| Jaipur | 92.8 | 48.5 | 69.2 | 79.3 |
| Jaisalmer | 20.4 | 10.0 | 50.6 | 50.0 |
| Jalore | 40.2 | 28.2 | 39.9 | 70.0 |
| Jhalawar | 11.9 | 19.8 | 24.8 | 45.4 |
| Jhunjhunun | 78.7 | 42.0 | 62.1 | 83.6 |
| Jodhpur | 71.5 | 34.4 | 56.0 | 70.7 |
| Karauli | 87.9 | 20.9 | 55.1 | 71.4 |
| Kota | 80.3 | 51.7 | 66.8 | 84.8 |
| Nagaur | 48.3 | 30.3 | 47.6 | 66.1 |
| Pali | 52.4 | 36.3 | 54.3 | 78.1 |
| Rajsamand | 80.3 | 33.6 | 53.7 | 63.1 |
| Sawai Madhopur | 92.6 | 25.9 | 62.8 | 61.9 |
| Sikar | 72.1 | 40.7 | 60.3 | 85.3 |
| Sirohi | 29.6 | 30.1 | 51.9 | 66.0 |
| Tonk | 82.7 | 31.3 | 54.7 | 65.4 |
| Udaipur | 53.5 | 40.1 | 55.0 | 66.7 |
| Rajasthan | 64.7 | 32.7 | 56.2 | 67.6 |


| Sampling errors, Rajasthan, 2002-04 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Variables | Estimate <br> (R) | Sampling error (SE) | Number of cases |  | Design Effect | Relative <br> Error (\%) | 95\% Conf. Interval |  |
|  |  |  | Unweighted | Weighted |  |  | $\begin{gathered} \mathrm{R}-1.96 \\ \mathrm{SE} \\ \hline \end{gathered}$ | $\begin{gathered} \mathrm{R}+1.96 \\ \mathrm{SE} \\ \hline \end{gathered}$ |
| Contraceptive Prevalence Rate (Currently Married Women age 15-44) |  |  |  |  |  |  |  |  |
| Total | 0.469 | 0.003 | 32,911 | 32,910 | 1.585 | 0.7 | 0.462 | 0.475 |
| Rural | 0.423 | 0.004 | 23,315 | 23,315 | 1.375 | 0.9 | 0.416 | 0.431 |
| Urban | 0.578 | 0.007 | 9,596 | 9,595 | 2.064 | 1.3 | 0.564 | 0.592 |
| Unmet Need (Currently Married Women age 15-44) |  |  |  |  |  |  |  |  |
| Total | 0.218 | 0.003 | 32,911 | 32,912 | 1.501 | 1.3 | 0.213 | 0.224 |
| Rural | 0.235 | 0.003 | 23,315 | 23,316 | 1.348 | 1.4 | 0.229 | 0.242 |
| Urban | 0.177 | 0.005 | 9,596 | 9,596 | 1.942 | 3.1 | 0.166 | 0.188 |
| Received Any Antenatal Check up (last livelstill birth of past 3 years) |  |  |  |  |  |  |  |  |
| Total | 0.681 | 0.005 | 13,507 | 13,439 | 1.474 | 0.7 | 0.672 | 0.691 |
| Rural | 0.620 | 0.006 | 10,061 | 9,888 | 1.339 | 0.9 | 0.609 | 0.631 |
| Urban | 0.852 | 0.008 | 3,446 | 3,551 | 2.028 | 1.0 | 0.836 | 0.869 |
| Received 3+ Antenatal Check up (last live/still birth of past 3 years) |  |  |  |  |  |  |  |  |
| Total | 0.333 | 0.005 | 13,507 | 13,439 | 1.609 | 1.6 | 0.323 | 0.343 |
| Rural | 0.267 | 0.005 | 10,061 | 9,888 | 1.334 | 1.9 | 0.257 | 0.277 |
| Urban | 0.516 | 0.012 | 3,446 | 3,551 | 2.100 | 2.3 | 0.492 | 0.540 |
| Institutional Delivery (last livelstill birth of past 3 years) |  |  |  |  |  |  |  |  |
| Total | 0.314 | 0.005 | 13,507 | 13,440 | 1.632 | 1.6 | 0.304 | 0.324 |
| Rural | 0.225 | 0.005 | 10,061 | 9,889 | 1.321 | 2.2 | 0.215 | 0.234 |
| Urban | 0.565 | 0.012 | 3,446 | 3,551 | 2.092 | 2.1 | 0.541 | 0.588 |
| Safe Delivery (last live/still birth of past 3 years) |  |  |  |  |  |  |  |  |
| Total | 0.444 | 0.005 | 13,507 | 13,439 | 1.572 | 1.2 | 0.434 | 0.455 |
| Rural | 0.354 | 0.006 | 10,061 | 9,888 | 1.356 | 1.6 | 0.343 | 0.365 |
| Urban | 0.695 | 0.011 | 3,446 | 3,551 | 2.100 | 1.6 | 0.673 | 0.717 |
| Received BCG Vaccination (last and last but one living children, age 12-23 months) |  |  |  |  |  |  |  |  |
| Total | 0.608 | 0.009 | 4,147 | 4,183 | 1.508 | 1.5 | 0.590 | 0.626 |
| Rural | 0.542 | 0.010 | 3,103 | 3,087 | 1.348 | 1.9 | 0.522 | 0.563 |
| Urban | 0.793 | 0.018 | 1,044 | 1,096 | 2.053 | 2.3 | 0.758 | 0.829 |
| Received Measles (last and last but one living children, age 12-23 months) |  |  |  |  |  |  |  |  |
| Total | 0.359 | 0.009 | 4,147 | 4,183 | 1.595 | 2.6 | 0.341 | 0.378 |
| Rural | 0.291 | 0.009 | 3,103 | 3,087 | 1.346 | 3.3 | 0.272 | 0.310 |
| Urban | 0.551 | 0.022 | 1,044 | 1,096 | 2.058 | 4.0 | 0.508 | 0.595 |
| Birth order 3+ (birth in last three years) |  |  |  |  |  |  |  |  |
| Total | 0.474 | 0.005 | 14,495 | 14,409 | 1.550 | 1.1 | 0.464 | 0.484 |
| Rural | 0.504 | 0.006 | 10,852 | 10,645 | 1.355 | 1.1 | 0.493 | 0.516 |
| Urban | 0.388 | 0.011 | 3,643 | 3,764 | 2.058 | 2.9 | 0.365 | 0.410 |


| Sampling errors, Rajasthan, 2002-04 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| District | $\begin{aligned} & \text { Estimate } \\ & (\mathrm{R}) \end{aligned}$ | Sampling error (SE) | Number of cases |  | Relative <br> Errors (\%) | 95\% Conf. Interval |  |
|  |  |  | Unweighted | Weighted |  | R-1.96 SE | R+1.96 SE |
| Contraceptive Prevalence Rate (Currently Married Women age 15-44) |  |  |  |  |  |  |  |
| Ajmer | 0.460 | 0.017 | 1,005 | 1,005 | 3.7 | 0.427 | 0.494 |
| Alwar | 0.508 | 0.017 | 1,040 | 1,040 | 3.3 | 0.475 | 0.542 |
| Banswara | 0.444 | 0.016 | 1,059 | 1,059 | 3.6 | 0.411 | 0.476 |
| Baran | 0.458 | 0.017 | 986 | 986 | 3.7 | 0.425 | 0.491 |
| Barmer | 0.245 | 0.016 | 988 | 988 | 6.5 | 0.213 | 0.277 |
| Bharatpur | 0.474 | 0.016 | 1,069 | 1,069 | 3.4 | 0.443 | 0.505 |
| Bhilwara | 0.414 | 0.017 | 1,003 | 1,003 | 4.1 | 0.381 | 0.447 |
| Bikaner | 0.383 | 0.017 | 1,073 | 1,073 | 4.4 | 0.351 | 0.416 |
| Bundi | 0.427 | 0.017 | 1,004 | 1,004 | 4.0 | 0.394 | 0.459 |
| Chittaurgarh | 0.387 | 0.016 | 1,040 | 1,040 | 4.1 | 0.356 | 0.418 |
| Churu | 0.446 | 0.015 | 1,178 | 1,178 | 3.4 | 0.416 | 0.476 |
| Dausa | 0.512 | 0.017 | 1,010 | 1,010 | 3.3 | 0.479 | 0.545 |
| Dhaulpur | 0.379 | 0.016 | 1,008 | 1,008 | 4.2 | 0.347 | 0.411 |
| Dungarpur | 0.370 | 0.017 | 911 | 911 | 4.6 | 0.337 | 0.402 |
| Ganganagar | 0.654 | 0.016 | 1,123 | 1,123 | 2.4 | 0.623 | 0.686 |
| Hamumangarh | 0.665 | 0.015 | 1,130 | 1,130 | 2.3 | 0.635 | 0.695 |
| Jaipur | 0.624 | 0.016 | 962 | 962 | 2.6 | 0.592 | 0.655 |
| Jaisalmer | 0.270 | 0.015 | 982 | 982 | 5.6 | 0.240 | 0.300 |
| Jalore | 0.344 | 0.015 | 1,026 | 1,026 | 4.4 | 0.314 | 0.374 |
| Jhalawar | 0.513 | 0.016 | 994 | 994 | 3.1 | 0.481 | 0.545 |
| Jhunjhunun | 0.574 | 0.021 | 1,019 | 1,019 | 3.7 | 0.533 | 0.616 |
| Jodhpur | 0.470 | 0.017 | 1,093 | 1,093 | 3.6 | 0.437 | 0.503 |
| Karauli | 0.399 | 0.016 | 1,004 | 1,004 | 4.0 | 0.367 | 0.431 |
| Kota | 0.545 | 0.017 | 1,011 | 1,011 | 3.1 | 0.512 | 0.578 |
| Nagaur | 0.457 | 0.016 | 1,077 | 1,077 | 3.5 | 0.426 | 0.488 |
| Pali | 0.428 | 0.017 | 1,019 | 1,019 | 4.0 | 0.395 | 0.461 |
| Rajsamand | 0.450 | 0.017 | 945 | 945 | 3.8 | 0.416 | 0.483 |
| Sawai Madhopur | 0.478 | 0.017 | 975 | 975 | 3.6 | 0.444 | 0.512 |
| Sikar | 0.457 | 0.015 | 1,176 | 1,176 | 3.3 | 0.427 | 0.486 |
| Sirohi | 0.337 | 0.015 | 1,004 | 1,004 | 4.5 | 0.307 | 0.367 |
| Tonk | 0.497 | 0.016 | 1,035 | 1,035 | 3.2 | 0.466 | 0.529 |
| Udaipur | 0.441 | 0.016 | 962 | 962 | 3.6 | 0.408 | 0.473 |


| Sampling errors, Rajasthan, 2002-04 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| District | Estimate(R) | Sampling error (SE) | Number of cases |  | Relative Errors (\%) | 95\% Conf. Interval |  |
|  |  |  | Unweighted | Weighted |  | R-1.96 SE | R+1.96 SE |
| Unmet Need (Currently Married Women age 15-44) |  |  |  |  |  |  |  |
| Ajmer | 0.259 | 0.015 | 1,005 | 1,005 | 5.8 | 0.230 | 0.288 |
| Alwar | 0.176 | 0.014 | 1,040 | 1,040 | 8.0 | 0.149 | 0.204 |
| Banswara | 0.239 | 0.014 | 1,059 | 1,059 | 5.9 | 0.211 | 0.267 |
| Baran | 0.248 | 0.014 | 986 | 986 | 5.6 | 0.220 | 0.276 |
| Barmer | 0.366 | 0.020 | 988 | 988 | 5.5 | 0.327 | 0.405 |
| Bharatpur | 0.188 | 0.013 | 1,069 | 1,069 | 6.9 | 0.163 | 0.214 |
| Bhilwara | 0.274 | 0.015 | 1,003 | 1,003 | 5.5 | 0.244 | 0.304 |
| Bikaner | 0.283 | 0.015 | 1,073 | 1,073 | 5.3 | 0.253 | 0.313 |
| Bundi | 0.241 | 0.014 | 1,004 | 1,004 | 5.8 | 0.213 | 0.269 |
| Chittaurgarh | 0.349 | 0.015 | 1,040 | 1,040 | 4.3 | 0.320 | 0.379 |
| Churu | 0.242 | 0.013 | 1,178 | 1,178 | 5.4 | 0.217 | 0.268 |
| Dausa | 0.184 | 0.013 | 1,010 | 1,010 | 7.1 | 0.158 | 0.210 |
| Dhaulpur | 0.248 | 0.015 | 1,008 | 1,008 | 6.0 | 0.219 | 0.276 |
| Dungarpur | 0.324 | 0.016 | 911 | 911 | 4.9 | 0.293 | 0.356 |
| Ganganagar | 0.097 | 0.010 | 1,123 | 1,123 | 10.3 | 0.077 | 0.117 |
| Hamumangarh | 0.080 | 0.009 | 1,130 | 1,130 | 11.3 | 0.063 | 0.097 |
| Jaipur | 0.110 | 0.010 | 962 | 962 | 9.1 | 0.089 | 0.130 |
| Jaisalmer | 0.360 | 0.017 | 982 | 982 | 4.7 | 0.328 | 0.393 |
| Jalore | 0.227 | 0.014 | 1,026 | 1,026 | 6.2 | 0.200 | 0.254 |
| Jhalawar | 0.230 | 0.014 | 994 | 994 | 6.1 | 0.203 | 0.256 |
| Jhunjhunun | 0.212 | 0.017 | 1,019 | 1,019 | 8.0 | 0.178 | 0.246 |
| Jodhpur | 0.195 | 0.014 | 1,093 | 1,093 | 7.2 | 0.169 | 0.222 |
| Karauli | 0.220 | 0.014 | 1,004 | 1,004 | 6.4 | 0.193 | 0.247 |
| Kota | 0.172 | 0.013 | 1,011 | 1,011 | 7.6 | 0.147 | 0.197 |
| Nagaur | 0.247 | 0.014 | 1,077 | 1,077 | 5.7 | 0.221 | 0.274 |
| Pali | 0.203 | 0.013 | 1,019 | 1,019 | 6.4 | 0.177 | 0.229 |
| Rajsamand | 0.212 | 0.014 | 945 | 945 | 6.6 | 0.184 | 0.239 |
| Sawai Madhopur | 0.161 | 0.013 | 975 | 975 | 8.1 | 0.135 | 0.186 |
| Sikar | 0.256 | 0.013 | 1,176 | 1,176 | 5.1 | 0.230 | 0.282 |
| Sirohi | 0.318 | 0.015 | 1,004 | 1,004 | 4.7 | 0.288 | 0.348 |
| Tonk | 0.146 | 0.011 | 1,035 | 1,035 | 7.5 | 0.124 | 0.167 |
| Udaipur | 0.225 | 0.014 | 962 | 962 | 6.2 | 0.197 | 0.252 |


| Sampling errors, Rajasthan, 2002-04 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| District | Estimate (R) | Sampling error (SE) | Number of cases |  | Relative Errors (\%) | 95\% Conf. Interval |  |
|  |  |  | Unweighted | Weighted |  | R-1.96 SE | R+1.96 SE |
| Received Any Antenatal Check up (last live/still birth of past 3 years) |  |  |  |  |  |  |  |
| Ajmer | 0.825 | 0.020 | 410 | 421 | 2.4 | 0.786 | 0.865 |
| Alwar | 0.683 | 0.026 | 380 | 386 | 3.8 | 0.632 | 0.733 |
| Banswara | 0.716 | 0.022 | 467 | 485 | 3.1 | 0.673 | 0.760 |
| Baran | 0.719 | 0.024 | 410 | 406 | 3.3 | 0.672 | 0.767 |
| Barmer | 0.413 | 0.031 | 498 | 503 | 7.5 | 0.353 | 0.473 |
| Bharatpur | 0.700 | 0.022 | 498 | 510 | 3.1 | 0.657 | 0.743 |
| Bhilwara | 0.867 | 0.019 | 398 | 392 | 2.2 | 0.829 | 0.904 |
| Bikaner | 0.469 | 0.025 | 493 | 508 | 5.3 | 0.420 | 0.517 |
| Bundi | 0.784 | 0.022 | 391 | 394 | 2.8 | 0.741 | 0.826 |
| Chittaurgarh | 0.803 | 0.020 | 405 | 406 | 2.5 | 0.764 | 0.842 |
| Churu | 0.553 | 0.023 | 531 | 533 | 4.2 | 0.509 | 0.598 |
| Dausa | 0.683 | 0.025 | 386 | 382 | 3.7 | 0.635 | 0.732 |
| Dhaulpur | 0.661 | 0.024 | 469 | 469 | 3.6 | 0.615 | 0.707 |
| Dungarpur | 0.708 | 0.024 | 397 | 398 | 3.4 | 0.661 | 0.754 |
| Ganganagar | 0.575 | 0.029 | 362 | 365 | 5.0 | 0.517 | 0.632 |
| Hamumangarh | 0.608 | 0.028 | 361 | 363 | 4.6 | 0.553 | 0.664 |
| Jaipur | 0.841 | 0.021 | 322 | 320 | 2.5 | 0.799 | 0.883 |
| Jaisalmer | 0.357 | 0.022 | 546 | 554 | 6.2 | 0.314 | 0.401 |
| Jalore | 0.513 | 0.025 | 450 | 456 | 4.9 | 0.465 | 0.561 |
| Jhalawar | 0.748 | 0.022 | 413 | 409 | 2.9 | 0.705 | 0.791 |
| Jhunjhunun | 0.827 | 0.025 | 384 | 373 | 3.0 | 0.778 | 0.876 |
| Jodhpur | 0.596 | 0.025 | 480 | 473 | 4.2 | 0.547 | 0.646 |
| Karauli | 0.602 | 0.026 | 404 | 411 | 4.3 | 0.552 | 0.653 |
| Kota | 0.785 | 0.023 | 349 | 348 | 2.9 | 0.740 | 0.830 |
| Nagaur | 0.619 | 0.023 | 462 | 478 | 3.7 | 0.574 | 0.665 |
| Pali | 0.723 | 0.024 | 400 | 401 | 3.3 | 0.676 | 0.770 |
| Rajsamand | 0.771 | 0.023 | 371 | 371 | 3.0 | 0.726 | 0.816 |
| Sawai Madhopur | 0.772 | 0.025 | 363 | 374 | 3.2 | 0.724 | 0.820 |
| Sikar | 0.756 | 0.020 | 491 | 486 | 2.6 | 0.717 | 0.795 |
| Sirohi | 0.679 | 0.023 | 438 | 440 | 3.4 | 0.634 | 0.724 |
| Tonk | 0.718 | 0.023 | 404 | 399 | 3.2 | 0.672 | 0.763 |
| Udaipur | 0.616 | 0.026 | 374 | 372 | 4.2 | 0.565 | 0.666 |


| Sampling errors, Rajasthan, 2002-04 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| District | Estimate (R) | Sampling error (SE) | Number of cases |  | Relative Errors (\%) | 95\% Conf. Interval |  |
|  |  |  | Unweighted | Weighted |  | R-1.96 SE | R+1.96 SE |
| Received 3+ Antenatal Check up (last live/still birth of past 3 years) |  |  |  |  |  |  |  |
| Ajmer | 0.427 | 0.026 | 410 | 421 | 6.1 | 0.375 | 0.478 |
| Alwar | 0.250 | 0.024 | 380 | 386 | 9.6 | 0.202 | 0.297 |
| Banswara | 0.334 | 0.023 | 467 | 484 | 6.9 | 0.288 | 0.380 |
| Baran | 0.402 | 0.026 | 410 | 406 | 6.5 | 0.351 | 0.452 |
| Barmer | 0.162 | 0.020 | 498 | 503 | 12.3 | 0.123 | 0.201 |
| Bharatpur | 0.217 | 0.019 | 498 | 511 | 8.8 | 0.179 | 0.254 |
| Bhilwara | 0.465 | 0.027 | 398 | 393 | 5.8 | 0.411 | 0.518 |
| Bikaner | 0.256 | 0.021 | 493 | 508 | 8.2 | 0.214 | 0.297 |
| Bundi | 0.378 | 0.025 | 391 | 393 | 6.6 | 0.329 | 0.428 |
| Chittaurgarh | 0.384 | 0.025 | 405 | 406 | 6.5 | 0.335 | 0.434 |
| Churu | 0.198 | 0.018 | 531 | 532 | 9.1 | 0.163 | 0.233 |
| Dausa | 0.278 | 0.024 | 386 | 381 | 8.6 | 0.232 | 0.324 |
| Dhaulpur | 0.183 | 0.019 | 469 | 468 | 10.4 | 0.146 | 0.220 |
| Dungarpur | 0.309 | 0.024 | 397 | 399 | 7.8 | 0.262 | 0.356 |
| Ganganagar | 0.290 | 0.026 | 362 | 365 | 9.0 | 0.238 | 0.341 |
| Hamumangarh | 0.270 | 0.025 | 361 | 362 | 9.3 | 0.221 | 0.318 |
| Jaipur | 0.461 | 0.029 | 322 | 320 | 6.3 | 0.405 | 0.517 |
| Jaisalmer | 0.182 | 0.019 | 546 | 554 | 10.4 | 0.146 | 0.218 |
| Jalore | 0.228 | 0.020 | 450 | 456 | 8.8 | 0.188 | 0.267 |
| Jhalawar | 0.384 | 0.024 | 413 | 409 | 6.3 | 0.336 | 0.432 |
| Jhunjhunun | 0.455 | 0.035 | 384 | 374 | 7.7 | 0.387 | 0.523 |
| Jodhpur | 0.300 | 0.023 | 480 | 474 | 7.7 | 0.254 | 0.346 |
| Karauli | 0.251 | 0.023 | 404 | 411 | 9.2 | 0.207 | 0.295 |
| Kota | 0.486 | 0.029 | 349 | 347 | 6.0 | 0.429 | 0.542 |
| Nagaur | 0.355 | 0.023 | 462 | 478 | 6.5 | 0.310 | 0.400 |
| Pali | 0.379 | 0.026 | 400 | 401 | 6.9 | 0.327 | 0.430 |
| Rajsamand | 0.340 | 0.025 | 371 | 372 | 7.4 | 0.290 | 0.390 |
| Sawai Madhopur | 0.321 | 0.027 | 363 | 372 | 8.4 | 0.268 | 0.373 |
| Sikar | 0.391 | 0.023 | 491 | 485 | 5.9 | 0.346 | 0.436 |
| Sirohi | 0.367 | 0.024 | 438 | 440 | 6.5 | 0.320 | 0.414 |
| Tonk | 0.385 | 0.025 | 404 | 398 | 6.5 | 0.335 | 0.434 |
| Udaipur | 0.320 | 0.025 | 374 | 372 | 7.8 | 0.272 | 0.369 |


| Sampling errors, Rajasthan, 2002-04 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| District | Estimate <br> (R) | Sampling error (SE) | Number of cases |  | Relative <br> Errors (\%) | 95\% Conf. Interval |  |
|  |  |  | Unweighted | Weighted |  | R-1.96 SE | R+1.96 SE |
| Institutional Delivery (last livelstill birth of past 3 years) |  |  |  |  |  |  |  |
| Ajmer | 0.328 | 0.025 | 410 | 420 | 7.6 | 0.280 | 0.376 |
| Alwar | 0.254 | 0.024 | 380 | 386 | 9.4 | 0.207 | 0.301 |
| Banswara | 0.472 | 0.025 | 467 | 484 | 5.3 | 0.423 | 0.521 |
| Baran | 0.453 | 0.026 | 410 | 407 | 5.7 | 0.402 | 0.505 |
| Barmer | 0.137 | 0.016 | 498 | 503 | 11.7 | 0.105 | 0.169 |
| Bharatpur | 0.317 | 0.021 | 498 | 509 | 6.6 | 0.275 | 0.359 |
| Bhilwara | 0.239 | 0.023 | 398 | 392 | 9.6 | 0.195 | 0.284 |
| Bikaner | 0.164 | 0.018 | 493 | 508 | 11.0 | 0.130 | 0.199 |
| Bundi | 0.362 | 0.025 | 391 | 393 | 6.9 | 0.313 | 0.412 |
| Chittaurgarh | 0.271 | 0.023 | 405 | 406 | 8.5 | 0.226 | 0.316 |
| Churu | 0.144 | 0.015 | 531 | 532 | 10.4 | 0.114 | 0.174 |
| Dausa | 0.414 | 0.026 | 386 | 382 | 6.3 | 0.362 | 0.465 |
| Dhaulpur | 0.385 | 0.024 | 469 | 469 | 6.2 | 0.338 | 0.432 |
| Dungarpur | 0.309 | 0.024 | 397 | 399 | 7.8 | 0.262 | 0.356 |
| Ganganagar | 0.316 | 0.028 | 362 | 365 | 8.9 | 0.262 | 0.370 |
| Hamumangarh | 0.240 | 0.025 | 361 | 363 | 10.4 | 0.191 | 0.288 |
| Jaipur | 0.562 | 0.028 | 322 | 320 | 5.0 | 0.506 | 0.618 |
| Jaisalmer | 0.120 | 0.015 | 546 | 554 | 12.5 | 0.090 | 0.150 |
| Jalore | 0.206 | 0.020 | 450 | 456 | 9.7 | 0.168 | 0.245 |
| Jhalawar | 0.324 | 0.024 | 413 | 408 | 7.4 | 0.278 | 0.370 |
| Jhunjhunun | 0.332 | 0.032 | 384 | 374 | 9.6 | 0.269 | 0.394 |
| Jodhpur | 0.271 | 0.022 | 480 | 473 | 8.1 | 0.228 | 0.315 |
| Karauli | 0.364 | 0.026 | 404 | 410 | 7.1 | 0.312 | 0.416 |
| Kota | 0.548 | 0.028 | 349 | 347 | 5.1 | 0.492 | 0.604 |
| Nagaur | 0.274 | 0.021 | 462 | 478 | 7.7 | 0.233 | 0.316 |
| Pali | 0.339 | 0.027 | 400 | 401 | 8.0 | 0.286 | 0.393 |
| Rajsamand | 0.277 | 0.024 | 371 | 371 | 8.7 | 0.229 | 0.324 |
| Sawai Madhopur | 0.366 | 0.027 | 363 | 374 | 7.4 | 0.312 | 0.420 |
| Sikar | 0.346 | 0.022 | 491 | 486 | 6.4 | 0.302 | 0.389 |
| Sirohi | 0.341 | 0.024 | 438 | 440 | 7.0 | 0.295 | 0.387 |
| Tonk | 0.258 | 0.023 | 404 | 399 | 8.9 | 0.213 | 0.302 |
| Udaipur | 0.351 | 0.026 | 374 | 371 | 7.4 | 0.301 | 0.401 |


| Sampling errors, Rajasthan, 2002-04 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| District | Estimate(R) | Sampling error (SE) | Number of cases |  | Relative Errors (\%) | 95\% Conf. Interval |  |
|  |  |  | Unweighted | Weighted |  | R-1.96 SE | R+1.96 SE |
| Safe Delivery (last live/still birth of past 3 years) |  |  |  |  |  |  |  |
| Ajmer | 0.433 | 0.026 | 410 | 420 | 6.0 | 0.381 | 0.484 |
| Alwar | 0.351 | 0.027 | 380 | 387 | 7.7 | 0.298 | 0.404 |
| Banswara | 0.530 | 0.025 | 467 | 484 | 4.7 | 0.481 | 0.579 |
| Baran | 0.531 | 0.026 | 410 | 406 | 4.9 | 0.480 | 0.583 |
| Barmer | 0.346 | 0.029 | 498 | 503 | 8.4 | 0.289 | 0.404 |
| Bharatpur | 0.365 | 0.022 | 498 | 510 | 6.0 | 0.321 | 0.409 |
| Bhilwara | 0.387 | 0.026 | 398 | 392 | 6.7 | 0.336 | 0.438 |
| Bikaner | 0.281 | 0.022 | 493 | 508 | 7.8 | 0.238 | 0.324 |
| Bundi | 0.482 | 0.026 | 391 | 394 | 5.4 | 0.431 | 0.534 |
| Chittaurgarh | 0.418 | 0.025 | 405 | 406 | 6.0 | 0.368 | 0.468 |
| Churu | 0.310 | 0.021 | 531 | 533 | 6.8 | 0.268 | 0.351 |
| Dausa | 0.499 | 0.027 | 386 | 382 | 5.4 | 0.446 | 0.551 |
| Dhaulpur | 0.415 | 0.024 | 469 | 467 | 5.8 | 0.368 | 0.463 |
| Dungarpur | 0.427 | 0.026 | 397 | 398 | 6.1 | 0.377 | 0.478 |
| Ganganagar | 0.418 | 0.029 | 362 | 365 | 6.9 | 0.360 | 0.475 |
| Hamumangarh | 0.386 | 0.028 | 361 | 363 | 7.3 | 0.332 | 0.441 |
| Jaipur | 0.644 | 0.027 | 322 | 320 | 4.2 | 0.590 | 0.698 |
| Jaisalmer | 0.233 | 0.020 | 546 | 553 | 8.6 | 0.193 | 0.272 |
| Jalore | 0.456 | 0.024 | 450 | 456 | 5.3 | 0.408 | 0.504 |
| Jhalawar | 0.437 | 0.025 | 413 | 407 | 5.7 | 0.388 | 0.486 |
| Jhunjhunun | 0.509 | 0.035 | 384 | 374 | 6.9 | 0.441 | 0.577 |
| Jodhpur | 0.388 | 0.025 | 480 | 474 | 6.4 | 0.340 | 0.436 |
| Karauli | 0.431 | 0.026 | 404 | 411 | 6.0 | 0.379 | 0.482 |
| Kota | 0.616 | 0.028 | 349 | 348 | 4.5 | 0.562 | 0.670 |
| Nagaur | 0.504 | 0.024 | 462 | 478 | 4.8 | 0.457 | 0.551 |
| Pali | 0.559 | 0.026 | 400 | 402 | 4.7 | 0.507 | 0.610 |
| Rajsamand | 0.425 | 0.027 | 371 | 371 | 6.4 | 0.373 | 0.478 |
| Sawai Madhopur | 0.479 | 0.029 | 363 | 374 | 6.1 | 0.423 | 0.536 |
| Sikar | 0.533 | 0.023 | 491 | 486 | 4.3 | 0.487 | 0.579 |
| Sirohi | 0.532 | 0.025 | 438 | 440 | 4.7 | 0.483 | 0.580 |
| Tonk | 0.416 | 0.025 | 404 | 399 | 6.0 | 0.366 | 0.466 |
| Udaipur | 0.458 | 0.027 | 374 | 372 | 5.9 | 0.406 | 0.510 |


| Sampling errors, Rajasthan, 2002-04 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| District | Estimate | Sampling error (SE) | Number of cases |  | Relative Errors (\%) | 95\% Conf. Interval |  |
|  |  |  | Unweighted | Weighted |  | R-1.96 SE | R+1.96 SE |
| Received BCG Vaccination (last and last but one living children, age 12-23 months) |  |  |  |  |  |  |  |
| Ajmer | 0.714 | 0.042 | 121 | 124 | 5.8 | 0.632 | 0.795 |
| Alwar | 0.676 | 0.043 | 131 | 128 | 6.4 | 0.591 | 0.760 |
| Banswara | 0.567 | 0.046 | 131 | 136 | 8.1 | 0.477 | 0.657 |
| Baran | 0.628 | 0.047 | 119 | 116 | 7.4 | 0.536 | 0.719 |
| Barmer | 0.448 | 0.053 | 150 | 145 | 11.7 | 0.345 | 0.551 |
| Bharatpur | 0.511 | 0.042 | 146 | 155 | 8.1 | 0.430 | 0.593 |
| Bhilwara | 0.621 | 0.053 | 94 | 90 | 8.6 | 0.516 | 0.725 |
| Bikaner | 0.577 | 0.043 | 155 | 159 | 7.4 | 0.493 | 0.661 |
| Bundi | 0.675 | 0.048 | 99 | 98 | 7.0 | 0.582 | 0.768 |
| Chittaurgarh | 0.565 | 0.051 | 90 | 91 | 8.9 | 0.466 | 0.665 |
| Churu | 0.415 | 0.039 | 165 | 161 | 9.3 | 0.339 | 0.491 |
| Dausa | 0.547 | 0.045 | 115 | 116 | 8.3 | 0.458 | 0.636 |
| Dhaulpur | 0.609 | 0.042 | 132 | 136 | 6.9 | 0.527 | 0.691 |
| Dungarpur | 0.489 | 0.047 | 113 | 113 | 9.7 | 0.396 | 0.582 |
| Ganganagar | 0.817 | 0.038 | 108 | 103 | 4.7 | 0.742 | 0.892 |
| Hamumangarh | 0.676 | 0.047 | 108 | 104 | 7.0 | 0.583 | 0.769 |
| Jaipur | 0.654 | 0.046 | 101 | 100 | 7.1 | 0.563 | 0.745 |
| Jaisalmer | 0.413 | 0.043 | 145 | 143 | 10.3 | 0.330 | 0.497 |
| Jalore | 0.492 | 0.046 | 117 | 123 | 9.4 | 0.401 | 0.584 |
| Jhalawar | 0.624 | 0.047 | 109 | 107 | 7.5 | 0.532 | 0.715 |
| Jhunjhunun | 0.750 | 0.050 | 109 | 108 | 6.7 | 0.651 | 0.848 |
| Jodhpur | 0.591 | 0.044 | 138 | 134 | 7.5 | 0.503 | 0.678 |
| Karauli | 0.618 | 0.046 | 101 | 106 | 7.4 | 0.528 | 0.708 |
| Kota | 0.893 | 0.029 | 98 | 98 | 3.2 | 0.836 | 0.950 |
| Nagaur | 0.555 | 0.043 | 135 | 143 | 7.8 | 0.471 | 0.639 |
| Pali | 0.682 | 0.044 | 111 | 108 | 6.5 | 0.595 | 0.768 |
| Rajsamand | 0.688 | 0.044 | 115 | 114 | 6.4 | 0.602 | 0.774 |
| Sawai Madhopur | 0.454 | 0.051 | 112 | 119 | 11.3 | 0.354 | 0.554 |
| Sikar | 0.648 | 0.043 | 118 | 122 | 6.7 | 0.563 | 0.732 |
| Sirohi | 0.669 | 0.044 | 112 | 118 | 6.6 | 0.582 | 0.755 |
| Tonk | 0.665 | 0.047 | 99 | 98 | 7.0 | 0.574 | 0.756 |
| Udaipur | 0.628 | 0.043 | 125 | 126 | 6.9 | 0.544 | 0.712 |


| Sampling errors, Rajasthan, 2002-04 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| District | Estimate (R) | Sampling error (SE) | Number of cases |  | Relative <br> Errors (\%) | 95\% Conf. Interval |  |
|  |  |  | Unweighted | Weighted |  | R-1.96 SE | R+1.96 SE |
| Received Measles (last and last but one living children, age 12-23 months) |  |  |  |  |  |  |  |
| Ajmer | 0.440 | 0.046 | 121 | 124 | 10.5 | 0.349 | 0.531 |
| Alwar | 0.391 | 0.043 | 131 | 128 | 10.9 | 0.307 | 0.474 |
| Banswara | 0.298 | 0.042 | 131 | 136 | 14.0 | 0.217 | 0.380 |
| Baran | 0.340 | 0.044 | 119 | 116 | 13.0 | 0.253 | 0.427 |
| Barmer | 0.238 | 0.047 | 150 | 145 | 19.7 | 0.146 | 0.330 |
| Bharatpur | 0.177 | 0.030 | 146 | 155 | 17.1 | 0.118 | 0.237 |
| Bhilwara | 0.408 | 0.053 | 94 | 90 | 13.1 | 0.304 | 0.513 |
| Bikaner | 0.327 | 0.040 | 155 | 159 | 12.3 | 0.248 | 0.406 |
| Bundi | 0.476 | 0.051 | 99 | 98 | 10.6 | 0.377 | 0.575 |
| Chittaurgarh | 0.311 | 0.047 | 90 | 91 | 15.2 | 0.218 | 0.404 |
| Churu | 0.280 | 0.035 | 165 | 161 | 12.5 | 0.211 | 0.348 |
| Dausa | 0.363 | 0.043 | 115 | 116 | 11.8 | 0.279 | 0.446 |
| Dhaulpur | 0.340 | 0.041 | 132 | 136 | 12.1 | 0.259 | 0.421 |
| Dungarpur | 0.306 | 0.043 | 113 | 113 | 14.2 | 0.221 | 0.391 |
| Ganganagar | 0.596 | 0.051 | 108 | 103 | 8.5 | 0.496 | 0.695 |
| Hamumangarh | 0.434 | 0.048 | 108 | 104 | 11.1 | 0.339 | 0.529 |
| Jaipur | 0.502 | 0.049 | 101 | 100 | 9.7 | 0.406 | 0.598 |
| Jaisalmer | 0.221 | 0.035 | 145 | 143 | 15.8 | 0.153 | 0.290 |
| Jalore | 0.264 | 0.040 | 117 | 123 | 15.2 | 0.185 | 0.343 |
| Jhalawar | 0.362 | 0.046 | 109 | 107 | 12.7 | 0.272 | 0.453 |
| Jhunjhunun | 0.455 | 0.061 | 109 | 108 | 13.4 | 0.335 | 0.575 |
| Jodhpur | 0.296 | 0.038 | 138 | 134 | 13.0 | 0.221 | 0.371 |
| Karauli | 0.340 | 0.047 | 101 | 106 | 13.7 | 0.249 | 0.431 |
| Kota | 0.629 | 0.049 | 98 | 98 | 7.8 | 0.533 | 0.725 |
| Nagaur | 0.270 | 0.038 | 135 | 143 | 14.0 | 0.196 | 0.345 |
| Pali | 0.430 | 0.048 | 111 | 108 | 11.0 | 0.337 | 0.524 |
| Rajsamand | 0.378 | 0.046 | 115 | 114 | 12.2 | 0.288 | 0.469 |
| Sawai Madhopur | 0.198 | 0.040 | 112 | 119 | 20.1 | 0.120 | 0.277 |
| Sikar | 0.382 | 0.044 | 118 | 122 | 11.4 | 0.297 | 0.468 |
| Sirohi | 0.374 | 0.047 | 112 | 118 | 12.5 | 0.282 | 0.465 |
| Tonk | 0.391 | 0.051 | 99 | 98 | 13.0 | 0.292 | 0.490 |
| Udaipur | 0.345 | 0.043 | 125 | 126 | 12.4 | 0.261 | 0.429 |


| Sampling errors, Rajasthan, 2002-04 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| District | Estimate <br> (R) | Sampling error (SE) | Number of cases |  | Relative Errors (\%) | 95\% Conf. Interval |  |
|  |  |  | Unweighted | Weighted |  | R-1.96 SE | R+1.96 SE |
| Birth order 3+ (bi | three yea |  |  |  |  |  |  |
| Ajmer | 0.461 | 0.026 | 424 | 433 | 5.6 | 0.410 | 0.512 |
| Alwar | 0.410 | 0.027 | 400 | 411 | 6.6 | 0.357 | 0.464 |
| Banswara | 0.512 | 0.024 | 495 | 511 | 4.7 | 0.464 | 0.559 |
| Baran | 0.524 | 0.025 | 450 | 446 | 4.8 | 0.475 | 0.574 |
| Barmer | 0.562 | 0.028 | 560 | 559 | 5.0 | 0.506 | 0.618 |
| Bharatpur | 0.542 | 0.022 | 569 | 584 | 4.1 | 0.499 | 0.585 |
| Bhilwara | 0.479 | 0.027 | 400 | 396 | 5.6 | 0.425 | 0.532 |
| Bikaner | 0.534 | 0.023 | 561 | 579 | 4.3 | 0.488 | 0.580 |
| Bundi | 0.486 | 0.025 | 425 | 427 | 5.1 | 0.436 | 0.536 |
| Chittaurgarh | 0.400 | 0.025 | 393 | 394 | 6.3 | 0.350 | 0.450 |
| Churu | 0.502 | 0.022 | 594 | 597 | 4.4 | 0.460 | 0.545 |
| Dausa | 0.512 | 0.025 | 427 | 419 | 4.9 | 0.463 | 0.562 |
| Dhaulpur | 0.663 | 0.022 | 543 | 547 | 3.3 | 0.621 | 0.706 |
| Dungarpur | 0.513 | 0.026 | 407 | 409 | 5.1 | 0.463 | 0.564 |
| Ganganagar | 0.336 | 0.027 | 397 | 400 | 8.0 | 0.284 | 0.388 |
| Hamumangarh | 0.328 | 0.025 | 407 | 401 | 7.6 | 0.279 | 0.377 |
| Jaipur | 0.375 | 0.026 | 351 | 351 | 6.9 | 0.323 | 0.427 |
| Jaisalmer | 0.542 | 0.022 | 607 | 607 | 4.1 | 0.499 | 0.585 |
| Jalore | 0.474 | 0.024 | 464 | 470 | 5.1 | 0.427 | 0.522 |
| Jhalawar | 0.446 | 0.025 | 401 | 397 | 5.6 | 0.396 | 0.496 |
| Jhunjhunun | 0.413 | 0.033 | 395 | 374 | 8.0 | 0.348 | 0.478 |
| Jodhpur | 0.551 | 0.024 | 525 | 522 | 4.4 | 0.503 | 0.599 |
| Karauli | 0.568 | 0.025 | 439 | 452 | 4.4 | 0.519 | 0.617 |
| Kota | 0.360 | 0.027 | 362 | 360 | 7.5 | 0.308 | 0.413 |
| Nagaur | 0.515 | 0.023 | 490 | 510 | 4.5 | 0.469 | 0.560 |
| Pali | 0.441 | 0.027 | 402 | 396 | 6.1 | 0.389 | 0.493 |
| Rajsamand | 0.532 | 0.026 | 407 | 411 | 4.9 | 0.481 | 0.582 |
| Sawai Madhopur | 0.529 | 0.027 | 401 | 412 | 5.1 | 0.476 | 0.583 |
| Sikar | 0.415 | 0.023 | 481 | 472 | 5.5 | 0.369 | 0.461 |
| Sirohi | 0.529 | 0.024 | 453 | 455 | 4.5 | 0.481 | 0.577 |
| Tonk | 0.449 | 0.025 | 438 | 434 | 5.6 | 0.401 | 0.497 |
| Udaipur | 0.445 | 0.025 | 427 | 426 | 5.6 | 0.397 | 0.493 |

## 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 programme indicators is design as

$$
\begin{equation*}
\mathrm{r}=\frac{\sum_{h} \sum_{j} \sum_{i} w_{h i j} y_{h j i}}{\sum_{h} \sum_{j} \sum_{i} w_{h j i} X_{h j i}}=\frac{y}{x} \tag{1}
\end{equation*}
$$

where the cell (h, $\mathrm{j}, \mathrm{i}$ ) stands for $\mathrm{i}^{\text {th }}$ observational unit in $\mathrm{j}^{\text {th }}$ primary sampling unit (PSU) in $\mathrm{h}^{\text {th }}$ stratum, basically rural-urban areas of a district are taken as strata. $\mathrm{W}_{\mathrm{hij}}$ is the sampling weight of $(h, j, i)^{\text {th }}$ 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

$$
\begin{array}{r}
\operatorname{var}(\mathrm{r})=\frac{1}{x^{2}}\left[\operatorname{var}(\mathrm{y})+\mathrm{r}^{2} \operatorname{var}(\mathrm{x})-2 \mathrm{r} \operatorname{cov}(\mathrm{y}, \mathrm{x})\right] \ldots \ldots \ldots \ldots \ldots . . . . . . . . . . . . . \\
\operatorname{var}(\mathrm{y})=\sum_{h} \frac{n_{h}}{n_{h}-1}\left[\sum_{j} \sum_{i}\left(w_{h j i} y_{h i j}\right)^{2}-\frac{\left(\sum_{j} \sum_{i} w_{h j i} y_{h j i}\right)^{2}}{n_{h}}\right] \ldots \\
\operatorname{cov}(\mathrm{y}, \mathrm{x})=\sum_{h} \frac{n_{h}}{n_{h}-1}\left[\sum_{j} \sum_{i} w_{h j i}^{2} y_{h i i} x_{h j i}-\frac{\left(\sum_{j} \sum_{i} w_{h j i} y_{h j i}\right)\left(\sum_{j} \sum_{i} w_{h j i} x_{h j i}\right)}{n_{h}}\right] \tag{4}
\end{array}
$$

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
CPR (Any Method)
Unmet Need
Any ANC
ANC3+
Institutional Delivery
Safe Delivery
BCG
Measles
BO3+

Estimate
Proportion Currently married women age 15-44 years
Proportion Currently married women age 15-44 years
Proportion Last live/still births in the past three years
Proportion Last live/still births in the past three years
Proportion Last live/still births in the past three years
Proportion Last live/still births in the past three years
Proportion Children age 12-23 months
Proportion Children age 12-23 months
Proportion Currently married women age 15-44 years with births in past three years

## 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 programme indicators is design as

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

$$
\begin{array}{r}
\operatorname{var}(\mathrm{r})=\frac{1}{x^{2}}\left[\operatorname{var}(\mathrm{y})+\mathrm{r}^{2} \operatorname{var}(\mathrm{x})-2 \mathrm{r} \operatorname{cov}(\mathrm{y}, \mathrm{x})\right] \ldots \ldots \ldots \ldots \ldots . . . . . . . . . . . . . \\
\operatorname{var}(\mathrm{y})=\sum_{h} \frac{n_{h}}{n_{h}-1}\left[\sum_{j} \sum_{i}\left(w_{h j i} y_{h i j}\right)^{2}-\frac{\left(\sum_{j} \sum_{i} w_{h j i} y_{h j i}\right)^{2}}{n_{h}}\right] \ldots \\
\operatorname{cov}(\mathrm{y}, \mathrm{x})=\sum_{h} \frac{n_{h}}{n_{h}-1}\left[\sum_{j} \sum_{i} w_{h j i}^{2} y_{h i i} x_{h j i}-\frac{\left(\sum_{j} \sum_{i} w_{h j i} y_{h j i}\right)\left(\sum_{j} \sum_{i} w_{h j i} x_{h j i}\right)}{n_{h}}\right] \tag{4}
\end{array}
$$

and $n_{h}$ is the number of sampled PSUs representing rural or urban areas of a district/state.

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Proportion Currently married women age 15-44 years
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Proportion Last live/still births in the past three years
Proportion Last live/still births in the past three years
Proportion Last live/still births in the past three years
Proportion Children age 12-23 months
Proportion Children age 12-23 months
Proportion Currently married women age 15-44 years with births in past three years

## APPENDIX B

## Project Team

# Indian Institute of Health Management Research, Jaipur 

| Project-Coordinator | Ch. Satish Kumar, Ph.D. Associate Professor |
| :---: | :---: |
| Senior Research Officer | N.D. Sharma |
| Research Officers | Devesh Sahu Basant K. Singh Mittu Muthu Varghese Jai Singh Shekhawat Shweta Chooramani Mathew George T. Sudhir Raj |
| Trainee Research Officers | Arvind Singhal <br> R. Swarna Sai Menon <br> S.Bala Muruga <br> Mejo Jose <br> Boby Thomas <br> Bijoy A.P. <br> Arnab Mandal |
| PGDHM Students | Priyanka Joshi Joyeta Ghoshal |
| Secretarial Assistant | Beena Nair |

# International Institute for Population Sciences, Mumbai 

| Project Coordinators | Dr. F. Ram <br> Dr. B. Paswan Dr. L. Ladu Singh |
| :---: | :---: |
| Senior Research Officers | Mr. Rajiv Ranjan Mr. K.C.Lakhara Mr. Nizamuddin Khan |
| Research Officers |  |
| Mr. M. Nagavara Prasad | Mr. Suhas Narkhede |
| Mr. Akash N. Wankhede | Dr. Pramod Kumar Gupta |
| Mr. Uttam J Sonkamble | Mr. Bipul Hazarika |
| Mr. Ashok Kumar | Dr. Manoj Alagarajan |
| Ms. Jigna Thacker | Dr. Kalyan Saha |
| Ms. Baishali Goswami | Dr. N Anbazhaham |
| Ms. Sancheeta Ghosh | Dr. Saithya Susaman |
| Ms. Kirti Mishra | Mr. Manoj Kumar |
| Ms. Sucharita Pujari | Mr. Dibya L Mohanta |
| Ms. Preeti Chauhan | Mr. Mohan Tiwari |
| Mrs. Santhi N.S. | Mr. Battala Madhusudana |
| Ms. Sanjeeta Gupta | Mr. Bardanwala S.I. |
| Ms. Reshmi R.S. | Mr. Jiten Kumar Singh |
| Ms. Rinki Saha | Mr. Manoranjan Barik |
| Mr. Arnendu Kumar Jha | Mr. Laxmi Prasad Sonwani |
| Mr. Atanu Ghosh | Mr. Nimakwala M. I. |
| Mr. Manas Pradhan | Mr. Protap Mukherjee |
| Accounts and Administrative staff |  |
| Mr. Sunil Adavede (Sr. Accountant) | Mrs. Seema V. Zagade (Office Assistant) Mrs. Deepa J. Nair (Office Assistant) |
| Mr. Jeba Kumar (Data Entry Operator) |  |
| Ms. Pratima P. Zore (Data Entry Operator) | Mr. Chandra D. Singh (Office Boy) |
| Ms. Preeti S. Kharat (Data Entry Operator) | Mr. Ravindra P. Gawade (Office Boy) |
| Ms. Sayali Shivalkar (Data Entry Operator) | Mr. Sanjay P. Kadam (Office Boy) |

## LIST OF CONTRIBUTORS

Dr. Ch. Satish Kumar, Associate Professor, Indian Institute of health Management Research, 1, Prabhu Dayal Marg, Near Airport, Sanganer, Jaipur-302 011

Mr. N. D. Sharma, Senior Research Officer, Indian Institute of health Management Research, 1, Prabhu Dayal Marg, Near Airport, Sanganer, Jaipur-302 011

Mr. Jai Singh Shekhawat, Research Officer, Indian Institute of health Management Research, 1, Prabhu Dayal Marg, Near Airport, Sanganer, Jaipur-302 011

Ms. Shweta Chooramani, Research Officer, Indian Institute of health Management Research, 1, Prabhu Dayal Marg, Near Airport, Sanganer, Jaipur-302 011

Dr. F. Ram, Professor \& Head, Department of Fertility Studies, International Institute for Population Sciences, Govandi Station Road, Deonar, Mumbai-400 088

Dr. B. Paswan, Reader, Department of Population Policy and Programme, International Institute for Population Sciences, Govandi Station Road, Deonar, Mumbai-400 088

Dr. L. Ladu Singh, Professor \& Head, Department of Mathematical Demography and Statistics, International Institute for Population Sciences, Govandi Station Road, Deonar, Mumbai-400 088

Mr. K.C. Lakhara, Senior Research Officer, DLHS-RCH, International Institute for Population Sciences, Govandi Station Road, Deonar, Mumbai-400 088

Mr. Akash N. Wankhede, Research Officer, DLHS-RCH, International Institute for Population Sciences, Govandi Station Road, Deonar, Mumbai-400 088

Mr. Protap Mukherjee, Research Officer, DLHS-RCH, International Institute for Population Sciences, Govandi Station Road, Deonar, Mumbai-400 088

# APPENDIX C QUESTIONNAIRES 

HOUSEHOLD<br>WOMEN<br>HUSBAND<br>VILLAGE

## NOTES


[^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.

[^1]:    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.

