

RCH-RHS

INDIA

Reproductive and Child Health Project

**Rapid Household Survey
(Phase I & II)**

1998-1999



International Institute for Population Sciences

**International Institute for Population Sciences
Govandi Station Road, Deonar
Mumbai- 400088, India**

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Sponsored by
Ministry of Health and Family Welfare
Government of India
New Delhi



International Institute for Population Sciences

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PREFACE

The Family Welfare Programme in India has undergone important changes since the International Conference on Population and Development in 1994 in Cairo. The programme has been gradually reoriented towards the holistic approach of the Reproductive and Child Health (RCH) programme. The programme's target-free approach was implemented throughout the country in 1996. The essence of this approach, which was subsequently renamed the community needs assessment (CNA) approach, was to modify the system of monitoring the programme and make it a demand-driven system in which a worker would assess the need of the community at the beginning of each year. The National Population Policy 2000, affirms the commitment of Government of India to the philosophy of decentralized planning through Panchayati Raj Institutions, and provides a policy framework for prioritising strategies to meet the RCH needs of the people and achieve replacement level fertility by 2010 A.D.

Under the decentralized planning, there has been a growing need to have relevant information at micro level not only to prepare the action plan but also to monitor and evaluate the programme. With this in view, the Department of Family Welfare, Ministry of Health and Family Welfare, Government of India launched the district level household survey in 1998. The survey covered 504 districts of the 507 districts in the country as on 1995 in two years. The International Institute for Population Sciences (IIPS) was designated as the nodal agency for this task. For administrative convenience, India was divided into 15 regions, and 12 reputed regional agencies in India including 5 Population Research Centres were selected to carry out the data collection. The regional agencies were also expected to prepare district and state level reports in the standard format provided by the nodal agency.

The district level household survey covered a representative sample of about 1000 households in each district, and all the married women age 15-44 in a household were interviewed. This is the first time that such a large sample survey included men as respondent to elicit information on their RTI, STI, HIV/AIDS, and their views on family planning were also sought. The contents of this report are based on a Tabulation Plan prepared by the nodal agency as per the recommendation of the Technical Advisory Committee. We hope the report would provide useful information that could be used in the district planning and for evaluation of the RCH programme. The database generated by the household survey can help Government of India and the State Governments to identify districts that need special attention in terms of infrastructure strengthening and social development.

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Acknowledgements

The Reproductive and Child Health intervention being implemented by Government of India are expected to provide quality services and achieve multiple objectives. There has been a positive paradigm shift from Method-Mixed- Target based activity to Client-Centred-Demand Driven quality services. The Government of India desires to re-orient the programme and strengthen the services at out-reach level. The new approach requires decentralization of planning, monitoring and evaluation of the services at the basic nucleus level, which is district.

Keeping in view these objectives, Government of India (GoI) felt need to generate district level data on utilization of services provided by the Government health facilities and people's perception on quality of these services. In order to achieve this goal, GoI decided to undertake Rapid Household Survey (RHS) in all the districts in the country, so that the progress of RCH programme can be monitored. Approximately 50 percent of the districts are covered in the first phase of the project in 1998 and the remaining 50 percent districts were covered in the second phase of the project in 1999. The survey was conducted by various Regional Agencies (RAs) and co-ordinated by the International Institute for Population Sciences (IIPS), Mumbai.

For the purpose of data collection, uniform questionnaires, sample designs and field procedures were used in both the phases and throughout the country. The survey thus, provided comparable data for all the districts in the country. Rapid Household Survey (RHS) is the first of its kind in the country, ever conducted to generate basic data at the level of a district. In a district, 1100 Households and all eligible women (15-44 years) available in the households were covered. The present report is based on the data collected in both the phases in all the 504 districts of India as existed in 1995.

We do hope and believe that the data generated through the survey will meet the requirements of the Programme Administrators and Policy Makers for making effective intervention for providing quality services and achieving multiple objectives.

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

The first and the foremost organization to whom we wish to express our thanks is the Union Ministry of Health and Family Welfare (MoHFW) for giving us an opportunity to work as nodal agency for a project of national importance. Our special thanks are due to Shri Y. N. Chaturvedi, former Secretary and Shri A. R. Nanda Secretary (Family Welfare) for their timely initiative, advice and valuable support to the project. We are also thankful to Shri P. K. Saha Chief Director and Dr. K. V. Rao Chief Director and Mr. S.K. Das, Director, Statistics division, of MoHFW for all the support extended by him. Our special thanks to Dr. Padam Singh, Addl. DG of ICMR for their contributions. Our thanks are also due to the Directors of Census Operations and the State Department of Health and Family Welfare in all the states and union territories.

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Last, but not least we also thank all the respondents spread all over India for their valuable time and co-operation.

We do hope that the Ministry of Health and Family Welfare, Government of India, will find the results of the survey useful in achieving the set objectives of the Rapid Household Survey. Round the clock efforts of all those involved in the project will be truly rewarded, if the project is able to effectively highlight the Reproductive and Child Health needs of the community, and suitable intervention is undertaken to improve the conditions of poor even in the remote villages of India.

August 2001.

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Acronyms

AIDS	Acquired Immune Deficiency Syndrome
ANC	Ante-natal Care
ANM	Auxiliary Nurse Midwife
ARI	Acute Respiratory Infections
AWW	Aangan Wadi Worker
CEB	Children Ever Born
CHC	Community Health Center
CMW	Currently Married Women
CPR	Contraceptive Prevalence Rate
CS	Children Surviving
DDK	Disposable Delivery Kit
DPT	Diphtheria, Pertusis and Tetanus
EW	Eligible Women
FP	Family Planning
GoI	Government of India
HH	Household
HIV	Human Immuno-deficiency Virus
IIPS	International Institute for Population Sciences
IRMS	Institute of Research in Medical Statistics
IUD	Intra-uterine Device
LHV	Lady Health Visitor
MCH	Maternal and Child Health
MoHFW	Ministry of Health and Family Welfare
MTP	Medical Termination of Pregnancy
OBC	Other Backward Class
ORS	Oral Rehydration Salt
PHC	Primary Health Center
PPS	Probability Proportionals to size
PRC	Population Research Center
PSU	Primary Sampling Unit
RCH	Reproductive and Child Health
RHS	Rapid Household Survey
RTI	Reproductive Tract Infections
SC	Schedule Caste
ST	Schedule Tribe
STI	Sexually Transmitted Infections
TBA	Trained Birth Attendant
TFR	Total Fertility rate
TT	Tetanus Toxoid

**Key Indicators, India,
Reproductive and Child Health
Survey: 1998-1999.**

Sample population

Number of households surveyed.....	529817
Number of eligible women interviewed.....	474463
Number of men interviewed.....	257245

Background characteristics of households surveyed

Percent rural.....	78.9
Percent Hindu.....	82.1
Percent Muslim.....	11.8
Percent Christian.....	2.8
Percent SC/ST.....	27.0
Percent living in <i>Kachcha</i> houses.....	39.0
percent living in <i>pucca</i> houses	29.2

Background characteristics of eligible women

Percent below age 30.....	48.5
Percent with age at first cohabitation below 18.....	59.8
Percent illiterate.....	56.1
Percent having 10+ years of schooling.....	15.9
Percent with illiterate husband	30.6
Percent with having 10+ years of schooling	35.3

Completed Fertility and Birth Order Distribution

Mean children ever born to women age 40-44	4.54
Percent of births of order (3 years prior to the survey)	
1.....	28.6
2.....	25.7
3+.....	45.8

Marriages

Mean age at marriage for boys.....	23.8
Mean age at marriage for girls.....	19.2
Percent of boys marrying below legal age at marriage.....	30.7
Percent of girls marrying below legal age at marriage.....	36.9

Knowledge of Family Planning

Percent of Eligible women	
Knowing any Method.....	98.7
Knowing any Modern Method.....	98.6
Knowing any Modern Spacing Method.....	80.9
Knowing all Modern Method.....	57.8

Current Use of Family Planning

Percent of Eligible women / husbands using	
Any Method.....	48.6
Any Modern Method.....	42.5
Female Sterilization.....	33.4
Male Sterilization.....	1.5
IUD.....	1.9
Pills.....	2.4
Condom.....	3.1
Any Traditional Method.....	6.0

Unmet Need

Percent of women having Unmet Need for Limiting.....	14.6
Spacing.....	10.7
Total.....	25.3

Maternal Health Care

Percent of Eligible women with last live /still birth after 1.1.1995	
Who had ANC Check-Up.....	65.3
Who had ANC Check-Up at home.....	22.0
Who had at least one TT injection.....	74.7
Who were given IFA tablets.....	48.7

Who delivered in the health institutions

Government.....	17.3
Private.....	16.6

Who had Safe delivery..... 40.4

Child Care

Percent of children weighed within two days of birth.....	28.0
Percent of children with birth weight below 2500 grams.....	16.9
Percent of women who started breast feeding the child within two hours of childbirth.....	26.3

Percent of children who received

BCG.....	73.0
Three DPT injections.....	66.1
Three doses of Polio.....	68.0
Measles.....	60.4
Complete (BCG + 3-DPT + 3-Polio + Measles).....	54.2
At least one dose of vitamin A.....	35.0

Percent of eligible women whose children

Had Diarrhoea.....	24.8
Were treated with ORS.....	11.2
Had breathing problems.....	26.0
Were treated in government health facility for breathing problems.....	13.2

Reproductive Morbidity

Percentage of eligible women who had	
Pregnancy Complications.....	41.3
Delivery Complications.....	37.0
Post Delivery Complications.....	44.4
Any symptom of RTI/STI.....	29.7
Percent of males having any symptom of RTI/STI.....	12.3

Awareness on RCH

Percentage of women aware of	
Oral Rehydration Solution.....	29.7
Danger signs of Pneumonia.....	44.1
Reproductive Tract Infection	45.4
Sexually Transmitted Infection	28.8
HIV (AIDS).....	41.9

Percentage of males (20-54) aware of		Percent of respondents with symptoms of	
Reproductive Tract Infection (RTI).....	37.2	RTI/STI who sought treatment	
Sexually Transmitted Infection.....	36.4	Male.....	55.1
HIV (AIDS).....	60.3	Female.....	37.6
Home visit by Health Worker		Percent of eligible women who visited	
Percentage of rural households visited by		government health facility during three	25.9
ANM/ health worker during three months		months prior to the survey	
prior to the survey.....	14.8		
Utilization of health services			
Percent of eligible women who sought			
treatment for complications during			
Pregnancy.....	46.7		
Post delivery period.....	46.6		

SALIENT FINDINGS

For the assessment of district level reproductive and child health indicators, the Government of India initiated district level household surveys. The International Institute for Population Sciences was designated as the nodal agency for carrying out the surveys. Accordingly, the household surveys in all the districts of India were carried out in two phases. The first round of the survey was conducted in the year 1998 in 252 districts from 25 states and five union territories (excluding Dadra & Nagar Haveli and Lakshdweep Islands) of the country. The second phase of the survey was conducted in 1999 in all the remaining 255 districts from 25 states and 5 union territories (excluding Delhi and Chandigarh). The focus of the survey was on the coverage of Ante Natal Care (ANC) and immunization services, the extent of safe deliveries, the contraceptive prevalence and unmet need for family planning, the awareness about RTI/ STI and HIV /AIDS and the utilization of government health services. The present report refers to the data collected in both the phases of survey. The salient findings of the surveys are presented here.

The survey was carried out in 504 districts of India which existed in 1995. A total of 529,817 households were contacted during the survey. From these surveyed households, 474,463 eligible women (currently married women in the age group 15-44 who are usual residents of the surveyed households) and 198,566 men in the age group 20-54 were interviewed.

Among the eligible women, 48 percent were younger than 30 years and 60 percent women had started their married life when they were less than 18 years. Forty four percent of the eligible women were literate and 16 percent had ten or more years of education. The literacy rate among the husbands of eligible women was 69 percent. RHS gives the estimate of the completed fertility in India, as measured by mean children ever born to women age 40-44 as 4.54 children. Of these 4.54 ever born children, 3.83 children were alive at the time of survey.

The reporting of marriages three years prior to the survey gives the mean age at marriage of boys and girls in India as 23.8 and 19.2 respectively. In 31 and 37 percent marriages bridegrooms and brides were younger than the legal age at marriage of 21 and 18 for boys and girls respectively. In 145 of the 504 districts in India, in case of 50 percent or more marriages girls were less than 18 years old. In Bhilwara, Tonk and Bundi from Rajasthan, Basti, Baharaich, Maharajaganj and Lalitpur from Uttar Pradesh, Paschim Champaran from Bihar, Shajapur from Madhya Pradesh and Murshidabad from West Bengal, as many as in 75 percent or more marriages girls were below 18 years of age. On the contrary,

in 11 districts of India not a single marriage of a girl below age 18 was reported (during the reference period).

Out of the total births that occurred since 1st January 1995/ 1996 to the survey date in the households, 29 and 26 percent were of the first and second order respectively and 46 percent of the births were of order three and above. In 12 districts, Kerala (8) and Tamil Nadu (4) of the 504 surveyed districts the births of order 3 and above accounted for 15 percent or less of the total births. On the contrary in 200 districts of India 50 percent or more births were of order 3 and above. Most of these 200 districts are from the five states of Arunachal Pradesh (12 districts), Bihar (41), Madhya Pradesh (14), Rajasthan (22) and Uttar Pradesh (62).

The data collected on utilization of antenatal care (ANC) services from the women who had their last live/ still birth since 1st January 1995/ 1996 shows that about two-thirds of the women received antenatal care during pregnancy. Twenty two percent of the women were visited by ANM at their residence for providing ANC while 32 and 26 percent received ANC from government and private health facilities respectively. Only 30 percent of the women had the first ANC visit in the first trimester of the pregnancy, 28 percent in the second trimester, 7 percent in the last trimester and the remaining 35 percent did not get ANC at all. Forty four percent of women had a minimum of three ANC visits and 21 percent had only one or two ANC visits. Nearly one in every two women were given Iron and Folic Acid (IFA) tablets during pregnancy and one in every two women took a minimum of one Tetanus Toxide (TT) injection during pregnancy. Other essential services like checking of blood pressure and weight and abdominal check-up were received by a comparatively less percent of women, 35, 38 and 49 percent respectively. The full package of ANC services as defined by a minimum of three ANC visits, receipt of IFA tablets and a minimum of one TT injection was received by about one-third of the women.

The lowest ANC coverage among all the 504 districts in India was reported in Rajauri district of Jammu & Kashmir where not a single woman who delivered after 1st January 1996 received any kind of antenatal care. The second lowest ANC coverage was reported in Tweang district (9 percent) of Arunachal Pradesh. In 15 out of 504 surveyed districts, the ANC coverage was less than 20 percent. Of the 15 districts in this group 9 districts are from Bihar, 3 are from Arunachal Pradesh and one each from Jammu & Kashmir, Madhya Pradesh, Sikkim and Uttar Pradesh.

In 196 districts (40 percent of the total districts in India) ANC coverage is above 80 percent. Of these 196 districts, in 8 districts -Allapuzha, Ernakulam, Kozhikode districts of Kerala, Kodagu from Karnataka, Periyar and Sivaganganagar from Tamil Nadu and Mahe and Pondicherry from Pondicherry each and every woman received some kind of antenatal care. Including these 8 districts there are 85 districts where ANC coverage is above 95 percent.

The district level full ANC coverage ranges from 0 percent in Rajauri district of Jammu & Kashmir to 95 percent in Tiruchirapalli of Tamil Nadu. In 19 districts of India full ANC coverage is 5 percent or less. These 19 districts are mainly from Arunachal Pradesh, Assam, Bihar, Jammu & Kashmir, Madhya Pradesh and Nagaland.

According to RHS, among all the women who delivered their last live/ still born child after 1st January 1995/ 1996, one-third delivered the child in health institutions. The proportion of women who delivered in the government and private health institutions is the same. In the case of two percent of the total deliveries, though conducted at home, the assistance of a doctor was sought. In the case of another 4 and 8 percent deliveries the assistance of a nurse/ ANM and trained Birth Attendant (TBA) respectively was sought to conduct home deliveries. Little more than 50 percent deliveries took place at home without the assistance of any mid-wifery trained person. In all 40 percent of the deliveries in India were conducted in a safe way i.e. either they took place in the health institutions or took place at home with the assistance of a doctor or nurse/ ANM.

The lowest percent of institutional deliveries in India was reported in Rajauri district of Jammu & Kashmir where none of the women who delivered after 1st January 1996 had done so in a health institution. In all, in 8 districts of India viz. Gumla, Purnia (both from Bihar), Kargil, Rajauri (both from Jammu & Kashmir), South Garo Hills from Meghalaya, Phek, Tuensang (both from Nagaland) and Hardoi (Uttar Pradesh) 5 percent or less women delivered in a health institution. Including these 8 districts, in a total of 183 districts 20 percent or less women delivered in health institutions.

In 38 districts of India institutional deliveries constituted 80 percent or more of the total deliveries. All the 14 districts of Kerala, both the districts of Goa, 14 out of 23 districts of Tamil Nadu and 3 of the 4 districts of Pondicherry belong to this group. Hyderabad (Andhra Pradesh), Bangalore (Karnataka), Greater Mumbai (Maharashtra), Howrah (West Bengal) and Daman (Daman & Diu) also belong to this group with 80 percent or more institutional deliveries. In fact, in 2 out of these 38 districts, Alapuzha from Kerala and Mahe from Pondicherry all the (100 percent) deliveries took place in health

institutions. In 8 other districts- 7 from Kerala and Chennai from Tamil Nadu- institutional deliveries constituted 99 percent of the total deliveries.

In India 63, 37 and 44 percent women experienced pregnancy, delivery and post delivery complications respectively. "Weakness or tiredness" (47 percent), "dizziness" (37 percent), "swelling on feet and hands" (23 percent), and "paleness" (19 percent) were the most common health problems that women experienced during pregnancy.

The RHS shows that in India only 28 percent of the babies got weighed either immediately after birth or within two days after birth. Of the babies who were weighed, 16 percent were lighter than 2500 grams and two-third, were heavier than 2500 grams. In the case of the remaining babies mothers could not recall the birth weight.

The information collected from eligible women on the breast-feeding practices for the last surviving child born after 1st January 1995/ 1996 shows that a little more than one-fourth of the women started breast-feeding within two hours of birth and 12 percent started after two hours but on the same day. The extent of early initiation of breast-feeding was higher among women from urban areas and those with more education.

The information collected on immunization status for the last two living children born since 1st January 1995 / 1996 shows that the BCG vaccine, three doses of DPT, polio and measles vaccine were received by 73, 66, 68 and 60 percent children respectively. Fifty four percent of the children received the complete schedule of immunization that includes BCG, three injections of DPT and three doses of polio and measles, whereas 19 percent of the children did not get even a single vaccination. About one-third of the children received at least one dose of vitamin A and 6 percent children received IFA tablets/ syrup. Immunization coverage was marginally higher among boys in comparison to girls and among other caste children compared to SC/ ST children. The coverage was substantially higher among urban children and among those with mothers having either more education or better economic status.

The highest immunization coverage in India was recorded in Nilgiri and Madurai districts of Tamil Nadu and Rajaori district of Jammu & Kashmir, where 99 percent children received complete schedule of immunization. In 12 more districts – Jorhat (Assam), Una (Himachal Pradesh), Alappuzha (Kerala), Chengalpattu, Periyar, Theni, Namakkal, Virudunagar, Ramnathpuram, Chennai (all from Tamil

Nadu) and Pondicherry and Yanam from union territory of Pondicherry, the complete immunization coverage was above 95 percent.

In 34 of the 504 districts complete immunization coverage was below 20 percent. The lowest immunization coverage in India was reported in Tuensang district of Nagaland where only 2 percent children received all the required vaccination. In Karbi Anglong, North Cachar and Cachar (all from Assam), Srinagar (Jammu & Kashmir), Churhandur (Manipur), West Khasi and South Garo (Meghalaya), Panna, Tikamgarh, Jhabua and Morena (all from Madhya Pradesh), Vokha (Nagaland), Barmer (Rajasthan) and Sonbhadra (Uttar Pradesh) less than 20 percent children received complete immunization.

In India there are 27 districts where 50 percent or more children did not get even a single injection/dose of any vaccine. Twenty-Three out of 43 districts of Bihar and 2 districts each from Rajasthan and Uttar Pradesh belong to this group. In Munger (66 percent), Purbi Champaran (68 percent), Patna (69 percent), Rohtas (71 percent), Kishnaganj (71 percent) and Sahibganj (87 percent) districts from Bihar two-thirds or more children did not receive a single injection/dose of any vaccine.

Sixty six percent of the eligible women having the youngest child born after 1st January 1995 were aware of diarrhoea management and 30 percent were aware of ORS. The awareness about danger signs of pneumonia was 44 percent.

RHS shows that knowledge of the contraceptive methods is almost universal in India, with 99 percent women aware of at least one modern method of family planning. However, the knowledge of all the modern methods of family planning (male and female sterilization, IUD, Pills and condoms) offered by the family planning programme a prerequisite for the informed choice of a method is quite low (58 percent). The states from the northeast lag behind the other parts of the country as far as knowledge of family planning methods is concerned.

In 65 (13 percent of all the districts) districts in India 20 percent or less women were aware of all the five methods of family planning. In 4 districts viz. Rajauri (Jammu & Kashmir), Mon (Nagaland), Jantia Hills (Meghalaya) and Karbi Anglong (Assam) less than one percent of the women reported awareness of all methods. This group of districts with a very low level of knowledge of family planning methods is represented mainly by Andhra Pradesh (14 out of 23 districts), Bihar (7 districts), Madhya

Pradesh (18 districts) and Jammu & Kashmir (4 districts). All the remaining districts of this group belong to the north-eastern states of India.

The survey gives the estimate of contraceptive prevalence rate in India as 49 percent, 43 percent due to modern methods and 6 percent due to traditional methods. Nine out of every 10 family planning users chose modern methods and every 5 in 6 users of modern methods selected a permanent method. In the use of modern methods the share of male methods is only 12 percent. The health worker informed 32 percent of the current users about the possible health problems/ side effects of the method they had adopted. One in every five users had some health problem/ side effect due to the use of a family planning method. In the case of 26 percent of the users the health worker made a follow-up visit after the adoption of the method. Almost all the users (94 percent) expressed satisfaction with the method they were using.

In 38 districts of India the use of modern methods of family planning is 15 percent or less. Apart from 3 districts from Bihar and 13 districts from Uttar Pradesh the remaining districts from this group are from Assam, Arunachal Pradesh, Manipur, Meghalaya and Nagaland. The lowest level of contraceptive use in India is recorded in Karbi Anglong (1.8 percent) district of Assam. In another 13 districts viz. Cachar (Assam), Chandel, Churachandpur, Ukhrul (all from Manipur), South Garo Hills, East Garo Hills, West Garo Hills, West Khasi and Ri Bhoi (all from Meghalaya), Wokha (Nagaland), SiddharthNagar, Baharaich, Gonda (all from Uttar Pradesh) 10 percent or less couples were using modern methods of family planning.

In 63 districts (13 percent of all districts) of India use of modern methods is above 60 percent. Most of the districts from this group are from Andhra Pradesh, Himachal Pradesh, Karnataka, Kerala and Maharashtra.

To understand the reasons for the low participation of males in the family planning programme, in RHS male respondents were asked about their choice of a family planning method for couples not desiring additional children. Among all the male respondents three-fourth chose a female method, one-fifth chose a male method and 6 percent chose some of the traditional methods. The most common reason given for not choosing a male method was the “fear of weakness”.

About 15 percent of the women from rural areas reported that the government health worker visited their residence at least once during the three month period prior to the survey. In East Siang, Upper Subansiri and Upper Siang (all from Arunachal Pradesh), Anantnag, Doda, Jammu, Kathua and Poonch (all are

from Jammu & Kashmir) and Phek, Zunhebota (both from Nagaland) not a single eligible woman in the rural areas was visited by a health worker. In 150 districts of India five percent or less women reported that they were visited by a health worker. This group of districts is comprised of districts mainly from North-Eastern states, including Assam, Bihar as well as Haryana and Jammu & Kashmir. In RHS 26 percent of the eligible women who needed medical help visited a government health facility during the three month period prior to survey. A large percent (87 percent) of the women who visited government health facility found it good enough to recommend to others.

According to RHS 37, 36 and 60 percent of men in India are aware of RTI, STI and HIV (AIDS) respectively. The corresponding levels of awareness among women were 45, 29 and 42 percent respectively.

The highest level of awareness about RTI and STI among men was reported in West Bengal (60 percent) and Kerala (75 percent) respectively. Among women, the highest level of awareness of RTI and STI was reported in Punjab (84 percent) and Pondicherry (64 percent). The highest level of awareness of HIV (AIDS) among men was reported in Kerala (97 percent). In Goa, Manipur, Mizoram, Punjab, Tamil Nadu, Chandigarh, Delhi and Lakshdweep 80 percent or more men were aware of HIV (AIDS).

Among women the awareness about HIV (AIDS) ranges from the highest of 97 percent in Pondicherry to the lowest of 15 percent in Bihar.

In 50 percent of the districts awareness about HIV (AIDS) among men is less than 60 percent. In 9 (2 percent of total districts in India) districts the level of awareness is below 20 percent. Among all the districts the lowest level of awareness was reported in Udhampur (3 percent) and Anantnag (5 percent) both from Jammu & Kashmir. In Tirap (Arunachal Pradesh), Jhabua (Madhya Pradesh), Malkangiri (Orissa) and four other districts from Bihar 20 percent or less men are aware of HIV (AIDS).

In 50 percent of the districts the female level of awareness was less than 36 percent. In 27 percent of the total districts in India less than one-fifth of the women were aware of HIV (AIDS). The lowest level of awareness is reported in Udhampur (3 percent) district from Jammu & Kashmir and Krishnaganj (4 percent) district of Bihar. Similar to the group of districts with less than 20 percent male awareness, in the group of districts with less than 20 percent female awareness, a large number are from 6 major states, i.e. Bihar (36 districts), Madhya Pradesh (17), Orissa (8), Rajasthan (18), Uttar Pradesh (34) and West Bengal (9).

About 12 percent of men and 30 percent of women reported having the symptoms of RTI/ STIs. Fifty five percent men and 38 percent of women with at least one symptom of RTI/ STI sought treatment for their problems.

In every state/ union territory in comparison to men, the percent of women who reported at least one symptom of RTI/ STI was much higher. The range of the prevalence of symptom(s) of RTI/ STI among women was from the lowest of 3 percent in Jammu & Kashmir to the highest of 45 percent in Rajasthan. With the exception of Chandigarh and Jammu & Kashmir in every state/ union territory at least one in ten women reported prevalence of symptom(s) of RTI/ STI. In Bihar, Gujarat, Haryana, Mizoram, Punjab, Rajasthan, Tamil Nadu, Tripura, Uttar Pradesh, West Bengal and Pondicherry the prevalence was above 30 percent. In all these states/ union territories where a higher level of prevalence of RTI/ STI symptoms among women was recorded, less than 50 percent of the women sought treatment for their problem and in every state/ union territory, as compared to men, the percent of women who sought treatment was on a lower side.

CHAPTER 1

INTRODUCTION

1.1 Background and Objectives of Survey

The Reproductive and Child Health (RCH) interventions that are being implemented by the Government of India (GoI) are expected to provide quality services and achieve multiple objectives. There has been a positive paradigm shift from the method-mix target based activity to client centred, demand driven quality services. The Government of India is making efforts to re-orient the programme and change the attitude of the service providers at the grass-root level, as well as to strengthen the services at the outreach level.

The new approach requires decentralization in planning, monitoring and evaluation of services. In view of these objectives, district being the basic nucleus of administration, it was necessary to generate district level data on the utilization of services provided by government health facilities, other than service statistics. It was also necessary to assess people's perceptions about the quality of services. Therefore, it was decided to undertake a Rapid Household Survey (RHS) in all the districts of the country in two phases.

The main objective of the survey was to estimate the service coverage of the following:

1. Ante Natal Care (ANC) and Immunization services
2. Extent of safe deliveries
3. Contraceptive prevalence
4. Unmet need for family planning
5. Awareness about RTI/STI and HIV/AIDS
6. Utilization of government health services and users' satisfaction

For the purpose of conducting RCH-RHS, International Institute for Population Sciences (IIPS), Mumbai was designated as the Nodal Agency by the Ministry of Health and Family Welfare (MoHFW). As the nodal agency IIPS provided all the technical guidance at various stages of the project.

For the purpose of conducting Rapid Household Survey, all the states and the union territories were grouped into 15 regions. A total of twelve research organizations including Population Research Centres (PRCs) were selected for conducting the survey. The names of the agencies and the states/ union territories entrusted to them for carrying out RHS are listed below.

The entire work of conducting the survey, data entry, tabulation and preparation of district level and state level reports were done by these agencies.

Region No.	Name of States/Union Territories in the Region	Name of the Agency
I	Andhra Pradesh and A & N Islands	PRC, Vishakapatnam
II	Tamil Nadu, Lakshdweep and Pondicherry	PRC, Gandhigram
III	Karnataka, Kerala and Goa	ISEC, PRC, Bangalore
IV	Maharashtra, Dadra & Nagar Haveli and Daman & Diu	CORT, Baroda
V	Gujarat and South West Madhya Pradesh	CORT, Baroda
VI	Rest of Madhya Pradesh	SERC, New Delhi
VII	Rajasthan	IHMR, Jaipur
VIII	Punjab and Haryana	IHMR, Jaipur
IX	Himachal Pradesh, Jammu & Kashmir, Chandigarh and Delhi	SARH, New Delhi
X	South East Uttar Pradesh	MODE, New Delhi
XI	North West Part of Uttar Pradesh	PRC, IEG, New Delhi
XII	Bihar	PRC, Patna
XIII	Orissa and West Bengal	MODE, New Delhi
XIV	Assam, Meghalaya and Nagaland	TALEEM, Ahmedabad
XV	Arunachal Pradesh, Manipur, Mizoram, Sikkim and Tripura	ORG, MARG, New Delhi

1.2 Survey Design and Sample Size

The survey as well as the preparation of reports was carried out in two separate phases. Approximately 50 percent of the districts from each state and union territory were covered in each phase. The survey for phase I was carried out from May to November, 1998 and for phase II it was carried out from to October, 1999. In the first phase of the RHS, 50 percent of the total districts in India as existing in 1995 were selected for the survey. Systematic random sampling was adopted for the selection of the districts for phase I. For selection purposes,

districts within the state were arranged alphabetically, and starting at random from either first or second district, alternative districts were selected. The second phase covered all the remaining districts of the country.

In each of the selected districts, 50 Primary Sampling Units (PSUs), i.e. either villages or urban wards were selected adopting probability proportional to size (PPS) sampling. The village/ ward level population as per the 1991 census was used for this purpose. The sample size for RHS-RCH was fixed at 1000 households with 20 households from each PSU. In order to take care of non-response due to various reasons, 10 percent over sampling was done. In other words, 22 households from each PSU were selected. The selection of the households in a PSU was done after listing of all the households in the PSUs. For the selection of households circular systematic random sampling was adopted. In the first phase the work of drawing sample of PSUs was entrusted to the Institute of Research in Medical Statistics (IRMS), New Delhi and in the second phase IIPS did the sampling of PSUs in all the districts.

1.3 House Listing

House listing involved the preparation of a location map of each PSU and layout sketch of the structures and recording details of the households in the village/census enumeration block. An independent team comprising of one lister and one mapper carried out the houselisting exercise.

Complete listing was carried out in villages with population up to 1500. In the case of larger villages, with more than 1500 population, the village was divided into two or more segments of equal size, one segment was selected at random for listing and in the selected segment complete listing was carried out. In the urban wards with population exceeding 1500 one census enumeration block was selected at random.

1.4 Questionnaires

Two types of questionnaires were used in the survey: the household questionnaire and the woman's questionnaire. IIPS in consultation with MoHFW and World Bank decided the

overall contents of the questionnaires. These questionnaires were discussed and finalized in training-cum-workshop organized at IIPS during the third week of May 1998. Representatives of Regional Agencies, MoHFW, IIPS and World Bank participated in this workshop. IIPS carried out pre-testing of these questionnaires in Maharashtra. Questionnaires were also pre-tested in different languages by regional agencies. Though the overall contents of questionnaire for both the phases were the same, there were some changes in the second phase. The changes were mainly regarding ordering and phrasing of the questions.

The household questionnaire was used to list all the eligible women in the selected households (*de jure*) and to collect information on marriages and births among the usual residents. In the first phase the reference period for the recording of marriages and births was from 1st January 1995 to survey date and in the second phase it was from 1st January 1996 to survey date. For all the marriages reported in the survey, age at marriage of boy/ girl of that household who got married was recorded. Besides, details of births like, date of birth, sex of the child, order of the birth, survival status and age at death in case if child was dead were also collected. In addition, the questionnaire contained questions on socio-economic characteristics of the households, and the incidence/ prevalence of malaria, tuberculosis and leprosy. In the second phase of the survey more details of household economic conditions like possession of some of the consumer durables were collected. The information on an Auxiliary Nurse Midwife's (ANM's) visit to counsel unmarried adolescent girls on reproductive health issues and distribution of Iron and Folic Acid (IFA) tablets to the girls having anemia was also collected in the household questionnaire.

The household questionnaire had a separate section for males age 20-54 years (irrespective of their marital status), which was administered to one male from each sampled household. The information covered in this section includes knowledge of RTI, STI and HIV/AIDS, reported symptom(s) of RTI/STI and attitude towards male participation in family planning.

The woman's questionnaire was administered to all the eligible women in the household (listed in the household questionnaire). In RHS an eligible woman has been defined as a currently married woman aged 15-44 years who is a usual resident of the sampled household and whose marriage has been consummated.

The woman's questionnaire had the following sections:

- Woman's characteristics and summary of fertility history
- Antenatal, natal and post natal care
- Immunization and child care
- Contraception
- Utilization of government health services and client satisfaction
- Awareness of RTI, STI and HIV/AIDS

The questionnaires were both in English and in regional languages.

IIPS prepared the survey questionnaires and a manual for house listing and one for field investigators. The software package for data entry was developed at IIPS. IIPS prepared tabulation plans for the district, state and national reports. The software package for district level tabulation was developed by IRMS, New Delhi and for the state level it was developed at IIPS. The model district-level and state level reports were prepared at IIPS and were given to the regional agencies. This report presents the status of RCH services and indicators in India, combining data collected in both the phases.

1.5 Data Processing and Tabulation

All the completed questionnaires were brought to the headquarters of the respective agencies for data processing. The data was processed using Micro Computers. The process consisted of office editing of questionnaires, data entry, data cleaning and tabulation. Data cleaning included validation, range and consistency checks.

The state level indicators referring to the entire population like, percentage of women knowing different family planning methods or the percentage of children who had received different vaccines were obtained as weighted averages of the corresponding district level indicators. The weight is the proportion of the district population in the total population of the state.

$$CPR = \sum W_i CPR^{(i)}$$

Each district level indicator i is assigned a weight w_i where

$$w_i = \frac{P_i^{(1991)}}{\sum_i P_i^{(1991)}}$$

Where,

P_i^{1991} = The population of i^{th} district according to the 1991 census

$\sum_i P_i^{1991}$ = The sum of population of the all districts within the state.

The state level indicators referring to the subgroups of the population like illiterate women using contraception or the proportion of women seeking treatment for pregnancy complications were obtained as the weighted averages of the corresponding district level indicators. The weight in such cases is the proportion of the district population belonging to the sub-group in the state population belonging to that sub-group.

For example the proportion of Illiterate women using family planning

$$CPR(\text{illiterate}) = \frac{\sum_i w_i CPR_i(\text{illiterate})}{\sum_i w_i}$$

$$\text{Where, } w_i = \frac{\text{Proportion(illiterate)} * P_i^{(1991)}(\text{district population})}{\sum_i \text{Proportion(illiterate)} * P_i^{(1991)}(\text{district population})}$$

i.e. the proportion of population illiterate in i^{th} district to the sum of illiterate population of all districts within the state. The estimates at the national level were obtained using a similar procedure.

The national level indicators referring to the entire population as percentage of women using contraception were also estimated as weighted averages of the corresponding district level indicators.

For example,

$$I = \sum_{i,j} I(i,j) * W(i,j)$$

I indicator at the national level

$I(i,j)$ is the same indicator for i^{th} district in j^{th} state.

$W(i,j)$ is weight for i^{th} district in j^{th} state.

Where

$$W(i,j) = \frac{P(i,j)}{\sum_{i,j} P(i,j)}$$

Where $P(i,j)$ is the population of i^{th} districts in j^{th} state according to 1991 census.

The national level indicators referring to any subgroup of population such as contraceptive prevalence in rural areas are estimated as

$$\text{CPR (rural)} = \sum_{i,j} W(i,j) \text{CPR}(i,j)_{(\text{rural})}$$

Where $\text{CPR}(i,j)_{(\text{rural})}$ is the contraceptive prevalence rate of women in rural areas of i^{th} district of j^{th} state

$W(i,j)$ is the weight for i^{th} district of j^{th} state

Where,

$$W(i,j) = \frac{P^{i,j}(\text{rural})}{\sum_{i,j} P^{i,j}(\text{rural})}$$

Where $P^{(i,j)}(\text{rural})$ is the population of rural areas of i^{th} district of j^{th} state, as per the 1991 census.

1.6 Presentation of Survey Results

Separate reports for each individual district and state for phase I and phase II have already been prepared and published. The present report summarizes all the results from both the phases together. Planning for the survey started in 1998 and the two phases of the survey were carried out in 1998 and 1999 respectively. After the completion of both phases of the survey in the year 2000 three new states viz, Chattishgarh, Jharkhand and Uttarnachal were carved out from Madhya Pradesh, Bihar and Uttar Pradesh respectively. As these states came into existence only after completion of the survey as well as the entire tabulation and completion of reports for the first phase, here no estimates are provided here for these three new states. All the estimates for Bihar, Madhya Pradesh and Uttar Pradesh refer to the old states including Jharkhand, Chattishgarh and Uttaranchal respectively. Only the appendix table on district level indicators shows data for districts of the old states of Bihar, Madhya Pradesh and Uttar Pradesh as well as new states of Jharkhand, Chattishgarh and Uttaranchal separately.

1.7 Sample Implementation

The numbers of households, eligible women and men interviewed are presented in table 1.1. The table gives the unweighted number of women from whom data on antenatal care and breast feeding practices was collected. The table also provides the number of children about whom data on vaccination was collected.

1.8 Demographic Profile of India

Before presenting the survey results the basic demographic features of India and the states are presented in table 1.2. According to 2001 census, the total population of India is 1027 million and the growth rate during 1991-2001 was recorded as 1.94 percent. According to the sample Registration System the latest available estimates for the crude birth rate and death rate for the year 1999 are 26.1 and 8.7. Thus the growth rate of India's population has declined from 1.93 percent during inter-censal period to 1.74 percent in 1999. During 1991-2001 different states and union territories in India grew at varying rates. Among all the states and union territories the lowest growth rate was recorded in Kerala (0.90 percent). In Andhra Pradesh,

Goa, Orissa, Tamil Nadu and Tripura also low growth rates, below 1.50 percent were recorded. The states and union territories differ significantly as population size is concerned. Uttar Pradesh is the most populous state with a population exceeding 100 million. Even after separation of Uttaranchal from Uttar Pradesh , the state remains the largest state as far as population size is concerned.

In India's population there is a significant deficiency of females as seen from the sex ratio of 933 females per 1000 males. In Arunachal Pradesh, Haryana, Jammu & Kashmir, Punjab, Sikkim, and in all the union territories except Lakshdweep and Pondicherry females are less in number than males by 10 percent or more.

According to the 2001 census, two-thirds of the population above age 7 is literate. The females in India lag behind males in literacy rates by 20 percentage points. Kerala is the most literate state with 88 percent female literacy. Among all the states, in Goa, Himachal Pradesh, Maharashtra and Mizoram and among all the union territories except Dadra & Nagar Haveli two-thirds or more females are literate. The lowest literacy rate is recorded in Bihar where not even one-third of the women are literate.

Table 1.1 Basic Demographic Indicators by State/ Union territory, India.							
State/ Union territory	Population 2001	Average Annual Exponential growth rate 1991-2001	Sex Ratio 2001	Literacy Rate age 7+			
				Persons	Male	Female	
State							
Andhra Pradesh	75,727,541	1.30	978	61.11	70.85	51.17	
Arunachal Pradesh	1,091,117	2.33	901	54.74	64.07	44.24	
Assam	26,638,407	1.73	932	64.28	71.93	56.03	
Bihar*	109,788,224	2.40	926	39.80	50.40	28.20	
Goa	1,343,998	1.39	960	82.32	88.88	75.71	
Gujarat	50,596,992	2.03	921	69.97	80.50	58.60	
Haryana	21,082,989	2.47	861	72.28	79.25	56.31	
Himachal Pradesh	6,007,248	1.62	970	77.13	86.02	68.08	
Jammu & Kashmir	10,069,917	2.55	900	54.46	65.75	41.82	
Karnataka	52,773,958	1.59	964	67.04	76.29	57.45	
Kerala	31,838,619	0.90	1,058	90.92	94.20	87.86	
Madhya Pradesh**	81,181,074	2.04	937	54.50	65.00	43.80	
Maharashtra	96,572,247	2.04	922	77.27	86.27	67.51	
Manipur	2,338,634	2.63	978	68.87	77.87	59.70	
Meghalaya	2,306,069	2.62	975	63.31	66.14	60.41	
Mizoram	891,058	2.56	938	88.49	90.69	86.13	
Nagaland	1,998,636	4.97	909	67.11	71.77	61.92	
Orissa	36,706,920	1.48	972	63.61	75.95	50.97	
Punjab	24,289,296	1.80	874	69.95	75.63	63.55	
Rajasthan	56,473,122	2.49	922	61.03	76.46	44.34	
Sikkim	540,493	2.85	875	69.68	76.73	61.46	
Tamil Nadu	62,110,839	1.06	986	73.47	82.33	64.55	
Tripura	3,191,168	1.46	950	73.66	81.47	65.41	
Uttar Pradesh***	174,532,421	2.27	902	47.50	58.10	35.80	
West Bengal	80,221,171	1.64	934	69.22	77.58	60.62	
Union territory							
A & N Islands	356,265	2.39	846	81.18	86.07	75.29	
Chandigarh	900,914	3.39	773	81.76	85.65	76.65	
Dadra & Nagar Haveli	220,451	4.65	811	60.03	73.32	42.99	
Daman & Diu	158,059	4.52	709	81.09	88.40	70.37	
Delhi	13,782,976	3.81	821	81.82	83.37	75.00	
Lakshdweep	60,595	1.59	947	87.52	93.15	81.56	
Pondicherry	973,829	1.87	1001	81.49	88.89	74.13	
India	1,027,015,247	1.93	933	65.38	75.85	54.46	

* Including Jharkhand, ** including Chattisgarh *** including Uttranchal

Source: Census of India, 2001, Provisional Population Totals, Series 1, India.

Table 1.2 Number of districts, households, eligible women and men interviewed in the Survey, by State/Union territory, India, RCH Phase I & II.								
State/ Union territory	Number of Surveyed Districts	Number of				Number of Eligible Women interviewed		Number of Children\$
		Household Surveyed	Eligible women* interviewed	Eligible women** from rural area interviewed	Men*** Interviewed	For ANC details	For Breast- feeding practice	
State								
Andhra Pradesh	23	24,034	22,387	16,361	10,128	6,577	6,410	4,630
Arunachal Pradesh	13	13,576	12,666	9,333	7,359	6,274	6,184	4,169
Assam#	22	23,817	22,260	19,623	8,318	8,890	8,605	5,954
Bihar	43	46,138	46,225	40,870	19,084	22,780	22,187	16,990
Goa	2	2,137	1,287	735	857	466	464	353
Gujarat	19	20,748	17,646	12,418	9,386	6,546	6,434	4,974
Haryana	17	17,537	15,966	12,239	8,978	5,688	5,608	4,591
Himachal Pradesh	12	12,355	9,626	8,723	5,260	3,094	3,043	2,133
Jammu & Kashmir	14	13,409	12,048	11,870	8,829	3,925	3,913	3,457
Karnataka	20	21,253	17,309	12,114	10,086	5,959	5,788	4,723
Kerala	14	14,396	10,404	7,776	5,719	3,449	3,460	2,665
Madhya Pradesh	45	46,355	41,250	32,878	23,516	18,258	17,722	12,313
Maharashtra	30	32,176	28,217	17,746	16,083	10,145	10,019	7,646
Manipur	8	8,405	6,326	4,756	4,759	3,545	3,548	2,584
Meghalaya	7	7,240	6,963	5,939	3,857	4,613	4,553	3,917
Mizoram	2	3,315	4,850	1,733	1,546	1,391	1,375	985
Nagaland	7	7,239	6,625	5,174	5,272	3,480	3,426	3,087
Orissa	30	32,214	28,757	24,751	21,891	11,396	10,952	8,253
Punjab	17	18,014	15,933	11,849	8,269	5,163	5,217	4,073
Rajasthan	30	29,519	27,462	21,441	13,365	12,530	12,503	10,249
Sikkim	4	4,181	3,903	3,438	2,786	1,667	1,649	1,128
Tamil Nadu	23	23,850	18,040	11,289	6,737	5,712	5,656	4,406
Tripura#	3	3,084	2,498	2,274	1,607	794	764	470
Uttar Pradesh	68	72,262	69,337	56,603	37,731	36,031	34,917	25,507
West Bengal	19	19,923	17,526	13,316	11,307	6,388	6,233	4,764
Union territory								
A & N Islands	2	2,175	1,895	1,644	705	729	720	529
Chandigarh	1	998	756	18	355	167	168	112
Dadra & Nagar Haveli	1	974	840	774	458	405	395	294
Daman & Diu	2	2,177	1,817	1,008	694	685	680	541
Delhi	1	1,000	994	275	718	294	290	164
Lakshdweep	1	1,095	1,107	442	575	488	474	343
Pondicherry	4	4,181	3,534	592	1,010	1,038	1,030	826
India	504	529,817	474,463	369,912	257,245	198,566	194,022	146,828
*	Currently married women age 15-44, whose marriage is consummated and are usual residents of the surveyed household							
**	Currently married women age 15-44 and are usual residents of the household from rural area							
***	Men age 20-54 who are usual residents of the surveyed household							
\$	Last two living children (born during r 1.1.95 to 30.6.1997/ 1.1.1996 to 30.6.1998) about whom vaccination details were collected.							
#	Due to certain problems district Kokrajhar (Assam) and district Dhalai (Tripura) were not surveyed.							

CHAPTER 2

BACKGROUND CHARACTERISTICS OF HOUSEHOLDS AND WOMEN

The socioeconomic characteristics of both the households and the women play an important role in determining the utilization of Reproductive and Child Health Services (RCH). Hence in the Rapid Household Survey (RHS) data was collected on background characteristics of the households such as, religion and caste of the head of household, type of house, source of drinking water etc. From all the eligible women data on demographic characteristics such as current age, age at consummation of first marriage and number of pregnancies, live births and surviving children was collected. Data on their and their husbands' literacy and completed years of schooling was also collected. This chapter presents background characteristics of the households and the women interviewed in states/union territories of India. The household questionnaire was used to collect information on marriages and births among the usual residents of the households. In the first phase the reference period for the recording of marriages and births was from 1st January 1995 to survey date and in the second phase it was from 1st January 1996 to survey date. For all the marriages reported in the survey, age at marriage of only boy/ girl, who was an usual resident of that household at the time of marriage was recorded. Besides, details of the birth like, date of birth, sex of the child, order of the birth, survival status and age at death in case if child was dead were also collected. This chapter also presents the mean age at marriage of girls and boys and the birth order distribution.

2.1 Background Characteristics of Households

Table 2.1 provides the percent distribution of the households by type of residence, religion and caste of the head of household and type of house by states/ union territories in India. Among the sample households, in India 21 percent of the households are from urban areas. Of the total households interviewed, a majority (82 percent) are Hindu and 12 and 3 percent are Muslim and Christian households respectively. Twenty seven percent of the households belong to either scheduled caste or scheduled tribe, 34 percent belong to other backward classes and 36 percent to all other castes. Thirty nine percent of the households live in *Kachcha* houses, and about equal percent in semi-*pucca* and *pucca* type of houses. In RHS data on income could not be collected. In the absence of data on income the type of house serves as a good proxy for the economic status of the households.

Table 2.1 BACKGROUND CHARACTERISTICS OF HOUSEHOLDS SURVEYED

Percent distribution of surveyed households by selected background characteristics and by State/Union territory, India, RCH Phase I & II.

State/Union territory	Background Characteristics												
	Residence		Religion				Caste				Type of House		
	Rural	Urban	Hindu	Muslim	Christian	Other	SC	ST	OBC	Other	Kachcha	Semi-pucca	Pucca
State													
Andhra Pradesh	73.2	26.8	86.4	8.0	4.8	0.8	22.1	5.8	43.5	27.0	31.6	34.5	33.9
Arunachal Pradesh	73.4	26.6	33.7	1.2	19.5	45.6	8.0	74.4	5.4	11.8	71.8	17.5	10.7
Assam	88.8	11.2	69.6	27.4	2.5	0.5	9.8	14.3	20.1	55.1	66.1	20.2	13.7
Bihar	87.9	12.1	84.7	13.8	1.2	0.3	17.7	7.6	54.0	20.7	62.3	20.9	16.8
Goa	58.6	41.4	67.0	6.0	26.8	0.2	5.2	1.8	8.3	71.9	3.4	69.8	26.8
Gujarat	66.0	34.0	90.1	7.9	0.8	1.2	15.2	13.5	28.9	41.9	21.6	30.2	48.2
Haryana	76.0	24.0	90.2	4.3	0.3	5.2	23.1	0.5	21.3	55.1	6.6	51.0	42.4
Himachal Pradesh	91.4	8.6	95.2	1.3	1.3	2.2	17.9	5.0	8.8	68.2	26.5	37.6	35.9
Jammu & Kashmir	100.0	0.0	30.8	67.1	0.5	1.6	10.9	9.5	22.7	56.9	33.6	33.3	33.1
Karnataka	69.3	30.7	85.4	11.0	2.4	1.2	17.0	8.3	29.1	40.6	18.8	60.4	20.8
Kerala	74.6	25.4	59.2	21.4	18.6	0.8	10.9	1.7	50.8	28.9	9.7	34.2	56.1
Madhya Pradesh	76.5	23.5	93.4	4.6	0.6	1.4	17.0	21.0	39.2	23.0	66.7	15.9	17.4
Maharashtra	61.8	38.2	78.5	11.0	1.6	8.9	14.9	11.3	25.2	47.7	28.7	41.6	29.7
Manipur	74.4	25.6	52.7	5.8	31.8	9.7	4.3	32.2	10.8	52.7	61.7	31.6	6.7
Meghalaya	83.2	16.8	10.0	3.3	75.8	10.9	2.1	89.2	1.6	4.3	44.1	42.1	13.8
Mizoram	53.3	46.7	1.2	0.5	91.9	6.4	0.9	97.9	0.8	0.4	29.7	59.2	11.1
Nagaland	78.4	21.6	3.3	0.9	95.0	0.8	3.8	95.1	0.3	0.5	45.8	40.9	13.3
Orissa	86.2	13.8	95.6	2.0	2.2	0.2	19.1	21.6	32.9	26.1	70.9	14.5	14.6
Punjab	72.5	27.5	36.1	1.1	1.4	61.4	30.9	0.6	13.5	54.9	5.6	52.4	42.0
Rajasthan	77.6	22.4	90.0	6.8	0.3	2.9	18.3	12.0	23.4	46.3	31.8	18.1	50.1
Sikkim	86.6	13.4	60.7	0.5	4.7	34.1	6.6	24.1	33.9	35.1	37.9	39.7	22.4
Tamil Nadu	66.0	34.0	89.4	5.1	5.3	0.2	23.3	0.4	72.0	4.3	25.4	46.8	27.8
Tripura	91.6	8.4	91.4	7.4	0.2	1.0	22.6	4.5	24.2	48.4	83.1	9.0	7.9
Uttar Pradesh	81.1	18.9	82.3	16.9	0.2	0.6	22.9	2.0	39.9	35.1	38.9	33.8	27.3
West Bengal	73.0	27.0	74.6	24.2	0.8	0.4	25.9	5.2	5.9	59.4	60.9	18.6	20.5
Union territory													
A & N Islands	74.3	25.7	66.6	8.3	24.2	0.9	12.2	17.0	6.4	63.1	41.3	34.3	24.4
Chandigarh	2.0	98.0	71.7	2.5	1.1	24.7	10.0	0.4	4.5	85.1	2.7	11.6	85.7
Dadra & Nagar Haveli	92.0	8.0	94.6	2.8	2.1	0.5	4.6	62.6	11.2	20.1	44.1	24.9	31.0
Daman & Diu	54.5	45.5	89.0	8.4	2.0	0.6	10.8	12.8	49.4	26.8	10.9	28.9	60.2
Delhi	25.5	74.5	85.4	6.9	1.4	6.3	13.7	2.2	6.1	77.9	2.1	13.2	84.7
Lakshdweep	44.1	55.9	1.3	98.4	0.3	0.0	0.1	98.4	0.8	0.7	1.4	10.1	88.5
Pondicherry	42.8	57.2	88.1	5.8	6.1	0.0	20.9	0.1	76.3	2.7	32.1	24.9	43.0
India	78.9	21.1	82.1	11.8	2.8	3.3	19.0	8.0	33.6	35.8	39.0	31.8	29.2

SC: Scheduled Caste, ST: Scheduled Tribe, OBC: Other Backward Class

The households/ population living in three types of houses i.e. *kachcha*, *semi-pucca* and *pucca* can be reasonably assumed to belong to the low, medium and high economic status. There is a wide variation in states/ union territories as far as urbanization levels are concerned, as seen by percent of households from urban areas. The sample of households from Jammu & Kashmir is drawn only from rural areas. In most of the states/ union territories a majority of the households are Hindu. In Jammu & Kashmir and Lakshdweep Muslims are in a majority, in Meghalaya, Mizoram and Nagaland most of them are Christian households and in Punjab households from other religion (Sikh) are predominant. In Andhra Pradesh, Haryana, Punjab, Tamil Nadu, Tripura, Uttar Pradesh, West Bengal and Pondicherry the proportion of scheduled caste population ranges from 20 to 30 percent. In Arunachal Pradesh (74 percent), Manipur (32 percent), Meghalaya (89 percent), Mizoram (98 percent), Dadra & Nagar Haveli (63 percent) and in Lakshdweep one third or more households belong to scheduled tribe. In Bihar, Kerala, Tamil Nadu and Daman & Diu and Pondicherry 50 percent or more households belong to other backward classes. Due to very high proportion of either SC/ST or OBC , in Meghalaya, Mizoram, Nagaland, Tamil Nadu, Lakshdweep and Pondicherry 5 percent or less households belong to all other castes.

In Arunachal Pradesh, Assam, Bihar, Madhya Pradesh, Manipur, Orissa, Tripura and West Bengal 60 percent or more households live in *Kachcha* houses or, in other words, have lower economic status.

2.2 Background Characteristics of Eligible Women

Table 2.2 presents selected background characteristics of the interviewed women. About 52 percent of the women in India are in the age group 30-44. The prevalence of low age at marriage in the India is clearly seen from the table as 60 percent of the eligible women in India had started their married life before age 18. In Andhra Pradesh, Bihar, Madhya Pradesh, and Dadra & Nagar Haveli 70 percent or more women married below age 18. On the other hand, in Goa, Jammu & Kashmir, Meghalaya, Mizoram and Nagaland 20 percent or less women married below age 18. However, it may be noted that these percentages do not refer to the current status of age at marriage but refer to marriage ages of all the currently married women age 15-44

years.

Fifty six percent of the eligible women in India are illiterate, 28 percent are literate but have had less than 10 years of schooling and 16 percent have completed 10 or more years of schooling. The illiteracy levels range from the lowest of 9 percent in Kerala to the highest of 75 percent in Rajasthan. In many states like Arunachal Pradesh, Bihar, Jammu & Kashmir, Madhya Pradesh, Rajasthan and Uttar Pradesh two-thirds or more women are illiterate.

State/ Union territory	Age		Age at marriage		Women's Education			Husband's Education		
	Below 30	30+	Below 18	18+	Illiterate	0-9@ years	10 & above	Illiterate	0-9 @ years	10 & above
State										
Andhra Pradesh	51.9	48.1	73.9	26.1	62.8	22.8	14.4	45.6	24.1	30.3
Arunachal Pradesh	43.7	56.3	40.0	60.0	65.7	23.7	10.6	45.4	28.7	25.9
Assam	43.6	56.4	40.3	59.7	43.5	36.1	20.4	30.2	35.4	34.4
Bihar	47.3	52.7	75.8	24.2	72.9	18.1	9.0	39.7	26.8	33.5
Goa	37.1	62.9	15.4	84.6	22.8	41.4	35.8	11.9	39.4	48.7
Gujarat	46.7	53.3	48.3	51.7	47.5	32.9	19.6	21.2	40.9	37.9
Haryana	47.9	52.1	53.9	46.1	55.6	25.7	18.7	24.3	31.1	44.6
Himachal Pradesh	44.6	55.4	28.5	71.5	31.5	41.0	27.5	11.1	34.4	54.5
Jammu & Kashmir	29.7	70.3	15.4	84.6	66.9	21.9	11.2	44.0	24.8	31.2
Karnataka	50.2	49.8	62.9	37.1	54.0	26.4	19.6	35.5	28.9	35.6
Kerala	41.5	58.5	24.6	75.4	8.5	40.2	51.3	6.3	45.3	48.6
Madhya Pradesh	48.2	51.8	71.8	28.2	66.4	23.7	9.9	33.9	37.5	28.6
Maharashtra	48.4	51.6	58.6	41.4	40.2	39.0	20.8	19.0	40.4	40.6
Manipur	40.2	59.8	25.7	74.3	41.7	30.7	27.9	16.1	38.4	45.5
Meghalaya	46.5	53.5	19.7	80.3	35.3	52.9	11.8	30.1	51.5	18.4
Mizoram	42.0	58.0	15.1	84.9	9.7	75.2	15.1	6.8	61.9	31.3
Nagaland	34.6	65.4	16.7	83.3	34.1	34.8	31.1	22.2	27.4	50.4
Orissa	50.0	50.0	62.7	37.3	59.5	32.3	8.2	33.3	43.8	22.9
Punjab	41.7	58.3	23.9	76.1	41.5	32.6	25.9	26.0	31.6	42.4
Rajasthan	48.9	51.1	65.2	34.8	74.6	17.3	8.1	35.0	32.5	32.5
Sikkim	43.6	56.4	30.5	69.5	50.5	34.2	15.3	27.7	42.4	29.9
Tamil Nadu	46.8	53.2	35.4	64.6	41.6	38.1	20.3	24.2	40.3	35.5
Tripura	48.1	51.9	56.9	43.1	29.0	58.5	12.5	23.8	50.5	25.7
Uttar Pradesh	51.0	49.0	67.6	32.4	70.2	19.2	10.6	32.2	29.6	38.2
West Bengal	53.8	46.2	69.3	30.7	48.2	40.0	11.8	33.7	41.0	25.3
Union territory										
A & N Islands	51.0	49.0	30.0	70.0	24.8	42.0	33.2	14.7	42.8	42.5
Chandigarh	36.7	63.3	21.5	78.5	24.2	13.5	62.3	9.7	12.4	77.9
Dadra & Nagar Haveli	62.1	37.9	72.8	27.2	62.8	21.7	15.5	39.7	30.4	29.9
Daman & Diu	48.1	51.9	39.0	61.0	34.1	43.5	22.4	16.0	42.5	41.5
Delhi	39.5	60.5	30.9	69.1	21.3	22.8	55.9	8.5	16.7	74.8
Lakshdweep	48.4	51.6	34.3	65.7	13.7	59.7	26.6	9.5	43.0	47.5
Pondicherry	46.1	53.9	24.1	75.9	23.5	46.9	29.6	11.7	39.8	48.5
India	48.5	51.5	59.8	40.2	56.1	28.0	15.9	30.6	34.0	35.4

@ Literate women/husband without schooling are included.

The proportion of women having 10 or more years of education is above 50 percent in Kerala

(51 percent), Chandigarh (62 percent) and Delhi (56 percent). The percent of husbands of eligible women in three categories of education, illiterate, 0 to 9 years of schooling and 10 and more years of schooling is 31, 34 and 35 respectively. The state/union territory level pattern of husbands' education is more or less similar to that of women's education, the only difference being in the level of education. Except Kerala in every state/ union territory the level of literacy and education of husbands is much higher than that of women.

2.3 Demographic Indicators

Tables 2.3 provide information on selected demographic indicators. The reporting of marriages prior to three years of the survey gives the mean age at marriage among boys and girls in India as 23.8 and 19.2 respectively. Thirty one percent boys and 37 percent girls got married before attaining the minimum legal age at marriage of 21 and 18 respectively.

The variation in the proportion of girls marrying below age 18 in major states of India is shown in figure 2.1. The mean age at marriage in India varies from the lowest of 21.3 and 17.5 for boys and girls respectively in Rajasthan to the highest of 29.2 and 24.7 for boys and girls respectively in Goa. Along with Goa, in a few more states like Assam, Karala, Tripura and Pondicherry the mean age at marriage for boys is 27 or higher. In these five states/ union territories as well as in Himachal Pradesh, Tamil Nadu, Andaman & Nicobar Islands, Lakshdweep among the marriages of boys recorded in the survey, 10 percent or less were of boys younger than 21 years.

A comparatively higher female age at marriage of 22 years or higher was reported in Goa, Kerala, Manipur, Sikkim, Chandigarh, Delhi and Pondicherry. In all these states/ union territories except in Sikkim and in a few other states like Himachal Pradesh, Jammu & Kashmir, Meghalaya in less than 10 percent marriages girls were younger than 18, the legal minimum age at marriage for girls. On the contrary in Bihar, Madhya Pradesh, Rajasthan, Uttar Pradesh and Dadra & Nagar Haveli, in the case of 50 percent or more marriages, girls were younger than 18 years old. The distribution of all the surveyed districts in India by percent of marriages in which girls were below 18 is shown in Figure 2.2. In 11 districts, not a single marriage of girl below age 18 was reported (in the reference period).

Table 2.3 MARRIAGES AND ORDER OF BIRTH							
Mean age at marriage, percentage of boys and girls marrying before legal age at marriage and birth order distribution by State/Union territory, India, RCH Phase I & II.							
State/ Union territory	Mean age at marriage		Percentage marrying below legal age at marriage		Percent of births of order		
	Boys	Girls	Boys (< 21)	Girls (<18)	1	2	3+
State							
Andhra Pradesh	23.8	18.8	29.6	37.3	36.9	34.4	28.7
Arunachal Pradesh	23.0	19.8	36.0	32.8	21.0	22.2	56.8
Assam	27.1	20.3	8.9	28.7	30.2	23.9	45.9
Bihar	22.0	17.4	46.9	58.2	22.7	20.5	56.7
Goa	29.2	24.7	2.6	3.5	41.5	36.4	22.0
Gujarat	22.8	20.6	34.0	25.3	33.6	28.6	37.8
Haryana	23.4	20.5	33.3	31.6	30.2	28.3	41.5
Himachal Pradesh	25.6	21.3	6.0	3.0	36.1	32.5	31.4
Jammu & Kashmir	24.8	20.4	10.5	1.5	25.0	24.2	50.6
Karnataka	26.2	19.5	14.3	35.3	34.2	30.4	35.3
Kerala	28.7	22.7	2.7	9.1	46.3	36.5	17.1
Madhya Pradesh	21.9	18.1	45.9	51.4	27.7	24.7	47.7
Maharashtra	24.9	19.3	14.2	30.9	34.5	31.0	34.6
Manipur	26.5	23.8	15.8	9.8	30.2	23.4	46.3
Meghalaya	21.6	19.9	50.8	0.8	21.5	21.5	57.0
Mizoram	24.0	20.4	26.3	16.0	33.8	25.7	40.6
Nagaland	22.9	19.3	28.6	29.5	19.6	20.5	59.9
Orissa	25.3	19.9	16.2	32.2	28.4	26.2	45.3
Punjab	24.4	21.5	21.8	11.2	33.6	30.8	35.6
Rajasthan	21.3	17.5	56.7	57.1	25.1	23.1	51.7
Sikkim	24.5	22.1	18.5	15.7	30.0	26.0	43.9
Tamil Nadu	26.7	21.0	7.8	19.1	42.4	34.1	23.6
Tripura	27.9	19.7	8.0	34.5	38.4	28.2	33.4
Uttar Pradesh	21.1	17.7	53.3	49.8	20.5	19.6	59.9
West Bengal	24.7	18.3	23.5	51.1	34.0	27.4	38.5
Union territory							
A & N Islands	25.6	20.4	9.2	20.6	43.5	36.3	20.2
Chandigarh	25.4	25.0	11.3	0.0	47.9	31.9	20.2
Dadra & Nagar Haveli	21.4	17.5	46.6	50.6	31.3	24.6	44.1
Daman & Diu	25.5	20.9	14.3	17.6	34.4	30.3	35.3
Delhi	24.6	22.4	14.9	6.43	35.5	32.3	32.2
Lakshdweep	25.7	19.9	9.2	18.2	28.3	27.8	43.9
Pondicherry	29.0	22.1	1.4	5.0	43.1	35.8	21.0
India	23.8	19.2	30.7	36.9	28.6	25.7	45.8

Among these 11 districts, 4 are from Kerala, 3 are from Jammu & Kashmir and one each from Meghalaya, Tamil Nadu, Himachal Pradesh and Chandigarh. Including these 11 districts, in a total 124 districts, in 15 percent or less marriages girls were younger than 18 years old. Along with districts from Kerala and Himachal Pradesh (11 each), Jammu & Kashmir and Tamil Nadu (13 each), Punjab (13), Assam and Maharashtra (7 each), in 9 districts of Uttar Pradesh the proportion of girls marrying below 18 is less than 15 percent. In 94, 106 and 108 districts the proportion of girls marrying below age 18 ranges from 15 to 30, 30 to 45 and 45 to 60 percent.

Figure 2.1
Marriages of girls below age 18 years by 15 major states, India, 1998-99

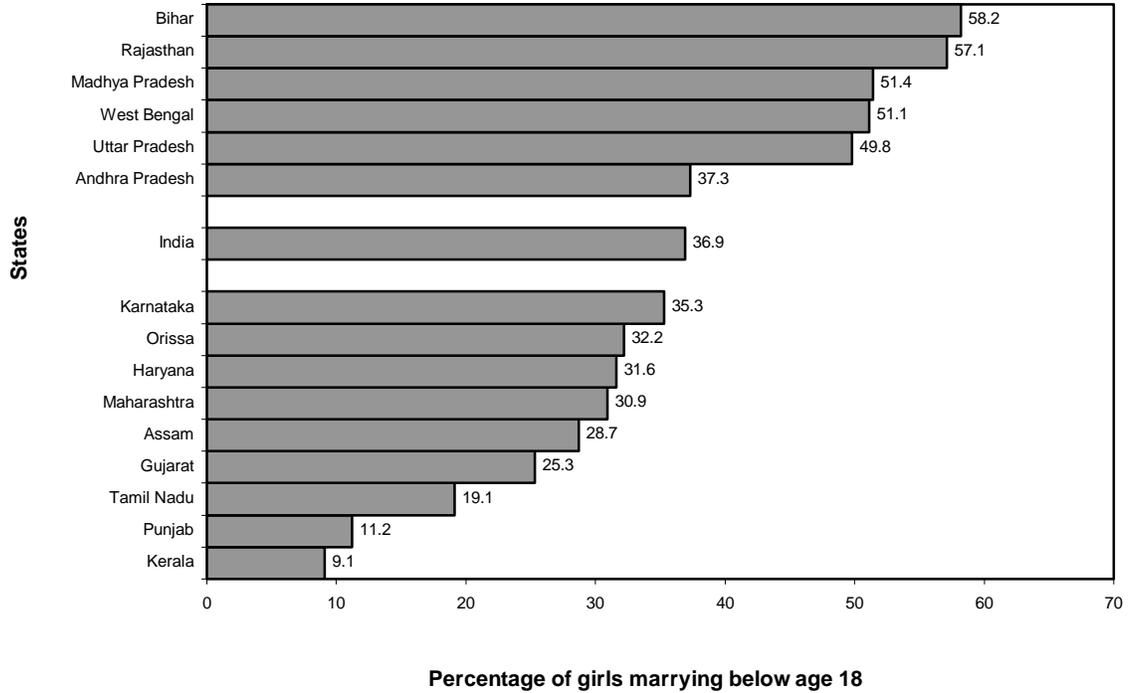
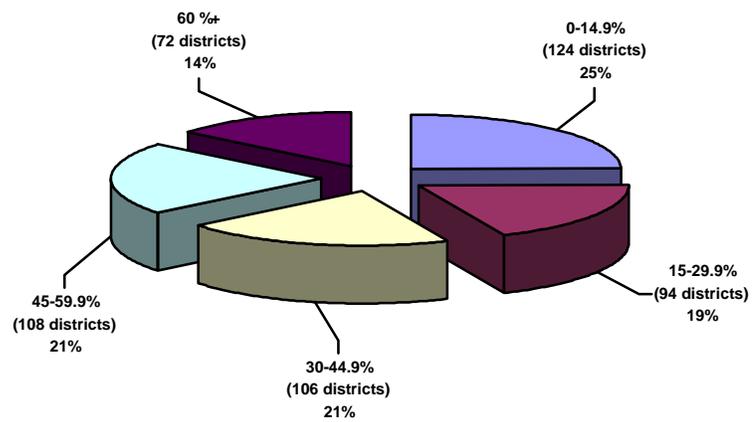
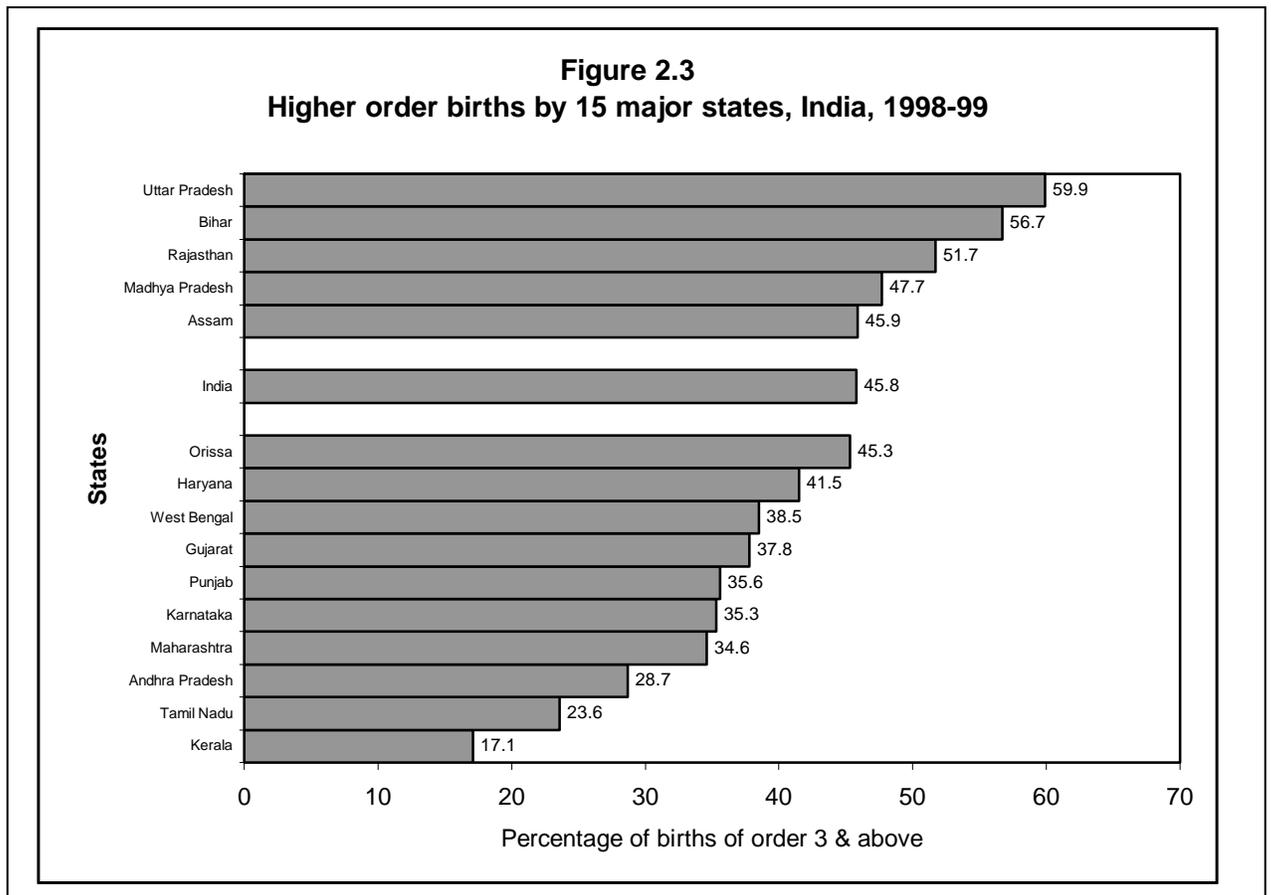


Figure 2.2
Distribution of districts by percentage of girls marrying below age 18, India, 1998-99



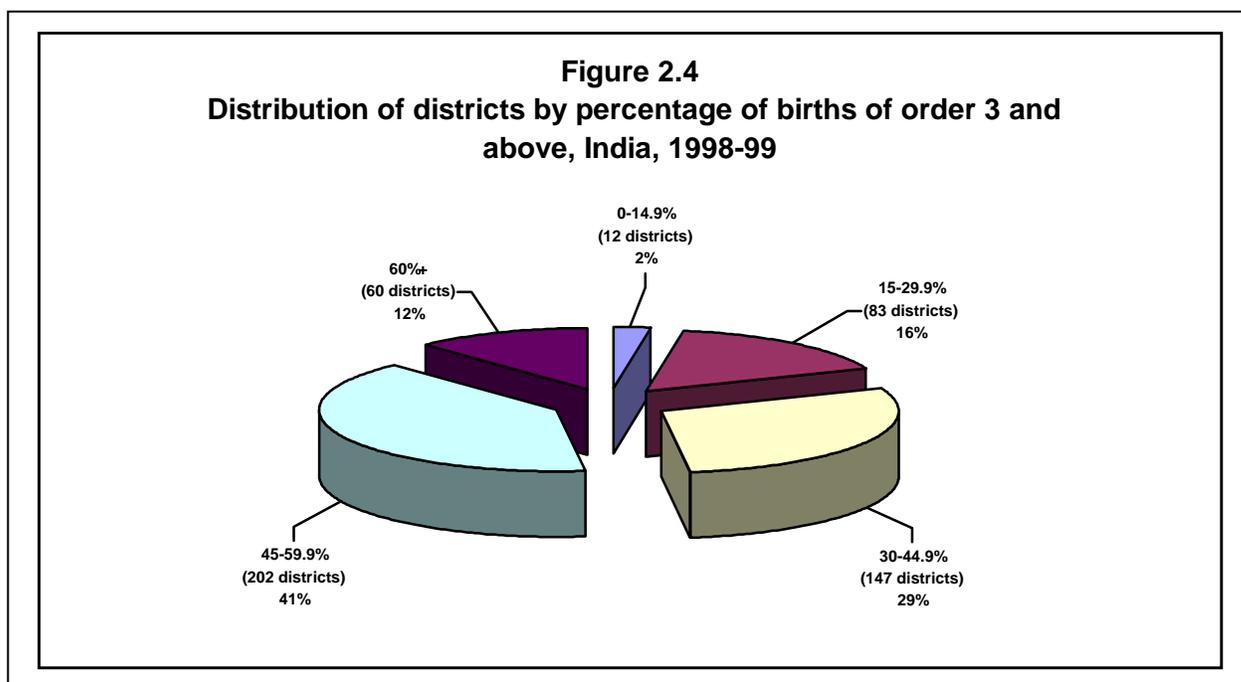
In 72 districts, 60 percent or more girls married below minimum legal age at marriage. In this group there are 9 districts where as many as 75 percent or more girls married before attaining the minimum legal age at marriage. Among all the districts in India in Lalitpur (Uttar Pradesh) and Shajapur (Madhya Pradesh) the proportion of girls marrying below 18 is the highest (84 percent). In Bhilwara, Tonk and Bundi from Rajasthan, Basti, Baharaich, Maharajaganj from Uttar Pradesh, Paschim Champaran from Bihar and Murshidabad from West Bengal also 75 percent or more girls married before attaining the minimum legal age at marriage. In 145 districts (29 percent of all districts in India) 50 percent or more girls married before attaining the legal age at marriage. A major part of this group is found in five states namely Bihar (33 districts), Madhya Pradesh (24), Rajasthan (22) and Uttar Pradesh (32).

In RHS, though data on births to usual residents was collected, no attempt was made to estimate any fertility indicator or the crude birth rate. Firstly, the sample of 1000 households may not give a precise estimate, and secondly data on population was not collected in detail.



In the absence of fertility/ birth rate the percent distribution of births by order of birth serves a good proxy of the fertility of the population. Of the total births that occurred in the state during three years prior to survey, 29 percent were of order one, 26 percent were of order 2 and 46 percent were of order 3 or more. Figure 2.3 shows variation in percent of births of order 3 and above across major states and Figure 2.4 shows the distribution of districts by percent of births of order 3 and above.

The proportion of births of order 3 and above ranges from the lowest of 17 percent in Kerala to the highest of 60 percent in Nagaland and Uttar Pradesh. Along with Kerala, in Goa, Tamil Nadu, Andaman & Nicobar Islands and Pondicherry also one-fourth or less births are of order 3 and above. In many states like Arunachal Pradesh, Bihar, Jammu & Kashmir, Meghalaya, Nagaland, Rajasthan and in Uttar Pradesh more than half the total births recorded in the survey are of order 3 and above.



The district level variation in higher order births (order 3+) ranges from the lowest of 2 percent in Pathanthitta (Kerala) to the highest of 74 percent in North Cachar Hills (Assam) and Tuensang (Nagaland). In 12 of the 504 surveyed districts the births of order 3 and above account for 15 percent or less of total births. Districts from only two states, Kerala (8 districts) and Tamil Nadu (4 districts) belong to this group. In 83, 147, 202 and 60 districts in India the proportion of higher order births fall in 15 to 30 percent, 30 to 45 percent, 45 to 60 percent and 60 percent and above respectively. In 200 districts of India 50 percent or more births are of order 3 and above. Most of these 200 districts are from the states of Arunachal Pradesh (12 districts), Bihar (41), Madhya Pradesh (14), Rajasthan (22), Uttar Pradesh (62).

2.4 Completed Fertility

Table 2.4 presents the level of completed fertility by states/ union territories of India as measured by mean Children Ever Born (CEB) to women aged 40-44. The mean number of surviving children is also presented in the table. On average, women on the verge of completion of reproductive period have given birth to 4.54 children of whom 3.84 were surviving at the time of survey. Completed fertility in India varies from the low of 2.83 ever born children in the union territory of Chandigarh and 3.0 in Kerala to the highest of 6.41 children in Meghalaya. In Arunachal Pradesh (5.47), Bihar (5.48), Nagaland (5.84) and Uttar Pradesh (5.93) also the completed fertility as measured by mean children ever born is quite high. Due to the differences in infant and child mortality by states/ union territories the pattern of mean surviving children is different from that of mean children ever born. In Goa (2.96), Kerala (2.79), Tamil Nadu (2.92), Chandigarh (2.72) and Pondicherry (2.90) women aged 40-44 have comparatively fewer number of surviving children. Only in Meghalaya (5.54) and Nagaland (5.4) do women aged 40-44 have 5 or more surviving children.

Table 2.4 COMPLETED FERTILITY						
Children ever born (CEB) and children surviving (CS) to women age 40-44 by State/Union territory, India, RCH Phase I & II.						
State/Union Territory	Mean children ever born			Mean children surviving		
	Males	Females	Total	Males	Females	Total
State						
Andhra Pradesh	2.02	1.78	3.80	1.79	1.58	3.38
Arunachal Pradesh	2.79	2.68	5.47	2.30	2.25	4.55
Assam	2.68	2.32	5.00	2.32	2.04	4.37
Bihar	2.84	2.64	5.48	2.33	2.13	4.45
Goa	1.75	1.44	3.19	1.60	1.36	2.96
Gujarat	2.11	1.93	4.04	1.85	1.69	3.54
Haryana	2.36	2.13	4.49	2.07	1.83	3.90
Himachal Pradesh	2.00	1.93	3.93	1.74	1.73	3.47
Jammu & Kashmir	2.25	2.22	4.47	2.13	2.12	4.25
Karnataka	2.17	1.98	4.15	1.87	1.70	3.56
Kerala	1.51	1.45	2.96	1.41	1.38	2.79
Madhya Pradesh	2.53	2.22	4.75	2.11	1.84	3.95
Maharashtra	2.01	1.86	3.87	1.79	1.67	3.46
Manipur	2.44	2.50	4.94	2.19	2.29	4.49
Meghalaya	2.34	3.07	6.41	2.89	2.71	5.54
Mizoram	2.43	2.25	4.68	2.20	2.10	4.30
Nagaland	3.02	2.82	5.84	2.79	2.61	5.40
Orissa	2.31	2.14	4.45	1.87	1.73	3.60
Punjab	2.09	1.87	3.96	1.82	1.63	3.46
Rajasthan	2.77	2.49	5.26	2.26	1.99	4.25
Sikkim	2.43	2.30	4.73	2.20	2.13	4.33
Tamil Nadu	1.74	1.63	3.37	1.49	1.42	2.92
Tripura	2.25	2.17	4.42	1.91	1.87	3.78
Uttar Pradesh	3.07	2.86	5.93	2.42	2.20	4.62
West Bengal	2.25	2.01	4.26	1.94	1.72	3.66
Union territory						
A & N Islands	1.79	1.74	3.53	1.63	1.62	3.25
Chandigarh	1.49	1.34	2.83	1.43	1.29	2.72
Dadra & Nagar Haveli	2.05	2.21	4.26	1.76	1.99	3.75
Daman & Diu	2.25	2.01	4.25	2.04	1.94	3.97
Delhi	1.75	1.57	3.32	1.64	1.46	3.10
Lakshdweep	2.15	2.09	4.25	1.91	1.93	3.85
Pondicherry	1.62	1.53	3.15	1.50	1.40	2.90
India	2.37	2.17	4.54	2.01	1.83	3.84

CHAPTER 3

MATERNAL HEALTH CARE

Provision of maternal health care services to ensure safe motherhood is one of the major components of the Reproductive and Child Health (RCH) programme. Under the RCH programme antenatal care, natal care, post-natal care and management of unwanted pregnancies are provided through government health facilities. In the Rapid Household Survey (RHS) of all the eligible women who had their last pregnancy after 1st January 1995 a separate section on the status of maternal health and utilization of maternal health care services was canvassed. For the second phase the reference period was from 1st January 1996. The women whose last pregnancy had terminated into live/still birth were asked about the details of antenatal, natal and post-natal care that they had received; pregnancy, delivery and post-delivery complications they suffered from, and the treatment seeking behavior in case of complications. The women whose last pregnancy terminated into spontaneous/ induced abortion were asked about the utilization of safe-abortion services and the post-abortion complications they had experienced. This chapter presents the analysis of the data collected in the section on maternal health care.

3.1 Ante-Natal Care

Table 3.1 presents the coverage of antenatal care (ANC) and source of ANC by selected background characteristics of women in India. Figure 3.1 shows the variation in ANC coverage by selected background characteristics of women. In India about two-thirds of the women received some type of antenatal care during pregnancy. Twenty two percent of the women in India were visited by an ANM at their residence for providing ANC while 32 and 26 percent received ANC from government and private health facilities respectively. It needs to be noted that women had received ANC from multiple sources like health workers providing ANC at home, government health facility, private health facility etc.

For timely identification of and treatment for pregnancy complications it is necessary to have a complete monitoring of pregnancy, for which a minimum of 3 ANC visits are required and the first visit has to be in the first trimester of pregnancy. Only 30 percent of the women had the first ANC visit in the first trimester of the pregnancy, 28 percent in the second trimester, 8 percent in the last

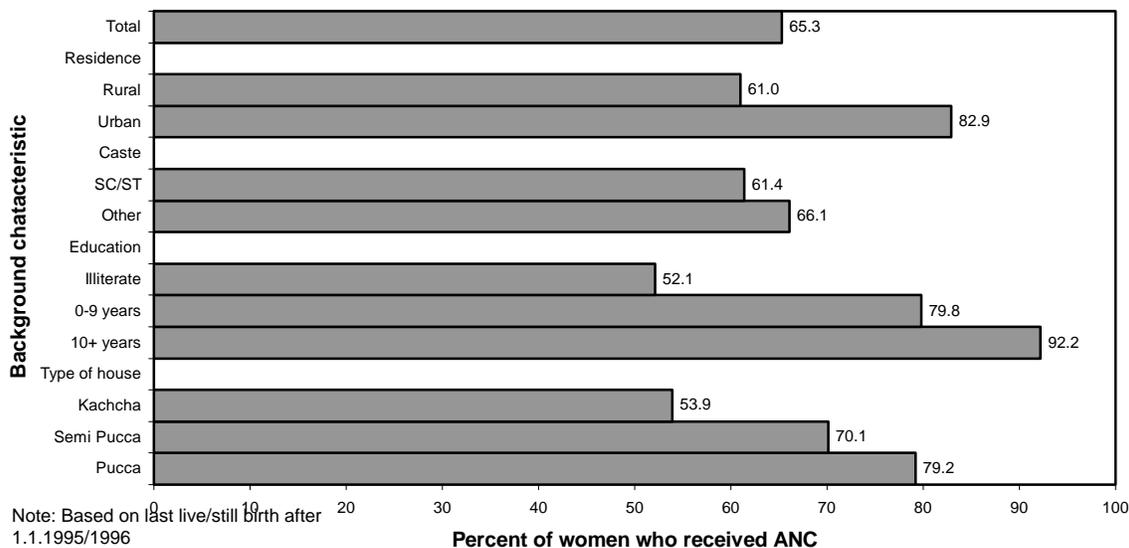
Table 3.1 TYPE OF ANTE NATAL CARE (ANC), INDIA

Percentage of women* by type of ante natal care and by selected background characteristics of women, India, RCH phase I & II

Percentage of women	Background Characteristics										
	Total	Residence		Caste		Education			Type of House		
		Rural	Urban	SC/ST	Other	Illiterate	0-9@ years	10 & above	Kachcha	Semi Pucca	Pucca
Percentage of women who had ANC (any)	65.3	61.0	82.9	61.4	66.1	52.1	79.8	92.2	53.9	70.1	79.2
At home from health worker	22.0	25.5	7.9	25.0	20.3	21.4	24.7	19.8	22.4	24.8	17.8
At government health facility	31.6	30.3	36.5	34.1	30.4	27.4	40.7	32.4	29.1	34.9	31.8
At private health facility	26.2	21.3	46.3	16.6	29.4	14.1	34.6	59.2	14.6	28.6	43.5
Percent distribution of women by number of ANC visits											
No ANC	34.7	39.0	17.1	38.6	33.9	47.9	20.2	7.8	46.1	29.9	20.8
1-2 visits	21.1	22.2	17.1	23.4	20.6	22.4	22.6	13.9	22.9	20.6	19.0
3+ visits	44.2	38.8	65.8	38.0	45.5	29.7	57.2	78.3	31.0	49.5	60.2
Percent distribution of women by timing of first ANC visit											
No ANC	34.7	39.0	17.1	38.6	33.9	47.9	20.2	7.8	46.1	29.9	20.8
First trimester	29.7	25.8	45.3	23.4	31.3	18.3	37.2	60.8	18.8	33.0	44.0
Second trimester	28.0	27.8	28.7	29.9	27.3	25.9	33.8	26.4	27.6	29.4	27.3
Third trimester	7.6	7.4	8.9	8.1	7.5	7.9	8.7	5.0	7.5	7.7	7.9
Who had check-up of	34.5	27.8	62.2	28.0	36.3	19.2	47.5	72.9	21.1	39.0	52.6
Weight	38.2	31.2	66.7	30.2	40.3	21.5	52.7	78.7	23.1	43.2	58.0
Blood pressure	49.4	43.1	74.5	42.7	51.2	33.6	64.9	84.3	35.5	54.9	66.6
Abdomen											
Who were given	48.7	46.0	59.3	48.1	48.9	37.5	60.7	71.8	40.9	52.5	57.5
IFA	74.7	71.6	87.2	69.1	76.6	64.1	87.2	94.3	66.1	78.1	85.1
At least one TT	31.8	28.3	45.9	28.4	32.2	20.5	41.6	59.2	22.2	36.2	42.9
Who had full ANC (At least 3 ANC visits + IFA given + at least one TT injection given)											

@: Literate women with no year of schooling are included *: Who had their last still/live birth after 1-1-1995/1-1-1996

Figure 3.1
ANC coverage by selected background characteristics of women, India, 1998-99



trimester and remaining 35 percent did not receive ANC at all. Forty four percent women had a minimum of three ANC visits and 21 percent had only one or two ANC visits. Nearly one in every two women were given Iron and Folic Acid (IFA) tablets during pregnancy and one in every two women took minimum one Tetanus Toxide (TT) injection during pregnancy. Other essential services like checking of blood pressure and weight and abdominal check-up were received by comparatively less percent of women, 35, 38 and 49 percent respectively. However, the complete package of ANC services as defined by minimum three ANC visits, receipts of IFA tablets and minimum one TT injection was received by about one-third of the women.

The extent of ANC varies substantially with the background characteristics of women. ANC coverage is much higher in urban areas (83 percent) than in rural areas (61 percent) and is directly associated with women's education and economic status (as measured by type of house). The ANC coverage among women with 10 or more years of schooling is 92 percent as against 52 percent among illiterate women. As ANMs are mainly functioning in rural areas, the proportion of women receiving antenatal care at home from a health worker is much higher in rural areas (26 percent) than in urban areas (8 percent). In rural areas the government health worker and health facilities are the major sources of ANC

whereas in urban areas the major sources are private and government health facilities. Less educated women and those with lower economic status primarily avail government health facility for ANC whereas more educated women and those with better economic status avail private health facilities for ANC.

It is already noted that a comparatively higher proportion of urban women and those with more education and better economic status received ANC. Even the quality of ANC services that women received, as judged by the timing of the first ANC visit or the number of ANC visits, is better among these women. Among the women with 10 or more years of schooling 78 percent had three or more ANC visits and 61 percent had the first ANC visit in the first trimester. In the case of illiterate women only 30 percent of the women had three ANC visits and 18 percent had the first visit in the first trimester. The coverage of IFA tablets and TT injection as well as full ANC was also higher among urban women, and those with more education and better economic status. In comparison to SC/ ST women the ANC coverage as well as the coverage of all the ANC services is higher among women from all other castes. However, the differences in the coverage of different type of services among both the groups are not very significant.

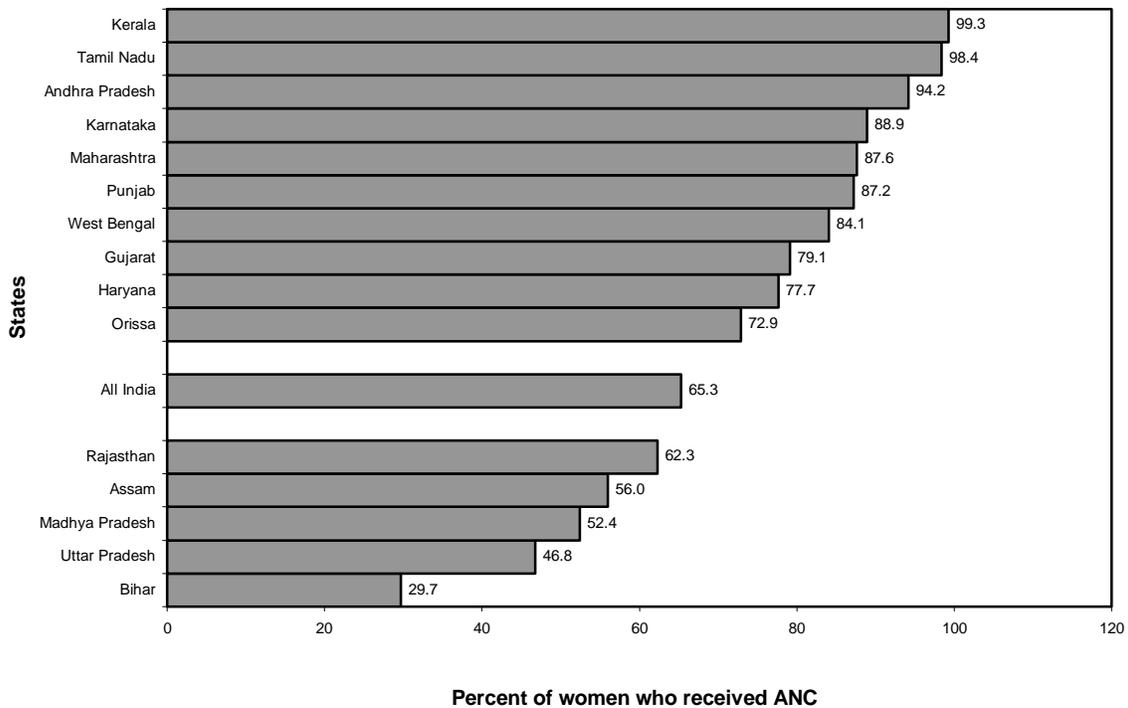
3.1.1 Ante Natal Care by States/ Union Territories

Table 3.2 presents the ANC coverage and source of ANC for all the states and union territories in India. Figure 3.2 shows the variation in ANC across 15 major states of India. ANC coverage varies from almost complete coverage in Pondicherry and Kerala to the lowest of 30 percent in Bihar. Among all the states and union territories, in Andhra Pradesh, Kerala, Tamil Nadu, Goa, Andaman & Nicobar Islands, Daman & Diu, Lakshdweep, and Pondicherry ANC coverage exceeds 95 percent. In Andhra Pradesh and Tamil Nadu every second pregnant woman was visited by an ANM for ANC. In Kerala 39 percent women reported about ANM's home visit. In Andhra Pradesh, Kerala and Tamil Nadu the utilization of private health facilities for ANC is very high.

Table 3.2 ANTE NATAL CARE				
Percentage of women who received any antenatal care (ANC) by source of ANC and by State/Union territory, India, RCH Phase I & II.				
State/ Union territory	Percentage of women who had ANC	Source of ANC		
		At home from health worker	In Govt. health facility	In Private health facility
State				
Andhra Pradesh	94.2	48.0	34.7	55.8
Arunachal Pradesh	44.4	1.0	41.6	4.1
Assam	56.0	10.3	40.8	12.9
Bihar	29.7	4.6	7.1	19.3
Goa	98.4	9.0	45.8	55.7
Gujarat	79.1	34.1	23.9	37.9
Haryana	77.7	5.7	39.5	22.9
Himachal Pradesh	87.2	10.0	81.7	4.3
Jammu & Kashmir	58.1	8.2	48.6	12.2
Karnataka	88.9	40.0	41.9	41.1
Kerala	99.3	39.3	35.8	65.6
Madhya Pradesh	52.4	22.0	25.3	12.9
Maharashtra	87.6	31.9	41.2	37.9
Manipur	71.2	2.7	51.9	21.5
Meghalaya	55.0	4.4	37.3	13.4
Mizoram	80.4	7.7	67.7	18.0
Nagaland	45.8	2.5	22.5	25.1
Orissa	72.9	33.4	43.3	12.1
Punjab	87.2	6.7	47.8	37.2
Rajasthan	62.3	23.5	39.9	8.8
Sikkim	63.2	8.8	59.2	3.4
Tamil Nadu	98.4	48.4	43.8	59.7
Tripura	69.2	3.2	39.7	30.9
Uttar Pradesh	46.8	13.6	23.6	12.8
West Bengal	84.1	18.2	49.3	34.9
Union territory				
A & N Islands	95.9	33.4	92.9	2.4
Chandigarh	79.6	0.6	53.3	23.4
Dadra & Nagar Haveli	90.6	42.5	56.1	25.7
Daman & Diu	95.1	36.0	24.3	69.2
Delhi	89.5	8.5	44.9	40.5
Lakshdweep	99.4	0.6	97.8	5.3
Pondicherry	99.8	24.9	65.6	43.9
India	65.3	22.0	31.6	26.2

The only state from south India not included in the above group is Karnataka where ANC coverage is high (89 percent) but below 90 percent mark. The only area from northern India with a high level of ANC coverage is Delhi (90 percent). In Gujarat, Maharashtra, Punjab and West Bengal along with smaller states/ union territories of Chandigarh, Himachal Pradesh and Mizoram ANC coverage lies between 80 to 90 percent. In Gujarat, Maharashtra and Karnataka the extent of home visits by an ANM is quite high (30 to 40 percent). In all the states/ union territories with ANC coverage ranging from 80 to 90 percent, utilization of government health facilities exceeds that of private health facilities.

Figure 3.2
ANC coverage by 15 major states, India, 1998-99



In the two largest states of India, Bihar (30 percent) and Uttar Pradesh (47 percent) and in Arunachal Pradesh (44 percent) and Nagaland (46 percent) ANC coverage is less than 50 percent. In three other major states, viz. Madhya Pradesh (52 percent), Assam (56 percent) and Rajasthan (62 percent) ANC coverage is below the national level. Among the five major states mentioned here, in Madhya Pradesh and Rajasthan at least one in five women reported ANM's home visit for providing ANC. But in Bihar less than 5 percent women were contacted by an ANM. In Assam, Madhya Pradesh, Rajasthan and Uttar Pradesh, utilization of government health facilities compared to that of private health facilities, is higher, whereas in Bihar, it is vice versa.

Table 3.3 ANTENATAL CARE BY BACKGROUND CHARACTERISTICS											
Percentage of women who received ANC (any) by selected background characteristics and by State/Union territory, India, RCH Phase I & II.											
State/ Union territory	Background Characteristics										
	Total	Residence		Caste		Education			Type of House		
		Rural	Urban	SC/ST	Other	Illiterate	0-9@ years	10 & above	<i>Kachcha</i>	<i>Semi- pukka</i>	<i>Pucca</i>
State											
Andhra Pradesh	94.2	93.9	95.2	93.0	94.9	91.7	97.8	97.9	91.3	94.6	96.8
Arunachal Pradesh	44.4	37.6	67.6	41.2	63.8	31.7	60.6	82.6	38.0	62.7	71.2
Assam	56.0	53.4	85.3	56.1	56.1	34.5	62.7	89.9	46.8	73.8	84.0
Bihar	29.7	26.9	55.3	23.8	31.6	20.5	49.1	73.1	22.1	37.0	53.2
Goa	98.4	97.5	99.5	100.0	98.8	92.9	99.4	100.0	95.8	98.0	100.0
Gujarat	79.1	76.1	86.2	72.1	82.0	67.7	86.9	94.3	68.7	77.8	86.5
Haryana	77.7	74.8	88.9	73.6	79.0	67.5	84.6	94.3	66.4	73.9	85.0
Himachal Pradesh	87.2	86.4	97.2	85.5	87.6	71.2	89.3	95.8	79.3	87.8	92.5
Jammu & Kashmir	58.1	58.0	--	35.5	61.9	59.4	47.2	80.6	36.5	61.4	68.7
Karnataka	88.9	87.4	93.3	84.8	90.4	81.9	95.3	99.0	77.4	90.6	96.2
Kerala	99.3	99.2	99.7	98.2	99.6	94.2	99.2	99.7	99.5	99.1	99.4
Madhya Pradesh	52.4	47.0	74.9	43.5	58.9	43.0	66.2	86.5	45.5	61.9	73.2
Maharashtra	87.6	85.1	91.8	82.9	89.7	77.5	91.8	96.3	81.3	88.9	93.0
Manipur	71.2	66.2	90.3	51.1	85.9	58.2	69.6	91.1	66.5	77.3	95.5
Meghalaya	55.0	49.1	82.9	54.3	72.1	31.5	62.7	85.1	38.6	62.6	78.3
Mizoram	80.4	71.1	91.4	80.4	74.7	12.7	86.1	90.6	59.2	90.5	89.7
Nagaland	45.8	40.4	69.0	45.3	63.8	15.6	42.9	72.0	28.5	62.8	72.2
Orissa	72.9	71.5	82.3	67.3	77.4	65.7	81.3	94.9	69.3	79.7	86.4
Punjab	87.2	85.5	92.6	81.0	90.6	76.4	91.9	98.1	74.9	83.9	94.2
Rajasthan	62.3	57.9	81.4	56.6	64.8	54.9	83.9	95.2	49.3	57.2	73.6
Sikkim	63.2	59.7	88.5	60.2	64.8	47.0	72.9	89.4	56.6	62.2	81.7
Tamil Nadu	98.4	98.3	98.5	98.2	98.5	97.0	99.0	99.8	97.0	98.7	99.3
Tripura	69.2	67.9	89.4	61.8	72.9	41.6	78.2	98.2	66.3	75.7	92.9
Uttar Pradesh	46.8	44.8	57.1	45.1	47.4	39.3	61.4	79.8	42.5	44.3	57.4
West Bengal	84.1	82.2	93.0	84.4	84.2	77.8	89.4	98.2	81.1	88.8	93.7
Union territory											
A & N Islands	95.9	95.6	97.1	94.2	96.1	90.2	97.0	97.8	93.6	97.5	98.6
Chandigarh	79.6	28.6	84.3	48.0	85.6	53.6	57.1	97.9	42.9	39.4	95.0
Dadra & Nagar Haveli	90.6	90.4	92.8	89.6	95.1	88.6	90.1	100.0	89.8	88.3	94.3
Daman & Diu	95.1	94.4	96.5	96.3	94.6	90.5	96.9	97.9	98.2	97.2	93.6
Delhi	89.5	83.3	92.1	82.3	90.6	65.0	96.4	95.4	62.5	77.4	91.3
Lakshdweep	99.4	99.6	99.2	99.3	100.0	98.0	99.3	100.0	100.0	100.0	99.3
Pondicherry	99.8	100.0	99.6	99.7	99.8	99.6	99.7	100.0	99.3	100.0	100.0
India	65.3	61.0	82.9	61.4	66.1	52.1	79.8	92.2	53.9	70.1	79.2

@: Literate women with no schooling are included

Table 3.4 TYPE OF ANTE NATAL CARE, STATE/UNION TERRITORY
Percentage of women by type of antenatal care and by State/Union territory, India, RCH Phase I & II.

Percentage of women									
State/ Union territory	Who had ANC			Whose		Who had	Who were given		Who had full ANC
	Any	In first trimester	3 + visits	Weight was taken	BP was measured	Abdominal Check-up	IFA tablets	At least one TT injection	At least 3 ANC Visits+ at least one TT+IFA given
State									
Andhra Pradesh	94.2	56.1	87.5	81.9	84.2	85.9	72.9	89.9	63.4
Arunachal Pradesh	44.4	17.3	25.6	35.4	37.1	44.5	39.5	45.0	19.8
Assam	56.0	28.2	29.2	28.4	38.9	52.5	57.7	68.3	24.8
Bihar	29.7	14.4	17.1	11.8	16.2	25.4	16.9	64.6	10.1
Goa	98.4	68.8	95.2	89.0	93.3	96.2	87.3	93.6	80.3
Gujarat	79.1	36.5	55.0	40.7	43.4	53.0	68.1	77.9	42.7
Haryana	77.7	31.8	41.3	27.5	30.6	50.1	48.7	81.0	23.9
Himachal Pradesh	87.2	39.9	57.2	59.2	60.8	75.0	82.5	88.2	52.7
Jammu & Kashmir	58.1	18.9	40.4	25.3	52.4	53.5	41.8	76.4	23.8
Karnataka	88.9	59.5	78.0	54.3	67.1	82.4	72.6	83.0	60.1
Kerala	99.3	83.2	98.3	83.0	96.0	87.8	90.0	95.7	86.1
Madhya Pradesh	52.4	18.5	28.0	17.8	19.9	40.1	45.3	69.8	20.2
Maharashtra	87.6	41.0	65.8	66.0	65.5	79.7	76.8	89.5	54.8
Manipur	71.2	47.0	48.5	54.3	62.1	70.2	45.0	75.4	30.9
Meghalaya	55.0	11.5	33.5	49.3	52.1	53.7	56.0	53.6	30.9
Mizoram	80.4	39.1	66.6	57.6	65.6	83.2	58.0	81.3	43.7
Nagaland	45.8	11.7	21.7	18.6	31.4	41.3	34.8	55.8	15.6
Orissa	72.9	28.8	43.7	27.3	28.6	43.8	60.8	79.7	32.5
Punjab	87.2	32.4	56.4	33.9	47.4	64.9	42.7	88.5	25.4
Rajasthan	62.3	19.9	28.3	13.2	19.9	33.5	34.5	62.0	16.6
Sikkim	63.2	29.6	40.6	31.4	49.7	61.6	53.1	64.2	31.9
Tamil Nadu	98.4	56.2	94.2	89.2	87.5	89.3	79.1	98.0	75.3
Tripura	69.2	31.7	51.0	35.9	52.6	65.6	54.5	77.0	34.8
Uttar Pradesh	46.8	14.6	19.6	8.0	10.0	25.7	27.7	60.5	11.2
West Bengal	84.1	27.5	55.4	46.8	47.9	48.9	54.7	86.4	33.4
Union territory									
A & N Islands	95.9	31.9	92.3	93.4	91.7	95.9	90.4	93.1	84.4
Chandigarh	79.6	56.9	73.0	67.0	69.4	65.9	68.8	87.4	62.9
Dadra & Nagar Haveli	90.6	34.1	74.6	63.9	57.8	73.8	77.5	88.4	62.0
Daman & Diu	95.1	59.4	80.7	68.5	75.9	84.6	84.5	92.2	71.1
Delhi	89.5	37.1	77.2	84.3	85.7	70.7	84.3	91.1	73.1
Lakshdweep	99.4	25.2	98.3	86.2	93.8	51.8	95.0	96.7	91.4
Pondicherry	99.8	44.9	95.8	89.8	92.5	93.1	88.2	99.0	83.8
India	65.3	29.7	44.2	34.5	38.2	49.4	48.7	74.7	31.8

ANC coverage by selected background characteristics of women in different states/ union territories is presented in table 3.3. As in case of India, in most of the states and union territories, ANC coverage is comparatively higher among women from urban areas and those belonging to non-SC/ST castes, and coverage increases with women's education and economic status. Among all the background characteristics women's caste makes the least difference and education makes the largest difference in ANC coverage. In almost all the states, among the different groups of women according to their background characteristics "illiterate women" is the group with the lowest ANC coverage and "women with 10 or more years of schooling" is the group with the highest ANC coverage. In all the states irrespective of the level of ANC coverage, the ANC coverage among women with 10 or more years of schooling exceeds 70 percent. The variation in ANC coverage by background characteristics is the highest in states with low or medium level of ANC.

Table 3.4 presents the percentage of women from different states/ union territories who had received various ANC services. The quality of ANC care varies with the level of ANC coverage. In all the four southern states of Andhra Pradesh, Karnataka, Kerala, Tamil Nadu and in Goa and in all the union territories more than 75 percent women had three or more ANC visits. In most of the states only a small percent of women seek ANC during the first trimester. In only five of the above states and in Chandigarh and Daman & Diu did more than 50 percent of the women have the first ANC visit in the first trimester. In all these states as well as in Maharashtra more than two-thirds of the women received each of these services like, check-up of weight, blood pressure and abdomen and receipt of IFA tablets and at least one TT injection. In all the union territories also the coverage of all the ANC services is very high. The package of full ANC that includes a minimum of three ANC visits, IFA tablets and at least one TT injection was received by 50 percent or more women from Andhra Pradesh, Goa, Himachal Pradesh, Karnataka, Kerala, Maharashtra, Tamil Nadu and from all the union territories.

Table 3.5 presents the proportion of women who received full ANC by selected background characteristics of the women and by states/ Union territories. The variation in the full ANC coverage by women's background characteristics is similar to that of ANC coverage. The percent of women who received

Table 3.5 FULL ANC COVERAGE

Percentage of women who received full ANC by selected background characteristics and by State/Union territory, India, RCH Phase I & II.

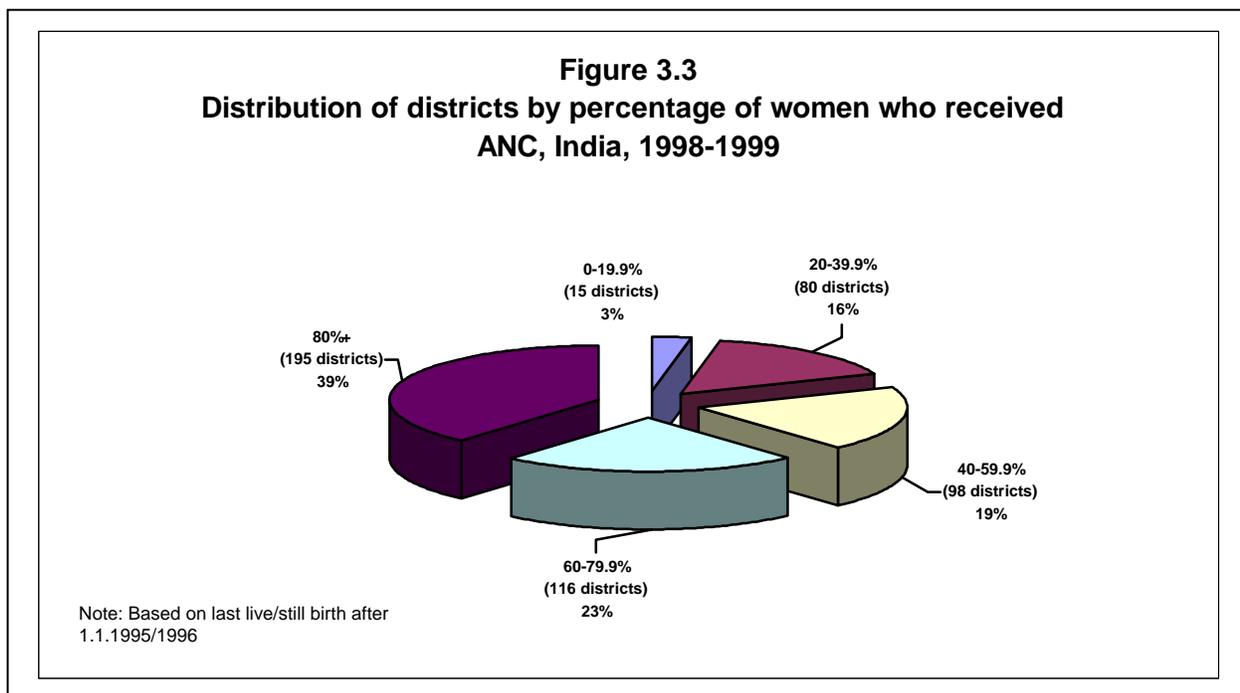
State/ Union Territory	Background Characteristics										
	Total	Residence		Caste		Education			Type of House		
		Rural	Urban	SC/ST	Other	Illiterate	0-9@ years	10 & above	Kachcha	Semi- pucca	Pucca
State											
Andhra Pradesh	63.4	65.3	57.9	67.0	63.1	62.0	66.8	63.9	64.7	64.7	60.5
Arunachal Pradesh	19.8	14.9	36.8	17.1	35.4	12.2	26.9	50.3	15.6	31.0	38.6
Assam	24.8	22.3	52.2	21.3	25.9	10.5	25.5	54.0	16.8	36.5	54.9
Bihar	10.1	8.7	23.7	7.6	11.0	5.3	18.4	38.1	6.5	11.2	25.3
Goa	80.3	81.5	78.6	79.6	81.0	67.8	85.5	80.8	81.9	79.1	83.9
Gujarat	42.7	40.3	48.5	36.1	45.6	29.2	50.5	63.5	31.7	41.3	50.7
Haryana	23.9	22.3	30.2	26.9	24.6	18.3	25.6	36.0	16.0	21.1	29.4
Himachal Pradesh	52.7	51.3	67.8	48.2	53.9	33.6	50.8	68.0	40.2	51.5	63.5
Jammu & Kashmir	23.8	23.8	-	14.0	25.1	24.1	16.9	38.5	15.4	29.6	21.8
Karnataka	60.1	60.3	60.1	55.0	63.1	51.7	66.2	74.6	43.3	62.9	69.7
Kerala	86.1	86.0	86.7	82.9	87.5	69.6	84.7	88.3	85.1	85.1	87.0
Madhya Pradesh	20.2	16.5	35.4	15.5	24.1	13.1	29.1	50.1	16.2	23.5	34.1
Maharashtra	54.8	52.2	59.0	48.2	57.8	43.0	57.8	68.6	46.2	56.8	61.5
Manipur	30.9	27.6	43.4	13.0	44.1	19.1	28.2	54.0	30.1	28.1	57.8
Meghalaya	30.9	25.7	55.8	30.2	46.6	17.1	34.2	54.5	22.1	31.7	52.7
Mizoram	43.7	40.7	47.1	44.0	17.3	1.3	46.1	55.8	28.4	50.6	52.0
Nagaland	15.6	12.9	27.3	15.3	34.0	3.4	12.6	27.5	6.6	22.2	36.3
Orissa	32.5	30.9	45.0	28.2	36.0	25.8	38.3	61.1	29.1	38.5	46.4
Punjab	25.4	26.0	23.4	23.9	26.1	18.6	29.7	30.6	14.9	25.1	27.6
Rajasthan	16.6	15.2	22.6	15.0	17.3	12.5	25.9	40.8	12.2	12.8	21.4
Sikkim	31.9	29.1	53.6	29.3	33.7	18.3	38.5	58.7	23.9	33.5	48.9
Tamil Nadu	75.3	78.1	70.1	79.9	73.8	74.7	76.5	74.3	78.1	75.1	73.3
Tripura	34.8	33.7	55.0	29.7	38.2	10.5	40.8	69.6	32.7	41.1	54.9
Uttar Pradesh	11.2	9.6	19.7	9.0	12.0	7.3	15.7	34.9	8.0	9.5	19.1
West Bengal	33.4	31.2	43.7	34.7	33.3	26.9	36.5	57.9	30.0	37.7	45.7
Union territory											
A & N Islands	84.4	83.6	86.9	79.6	86.4	79.6	86.9	84.1	81.4	86.5	87.4
Chandigarh	62.9	7.1	68.0	28.0	69.1	37.5	35.7	81.4	0.0	21.2	81.7
Dadra & Nagar Haveli	62.0	61.0	75.0	57.6	74.5	53.5	74.1	83.3	58.3	57.5	73.3
Daman & Diu	71.1	66.7	79.3	72.4	69.9	54.5	76.5	82.9	80.2	76.4	67.4
Delhi	73.1	57.8	79.9	70.6	72.7	41.7	71.4	84.7	50.0	35.5	78.4
Lakshdweep	91.4	91.5	91.3	91.4	100.0	88.5	90.7	94.1	83.3	91.9	91.4
Pondicherry	83.8	84.5	83.4	75.6	86.5	79.7	85.2	84.2	81.5	82.9	86.1
India	31.8	28.3	45.9	28.4	32.2	20.5	41.6	59.2	22.2	36.2	42.9

@: Literate women with no schooling are included

full ANC is higher in urban areas and non-SC/ ST women in comparison to their counterparts. The full ANC coverage increases with woman's education and economic status. However, there are few states/ Union territories like, Andhra Pradesh, Goa, Kerala, Tamil Nadu, Lakshdweep and Pondicherry that do not show the pattern of variation in full ANC by women's characteristics described above.

3.1.2 Antenatal Care by Districts

The percent of women who received any ANC and full ANC by districts is presented in appendix 1. The district wise ANC (any) coverage varies from zero to cent percent. The number of districts with ANC coverage ranging between 0 to 19.9, 20 to 39.9, 40 to 59.9, 60 to 79.9 and 80 and above are 15, 80, 98, 116 and 195 respectively (figure 3.3).



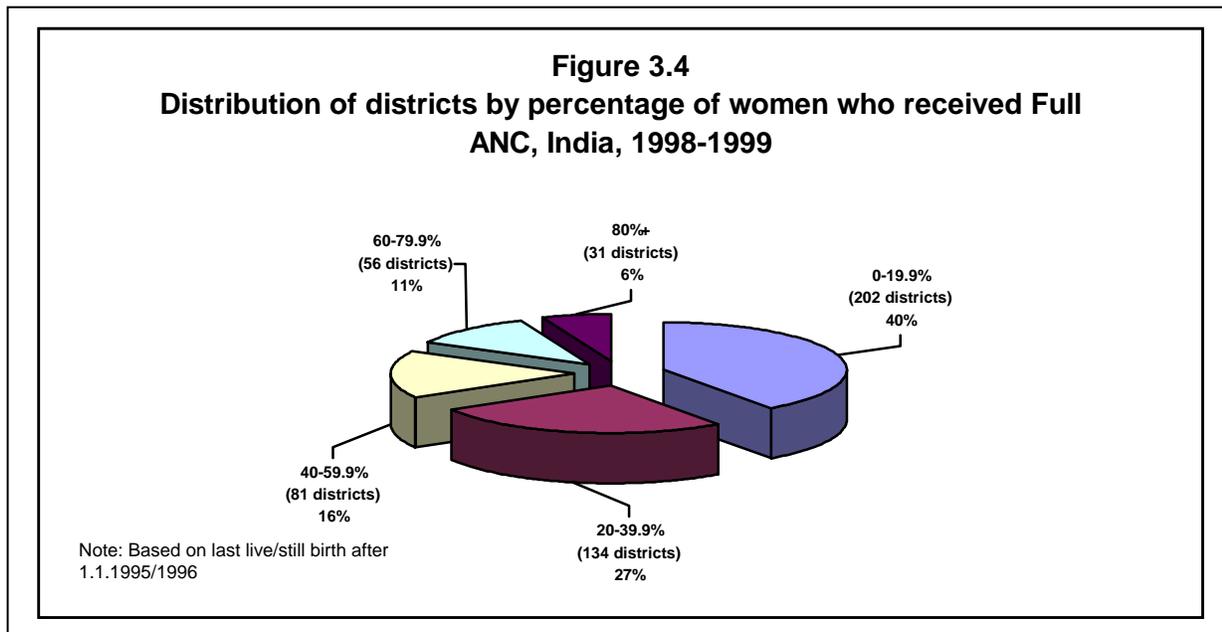
The lowest ANC coverage among all the 504 districts in India was reported in Rajauri district of Jammu & Kashmir where not a single woman who delivered after 1st January 1996 received any kind of antenatal

care. The second lowest ANC coverage was reported in Tweang district (9 percent) of Arunachal Pradesh. In 15 out of 504 districts the ANC coverage was less than 20 percent. Of the 15 districts in this group, 9 districts are from Bihar, 3 are from Arunachal Pradesh, and one each from Jammu & Kashmir, Madhya Pradesh, Sikkim and Uttar Pradesh.

The second group of districts with ANC coverage ranging between 20 to 40 percent has 80 districts, mainly from Uttar Pradesh (23 districts), Bihar (27 districts) and Madhya Pradesh (9 districts). The two other groups with ANC coverage ranging between 40 to 60 and 60 to 80 percent respectively have 98 and 116 districts respectively. The group with ANC coverage lying between 40 to 60 percent consists of districts mostly from Assam (8 districts), Arunachal Pradesh (7 districts), Madhya Pradesh (18 districts), Rajasthan (11 districts) and Uttar Pradesh (28 districts), Uttaranchal (7 districts). The districts from the states Gujarat (9 districts), Haryana (6 districts), Madhya Pradesh (16 districts), Orissa (20 districts), Rajasthan (11 districts) and Uttar Pradesh (15 districts) mainly comprise the fourth group with ANC coverage between 60 to 80 percent.

In 196 districts (40 percent of the total districts in India) ANC coverage is above 80 percent. Of these 196 districts, in 8 districts the ANC coverage is 100 percent. In Allapuzha, Ernakulam, Kozhikode districts of Kerala, Kodagu from Karnataka, Periyar and Sivaganganagar from Tamil Nadu and Mahe and Pondicherry from Pondicherry, and every woman received some kind of antenatal care. Including these 8 districts there are 85 districts where ANC coverage is above 95 percent. All the 14, 23 and 4 districts of Kerala, Tamil Nadu, Pondicherry respectively have ANC coverage above 95 percent. Many districts from Andhra Pradesh (11 districts), Karnataka (9 districts), Maharashtra (9 districts) and Punjab (4 districts) also fall in the group with an ANC coverage above 95 percent.

The districts by the coverage of full ANC varying between 0 to 19.9, 20 to 39.9, 40 to 59.9, 60 to 79.9 and 80 and above are 202, 134, 81, 56 and 31 respectively (figure 3.4). It is already noted that in every state the percent of women who received full ANC consisting of a minimum of 3 ANC visits and receipt of IFA tablets and TT injection is quite low compared to the percent of women who received any ANC. In 311 out of 504 districts ANC coverage is above 60 percent but only in 86 districts does full ANC coverage exceed 60 percent. In two-thirds of the total 504 districts in India full ANC coverage is lower than 40 percent.



Full ANC coverage by districts ranges from zero percent in Rajauri district of Jammu & Kashmir to 95 percent in Tiruchirapalli of Tamil Nadu. In 19 districts of India full ANC coverage is 5 percent or less. These 19 districts are mainly from Arunachal Pradesh, Assam, Bihar, Jammu & Kashmir, Madhya Pradesh and Nagaland. It is to be noted that ANC (any) coverage in these 19 districts varies widely. In both Srinagar (Jammu & Kashmir) and Sidhi (Madhya Pradesh) full ANC coverage is below 5 percent, but in Srinagar ANC coverage is 86 percent whereas in Sidhi it is only 17 percent. Similarly in many districts of Andhra Pradesh, Kerala, Karnataka and Punjab, though the ANC coverage is above 95 percent the full ANC coverage is not even 50 percent. For example, in Chittor (Andhra Pradesh), Mysore (Karnataka), Kottayam (Kerala) and Rupnagar (Punjab) ANC coverage is above 95 percent but only 39, 24, 33 and 41 percent women respectively received full ANC.

3.1.3 Reason for Not Seeking Ante Natal Care

All the women who received neither ANC at home from a health worker nor visited any health facility for ANC were asked about the reasons for not seeking ANC. Table 3.6 gives the percentage of women by reason for not seeking ANC. A majority of the women (57 percent) reported they did not feel the necessity of having ANC. The second reason cited by a sizeable proportion of women (16 percent) was "lack of

knowledge of services". Reasons like "financial cost" and "no time to go" were also reported by about 12 and 7 percent of the women respectively.

Table 3.6 REASONS FOR NOT SEEKING ANTE NATAL CARE	
Percentage of women who did not receive ante natal care by the reason for not seeking care, India, RCH Phase I&II	
Reason for no ANC	Percentage of women stating the reason
Lack of knowledge of services	15.5
Did not feel necessity	56.5
Not customary	5.6
Financial cost	12.4
Health facility distantly located	5.4
Poor quality services	3.5
No time to go	6.8
Not permitted to go	5.2
Other	3.1

3.2 Natal Care

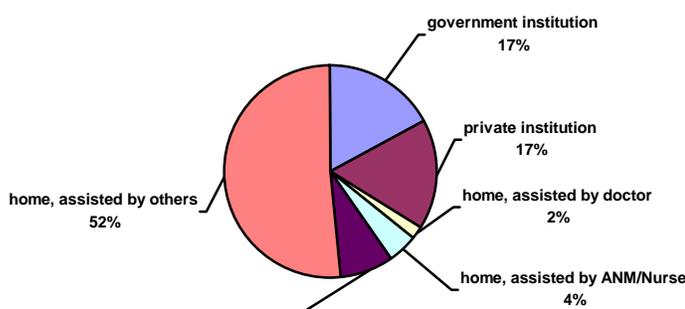
Provision of safe delivery services in the government health institutions is one of the components of the RCH programme. The extent of institutional deliveries by type of institution, and home deliveries by type of assistance received during delivery by selected background characteristics of women in India is presented in table 3.7. Figure 3.5 presents the distribution of total deliveries in India by place and type of assistance received during delivery and figure 3.6 presents the percentage of institutional deliveries by background characteristics.

Table 3.7 DELIVERY CHARACTERISTICS, INDIA								
Percentage of women by place of delivery and assistance during home delivery by selected background characteristics of women, India, RCH Phase I & II.								
Background Characteristics	Place of delivery/Assistance received							
	Percentage of delivery in health institutions			Home	Percentage of delivery conducted at home and assisted by			Safe delivery
	Total	Government	Private		Doctor	Nurse/ANM	TBA	

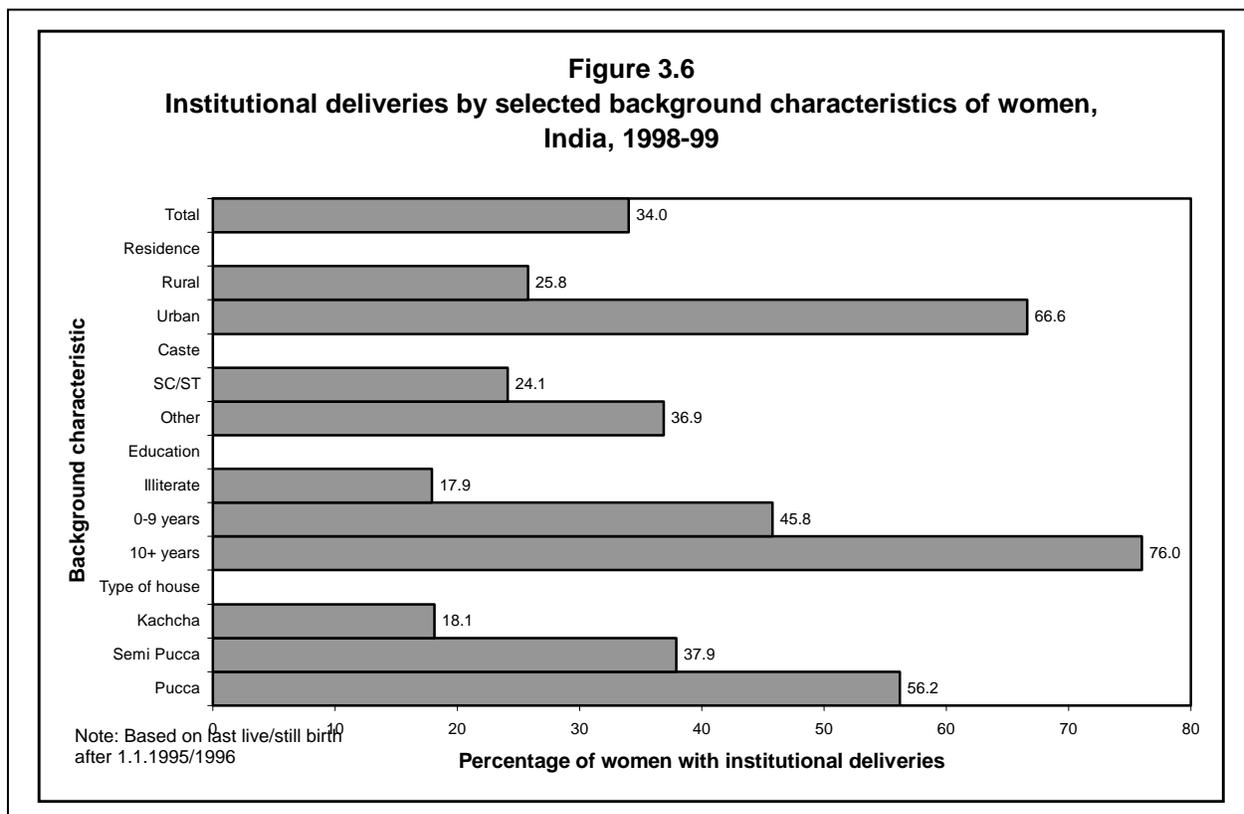
Residence									
Total	34.0	17.3	16.6	65.9	1.8	4.4	8.0	51.7	40.2
Rural	25.8	14.0	11.8	73.9	2.1	4.4	8.5	59.1	32.3
Urban	66.6	30.6	36.0	33.0	1.0	4.7	6.0	21.5	72.3
Caste									
SC/ST	24.1	15.4	8.6	75.6	1.7	4.0	8.9	61.2	29.8
Others	36.9	17.7	19.1	62.9	1.9	4.7	7.6	48.8	43.5
Education									
Illiterate	17.9	11.4	6.5	81.9	1.7	4.0	8.6	67.7	23.6
0-9@ years	45.8	24.9	20.9	53.8	2.6	5.5	8.4	37.6	53.9
10 and above	76.0	27.3	48.6	23.7	1.4	4.4	4.8	13.3	81.8
Type of house									
Kachcha	18.1	12.5	5.6	81.6	2.1	2.1	7.4	68.8	23.7
Semi Pucca	37.9	20.0	17.9	61.8	1.8	1.8	9.1	46.0	44.8
Pucca	56.2	22.2	34.0	43.5	1.5	1.5	7.6	29.1	63.1
@ Literate women with no schooling are included.									

According to RHS, among all the women who delivered their last live/ still born child after 1st January 1995/ 1996, one-third delivered the child in a health institution. The proportion of women who delivered in government and private health institutions is the same. In two percent of the total deliveries, though conducted at home, the assistance of doctor was sought. In the case of another 4 and 8 percent deliveries the assistance of nurse/ ANM and trained Birth Attendant (TBA) respectively was sought. Little more than 50 percent of the deliveries took place at home without the assistance of any trained person. In all 40 percent of the deliveries in India were conducted in a safe way i.e. either they took place in health institutions or took place at home with the assistance of doctor or nurse/ ANM.

Figure 3.5
Distribution of deliveries by place of delivery and assistance in case of home delivery



Note: Based on last live/still birth after 1.1.1995/1996



The proportion of women who delivered in the health institutions is substantially higher in urban areas (67 percent) as compared to rural areas (26 percent). It is also higher among non-SC/ST women in comparison to SC/ST women. The extent of institutional deliveries is positively associated with women's education and economic status. A comparatively higher percent of urban women, non-SC/ST women, educated women and those with better economic status sought the assistance of midwifery trained person i.e. doctor/ nurse/ ANM in the case of home deliveries. For example, in rural areas out of 74 percent of home deliveries, 9 percent were conducted with the assistance of doctor/ nurse/ ANM as against 17 percent of home deliveries in urban areas assisted by midwifery trained person. The extent of safe deliveries is higher among urban,

non-SC/ ST, educated women and those with better economic status. For example, 23 percent of the deliveries of illiterate women were conducted in a safe way as against 82 percent of the women with 10 or more years of schooling.

3.2.1 Natal Care by States/ Union territories

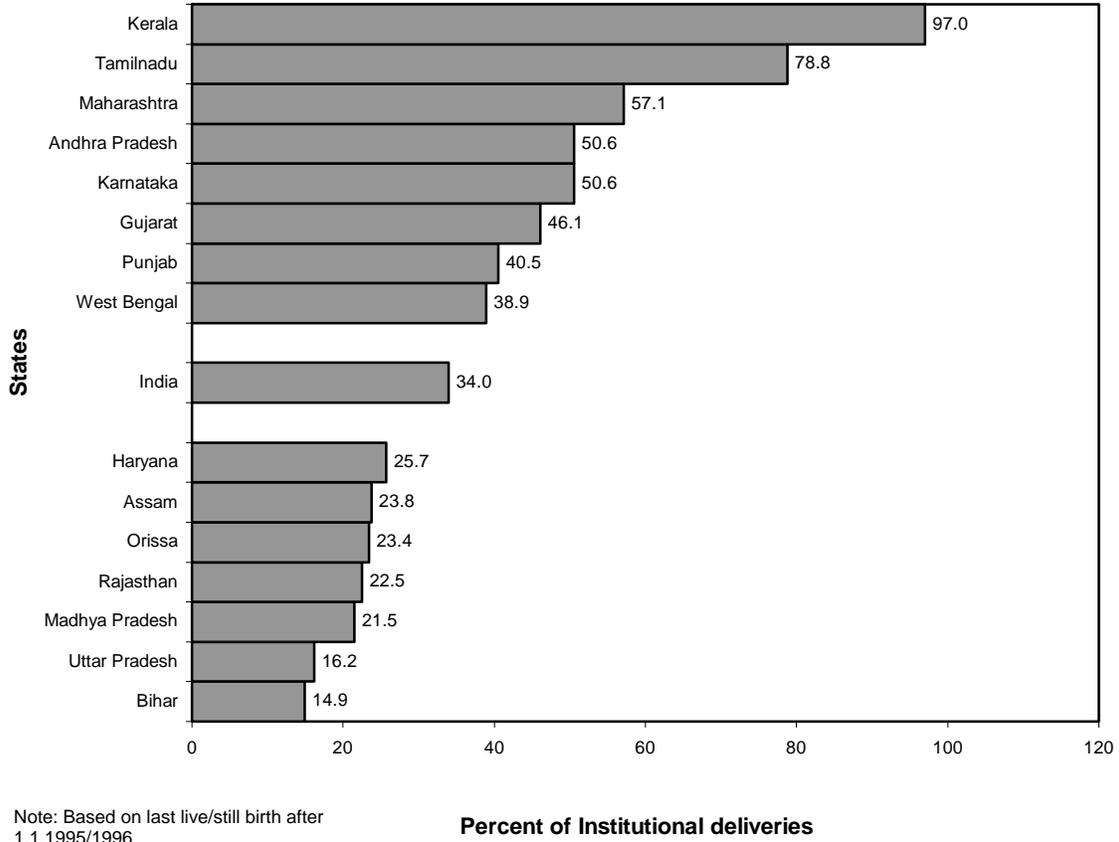
The percentage distribution of deliveries by place and assistance during delivery and by states/ union territories is presented in table 3.8. The extent of institutional deliveries in India varies widely across the states/ Union territories from the lowest of 13-16 percent in Bihar, Nagaland and Uttar Pradesh to the highest of 92-97 percent in Delhi, Kerala and Pondicherry. In Tamil Nadu and in all the union territories with the exception of Dadra & Nagar Haveli also, 60 percent or more deliveries took place in health institutions. On the other hand, in Arunachal Pradesh, Assam, Haryana, Madhya Pradesh, Orissa, Rajasthan and Dadra & Nagar Haveli less than 30 percent deliveries were institutional. The pattern of utilization of government and private health institutions for delivery purposes differs across the states/ Union territories. In Kerala and Tamil Nadu, 30 percent or more of the total deliveries each took place in each, government and private institutions. In Goa, Jammu & Kashmir, Manipur, Mizoram, Sikkim, Tripura, West Bengal and in all the union territories except Daman & Diu and Dadra & Nagar Haveli 30 percent or more of the total deliveries took place in government institutions, whereas in Andhra Pradesh, Gujarat, Kerala, Maharashtra, Daman & Diu and Delhi 30 percent or more of the total deliveries took place in private institutions. In smaller states like Himachal Pradesh, Jammu & Kashmir, north-eastern states and in most of the union territories a majority of the women delivered in Government health institutions whereas in Andhra Pradesh, Gujarat and Haryana a majority of the women delivered in private health institutions.

Table 3.8 DELIVERY CHARACTERISTICS, STATE/UNION TERRITORY										
Percent distribution of deliveries by place and assistance in home deliveries, by state/Union territory, India, RCH Phase I & II.										
State/ Union territory	Place and assistance									
	Total	Health Institutions		Home	Home deliveries assisted by				Percentage of Safe** deliveries	
		Government	Private		Doctor	ANM/Nurse	TBA*	Others		
State										
Andhra Pradesh	50.6	17.7	32.9	49.1	3.6	5.6	11.2	28.6	59.8	
Arunachal Pradesh	26.3	22.1	4.2	73.4	0.5	1.3	0.8	70.9	28.1	
Assam	23.8	15.6	8.2	75.5	4.0	3.1	4.0	64.8	31.9	
Bihar	14.9	5.0	9.8	84.9	1.5	2.6	2.6	78.2	19.0	
Goa	93.8	46.1	47.6	6.2	0.4	0.9	0.5	4.3	95.1	
Gujarat	46.1	14.2	31.8	53.3	3.7	6.1	11.1	32.5	55.9	
Haryana	25.7	7.2	18.5	74.1	0.4	6.6	26.7	40.4	32.7	
Himachal Pradesh	31.7	28.0	3.7	68.0	1.0	3.6	20.9	42.4	36.3	
Jammu & Kashmir	44.4	38.1	6.3	55.5	0.6	1.8	24.7	28.3	46.8	
Karnataka	50.0	25.2	24.7	49.6	2.2	7.7	6.7	33.1	59.9	
Kerala	97.0	38.0	58.9	2.9	0.1	0.3	0.3	2.3	97.4	
Madhya Pradesh	21.5	14.9	6.5	78.1	1.2	4.8	10.6	61.6	27.5	
Maharashtra	57.1	26.9	30.1	42.6	1.9	2.2	9.4	28.9	61.2	
Manipur	34.1	30.1	4.0	65.7	3.1	12.7	8.6	41.4	49.9	
Meghalaya	33.4	21.3	12.0	66.4	0.4	1.8	8.8	55.4	35.6	
Mizoram	58.9	54.0	4.9	41.0	0.3	3.7	6.9	30.1	62.9	
Nagaland	13.4	7.1	6.2	86.4	0.5	11.2	5.8	69.0	25.1	
Orissa	23.4	18.9	4.5	76.2	3.0	6.3	2.9	64.0	32.7	
Punjab	40.5	19.3	21.2	58.9	0.8	13.4	21.5	23.4	54.7	
Rajasthan	22.5	16.2	6.3	77.2	1.6	9.3	4.6	61.6	33.4	
Sikkim	32.3	30.5	1.8	67.7	0.3	4.1	1.1	62.1	36.7	
Tamil Nadu	78.8	34.8	44.0	20.9	0.5	3.1	4.6	12.8	82.4	
Tripura	46.1	44.3	5.0	53.8	1.3	0.9	4.0	47.5	48.3	
Uttar Pradesh	16.2	8.0	8.2	83.4	0.7	3.9	8.5	70.4	20.8	
West Bengal	38.9	30.7	8.1	61.0	5.4	1.3	6.4	47.8	45.6	
Union territory										
A & N Islands	68.4	65.4	2.9	31.5	0.1	2.8	7.9	20.6	71.3	
Chandigarh	67.7	40.1	27.5	32.3	0.6	2.9	13.1	15.6	71.2	
Dadra & Nagar Haveli	25.9	9.3	16.5	73.8	0.2	1.5	15.0	57.0	27.6	
Daman & Diu	63.2	15.9	47.3	36.5	5.2	2.2	4.6	24.6	70.6	
Delhi	70.0	29.6	40.1	29.9	0.0	3.7	10.2	16.0	73.7	
Lakshdweep	71.3	60.4	10.9	28.0	0.4	2.0	19.5	6.1	74.1	
Pondicherry	92.2	69.3	23.0	7.3	0.5	0.7	1.7	4.8	93.4	
India	34.0	17.3	16.6	65.9	1.8	4.4	8.0	51.7	40.2	

* Trained Birth Attendant

** Safe deliveries include institutional deliveries and home deliveries assisted by doctor/nurse/ANM

Figure 3.7
Institutional deliveries by 15 major states, India, 1998-99



The practice of conducting deliveries at home with the assistance of doctor/ nurse/ ANM is not very common in India. Only in a few states like Gujarat, Karnataka, Manipur, Nagaland, Orissa, Punjab and Rajasthan 10 percent or more of the total deliveries were conducted at home with the assistance of doctor, nurse/ ANM. In Haryana, Himachal Pradesh, Jammu & Kashmir, Punjab, Dadra & Nagar Haveli and Lakshdweep 15-27 percent of the total deliveries were conducted at home with the assistance of a Trained Birth Attendant (TBA).

The proportion of safe deliveries varies across the states/ Union territories from 25 percent or less in Bihar, Nagaland and Uttar Pradesh to 80 percent and above in Goa, Kerala, Tamil Nadu and Pondicherry.

Tables 3.9 and 3.10 present the percentage of women who delivered in a health institution and the percentage of women who had safe delivery by selected background characteristics and by states/ Union territories respectively. As in the case of ANC coverage, the extent of institutional deliveries and safe deliveries is comparatively higher among urban women and non- SC/ ST women. The extent of institutional deliveries and safe deliveries is positively related to women's education and economic status. The urban-rural differences in the proportion of institutional and safe deliveries are much higher than differences among SC/ST and non-SC/ST women. The relationship between women's education and institutional and safe deliveries is stronger than that between women economic status (as measured by type of house) and institutional and safe deliveries.

3.2.2 Natal care by Districts

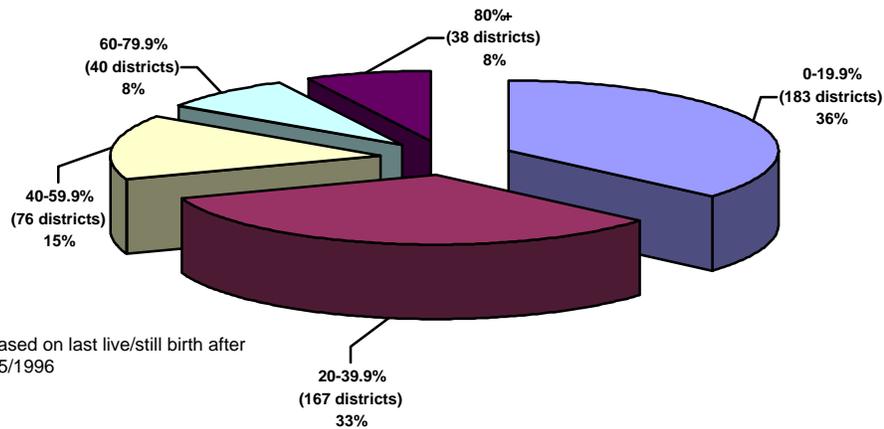
Appendix 1 presents the percentage of institutional and safe deliveries by districts in India. As in the case of ANC coverage, the extent of institutional and safe deliveries varies widely across the 504 districts of India. The number of districts by the percent of institutional deliveries varying between 0 to 19.9, 20 to 39.9, 40 to 59.9, 60 to 79.9 and 80 percent and above are 183, 167, 76, 40 and 38 respectively (figure 3.8).

Table 3.9 INSTITUTIONAL DELIVERIES												
Percentage of women who had institutional delivery by selected background characteristics and by State/Union territory, India, RCH Phase I & II.												
State/ Union territory	Background Characteristics											
	Residence			Caste		Education			Type of House			
	Total	Rural	Urban	SC/ST	Other	Illiterate	0-9@ years	10 & above	Kachcha	Semi- Pucca	Pucca	
State												
Andhra Pradesh	50.6	41.8	75.6	41.9	53.7	37.4	60.5	83.6	36.8	49.8	65.7	
Arunachal Pradesh	26.3	19.4	50.3	23.3	45.6	15.8	35.6	70.1	19.8	44.5	55.3	
Assam	23.8	20.0	65.1	21.4	24.6	6.4	23.7	61.2	13.8	38.4	62.2	
Bihar	14.9	12.5	37.8	8.2	17.2	8.0	27.4	52.6	8.0	20.6	38.5	
Goa	93.8	93.4	94.3	90.0	94.6	78.8	95.3	100.0	81.9	92.5	99.1	
Gujarat	46.1	35.1	71.8	34.8	51.4	27.6	53.0	79.9	22.9	38.3	65.7	
Haryana	25.7	18.7	52.7	14.8	29.4	12.7	26.5	57.2	7.7	16.9	41.3	
Himachal Pradesh	31.7	28.9	71.4	26.0	33.8	14.3	26.7	49.7	21.1	31.1	41.4	
Jammu & Kashmir	44.4	44.4	--	23.3	47.5	44.1	35.0	64.8	22.4	44.3	59.1	
Karnataka	50.0	40.6	76.3	34.5	54.9	31.5	61.7	83.1	30.7	48.5	77.6	
Kerala	97.0	96.3	99.2	92.1	99.2	85.2	94.7	99.4	91.9	96.3	98.3	
Madhya Pradesh	21.5	13.3	56.3	12.2	28.1	12.7	29.3	66.8	12.5	29.3	53.9	
Maharashtra	57.1	41.2	84.8	41.8	63.0	33.7	62.5	85.9	34.6	59.7	78.8	
Manipur	34.1	24.9	69.4	15.8	47.5	16.4	30.2	63.9	28.7	37.9	75.9	
Meghalaya	33.4	23.2	81.7	32.6	53.8	16.2	34.3	77.9	11.6	42.4	68.2	
Mizoram	58.9	40.7	81.0	58.7	75.0	12.1	58.2	87.0	28.7	70.1	89.7	
Nagaland	13.4	10.5	26.2	13.1	25.9	5.0	9.4	23.7	5.8	16.4	38.3	
Orissa	23.4	19.2	55.9	13.9	31.2	13.2	32.5	67.3	17.0	33.1	54.8	
Punjab	40.5	35.3	56.9	26.0	50.1	22.9	39.3	67.7	16.4	31.9	57.4	
Rajasthan	22.5	16.2	50.5	15.8	25.5	14.7	38.1	74.4	10.9	14.2	34.5	
Sikkim	32.3	27.6	69.4	26.5	35.3	18.1	34.2	71.7	19.7	34.2	59.8	
Tamilnadu	78.8	70.9	94.2	66.4	83.4	63.4	83.7	95.4	61.2	80.3	91.2	
Tripura	46.1	43.7	84.6	37.4	50.0	20.6	51.6	86.4	42.2	58.4	76.4	
Uttar Pradesh	16.2	12.7	35.9	10.4	18.3	10.2	22.9	53.6	9.3	14.1	31.2	
West Bengal	38.9	29.0	80.9	34.6	41.4	22.9	47.8	90.4	26.5	56.4	76.3	
Union territory												
A & N Islands	68.4	62.2	94.2	60.4	77.3	48.3	62.6	85.4	49.8	77.9	92.7	
Chandigarh	67.7	7.1	73.2	40.0	72.7	21.4	50.0	96.9	14.3	27.3	85.0	
Dadra & Nagar Haveli	25.9	22.0	78.6	11.5	67.6	7.9	42.0	83.3	10.2	19.1	62.9	
Daman & Diu	63.2	57.6	73.5	69.4	58.5	34.9	68.6	85.6	76.7	75.1	56.1	
Delhi	70.0	56.6	76.0	43.1	76.9	33.3	46.4	89.8	25.0	48.4	74.1	
Lakshdweep	71.3	75.6	67.3	71.2	100.0	51.9	71.0	79.4	33.3	71.0	71.9	
Pondicherry	92.2	87.0	95.8	81.3	95.8	77.9	93.6	98.6	80.1	97.7	97.7	
India	34.0	25.8	66.6	24.1	36.9	17.9	45.8	76.0	17.6	37.9	56.2	
@: Literate women without schooling are included here												

Table 3.10 SAFE DELIVERIES											
Percentage of women who had safe delivery by selected background characteristics and by State/Union territory, India, RCH Phase I & II.											
State/ Union territory	Background Characteristics										
	Total	Residence		Caste		Education			Type of House		
		Rural	Urban	SC/ST	Other	Illiterate	0-9@ years	10 & above	Kachcha	Semi- pucca	Pucca
State											
Andhra Pradesh	59.8	52.5	81.5	52.4	62.6	48.0	70.1	88.3	48.7	59.4	72.2
Arunachal Pradesh	28.1	20.9	53.4	25.1	48.1	17.2	38.5	72.6	21.3	47.9	58.1
Assam	31.9	27.2	73.3	29.1	31.8	10.2	32.9	72.1	19.3	51.3	72.2
Bihar	19.0	16.4	44.3	11.2	21.8	11.2	33.8	61.4	11.3	26.1	55.7
Goa	95.1	95.3	94.8	92.4	95.6	82.4	96.8	100.0	81.9	94.0	100.0
Gujarat	55.9	46.5	79.6	41.2	63.9	37.0	65.9	88.4	31.4	49.0	76.8
Haryana	32.7	25.0	63.2	21.3	36.7	18.8	35.1	65.1	12.0	23.7	49.3
Himachal Pradesh	36.3	33.7	73.7	29.2	38.6	17.9	31.2	55.3	24.6	35.2	47.5
Jammu & Kashmir	46.8	46.8	0.0	26.4	50.0	46.7	37.0	67.6	25.2	46.7	61.4
Karnataka	59.9	51.6	83.4	44.0	65.0	41.6	72.6	91.7	39.3	59.7	85.0
Kerala	97.4	96.8	99.2	92.5	99.4	85.4	95.4	99.4	92.7	96.9	98.4
Madhya Pradesh	27.5	19.1	64.0	16.8	35.1	17.2	39.4	75.2	18.0	37.0	61.2
Maharashtra	61.2	47.1	86.3	45.5	67.5	38.3	66.9	88.9	39.9	64.1	81.9
Manipur	49.9	41.0	84.1	31.6	62.8	30.3	47.5	80.1	43.0	57.7	88.8
Meghalaya	35.6	25.6	83.0	35.0	55.2	17.1	36.9	81.9	13.3	44.8	71.6
Mizoram	62.9	46.0	83.6	62.6	87.4	13.7	62.9	89.9	32.6	74.2	94.3
Nagaland	25.1	21.6	40.7	24.9	25.7	7.8	20.8	43.2	14.0	33.5	50.3
Orissa	32.7	29.0	62.3	21.4	42.2	21.0	45.3	76.5	25.3	45.4	64.7
Punjab	54.7	49.8	71.0	38.5	63.8	36.4	56.2	80.8	29.3	46.3	72.2
Rajasthan	33.4	26.9	62.8	25.0	37.4	24.7	54.4	85.3	18.7	26.0	47.5
Sikkim	36.7	32.2	73.4	31.1	39.7	21.6	39.6	77.2	24.4	39.3	62.9
Tamil Nadu	82.4	75.4	96.2	70.5	86.9	68.1	87.4	97.2	67.5	84.7	93.0
Tripura	48.3	46.2	84.5	41.1	51.6	23.9	53.6	87.9	44.5	61.2	78.2
Uttar Pradesh	20.8	16.8	43.7	13.9	23.3	13.9	29.9	61.7	12.9	18.3	38.3
West Bengal	45.6	36.8	83.4	39.5	49.1	29.0	56.6	92.9	33.9	62.4	81.3
Union territory											
A & N Islands	71.3	65.8	94.2	68.5	78.0	52.9	65.0	87.8	53.1	81.8	93.0
Chandigarh	71.2	14.3	76.5	44.0	76.2	26.8	57.1	99.0	21.4	30.3	88.3
Dadra & Nagar Haveli	27.6	24.1	78.6	13.1	70.6	9.0	45.7	86.7	11.2	20.2	67.6
Daman & Diu	70.6	62.9	85.0	77.0	66.5	41.2	77.0	94.1	76.7	78.8	66.4
Delhi	73.7	60.0	80.0	47.1	80.8	36.7	60.7	90.3	25.0	54.8	77.6
Lakshdweep	74.1	80.3	68.5	74.1	100.0	55.8	73.7	82.3	33.3	74.2	74.8
Pondicherry	93.4	88.6	96.7	82.8	96.9	81.5	94.6	98.7	82.4	98.1	98.6
India	40.2	32.3	72.3	29.8	43.5	23.6	53.9	81.8	23.7	44.8	63.1

@ Literate women with no schooling are included.

Figure 3.8
Distribution of districts by percentage of institutional deliveries,
India, 1998-1999



The lowest percent of institutional deliveries in India was reported in Rajauri district of Jammu & Kashmir where none of the women who delivered after 1st January 1996 did so in a health institution. In all, in 8 districts of India viz. Gumla, Purnia (Bihar), Kargil, Rajauri (both from Jammu & Kashmir), South Garo Hills from Meghalaya, Phek, Tuensang (both from Nagaland) and Hardoi (Uttar Pradesh) 5 percent or less women delivered in a health institution. Including these 8 districts the total 183 districts (36 percent of total districts in India) with 20 percent or less institutional deliveries are mainly from 9 states. In most of the districts of Assam (13 out of 22 districts), Bihar (35 out of 43 districts), Madhya Pradesh (25 out of 45 districts), Orissa (16 out of 30 districts), Rajasthan (13 out of 30 districts), Uttar Pradesh (52 out of 68 districts) one-fifth or less deliveries were conducted in institutions. The proportion of institutional deliveries in Karnataka and Maharashtra is above 50 percent but in Bijapur and Gadchiroli from these two states respectively 80 percent or more deliveries took place at home. Though in all these 183 districts the proportion of institutional deliveries was quite low, they differed with respect to safe deliveries. In many districts of Orissa, Manipur, Nagaland, Assam and Rajasthan a sizeable proportion of women had sought the assistance of a midwifery trained person i.e. doctor/ nurse/ ANM in the case of home deliveries. For example, in Ukhrul from Manipur and Mokokchung from Nagaland the proportion of institutional deliveries was 8 and 17 percent respectively but the proportion of safe deliveries was 26 and 57 percent respectively. Almost all the remaining districts of Assam, Bihar, , Madhya Pradesh, Orissa, Rajasthan and Uttar Pradesh are among the 167 districts of India with the proportion of institutional deliveries ranging between 20 to

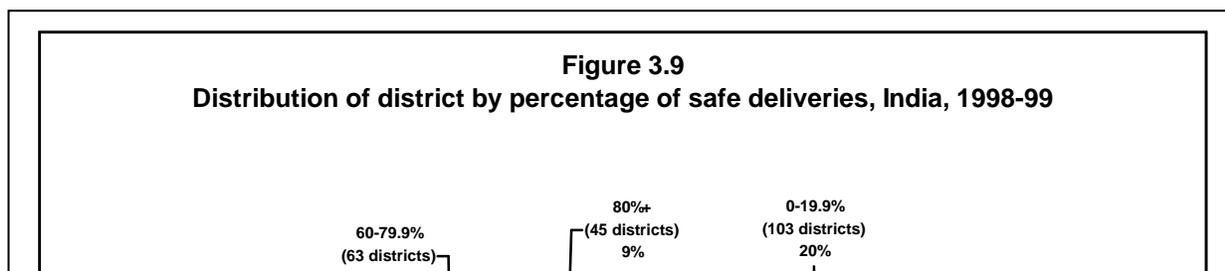
39.9 percent. Most of the districts from Arunachal Pradesh, Haryana, Himachal Pradesh and Punjab also fall in this group.

The proportion of institutional deliveries in 76 districts in India lies between 40 to 59.9 percent. Districts, mainly of Andhra Pradesh (15 out of 23 districts), Gujarat, Karnataka, Maharashtra, Punjab and West Bengal fall in this group. In spite of low levels of institutional deliveries in Bihar and Uttar Pradesh, the districts Paschim and Purbi Champaran and Kanpur in these two states respectively belong to this group.

The group with 60 to 79.9 percent institutional deliveries has 40 districts. The group is represented more by districts of Karnataka, Maharashtra and Tamil Nadu. Delhi and Chandigarh, Indore (Madhya Pradesh) and Nadia (West Bengal) also belong to this group with a high proportion of institutional deliveries.

In 38 districts (8 percent of total districts) of India institutional deliveries constitute 80 percent or more of the total deliveries. All the 14 districts of Kerala, both the districts of Goa, 14 out of 23 districts of Tamil Nadu and 3 out of 4 districts of Pondicherry are the members of this group. Hyderabad (Andhra Pradesh), Bangalore (Karnataka), Greater Mumbai (Maharashtra) and Howrah (West Bengal) and Daman (Daman & Diu) also belong to this group with 80 percent or more institutional deliveries. In fact, in 2 out of these 38 districts, Alapuzha from Kerala and Mahe from Pondicherry all the deliveries took place in health institutions. In 8 more districts- 7 from Kerala and Chennai from Tamil Nadu- institutional deliveries constitute 99 percent of the total deliveries. In all these 38 districts 85 percent or more deliveries were conducted in a safe manner.

The districts by the percent of safe deliveries ranging between 0 to 19.9, 20 to 39.9, 40 to 59.9, 60 to 79.9 and 80 percent and above are 103, 198, 95, 63 and 45 respectively (figure 3.9). The pattern of districts from different states falling in the different groups is more or less similar to that of the pattern of institutional deliveries.



Note: Based on last live/still birth after
1.1.1995/1996

3.3 Reproductive Morbidity

The extent of health problems/ complications women suffer during pregnancy, delivery and post delivery period indicates the state of obstetric morbidity. Detection of the cases of complicated pregnancies and timely provision of treatment to women with complicated pregnancies is one of the important components of the RCH programme. For timely identification of post-delivery complications and provision of their treatment ANMs are expected to make post-delivery home visits. Table 3.11 presents the incidence of pregnancy, delivery and post-delivery complications and treatment seeking behavior in the case of pregnancy and post-delivery complications. The incidence of complications is judged by experience of any symptoms/ health problems.

The incidence of pregnancy complications is judged by the presence of any of the following symptoms like, “swelling of hands and feet”, “paleness”, “weakness or tiredness”, “dizziness”, “visual disturbances”, “bleeding”, “convulsions”, “weak or no movement of foetus” and “abnormal presentation”. The delivery complication is determined by experience of any of the “premature labour”, “obstructed labour”, “prolonged labour” or “breech presentation”. The incidence of post delivery complication is judged by any of the following during the first week after delivery “high fever”, “lower abdominal pain”, “foul smelling vaginal discharge”, “excessive bleeding” and “dizziness and severe headache”.

Table 3.11 presents the percent of women who experienced each of the above mentioned pregnancy, delivery and post-delivery complications.

Table 3.11 PREGNENCY, DELIVERY AND POST DELIVERY COMPIICATIONS, INDIA Percentage of women who had pregnancy, delivery and post delivery complications by type of complications, India, RCH, Phase I&II	
Complication	Percentage of women who had complication
Pregnancy complications	63.6
Swelling of hands and feet	22.9
Paleness	18.8
Weakness or tiredness	53.0
Dizziness	58.3
Visual disturbances	13.4
Bleeding	3.4
Convulsions	3.8
Weak or no movement of foetus	3.3
Abnormal presentation	2.3
Other	12.0
Delivery complications	37.0
Premature labour	16.0
Obstructed labour	17.8
Prolonged labour (more than 12 hours)	13.3
Breech presentation	2.6
Other	4.1
Post delivery complications	44.4
High fever	19.5
Lower abdominal pain	28.6
Foul smelling/vaginal discharge	9.2
Excessive bleeding	12.4
Dizziness, severe headache	18.7
Other	2.7

In India 64, 37 and 44 percent women experienced any of the pregnancy, delivery and post delivery complications respectively. "Weakness or tiredness" (47 percent), "dizziness" (37 percent), "swelling on feet and hands" (23 percent), and "paleness" (19 percent) were the most common health problems women experienced during pregnancy. About 14 percent of women experienced visual disturbances and 4 percent had bleeding during pregnancy. In four percent of the cases, the movement of foetus was quite weak or nil and in three percent of the cases women had convulsions during pregnancy. Little more than one-third of the women (37 percent) reported some complications during childbirth. Abnormal presentation, obstructed labor and prolonged labor were the most common reported problems. The most common problems during post delivery period were "lower abdominal pain" (26 percent) and "high fever" (19 percent) and "dizziness, severe headache" (16 percent).

The proportion of women who had pregnancy, delivery and post delivery complications and who sought treatment for their problems by states/Union territories is presented in table 3.12. In a majority of the states the largest proportion of women experienced pregnancy complications followed by post delivery and delivery complications. On the whole, a higher percentage of women from Bihar, Orissa, Tripura and Dadra & Nagar Haveli experienced all the three complications whereas in Andhra Pradesh, Haryana, Himachal Pradesh, Jammu & Kashmir, Karnataka and Delhi the prevalence of all these complications was at a lower side.

In all the states/Union territories except Andhra Pradesh, Himachal Pradesh, Karnataka, and Delhi 50 percent or more women suffered from at least one pregnancy complication. In Bihar, Goa, Kerala, Orissa, Tamil Nadu, Tripura, West Bengal and Pondicherry this percentage was above 70. In Bihar, Gujarat, Dadra & Nagar Haveli and Daman & Diu 70-76 percent of the women had delivery complications. In all the states/Union territories the extent of post-delivery complications is lower than 70 percent. Only in Bihar, Orissa, Tripura and Dadra & Nagar Haveli did 60 to 65 percent women suffer any of the post delivery complications.

It has been already noted that in Andhra Pradesh, Goa, Kerala, Maharashtra and Delhi the ANC coverage and extent of institutional deliveries was comparatively high. In these states a comparatively higher percent of women sought treatment for their complications. In Bihar and Orissa the extent of complications is high but only a smaller percent sought treatment for complications.

Table 3.12 PREGNANCY, DELIVERY AND POST DELIVERY COMPLICATIONS, STATE/UNION TERRITORY					
Percentage of women who had pregnancy, delivery and Post delivery complications and who sought treatment for complications and by State/Union territory, India, RCH Phase I & II.					
State/ Union territory	Percentage of women				
	Who had complication during pregnancy	Who had Delivery Complication	Who had Post delivery complication	Who sought* treatment for Pregnancy complication	Who sought* treatment for post delivery complication

State					
Andhra Pradesh	41.3	31.4	24.5	70.2	69.1
Arunachal Pradesh	63.7	44.8	59.4	29.0	20.0
Assam	60.5	66.2	39.9	38.6	38.9
Bihar	76.4	73.4	64.2	31.5	29.0
Goa	70.8	34.1	37.9	86.9	81.3
Gujarat	66.5	76.0	49.7	59.8	51.2
Haryana	49.1	14.4	22.5	53.7	58.0
Himachal Pradesh	66.5	12.7	20.0	61.6	64.2
Jammu & Kashmir	53.5	36.6	43.5	83.1	76.3
Karnataka	43.4	21.6	28.4	72.9	71.3
Kerala	80.4	28.8	28.2	86.3	80.8
Madhya Pradesh	62.9	45.5	46.7	39.2	33.5
Maharashtra	69.1	56.0	54.6	71.1	64.9
Manipur	51.7	22.7	34.6	56.5	31.1
Meghalaya	52.4	15.1	37.0	47.0	52.4
Mizoram	65.1	50.7	54.5	55.8	32.0
Nagaland	67.5	47.3	56.7	34.7	23.1
Orissa	72.8	35.1	62.9	41.5	25.7
Punjab	59.3	20.0	29.5	75.7	48.9
Rajasthan	57.1	19.0	30.9	42.0	56.4
Sikkim	62.1	51.3	36.2	30.4	27.0
Tamil Nadu	69.5	27.6	36.9	73.8	41.4
Tripura	85.3	64.8	61.3	56.8	45.0
Uttar Pradesh	62.0	17.8	41.3	37.1	48.4
West Bengal	74.3	25.3	59.2	56.3	46.2
Union territory					
A & N Islands	53.0	19.0	23.7	75.6	63.9
Chandigarh	53.3	49.1	20.9	70.3	51.4
Dadra & Nagar Haveli	67.4	70.6	63.2	69.4	47.2
Daman & Diu	63.9	73.5	33.2	84.2	76.7
Delhi	26.2	55.8	16.7	78.4	81.6
Lakshdweep	60.3	16.6	21.7	71.9	81.1
Pondicherry	75.1	23.9	37.6	76.2	58.8
India	63.6	37.0	44.4	46.7	46.6
* Percentages refer to women who had complication					

CHAPTER 4

CHILD HEALTH CARE

Child health services provided under the RCH programme include health education to mothers on breast-feeding and services for immunization, supplementation of vitamin A, treatment of Diarrhoea and Acute Respiratory Infections (ARI), and management of low birth weight babies. In RCHS all the women who had delivered their last live birth after 1st January 1995 were asked about the birth weight of the child. In case the child was alive, information was collected on the duration of breast-feeding, months in which semisolid and solid food was introduced, awareness about Diarrhoea management and danger signs of ARI and practices followed in the case of episodes of Diarrhoea and ARI among the children. The data on immunization and vitamin A and iron prophylaxis was collected for the last two living children born after 1st January 1995. For the second phase the reference period was from 1st January 1996 to survey date. This chapter presents the analysis of the data collected on the above aspects.

4.1 Birth Weight

Low birth weight babies are at higher risk of the infant mortality. For the timely treatment of the low birth weight babies it is necessary to identify them. In the case of institutional births, babies are mostly weighed immediately after birth. However, in the case of home births this is not so. Government health workers, mainly ANMs or Anganwadi workers are expected to weigh the babies delivered at home, if not immediately, at least within two days of the birth. Under the Child Survival and Safe Motherhood (CSSM) programme infant weighing machines are supplied to the sub-centers for this purpose. Table 4.1 shows the percentage of women whose babies were weighed within two days of the birth and the percent distribution of the babies by birth weight tabulated for all the states and union territories in India. Figure 4.1 presents the percentage of babies weighed within two days of birth in 15 major states. In India only 28 percent of the babies got weighed within two days of birth. It has already been stated that in India 34 percent of the total deliveries in India have taken place in health institutions. However, the percent of babies weighed is lower than the percent of institutional babies, implying that even in the case of institutional deliveries all the babies are not weighed. In the case of home deliveries the incidence of weighing babies is very rare.

Table 4.1 BIRTH WEIGHT

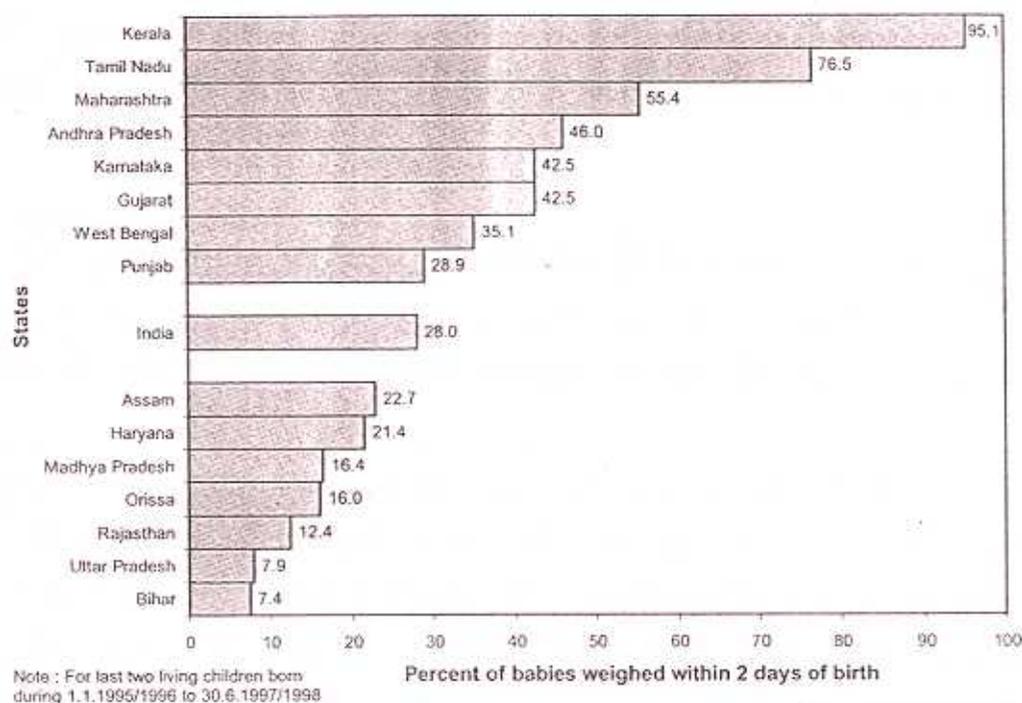
Percentage of babies weighed and birth weight by State/Union territory, India, RCH Phase I & II.

State/ Union territory	Percentage of babies weighed within 2 days of birth	Percent distribution of babies weighed and found		
		Below 2500 grams	2500 grams and above	Weight not known
State				
Andhra Pradesh	46.0	18.2	66.5	15.2
Arunachal Pradesh	23.4	10.6	70.1	19.5
Assam	22.7	11.8	77.9	10.2
Bihar	7.4	14.0	75.5	10.6
Goa	85.7	18.5	65.0	16.5
Gujarat	42.5	17.0	75.5	7.6
Haryana	21.4	20.2	58.7	21.1
Himachal Pradesh	35.4	15.4	67.7	17.0
Jammu & Kashmir	26.6	18.3	7.6	74.5
Karnataka	42.5	19.5	70.6	10.0
Kerala	95.1	14.8	79.7	5.3
Madhya Pradesh	16.4	16.5	48.9	34.7
Maharashtra	55.4	18.9	72.5	8.6
Manipur	31.0	7.4	84.0	8.6
Meghalaya	32.3	18.2	77.6	4.2
Mizoram	70.8	9.0	90.2	0.9
Nagaland	13.2	3.8	88.2	7.9
Orissa	16.0	15.2	69.4	15.4
Punjab	28.9	15.3	56.8	27.9
Rajasthan	12.4	21.9	47.4	30.8
Sikkim	30.4	16.0	80.4	3.6
Tamil Nadu	76.5	10.8	82.6	6.7
Tripura	33.0	19.4	64.0	16.6
Uttar Pradesh	7.9	17.3	37.0	45.7
West Bengal	35.1	22.1	64.9	13.0
Union territory				
A & N Islands	70.0	8.6	71.3	20.1
Chandigarh	65.3	11.9	78.9	9.2
Dadra & Nagar Haveli	25.4	16.7	76.5	6.8
Daman & Diu	58.8	17.2	78.6	4.2
Delhi	66.2	16.7	55.7	27.6
Lakshdweep	54.5	9.1	59.7	31.2
Pondicherry	90.5	16.9	74.9	8.2
India	28.0	16.9	68.2	14.9

In the case of 15 percent of the 28 percent babies whose weight was taken, the weight of the baby could not be ascertained as mothers could not recall the correct birth weight.

About two-thirds of the babies were normal with a birth weight above 2500 grams and remaining 17 percent were found underweight with a birth weight below 2500 grams.

Figure 4.1
Babies weighed by 15 major states, India, 1998-99



4.4.1 Birth Weight by States/ Union territories

Among all the states and union territories of India, only in Kerala (95 percent) and Pondicherry (91 percent) were more than 90 percent of the babies weighed within two days of the birth. At the same time in Bihar (7 percent) and Uttar Pradesh (8 percent) less than 10 percent of the babies were weighed. In all the states with the exception of Goa, Kerala, Maharashtra, Mizoram and Tamil Nadu and in Dadra & Nagar Haveli 50 percent or less babies were weighed within two days of birth. In a large number of cases where the baby was weighed, mothers could not recall the birth weight of the child. In states like Jammu & Kashmir, Madhya Pradesh, Punjab, Rajasthan, Uttar Pradesh, Delhi and Lakshdweep 25 or more percent of women whose children were weighed could not report the birth weight. Since there is variation at both the state/ union territory level, the percent of women whose babies were weighed within two days of birth and percent of women who could not report the baby's weight is so high the state/ union territory level comparison of the proportion of babies underweight may not be correct.

4.2 Breast Feeding

Educating mothers on correct breast-feeding practices and child nutrition forms one of the components of the RCH programme. In RHS all the women whose last living child was born after 1st January 1995 were asked whether they had received any advice on breast-feeding, duration of breast-feeding and the age of the child when they should introduce semi-solid and solid food. In the second phase the reference period was from 1st January 1996.

Initiation of the breastfeeding immediately after the birth is beneficial for both the infant as well as the mother. The first breastmilk (colostrum) provides natural immunity to the infant. Table 4.2 presents the percentage distribution of women in different states and union territories by the timing of first breastfeeding.

Little more than one-fourth of the women started breast-feeding the child within two hours of delivery and another 12 percent started after two hours but on the same day. So, 62 percent of the women started breastfeeding after the first day, and of these, 24 percent started after three days of the childbirth. In all the states and union territories the practice of breast-feeding is universal. However, there is a large variation in the timing of the first breast-feed. In Arunachal Pradesh, Assam, Kerala, Sikkim, Tamil Nadu, Lakshdweep and Pondicherry 60 percent or more women started breast-feeding within two hours of delivery. Even in Jammu & Kashmir, Mizoram and Chandigarh 52-54 percent started breastfeeding within two hours of childbirth. On the contrary in Bihar, Gujarat, Haryana, Punjab, Rajasthan, Uttar Pradesh and West Bengal 20 percent or less started breast-feeding within two hours. In all these states 50 percent or more women started breastfeeding only after the first day of childbirth. The table on the quantum of institutional deliveries shows that in India one third of the women have delivered in health institutions. In the health institutions the doctor/nurse/ ANM attending on the delivery is expected to advise woman to start breastfeeding immediately after the birth of the child. However, in India as well as in many other states like Andhra Pradesh, Maharashtra, Gujarat, Karnataka etc., the percent of the women initiating breastfeeding within two hours of childbirth is substantially less than the proportion of institutional deliveries, suggesting that even in health institutions also early breastfeeding is not ensured. At the same time, in many other states like Arunachal Pradesh, Assam, Sikkim etc. the extent of early breastfeeding is higher than the proportion of institutional deliveries. Probably, the pattern of breastfeeding is governed by customs.

Table 4.2 BREAST-FEEDING

Percent distribution of women by the timing of first breastfeeding* and by State/Union territory, India, RCH Phase I & II.

State/ Union territory	Timing of first breastfeeding*			
	Within two hours of childbirth	After two hours of childbirth but on the same day	Within 1-3 days	After 3 days
State				
Andhra Pradesh	29.7	7.6	26.7	35.3
Arunachal Pradesh	72.4	12.4	9.9	5.2
Assam	61.8	19.1	13.0	5.8
Bihar	12.9	12.0	48.3	26.1
Goa	45.2	14.7	30.9	8.2
Gujarat	19.4	11.5	46.0	22.1
Haryana	13.6	13.8	53.4	18.3
Himachal Pradesh	39.7	19.1	27.5	13.0
Jammu & Kashmir	52.2	38.2	8.4	0.8
Karnataka	31.7	12.0	39.7	16.2
Kerala	72.7	19.2	6.8	1.3
Madhya Pradesh	24.9	11.0	32.2	31.6
Maharashtra	36.9	13.6	32.2	17.1
Manipur	30.1	9.1	35.7	25.1
Meghalaya	42.2	37.3	16.9	2.5
Mizoram	53.8	22.7	19.8	3.7
Nagaland	33.5	31.4	29.9	4.0
Orissa	36.0	21.6	25.7	16.2
Punjab	7.3	9.0	63.4	18.3
Rajasthan	15.8	11.8	44.4	27.3
Sikkim	78.9	11.0	7.4	2.6
Tamil Nadu	71.4	13.1	11.3	3.8
Tripura	43.3	16.7	20.2	18.7
Uttar Pradesh	8.9	4.9	45.8	39.8
West Bengal	19.6	18.0	41.5	20.4
Union territory				
A & N Islands	47.9	19.6	24.0	6.7
Chandigarh	53.0	7.2	12.5	26.2
Dadra & Nagar Haveli	42.5	27.6	24.1	5.8
Daman & Diu	40.9	7.7	41.3	9.4
Delhi	43.8	22.4	32.8	1.1
Lakshdweep	70.0	23.4	5.5	0.8
Pondicherry	66.5	17.4	11.0	4.5
India	26.3	12.0	37.2	24.3

* Refers to the last surviving child born after 1.1.1995/1.1.1996

4.2.1. Breast Feeding by States/Union Territories

Table 4.3 presents the proportion of women who initiated breastfeeding within two hours of childbirth by their background characteristics and by states/union territories. In India the proportion of women who started breastfeeding within two hours is higher in urban areas as compared to rural areas. It increases with women's education and economic status as measured by type of house. The proportion is the same between SC/ST and non-SC/ST women. In Karnataka, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Tripura, Uttar Pradesh and Chandigarh also a similar pattern of variation in is observed. However, in many states/union territories the pattern of variation in the extent of early breastfeeding by woman's characteristics

Table 4.3: BREAST FEEDING BY BACKGROUND CHARACTERISTICS

Percentage of women who started breast feeding within two hours of childbirth by selected background characteristics of women and by State/Union territory, India, RCH Phase I & II.

State/ Union territory	Background Characteristics										
	Residence		Caste		Education		Type of House				
	Total	Rural	Urban	SC/ST	Other	Illiterate	0-9@ years	10 & above	Kachcha	Semi-pucca	Pucca
State	29.7	28.2	32.1	29.5	28.9	26.6	28.2	34.4	29.9	30.4	30.5
Andhra Pradesh	72.4	73.0	68.9	73.8	64.4	74.5	70.0	65.7	73.7	67.0	67.6
Arunachal Pradesh	61.8	60.7	62.1	61.7	60.6	63.9	59.9	67.8	49.7	68.2	52.6
Assam	12.9	12.6	16.2	17.1	11.0	11.0	14.2	15.2	12.8	10.7	11.3
Bihar	45.2	43.3	46.1	46.6	44.1	46.4	42.2	49.3	31.9	46.7	41.6
Goa	19.4	18.5	21.9	23.0	17.9	15.6	19.4	27.2	21.1	17.9	20.3
Gujarat	13.6	12.0	18.3	13.2	13.7	12.1	11.2	19.6	10.5	12.1	16.7
Haryana	39.7	38.0	35.8	39.3	39.9	40.6	38.1	40.4	42.8	42.4	35.4
Himachal Pradesh	52.2	54.2	--	57.8	49.8	51.2	63.5	34.8	60.5	55.7	42.4
Jammu & Kashmir	31.7	27.6	42.9	25.8	33.3	22.9	38.4	46.2	19.1	32.9	41.3
Karnataka	72.7	73.0	68.3	72.3	71.6	72.9	75.0	72.6	69.6	72.2	73.3
Kerala	24.9	21.5	35.7	22.6	26.5	21.9	28.6	41.2	23.1	26.5	33.6
Madhya Pradesh	36.9	34.3	41.8	35.6	37.5	29.3	37.9	48.3	32.3	36.7	41.1
Maharashtra	30.1	28.4	28.5	36.7	23.3	34.7	31.8	24.9	30.2	30.3	30.5
Manipur	42.2	43.5	35.4	42.8	39.8	45.1	42.0	40.0	56.5	33.7	31.4
Meghalaya	53.8	54.7	54.0	59.2	47.2	31.4	54.5	55.7	42.4	56.6	53.3
Mizoram	33.5	34.0	22.9	28.8	28.4	39.7	35.1	34.5	26.0	35.0	23.3
Nagaland	36.0	35.3	43.0	35.6	36.4	32.8	38.3	50.7	34.7	37.1	42.2
Orissa	7.3	6.1	10.5	6.2	7.8	5.1	7.1	10.4	4.0	5.5	10.2
Punjab	15.8	13.9	23.8	13.2	16.8	13.7	20.5	27.7	12.5	13.6	19.0
Rajasthan	76.9	77.6	74.3	78.1	79.4	82.6	80.0	74.9	82.5	76.7	76.1
Sikkim	71.4	71.3	70.9	71.7	71.7	67.1	77.5	72.2	68.3	72.1	69.2
Tamil Nadu	43.3	41.9	69.2	47.8	41.4	35.9	47.0	53.6	39.1	53.2	53.6
Tripura	8.9	8.2	13.2	7.6	9.5	7.8	10.5	15.9	6.6	8.1	14.7
Uttar Pradesh	19.6	19.7	20.4	23.0	17.8	19.1	20.1	16.7	19.8	19.4	16.1
West Bengal	47.9	51.5	51.9	52.7	51.8	41.4	45.2	54.0	41.9	48.9	54.5
Union territory	53.0	0.0	57.8	44.0	54.3	39.3	35.7	63.3	21.4	33.3	62.0
A & N Islands	42.5	43.8	25.9	49.7	20.6	52.0	25.9	53.5	53.5	42.7	22.2
Chandigarh	40.9	48.9	36.0	36.3	43.8	47.9	56.6	56.5	34.5	55.2	29.1
Dadra & Nagar Haveli	43.8	47.2	42.3	38.8	44.8	30.7	34.6	51.5	22.2	62.5	42.2
Daman & Diu	70.1	78.7	61.9	70.1	50.0	79.2	69.4	66.2	80.0	77.4	68.8
Delhi	66.5	59.7	69.9	73.6	64.3	67.4	69.1	63.1	68.0	70.1	62.8
Lakshadweep	26.3	24.2	33.8	25.7	25.7	20.2	32.4	40.1	22.5	27.6	30.5
Pondicherry											
India											

@ Literate mothers without schooling are included.

is different from that observed at the national level. In fact, in most of the states/union territories the extent of early breastfeeding does not vary consistently either with women's education or with economic condition. It also does not show any consistent pattern of variation by women's residence or caste.

4.3 Immunization

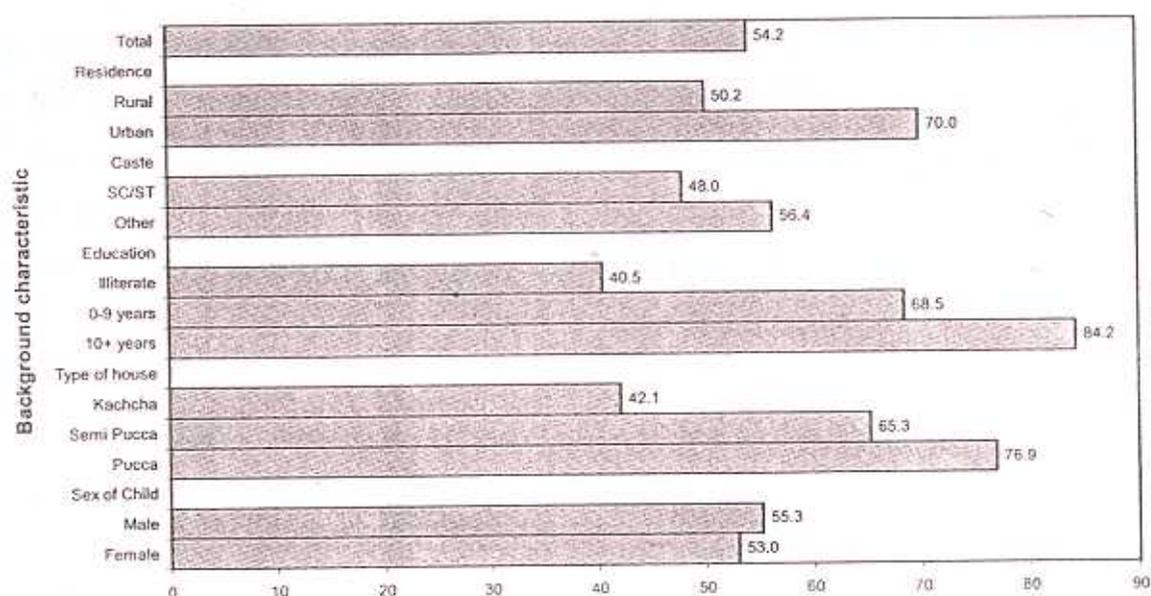
Immunization of children against six serious but preventable diseases viz tuberculosis, diphtheria, pertussis, tetanus, poliomyelitis and measles is the main component of the child survival programme. The programme also includes administration of five doses of vitamin A for the prevention of night blindness and distribution of IFA for iron supplementation. In RHS all the women with last one/ two living children born after 1st January 1995 were asked whether the child/ children had received vaccination against polio, tuberculosis (BCG), diphtheria, whooping cough and tetanus (DPT) and measles as well as vitamin A doses and Iron and Folic Acid tablets/ syrup. For polio and DPT further information on polio at birth (polio '0') and number of doses of polio, DPT, and vitamin A were asked. In second phase the reference period was from 1st January 1996. Information on the source of immunization and in case where immunization is not given, the reason for not immunizing the child was also collected.

Table 4.4 presents the proportion of children born during 1st January 1995 and 30th June 1997 in districts covered in phase 1 and 1st January 1996 and 30th June 1998 in districts covered in phase 2 who had received each type of vaccination, vitamin A and IFA tablets by sex of the child and selected background characteristics. Figure 4.2 is the graphical presentation of the extent of complete immunization (BCG, three doses of DPT and polio each and measles) by selected characteristics. According to RHS, 36 percent of the children in India received polio dose at birth. Seventy three, 66, 68 and 60 percent children received the BCG vaccine, three injections of DPT, three doses of polio and measles vaccine respectively. The coverage of measles vaccination is lower than that of other three vaccines. The complete schedule of vaccination including BCG, three doses of DPT and polio each and measles was received by 54 percent of the children, whereas 19 percent of the children did not receive a single vaccination against any of the BCG, polio, DPT and measles. About one-third of the children received supplementation of at least one dose of vitamin A, but only 5 percent children received IFA tablets/liquid for iron supplementation.

Table 4.4: EXTENT OF VACCINATION BY SELECTED BACKGROUND CHARACTERISTICS, INDIA, PHASE I & II														
Type of Immunization	Percentage of children* who received immunization by													
	Residence			Caste			Mother's Education			Type of House			Sex of the Child	
	Total	Rural	Urban	SC/ST	Other	Illiterate	0-9@ years	10 & above	Kachcha	Semi Pucca	Pucca	Male	Female	
BCG	73.0	69.6	85.7	69.1	74.0	61.5	86.4	95.9	62.5	77.9	84.6	74.3	71.6	
OPT	25.3	28.2	14.2	28.9	24.4	36.3	12.4	4.1	34.9	21.0	14.6	24.1	26.7	
No DPT	3.3	3.6	2.1	4.0	3.0	4.0	2.6	1.5	4.1	2.9	2.4	3.3	3.4	
1	4.6	5.1	2.9	5.8	4.2	5.5	4.1	2.0	5.9	4.1	3.1	4.8	4.4	
2	66.1	62.5	80.3	60.6	66.0	53.5	80.4	92.1	54.2	71.4	79.5	67.3	64.8	
3+														
Polio	22.3	24.8	12.3	24.5	17.0	32.0	10.5	3.5	30.4	18.7	13.0	21.2	23.4	
No Polio	3.3	3.6	2.2	4.0	3.0	4.0	2.6	1.3	4.3	2.8	2.3	3.3	3.3	
1	5.8	6.3	3.7	7.3	5.3	7.0	5.1	2.6	7.6	5.1	3.7	5.8	5.9	
2	68.0	64.7	81.3	63.5	69.5	56.2	81.3	92.2	57.0	72.9	80.4	69.2	66.7	
3+														
Measles	60.4	57.1	75.4	55.0	62.2	46.8	75.2	89.5	47.5	66.1	75.0	61.6	59.0	
Complete (BCG+3 DPT+ 3 Polio+Measles)	54.2	50.2	70.0	48.0	56.4	40.5	68.5	84.2	42.1	65.3	76.9	55.3	53.0	
No Vaccinations	18.6	21.1	9.9	20.7	18.6	27.7	7.9	2.2	26.2	15.4	10.5	17.8	19.9	
At least one dose of Vitamin A	35.0	32.6	44.5	32.2	35.3	24.8	46.5	56.1	27.5	37.6	44.4	35.5	34.5	
IFA	5.4	5.2	6.5	6.1	5.1	4.0	6.6	8.8	4.6	5.6	6.8	5.5	5.4	

* Literate mothers without schooling are included.
 @ Include only last and last but one living children and born during 1.1.1995 to 30.6.1997 in Phase I, 1.1.1996 to 30.6.1999 in phase II.

Figure 4.2
Complete vaccination by selected background characteristics and sex of the child, India, 1998-99



Note : For last two living children born during
 1.1.1995/1996 to 30.6.1997/1998

Percent of children fully immunized

The coverage of every vaccine was higher among non-SC/ST children in comparison to SC/ST children. The vaccination coverage as well as vitamin A coverage was substantially higher in urban areas and increased considerably with mother's education and economic status. The coverage of every vaccine was higher among boys than among girls, though the difference did not exceed 3 percentage points. The rural-urban differences in the coverage of every vaccine in general, and polio '0' in particular are quite high. The increase in the coverage of every vaccine by mother's education is quite sharp in comparison to that with mother's economic status. Eighty four percent of the children of women with 10 or more years of schooling received complete vaccination and only 2 percent missed every type of vaccine, whereas only 40 percent children of illiterate women got complete vaccination and 28 percent did not get any.

4.3.1 Immunization Coverage by States/ Union Territories

Table 4.5 presents the coverage of BCG, DPT, polio, measles vaccines, vitamin A and IFA in all the state territories. Figures 4.3 and 4.4 present the percentage of children who received complete vaccination and those who did not receive a single vaccine respectively in 15 major states of India. In every state the highest percentage of children had received BCG vaccine followed by three doses of polio and three DPT injections, in that order. For all the vaccines the coverage of measles is the lowest. The state/union territories level variation is the highest for measles and the lowest for BCG. In Tamil Nadu and two union territories, Pondicherry and Lakshadweep, the coverage of every vaccine as well as coverage of complete vaccination is above 90%. Vaccination coverage in Andhra Pradesh, Goa, Himachal Pradesh, Karnataka, Kerala, Maharashtra and Punjab is high. In all the union territories with the exception of Chandigarh and Daman & Diu is high. In all these state territories more than 70 percent children received all the necessary vaccination i.e. BCG, three doses of polio each and measles. In Goa every child received some type of vaccine. Along with Goa, in Jammu & Kashmir, Tamil Nadu, Lakshadweep and Pondicherry only one percent or less children missed every type of vaccine. The lowest vaccination coverage was reported in Bihar where only 22 percent of the children got complete vaccination. In Bihar as many as 49 percent children did not get a single vaccine of either BCG, or DPT, or polio or measles. In Andhra Pradesh (23 percent), Manipur (21 percent), Rajasthan (34 percent) and Uttar Pradesh (29 percent) also more than one-fifth of the children did not get any vaccination. Along with Bihar, in Arunachal Pradesh (31 percent), Meghalaya (33 percent) and Nagaland (26 percent) only one-third or less children received the complete schedule of all the vaccines.

Table 4.5 VACCINATION OF CHILDREN

Percentage of children* who received vaccination by type of vaccine, vitamin A, iron & folic acid tablets/liquid by State/ Union territory, India, RCH Phase I & II

State/ Union Territory	Type of vaccine							IFA tablets/ liquid
	BCG	Three DPT Injections	Three Polio Doses	Measles	Complete (BCG+ 3 DPT+ 3 Polio+ Measles)	None	At least one dose of Vitamin A	
State								
Andhra Pradesh	94.0	88.5	89.7	82.1	74.5	2.4	33.2	12.5
Arunachal Pradesh	54.4	45.3	54.0	37.3	30.6	22.9	25.8	9.5
Assam	73.6	60.0	66.5	55.1	46.7	11.6	29.9	8.0
Bihar	40.8	34.9	37.4	25.6	22.4	48.8	7.3	1.4
Goa	98.1	95.0	95.0	90.6	88.6	0.0	74.3	12.0
Gujarat	81.0	71.1	73.0	68.4	58.1	10.2	51.3	15.4
Haryana	82.0	77.1	76.3	73.3	66.0	10.4	31.7	2.8
Himachal Pradesh	95.7	93.9	78.9	92.5	74.4	2.4	73.2	6.9
Jammu & Kashmir	93.6	74.2	71.0	76.2	52.9	1.0	28.7	13.4
Karnataka	88.6	82.2	86.6	77.8	71.8	5.7	48.8	5.6
Kerala	97.3	91.4	91.3	88.6	84.0	1.8	68.7	8.1
Madhya Pradesh	71.9	63.5	71.5	57.7	48.4	13.2	29.8	4.9
Maharashtra	94.1	90.4	90.3	87.9	79.7	1.9	64.3	9.4
Manipur	73.8	62.8	65.3	56.3	51.1	20.5	40.6	3.1
Meghalaya	72.5	49.4	54.7	37.2	32.7	18.0	36.7	21.7
Mizoram	87.6	78.8	78.4	78.0	68.4	5.7	58.1	26.9
Nagaland	52.1	38.7	58.7	40.0	26.1	8.8	10.7	4.9
Orissa	81.2	75.8	77.0	64.1	57.8	10.0	40.7	5.0
Punjab	84.3	83.4	83.3	77.4	72.9	9.7	39.7	3.1
Rajasthan	57.0	48.2	49.7	42.3	37.1	33.6	22.2	2.5
Sikkim	86.6	79.2	76.0	79.7	65.6	4.2	46.0	8.6
Tamil Nadu	97.8	96.3	96.4	93.7	91.5	0.4	32.6	4.9
Tripura	72.5	59.6	61.9	55.7	46.3	16.9	27.0	2.7
Uttar Pradesh	61.9	55.2	56.6	49.0	43.7	28.9	15.1	2.5
West Bengal	77.2	65.3	66.9	58.7	51.5	14.0	48.4	6.8
Union territory								
A & N Islands	94.5	89.2	88.1	81.2	77.4	1.8	70.1	5.7
Chandigarh	84.8	81.3	81.3	80.4	61.6	1.8	36.6	21.4
Dadra & Nagar Haveli	92.5	87.8	86.4	84.0	77.5	2.7	66.3	6.5
Daman & Diu	88.0	82.5	86.7	79.6	68.7	4.2	51.7	28.3
Delhi	96.3	91.5	89.6	91.5	84.8	2.4	27.4	6.1
Lakshdweep	99.7	97.7	96.2	98.5	94.5	0.3	56.3	3.4
Pondicherry	98.9	98.9	98.9	96.6	95.3	0.1	34.6	4.5
India	73.0	66.1	68.0	60.4	54.2	18.8	35.0	5.4

* Include only last and last but one living children and born during 1.1.1995 to 30.6.1997 in Phase I, 1.1.1996 to 30.6.1998 in phase II.

Figure 4.3
Complete vaccination by 15 major states, India, 1998-99

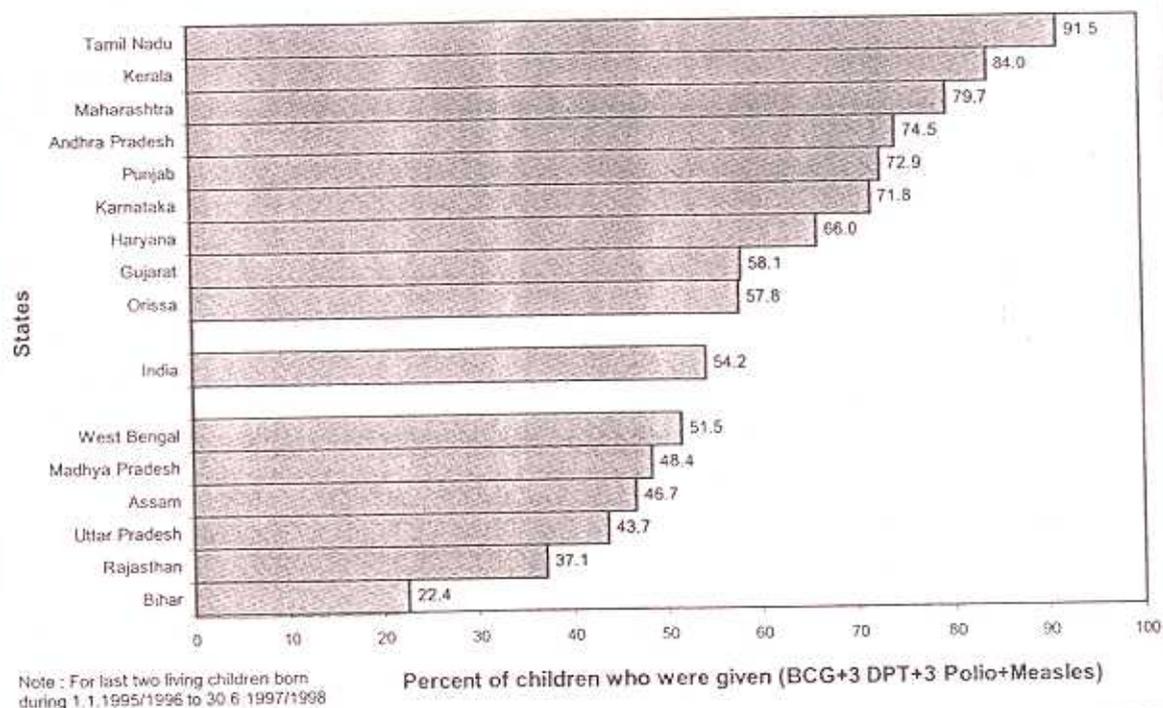
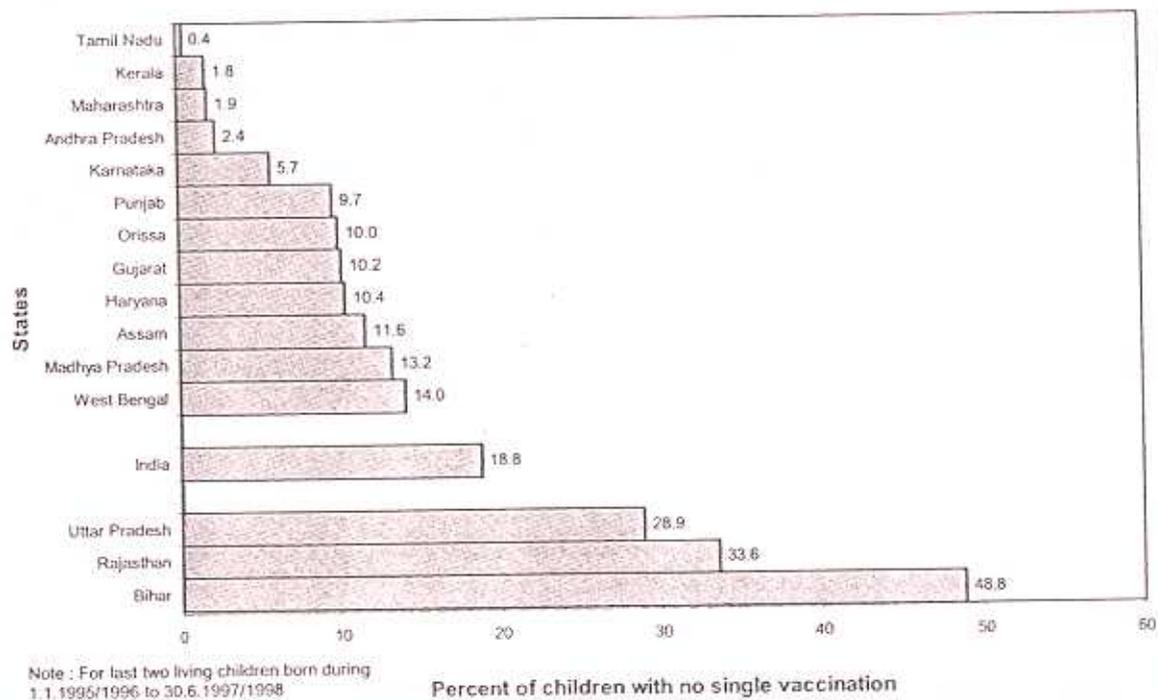


Figure 4.4
No vaccination by 15 major states, India, 1998-99



In every state the proportion of children who received at least one dose of vitamin A is substantially lower than the coverage of complete vaccination. The highest coverage of vitamin A was reported in Goa (74 percent). In Himachal Pradesh, Kerala, Maharashtra, Andaman & Nicobar Islands and Dadra & Nagar Haveli 60 percent or more children got at least one dose of vitamin A. At the same time in Bihar, Nagaland and Uttar Pradesh 15 percent or less children received at least one dose of vitamin A. In every state and union territory the coverage of IFA tablets/ liquid is lower than 30 percent. In fact, with the exception of Meghalaya, Mizoram, Chandigarh and Daman & Diu in all the states/ Union Territories it is lower than 20 percent.

Table 4.6 presents the proportion of children who received complete vaccination by sex of the child and selected background characteristics of mothers and by states/union territories. It has been already stated that in India the percent of children who received the complete schedule of vaccination is comparatively higher among urban children and non-SC/ST children. Vaccination coverage is slightly higher among boys than among girls. Vaccination coverage bears a positive relationship with mother's education and economic status. Vaccination coverage in most of the states and union territories follows the pattern similar to the national pattern. However, there are some deviations. In the states with high vaccination coverage like Andhra Pradesh, Goa, Himachal Pradesh, Karnataka, Kerala, Maharashtra and Mizoram the extent of vaccination among rural and urban children is more or less the same. In states with higher vaccination coverage, the increase in the vaccination coverage with mother's education and economic status is not very high. In Gujarat, Jammu & Kashmir, Meghalaya, Punjab, Uttar Pradesh, Chandigarh and Delhi vaccination coverage among boys is higher than among girls by four or more percentage points.

Table 4.6. COMPLETE VACCINATION

Percentage of children* who received complete** vaccination by selected background characteristics of mothers, by State/Union territory, India, RCH Phase I & II.

State/ Union territory	Background Characteristics											Sex of Child	
	Residence		Caste			Mother's Education			Type of House			Male	Female
	Total	Rural	Urban	SC/ST	Other	Other	Illiterate	0-9 @ years	10 & above	Kachcha	Semi- pucca	Pucca	
State	74.5	73.9	76.0	70.4	76.4	69.5	81.0	83.0	64.3	74.3	82.9	74.0	75.1
Andhra Pradesh	30.6	26.5	46.5	28.0	45.6	20.5	41.5	64.4	24.7	46.2	57.1	31.5	29.7
Assam	46.7	44.6	64.7	47.9	46.2	30.0	52.0	74.8	37.2	60.1	76.2	46.8	46.4
Bihar	22.4	20.6	39.0	16.0	24.8	16.1	35.4	59.5	17.0	28.3	40.9	23.5	20.2
Goa	88.6	91.9	84.6	76.2	90.2	76.1	90.2	93.5	81.9	86.8	96.6	89.1	88.1
Gujarat	58.1	52.6	70.1	49.6	63.5	41.9	65.8	82.0	44.0	53.6	72.4	60.4	56.2
Haryana	56.0	63.3	77.1	60.1	68.0	54.5	72.0	87.2	51.0	61.5	75.0	66.2	55.8
Himachal Pradesh	74.4	73.6	74.4	72.3	75.5	70.8	74.5	77.2	71.6	79.3	72.3	75.4	73.2
Jammu & Kashmir	52.9	54.7		65.2	51.1	45.7	65.7	58.4	62.2	55.3	43.9	55.5	49.9
Karnataka	71.8	71.4	73.5	64.0	75.8	58.6	79.9	89.9	38.7	66.2	79.7	72.4	71.0
Kerala	84.0	84.7	84.4	79.1	89.0	62.1	76.1	89.5	79.6	82.9	85.7	84.4	83.5
Madhya Pradesh	48.4	43.9	67.3	39.7	54.8	38.3	64.6	79.9	42.2	54.3	68.3	48.9	47.8
Maharashtra	79.7	80.0	79.7	73.8	82.3	72.0	81.5	89.5	74.5	80.3	85.0	80.5	78.7
Manipur	51.1	46.6	65.2	38.2	60.8	40.2	46.2	71.6	49.1	52.8	73.2	49.2	53.0
Meghalaya	32.7	29.6	47.9	32.1	49.3	19.1	36.8	47.1	21.6	36.3	49.6	34.6	30.6
Mizoram	68.4	72.0	67.9	46.3	63.1	48.4	64.0	76.1	66.7	79.4	61.0	68.5	66.2
Nagaland	26.1	22.8	40.5	25.6	26.3	10.3	21.7	43.7	37.5	20.1	30.7	25.0	27.3
Orissa	57.8	56.3	68.1	50.0	64.0	48.5	59.5	86.0	54.5	63.0	71.3	59.6	55.9
Punjab	72.9	70.6	79.9	62.8	78.7	53.1	82.2	93.6	45.2	66.2	88.1	75.2	69.8
Rajasthan	37.1	31.9	59.2	27.8	41.8	29.3	57.0	82.1	27.2	31.4	46.3	36.5	35.4
Sikkim	65.6	64.8	75.9	64.4	66.1	57.3	68.5	82.8	61.8	64.4	76.6	64.2	67.3
Tamil Nadu	91.5	89.7	94.8	90.2	91.9	87.0	92.5	97.4	88.2	92.2	95.9	91.3	91.4
Tripura	46.3	45.5	62.9	36.0	50.8	28.7	50.1	77.4	45.7	52.3	67.2	45.8	47.0
Uttar Pradesh	43.7	42.2	51.0	39.8	45.1	35.4	59.9	80.9	35.2	43.3	57.3	45.6	41.6
West Bengal	51.5	47.7	66.6	50.2	52.9	39.6	60.8	87.1	45.0	59.2	73.3	51.8	51.0
Union territory													
A & N Islands	77.4	72.9	78.3	69.6	83.2	68.0	74.1	86.0	70.2	85.1	83.8	78.1	76.6
Chandigarh	61.6	16.7	67.0	36.4	69.0	39.5	50.0	76.6	12.5	39.1	72.8	68.3	53.8
Dadra & Nagar Haveli	77.5	76.7	93.3	76.8	80.3	73.4	83.9	69.7	78.2	74.6	79.9	77.9	77.2
Daman & Diu	68.7	65.2	80.1	61.0	73.1	52.4	74.1	82.7	29.1	70.2	69.5	67.2	70.4
Delhi	84.8	70.9	91.7	73.1	87.3	70.6	91.2	87.4	75.0	81.2	85.4	88.3	78.7
Lakshadweep	54.5	93.5	95.4	94.4	100.0	92.1	94.2	95.9	100.0	93.9	94.4	93.5	95.8
Pondicherry	95.3	91.5	95.8	94.6	95.5	87.5	96.6	89.1	92.1	93.7	99.3	94.7	95.7
India	54.2	50.2	70.0	48.0	56.4	40.5	68.5	84.2	42.1	65.3	76.6	55.3	53.0

* Literate mothers without schooling are included

** (BCG+3OPT+3 Polio+ measles)

* Include only last and last but one living children and born during 1.1.1995 to 30.6.1997 in Phase I, 1.1.1996 to 30.6.1998 in phase II

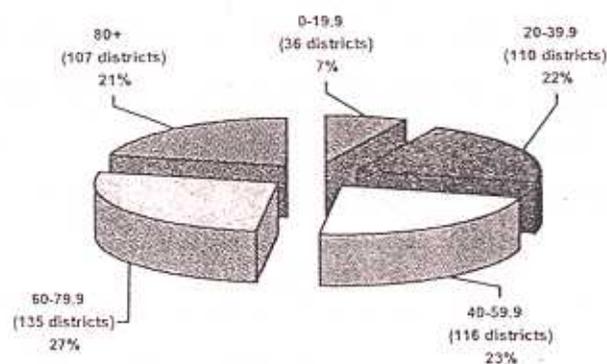
4.3.2 District Level Variation in the Vaccination Coverage

The percent of children who received the complete schedule of vaccination consisting of BCG, three injections of DPT, three doses of polio and measles and the percent of children who did not receive any vaccination by districts of India is presented in Appendix 1. The districts having complete vaccination coverage between 0 to 19.9 percent, 20 to 39.9 percent, 40 to 59.9 percent, 60 to 79.9 percent and 80 percent and above are 36, 110, 116, 135 and 107 respectively (figure 4.5).

It may be noted that of the 504 districts, not in a single district was 100 percent vaccination coverage recorded. The highest vaccination coverage was recorded in Nilgiri and Madurai districts of Tamil Nadu and Rajaori district of Jammu & Kashmir, where 99 percent children received the complete schedule of vaccination. In 12 more districts – Jorhat (Assam), Una (Himachal Pradesh), Alappuzha (Kerala), Chengalpattu, Periyar, Theni, Namakkal, Virudunagar, Ramnathpuram, Chennai (all from Tamil Nadu) and Pondicherry and Yanam from the union territory of Pondicherry- complete vaccination coverage is above 95 percent. It is to be noted that in all these districts with the exception of Jorhat, Alappuzha and Yanam, every child received at least one type of vaccine. In all, there are 107 districts with complete vaccination coverage above 80 percent. This group is dominated by districts from Andhra Pradesh (10 of 23 districts), Kerala (11 out of 14 districts), Tamil Nadu (22 out of 23 districts) and Himachal Pradesh (8 out of 12 districts). The only district of Delhi, both the districts of Goa and all the four districts of Pondicherry are also included in this group.

The second group with complete vaccination coverage ranging between 60 to 79.9 percent has 136 districts. A majority of the districts from this group are from Gujarat (13 out of 19 districts), Haryana (10 out of 17 districts) and Maharashtra (16 out of 30 districts). In spite of low vaccination coverage in Madhya Pradesh, Orissa and Uttar Pradesh, 12 to 14 districts from each of these states fall in this group.

Figure 4.5
Distribution of districts by percentage of children who were given complete vaccination, India, 1998-99



Note : For last two living children born during 1.1.1995/1996 to 30.6.1997/1998

A large chunk of the 116 districts with complete vaccination coverage between 40 to 59.9 percent belongs to four states, viz. Madhya Pradesh (13 districts), Orissa (15 districts), Rajasthan (11 districts) and Uttar Pradesh (29 districts). In a large number of districts from Bihar (20 districts), Madhya Pradesh (13 districts), Rajasthan (18 districts) and Uttar Pradesh (25 districts) complete vaccination coverage ranges between 20 to 40 percent.

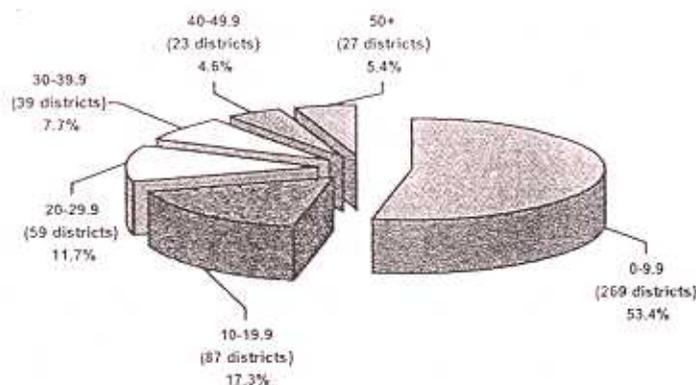
In 34 out of 504 districts complete vaccination coverage was very low. Twenty percent or less children from these districts received the complete schedule of vaccination. The lowest vaccination coverage in India was reported in Tuensang district of Nagaland where only 2 percent children received all the required vaccination. In Karbi Anglong, North Cachar and Cachar (all from Assam), Srinagar (Jammu & Kashmir), Churachandpur (Manipur), West Khasi and South Garo (Meghalaya), Panna, Tikamgarh, Jhabua and Morena (all from Madhya Pradesh), Vokha (Nagaland), Barmer (Rajasthan) and Sonbhadra (Uttar Pradesh) less than 20 percent children received complete immunization. The maximum districts from this group are from Bihar (19 districts) and (5 districts). In all these districts of Bihar a large percent of children did not get a single vaccine. For example, in Sahibganj district of Jharkhand 87 percent of the children did not get any vaccine. On the contrary in other districts of this group only a small percent children missed every vaccine. A large

percent of the children from these districts dropped out after receiving some vaccination. Whereas in Bihar a small percent of the children received vaccination and among those who got it, a majority got the complete schedule.

Of the 504 districts, the number of districts with percent of children who did not receive any vaccination ranging between 0 to 9.9, 10 to 19.9, 20 to 29.9, 30 to 39.9, 40 to 49.9 and 50 and above percent are 269, 87, 59, 39, 23 and 27 respectively (figure 4.6).

In 41 of the 504 districts the percent of children who did not receive any immunization is zero. In other words, every child received at least one dose of some vaccine. This group includes eight districts from Andhra Pradesh and five and six districts from Himachal Pradesh and Jammu & Kashmir respectively. In Nainital district of Uttar Pradesh, Calcutta of West Bengal and in Delhi every child got at least one vaccine. Though, in all these 41 districts every child received at least one dose of any vaccine, there is a large variation among these districts with respect to the coverage of complete vaccination. For example in Khammam and Guntur districts of Andhra Pradesh all the children received at least one vaccine, but in Khammam only 61 percent children received the complete schedule of vaccination whereas in Guntur 96 percent children received complete vaccination.

Figure 4.6
Distribution of districts by percentage of children who were not given any vaccination, India, 1998-99



Note : For last two living children born during 1.1.1995/1996 to 30.6.1997/1998

Including the above mentioned 41 districts in all there are 197 districts in India where five percent or less children did not get any vaccine. This group of districts where 95 percent or more children got some type of vaccination includes all the districts of Goa, Maharashtra and all the districts of 7 union territories except Daman & Diu. Most of the districts of the four states viz. Andhra Pradesh (21 out of 23 districts), Karnataka (15 out of 20 districts), Kerala (13 out of 14 districts) and Tamil Nadu (20 out of 23 districts) also fall in this group. However, high vaccination coverage in all the districts from this group does not lead to the coverage of complete schedule of vaccination. In spite of 95 percent or more vaccination coverage, in 9 districts the coverage of complete vaccination is below 50 percent and in another 10 districts it is between 50 and 60 percent. In North Cachar Hills and Cachar districts from Assam 7 and 20 percent children respectively received complete vaccination and in Phek district of Nagaland 22 percent children received complete vaccination. A large percent of children dropping out after receiving a few vaccines has resulted a large but incomplete coverage of vaccination.

In India there are 27 districts where 50 percent or more children did not get even a single dose of any vaccine. Twenty-Three out of 43 districts of Bihar, and 2 districts from each Rajasthan and Uttar Pradesh and one district from Manipur belong to this group. In Munger (66 percent), Purbi Champaran (68 percent), Patna (69 percent), Rohtas (71 percent) and Kishanganj (71 percent) from Bihar, Sahibganj (87 percent) from Bihar two-thirds or more children did not receive even a single dose of any vaccine.

4.4 Awareness of Diarrhoea and ARI and Practices followed in Diarrhoea and ARI

Diarrhoea and Acute Respiratory Infections (ARI) account for a large part of child morbidity and mortality. The RCH programme includes components like treatment of Diarrhoea and ARI and health education to mothers on management of Diarrhoea and danger signs of ARI. The paramedical and medical staff are trained to diagnose the cases of pneumonia among the children and treat the cases of pneumonia and diarrhoea. All the government health institutions are supplied with the medicines necessary for the treatment of diarrhoea and pneumonia. In RCH all the women with last living child born after 1st January 1995/1996 were asked about the awareness of Diarrhoea management and danger signs of ARI and the practices they followed during the episodes of Diarrhoea and ARI among their children in the two month period prior to survey. Table 4.7 presents the percent of women who were aware of what to do if a child gets Diarrhoea, whose child suffered from Diarrhoea, by type of treatment given to child with Diarrhoea and the women who were aware

of danger signs of ARI, whose child suffered from ARI and type of treatment given to child with ARI.

According to RHS 66 percent of the currently married women in the age group 15-44 having a child born after 1st January 1995/1996 reported awareness of Diarrhoea management. Here it is necessary to mention that, in RHS there was no direct question on the awareness of Oral Rehydration Salts (ORS), but the question was “*Do you know what to do when child gets diarrhoea?*” If the woman mentioned about ORS only then was she considered to be aware of ORS. Thirty percent of the women reported awareness about ORS. During the two months’ period prior to survey, children of 25 percent of the women suffered from Diarrhoea. Only 11 percent women treated Diarrhoea among children by giving ORS. In comparison to awareness about Diarrhoea management, the awareness about danger signs of pneumonia is quite low. Forty four percent of the women reported awareness about danger signs of pneumonia. Twenty six percent of the women with small children born after 1st January 1995/1996, reported that their children suffered from cough, cold and difficulty in breathing. Thirteen percent of these women obtained treatment for their children in a government health facility.

The awareness about diarrhoea management ranges from a minimum of 40 percent in Arunachal Pradesh and Assam to 88 percent in Himachal Pradesh and 86 percent in Kerala. In very few states like Mizoram, Orissa, Sikkim and in the union territories of Andaman & Nicobar, Chandigarh, Delhi and Pondicherry 50 percent or more women were aware about ORS. In Gujarat, Meghalaya, Punjab, Rajasthan, Uttar Pradesh and Lakshdweep 20 percent or less women reported awareness about ORS. The practice of giving ORS to a child with diarrhoea was not common in most of the states/union territories as 20 percent or fewer women gave ORS to the child suffering from diarrhoea.

4.4.1. Awareness about Diarrhoea Management and danger signs of ARI by States/ Union territories

In all the states/ union territories the level of awareness about the danger signs of pneumonia is comparatively lower than that about Diarrhoea management. In Bihar, Haryana, Rajasthan and Uttar Pradesh 60 to 70 percent women were aware about pneumonia. In contrast only less than one-fifth of women from Arunachal Pradesh, Gujarat, Kerala, Orissa, Tamil Nadu, Tripura, West Bengal, Dadra & Nagar Haveli, Daman & Diu, Lakshdweep and Pondicherry were aware of danger signs of pneumonia. In most of the states/union.

Table 4.7 AWARENESS OF DIARRHOEA MANAGEMENT AND DANGER SIGN OF PNEUMONIA

Percentage of women* aware of diarrhoea management, ORS and danger sign of pneumonia and practices followed in episodes of diarrhoea and ARI among children by State/Union territory, India, RCH Phase I & II.

States / Union territory	Percentage of women who are aware of			Percentage of women			
	Diarrhoea management	ORS	Danger signs of Pneumonia	Whose# child had diarrhoea	Who** gave ORS	Whose## child had symptoms of ARI	Who*** treated child in government health facility
State							
Andhra Pradesh	64.9	48.2	25.8	22.8	25.2	13.3	11.6
Arunachal Pradesh	40.4	27.7	18.9	25.9	13.7	39.0	51.1
Assam	39.8	23.7	29.2	15.8	17.1	22.8	21.0
Bihar	64.4	25.3	76.7	21.6	8.6	33.5	3.7
Goa	65.1	25.0	53.9	16.7	13.8	38.8	22.3
Gujarat	82.4	16.7	16.1	33.9	6.3	38.8	10.4
Haryana	68.6	26.9	59.7	35.6	4.8	16.8	6.6
Himachal Pradesh	87.5	49.1	29.1	20.0	17.2	12.5	60.1
Jammu & Kashmir	48.1	22.0	26.5	12.3	12.0	13.5	61.5
Karnataka	64.2	38.3	22.1	18.9	15.0	17.7	22.6
Kerala	86.4	47.2	17.3	17.5	24.3	18.2	28.0
Madhya Pradesh	51.7	24.9	42.4	20.4	7.9	26.6	17.3
Maharashtra	68.3	29.7	27.4	28.5	10.4	37.5	13.1
Manipur	69.9	43.9	35.7	16.2	13.6	38.0	20.9
Meghalaya	64.1	17.5	21.2	29.1	10.4	19.2	42.1
Mizoram	78.8	67.5	43.4	23.4	23.5	45.2	31.5
Nagaland	71.5	25.9	40.9	27.0	30.9	31.4	26.8
Orissa	62.6	49.6	8.9	29.2	24.8	30.7	28.3
Punjab	57.6	17.0	49.0	30.2	2.4	22.9	7.4
Rajasthan	77.0	13.3	75.1	33.1	4.7	21.2	35.2
Sikkim	69.9	51.4	37.1	22.4	40.3	23.1	54.1
Tamil Nadu	64.5	44.0	5.7	18.8	16.6	20.6	17.1
Tripura	45.1	29.6	13.8	7.3	14.1	52.2	22.4
Uttar Pradesh	66.5	19.6	66.6	32.7	4.9	24.9	4.8
West Bengal	72.6	39.2	19.4	10.1	23.5	25.9	12.0
Union territory							
A & N Islands	67.1	50.0	23.3	15.1	29.8	29.9	82.0
Chandigarh	73.8	67.9	53.0	8.3	35.7	13.7	39.1
Dadra & Nagar Haveli	69.1	21.0	14.4	28.9	7.9	41.8	42.0
Daman & Diu	81.9	36.0	12.8	27.8	17.3	51.4	20.8
Delhi	75.2	62.1	55.2	16.9	12.2	16.2	4.3
Lakshdweep	58.2	9.9	2.5	13.7	3.1	15.5	89.0
Pondicherry	65.8	54.9	7.1	12.7	18.9	40.3	26.2
India	66.1	29.7	44.1	24.8	11.2	26.0	13.2

* With youngest child born after 1-1-1995/1-1-1996,

** Percentage refer to women whose child had diarrhoea

*** Percentage refer to women whose child had symptoms of ARI

Refers to the episodes of diarrhoea within 2 months prior to survey

Refers to the episodes of symptoms of ARI within 2 months prior to survey

territories the utilization of government health facilities for the treatment of pneumonia is quite low. Only in Arunachal Pradesh, Himachal Pradesh, Jammu & Kashmir, Meghalaya, Sikkim, Andman & Nicobar Islands, Dadra & Nagar Haveli and Lakshdweep 40 percent or more women treated their children suffering from cough, cold and heavy breathing did so in government health facilities

CHAPTER 6

UTILIZATION OF GOVERNMENT HEALTH FACILITIES

The government health facilities at all levels provide various RCH services. The Auxiliary Nurse Midwife (ANM) has a key role in delivering services to the community. ANMs are expected to make regular visits to the villages and households in their area. ANMs are expected to counsel the adolescents in their area about reproductive health issues and distribute IFA tablets to the adolescent girls having anaemia. A separate section was canvassed to all the eligible women to assess the extent of utilization of government health facilities by eligible women and to find out whether ANM/health workers reach rural households for providing RCH services.

6.1 Home Visit by Health Worker

Table 6.1 shows the percent of eligible women from rural areas who had been visited by ANM/LHV during three months' period prior to the survey. Fifteen percent of the rural women reported that either ANM or LHV had visited them at their residence at least once in the past three months. Most of the women (95 percent) who were visited by ANM felt that the ANM had given them sufficient time to discuss health related matters.

There is a wide variation in the proportion of rural households visited by ANM by states/union territories in India. In most of the states/ union territories the ANM's visit is quite infrequent and irregular. There are only a few states like Andhra Pradesh (43 percent), Gujarat (25 percent), Karnataka (32 percent), Maharashtra (29 percent) and union territories of Andaman & Nicobar Islands (27percent), Dadra & Nagar Haveli (35 percent) and Daman & Diu (44 percent) where ANMs visited 25 percent or more rural households. On the other hand, in Arunachal Pradesh, Bihar, Jammu & Kashmir, Manipur, Meghalaya, Mizoram, Nagaland and Tripura less than 5 percent of the rural households were visited by an ANM.

6.1.1 District Wise Variation in the Extent of ANM's Visit

As ANMs are functioning mainly in rural areas, no data on an ANM's visit was collected in the urban districts viz. Hyderabad (Andhra Pradesh), Greater Mumbai (Maharashtra), Chennai (Tamil Nadu), Calcutta (West Bengal), Chandigarh, Delhi, Yanam and Mahe from the union territory of Pondicherry. Appendix 1 shows the districts level variation in the percentage of rural women who were visited by an ANM.

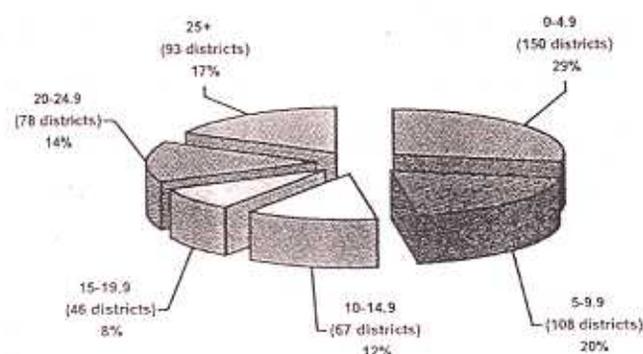
Of the remaining 497 districts, in 10 districts not a single woman from the rural areas reported a visit by an ANM. These 10 districts are East Siang, Upper Subansiri and Upper Siang (Arunachal Pradesh), Anantnag, Doda, Jammu, Kathua and Poonch (Jammu & Kashmir), Phek and Zunhebata (Nagaland) (figure 6.1). Including these 10 districts, in 149 (30 percent of the total districts in India) districts 5 percent or less eligible women reported that they were visited by an ANM at their residence at least once in three months' period prior to survey. All the districts of the north-eastern states of Arunachal Pradesh, Manipur, Mizoram, Nagaland and a majority of the districts from Assam (16 out of 22), Meghalaya (5 out of 7), Sikkim (1 out of 4) and Tripura (2 of 3) belong to this group. Besides districts from north-eastern states, districts from Bihar (26 of 43), Haryana (11 of 17), Jammu & Kashmir (11 of 13) and Uttar Pradesh (16 of 68) also fall in this group.

In another 108 districts 5 to 9.9 percent women reported an ANM's visit. This group is comprised of districts mainly from, Bihar (10 districts), Madhya Pradesh (15 districts), Orissa (19 of 30 districts) and Uttar Pradesh (36 of 68 districts).

In 66, 47, 32 and 92 districts the percentage of women who were visited by an ANM lies between 10 to 14.9, 15 to 19.9, 20 to 24.9 and above 25 respectively. A majority of the 92 districts where one-fourth or more women were visited by ANM are from Andhra Pradesh (22 of 23 districts), Gujarat (11 of 19 districts), Karnataka (16 of 20 districts), Maharashtra (19 of 30 districts) and Rajasthan (10 of 30 districts). Of these 92 districts, in 23 districts 50 percent or more women were visited by an ANM. In fact, in Kodagu from Karnataka the highest proportion of 86 percent of the women were visited by an ANM. Even in Hassan (70 percent), Uttar Kannada (75 percent) from Karnataka, Raigarh (71 percent), Gadchiroli (80 percent) and Chandrapur (65 percent) from Maharashtra, Sibsagar (60 percent) from Assam, Chittor (62 percent), Guntur

(65 percent) and Ananthpur (66 percent) from Andhra Pradesh and Surendranagar (69 percent) from Gujarat 60 percent or more women from rural areas were visited by ANM during the three month period prior to survey.

Figure 6.1
Distribution of districts by percentage of rural households visited by ANM during 3 months prior to survey, India, 1998-99



6.2 Visit to Government Health Facility

The utilization of government health facilities is also shown in Table 6.1. In RHS all the eligible women were asked whether they had visited any government health facility during the three month period prior to survey. Those who reported the visit were further asked their opinion about the health facility. Those who did not visit the facility were asked the main reason for not doing so. A sizeable proportion of the women reported that there was no need to visit any health facility. The percentages in Table 6.1 are calculated by removing the number of women who did not feel the need to visit the health facility. The RHS shows that about one-fourth of eligible women visited a government health facility during the three months prior to survey. Eighty Seven

percent of the women who visited the health facility felt that health facility was good enough to recommend to others. On the other hand, 38 percent of women who did not visit the government health facility reported that they did not visit the government health facility as they prefer only private health facilities.

The utilization of a government health facility is particularly high in smaller states and union territories. In Arunachal Pradesh, Himachal Pradesh, Jammu & Kashmir, Sikkim, Andaman & Nicobar Islands, Chandigarh, Dadra & Nagar Haveli and Lakshdweep more than 50 percent women reported a visit to a government health facility. In Andaman & Nicobar Islands and Lakshdweep 90 percent or more women visited a government health facility. Among the major states, higher utilization of the government health facilities was reported in Kerala, Orissa and Rajasthan (46-49 percent). In Bihar and Uttar Pradesh the utilization of government health facility was very low and only 11 and 15 percent women reported visiting a government health facility. In each state/ union territory at least 75 percent of the women who visited a government health facility found it satisfactory, worth recommending to others.

Table 6.1 UTILIZATION OF GOVERNMENT HEALTH SERVICES AND CLIENT SATISFACTION

Percentage* of women who were visited by ANM/LHV, who utilized government health facilities** and who are satisfied with the services, by State/Union territory, India, RCH Phase I & II

State/ Union territory	Percent of rural women					Percent of women			Did not visit as they prefer private health facilities
	Who were visited by ANM/LHV at household	Who** were satisfied by the time spent by ANM/LHV	Who were not needed to visit health facility	Who visited government health facility	Who did not visit government health facility	Visited and found health facility good enough to recommend to others	Did not visit as they prefer private health facilities		
State	42.8	95.3	29.5	19.3	80.7	77.9	57.4		
Andhra Pradesh	0.4	85.8	60.7	70.2	29.8	74.2	3.3		
Arunachal Pradesh	7.7	93.8	51.9	36.8	63.2	85.6	19.4		
Assam	4.7	85.6	33.2	10.9	89.1	87.9	25.8		
Bihar									
Goa	7.0	75.6	31.7	35.2	64.8	92.3	67.0		
Gujarat	24.8	96.8	47.9	21.5	78.5	91.5	56.2		
Haryana	3.8	94.3	38.5	18.8	81.2	89.3	31.5		
Himachal Pradesh	7.6	95.8	73.9	70.0	30.0	94.7	82.0		
Jammu & Kashmir	4.7	96.4	65.5	56.0	44.0	60.7	7.8		
Karnataka	31.8	84.8	44.6	32.2	67.8	82.3	46.4		
Kerala	15.8	94.9	49.8	48.1	51.9	92.4	28.0		
Madhya Pradesh	11.7	90.6	65.3	30.4	69.6	81.3	33.9		
Maharashtra	28.8	95.0	50.4	34.4	65.6	88.7	44.3		
Manipur	0.7	70.8	62.3	44.6	55.4	91.2	32.0		
Meghalaya	3.6	84.6	46.8	41.0	59.0	83.9	36.8		
Mizoram	2.3	83.2	42.2	49.4	50.6	86.1	28.9		
Nagaland	1.6	96.3	50.9	31.5	68.5	69.4	6.3		
Orissa	7.2	95.9	62.6	45.6	54.4	91.7	17.6		
Punjab	6.1	94.3	24.6	24.4	75.6	89.2	27.8		
Rajasthan	18.5	94.6	72.3	46.5	51.5	89.7	32.4		
Sikkim	10.4	96.3	75.7	58.7	41.3	81.4	0.5		
Tamil Nadu	17.1	97.5	39.2	34.3	65.7	90.2	61.8		
Tripura	3.6	94.2	45.2	33.3	66.7	88.9	35.5		
Uttar Pradesh	6.7	95.0	40.0	14.2	85.8	85.8	43.0		
West Bengal	8.7	92.4	45.8	28.8	71.2	91.6	11.6		
Union territory									
A & N Islands	26.6	98.0	53.8	94.1	5.9	59.6	16.4		
Chandigarh	0.0	0.0	80.6	59.6	40.4	83.9	32.2		
Dadra & Nagar Haveli	35.4	98.3	46.3	64.4	35.6	97.6	36.0		
Daman & Diu	44.2	98.9	45.1	46.3	53.7	91.9	70.0		
Delhi	0.0	0.0	57.6	38.1	61.9	76.9	63.8		
Lakshadweep	9.5	97.1	39.0	95.4	4.6	95.5	45.2		
Pondicherry	16.4	98.2	37.0	48.5	51.5	86.0	71.1		
India	14.8	93.7	46.2	25.9	74.1	87.2	38.1		

* Refers to three months period prior to survey

** Percent refers to those visited by ANM/LHV

CHAPTER 7

AWARENESS OF REPRODUCTIVE TRACT INFECTIONS (RTI), SEXUALLY TRANSMITTED INFECTIONS (STI) AND HIV/AIDS

7.1 Introduction

The reproductive and child health approach emphasizes a healthy sexual life of the couples without fear of contracting disease. With this approach the RCH programme includes the component of identification and management of RTIs and STIs. Health workers are expected to educate men and women about RTI/ STIs and motivate people with RTI/ STI problems to seek medical help and assist by referring them for treatment. The electronic and print media are contributing significantly in spreading awareness about HIV/AIDS. In RHS a separate section on RTI, STI and HIV/AIDS was administered to all the eligible women and one male member in the age group 20-54 from every household. Male interviewers administered this section to male respondents and information was collected on awareness about the RTI, STI and HIV/AIDS, source of knowledge, knowledge about the mode of transmission and curability, presence of any symptom of RTI/ STI, and treatment seeking behavior if symptoms are present. This chapter presents the analysis of the data collected about these aspects.

7.2 Awareness about RTI, STI and HIV/AIDS

Table 7.1 presents the percent of men and women respondents aware of RTI, STI and HIV/AIDS by states/ union territories in India. According to RHS-RCH 37, 36 and 60 percent of men in India are aware of RTI, STI and HIV/AIDS respectively. The corresponding levels of awareness among women are 45, 29 and 42 percent respectively. The awareness about RTI among women is higher than that among men by about 8 percentage points but the level of awareness about STI among men is higher than that among women by 7 percentage points. The awareness about HIV/AIDS among men is higher than that among women by 18 percentage points.

Table 7.1 AWARENESS OF RTI, STI AND HIV/AIDS AMONG MEN AND WOMEN
Percentage of men age 20-54 years and women age 15-44 years who are aware of RTI, STI & HIV/AIDS by State/Union territory, RCH Phase I & II.

State/ Union territory	Percentage of men who were aware of			Percentage of women who were aware of		
	RTI	STI	HIV/AIDS	RTI	STI	HIV/AIDS
State						
Andhra Pradesh	36.5	44.0	70.2	52.3	43.8	57.9
Arunachal Pradesh	5.2	5.5	50.6	3.8	3.8	36.1
Assam	36.0	33.7	57.7	29.6	21.5	37.7
Bihar	48.6	52.8	40.7	67.0	38.9	15.1
Goa	31.6	53.6	84.1	36.5	23.9	75.7
Gujarat	58.5	46.9	62.7	59.9	33.6	33.6
Haryana	48.5	49.0	75.9	62.7	25.0	38.9
Himachal Pradesh	16.8	12.6	73.7	17.5	13.2	59.8
Jammu & Kashmir	2.6	3.1	47.6	1.7	2.1	34.9
Karnataka	11.3	19.6	76.9	14.8	12.0	60.7
Kerala	57.4	74.7	97.1	51.5	58.4	92.0
Madhya Pradesh	23.4	24.6	44.8	17.8	12.5	24.5
Maharashtra	37.6	42.0	78.2	50.2	28.6	62.3
Manipur	13.0	31.3	86.2	37.5	21.5	83.8
Meghalaya	7.9	13.4	64.6	4.8	11.0	58.7
Mizoram	5.6	19.8	88.6	5.4	14.4	87.5
Nagaland	24.2	44.2	82.2	29.4	40.6	73.4
Orissa	45.7	34.3	56.9	37.8	17.4	40.6
Punjab	51.6	53.2	81.5	83.5	37.1	54.1
Rajasthan	37.3	26.0	51.9	48.2	26.9	22.3
Sikkim	8.2	12.1	63.8	6.8	5.8	47.2
Tamil Nadu	25.1	48.5	85.7	43.3	31.7	89.6
Tripura	7.1	6.0	58.8	7.9	2.2	38.7
Uttar Pradesh	30.3	19.3	49.1	47.9	25.3	22.8
West Bengal	60.3	53.5	51.3	50.7	36.4	30.9
Union territory						
A & N Islands	32.7	38.6	68.3	28.6	28.6	64.7
Chandigarh	4.8	5.3	84.8	4.4	4.4	67.5
Dadra & Nagar Haveli	45.0	33.8	50.0	44.2	28.5	29.4
Daman & Diu	35.4	30.8	61.1	49.9	33.3	51.2
Delhi	4.7	5.6	84.2	1.6	2.8	75.4
Lakshdweep	54.6	51.6	93.6	51.4	33.4	82.9
Pondicherry	10.6	51.8	72.4	59.0	53.5	97.0
India	37.2	36.4	60.3	45.4	28.8	41.9

In general, in most of the states/union territories men are more aware about STI rather than RTI, whereas women are more aware of RTI than STI. Among both, male and female awareness about HIV/AIDS is substantially higher than that of RTI and STI. In comparison to men, women from most of the states/ union territories are more knowledgeable about RTI, whereas in comparison to women men are more knowledgeable about STI and HIV/AIDS.

The highest level of awareness about RTI and STI among men was reported in West Bengal (60 percent) and Kerala (75 percent) respectively. Among women the highest level of awareness of RTI and STI

was reported in Punjab (84 percent) and Kerala (58 percent) respectively. In general in most of the states/ union territories, awareness of RTI and STI among both men and women is low. In fact except Kerala, Punjab, West Bengal and Lakshdweep in no other state/ union territory and more than 50 percent men report awareness of RTI and STI. Even among women only in Kerala and Pondicherry did more than 50 percent women report awareness of RTI and STI. The level of awareness about RTI and STI among men and women is low particularly in Arunachal Pradesh, Himachal Pradesh, Jammu & Kashmir, Karnataka, Meghalaya, Mizoram, Sikkim, Tripura, Chandigarh, and Delhi where one fifth or less men and women reported awareness about both RTI and STI.

The proportion of men and women aware of HIV/AIDS in the major states of India are presented in figure 7.1 and 7.2 respectively. In every state/ union territory, with the exception of Bihar, Madhya Pradesh and Uttar Pradesh at least 50 percent of the men were aware of HIV/AIDS. In these states also a minimum of 40 percent males reported awareness of HIV/AIDS. The highest level of awareness was reported in Kerala (97 percent). In Goa, Manipur, Mizoram, Punjab, Tamil Nadu, Chandigarh, Delhi and Lakshdweep 80 percent or more men are aware of HIV/AIDS.

Among women the awareness about HIV/AIDS ranges from the highest of 97 percent in Pondicherry to the lowest of 15 percent in Bihar. With the exception of Bihar, Madhya Pradesh, Rajasthan, Uttar Pradesh and Dadra & Nagar Haveli in every state/ union territory a minimum of one-third of women reported awareness of HIV/AIDS. A high level of awareness of HIV/AIDS among women exceeding 75 percent was reported in Goa, Kerala, Manipur, Mizoram, Tamil Nadu, Delhi, Lakshdweep and Pondicherry. It has been already mentioned that the awareness about HIV/AIDS among men is on the higher side in comparison to that among women. Only in Tamil Nadu and Pondicherry did the awareness among women exceed that among men. In many states like Assam, Gujarat, Haryana, Punjab, Rajasthan and Uttar Pradesh the difference in the male-female awareness of HIV/AIDS is very high, exceeding 25 or more percentage points.

Figure 7.1
Awareness of HIV/AIDS among men age 20-54 by 15 major states, India, 1998-99

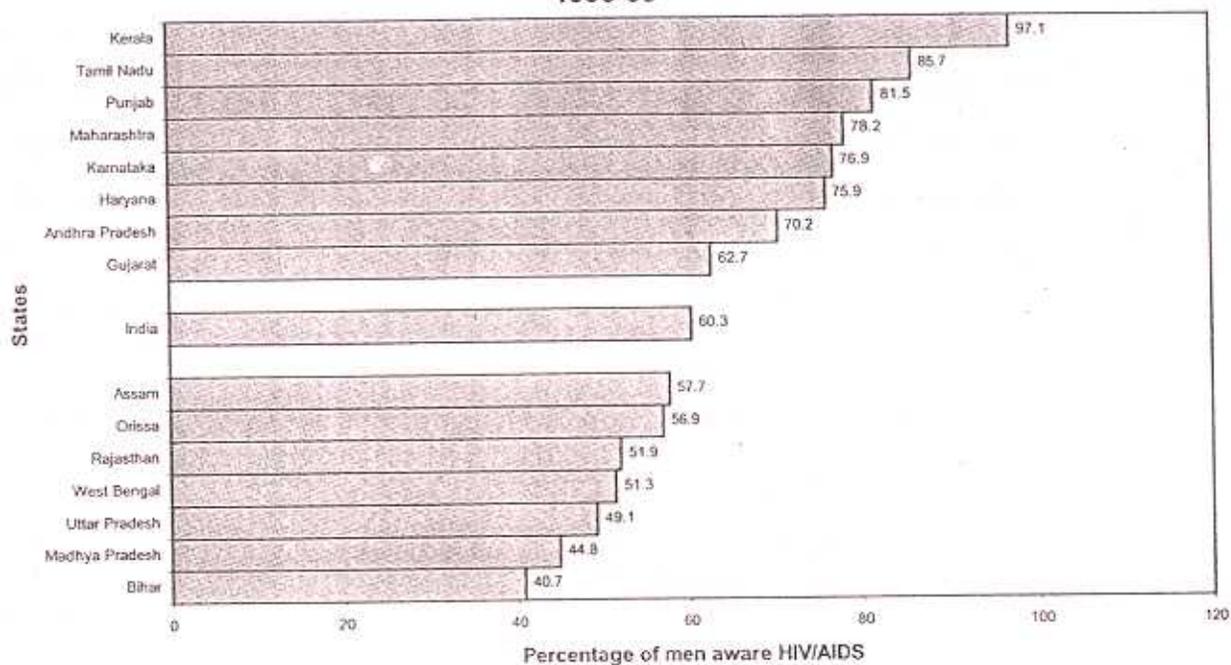
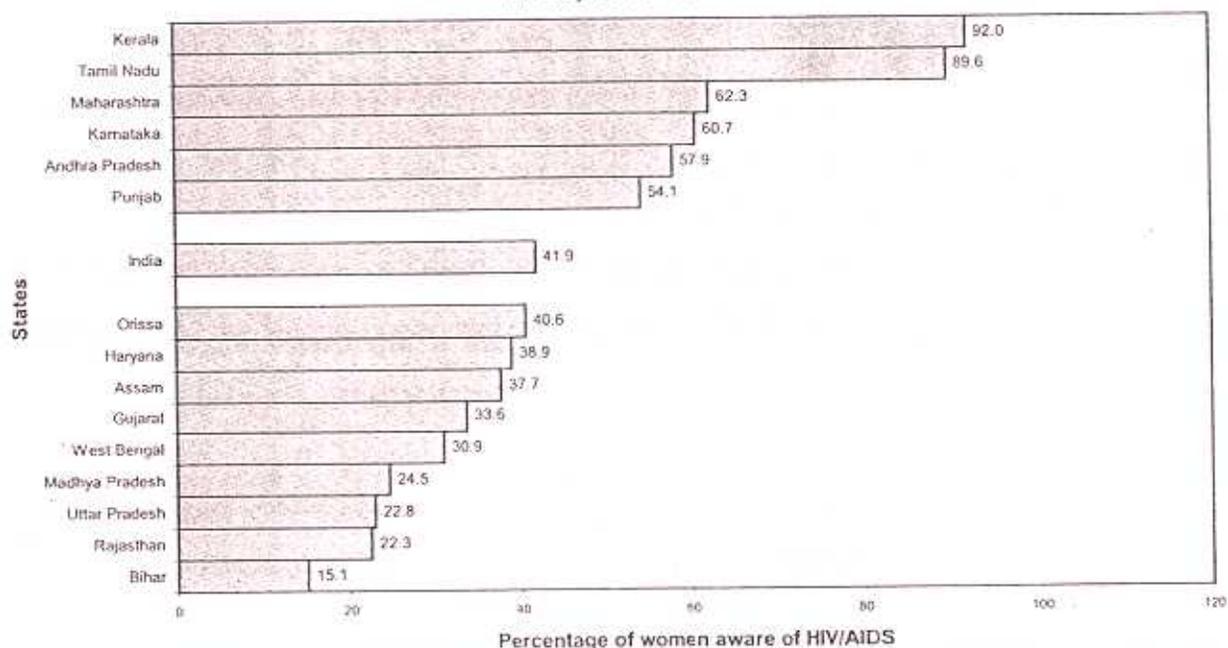


Figure 7.2
Awareness of HIV/AIDS among women age 15-44 by major states, India, 1998-99



7.2.1 District Level Variation in Awareness about HIV/AIDS

The proportion of men and women who were aware of HIV/AIDS by districts of India is presented in appendix 1. The distribution of all 504 surveyed districts in the state by percent of men and women aware of HIV/AIDS is presented in figures 7.3 and 7.4 respectively. There are 9, 88, 151, 140 and 112 districts with the proportion of men aware of HIV/AIDS falling in the groups of below 20 percent, 20 to 40 percent, 40 to 60 percent, 60 to 80 percent and 80 and more percent respectively. In other words, in 50 percent districts in India awareness about HIV/AIDS among men is less than 60 percent. In 9 (2 percent of total districts in India) districts the level of awareness is below 20 percent. Among all the districts in India the lowest level of awareness was reported in Udhampur (3 percent) and Anantnag (5 percent) both from Jammu & Kashmir. In Tirap (Arunachal Pradesh), Jhabua (Madhya Pradesh), Malkangiri (Orissa) and other 4 districts from Bihar, 20 percent or less men were aware of HIV/AIDS. In 88 other districts (14 percent of all the districts in India) the percent of men aware of HIV/AIDS ranges between 20 to 40 percent. This group is predominantly represented by 6 major states, Bihar (18 districts), Madhya Pradesh (17 districts), Orissa (9 districts), Rajasthan (6 districts), Uttar Pradesh (19 districts) and West Bengal (9 districts). More than 50 percent of the districts in India fall in two groups, 30 percent with awareness ranging between 40 and 60 districts and 28 percent with awareness ranging between 60 to 80 percent. In 112 districts (22 percent of all the districts in India) more than 80 percent males are aware of HIV/AIDS. In fact in Nilgiri and Thanjavur districts from Tamil Nadu and Pondicherry district of Pondicherry awareness is 100 percent. There are 33 districts in India where 95 percent or more males reported awareness about HIV/AIDS. In Namakkal, Chennai, Madurai and Tuticorin (all from Tamil Nadu), Mahe (Pondicherry) and Greater Mumbai (Maharashtra), 99 percent males were aware of HIV/AIDS.

The number of districts falling in the groups with the percent of women aware of HIV/AIDS ranging between 0 to 19.9, 20 to 39.9, 40 to 59.9, 60 to 79.9 and 80 and above percent are 134, 149, 96, 62 and 60 respectively. So, in 50 percent of the districts in India, the female level of awareness is less than 36 percent. In 27 percent of the total districts less than one-fifth of the women are aware of HIV/AIDS.

Figure 7.3
Distribution of districts by percentage of men aware HIV/AIDS, India, 1998-99

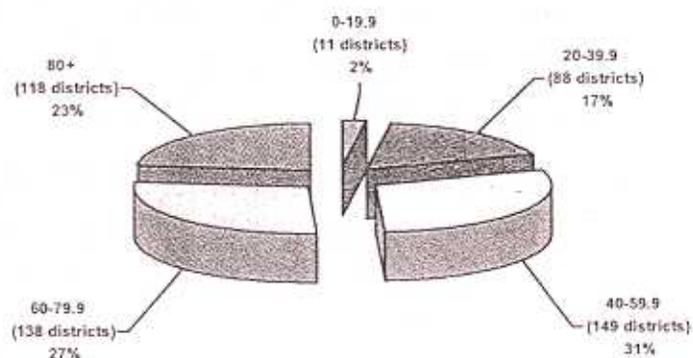
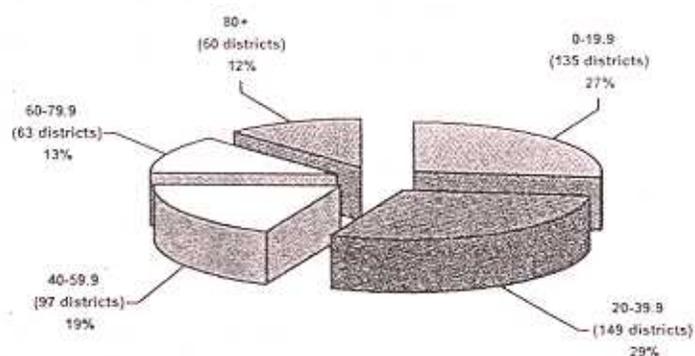


Figure 7.4
Distribution of districts by percentage of women aware of HIV/AIDS, India, 1998-99



The lowest level of awareness was reported in Udhampur (3 percent) district from Jammu & Kashmir and Kishnaganj (4 percent) district of Bihar. Similar to the group of districts with less than 20 percent male awareness, in the group of districts with less than 20 percent female awareness, a large number of the districts are from 6 major states, i.e. Bihar (36 districts), Madhya Pradesh (17), Orissa (8), Rajasthan (18), Uttar Pradesh (34) and West Bengal (9). In 30, 19 and 12 percent of the districts in India female awareness about HIV/AIDS lies between 20-40, 40-60 and 60-80 percent. In the last group of districts where female awareness is above 80 percent there are 60 districts (12 percent of total districts in India). Unlike men, there is no district in India where the female awareness is 100 percent. In Mahe district of Pondicherry (99.5 percent) the highest level of female awareness is reported. Most of the districts in this group are from Tamil Nadu (22 out of 23 districts), Kerala (13 out of 14 districts), Maharashtra (5), Manipur and Pondicherry (4 each).

7.3 Prevalence of RTI/ STIs

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

Table 7.2 presents the proportion of men and women having at least one symptom of RTI/ STIs and who had sought treatment. The district level percent of men and women having at least one symptom of RTI/ STI is shown in appendix 1. About 12 percent of men and 30 percent of women in the state reported having symptoms of RTI/ STIs. Fifty five percent men and 38 percent of women with at least one symptom of RTI/ STI sought treatment for their problems.

In most of the states/ union territories the prevalence of RTI/ STIs among men as judged by the reporting of symptoms was substantially low. In every state/ union territory less than one-fifth of the men reported having at least one symptom of RTI/ STI. Only in Assam, Bihar, Gujarat, Orissa, Tripura, Uttar Pradesh, West Bengal and Daman & Diu the prevalence of symptom(s) of RTI/ STI among men was between 15-20 percent. In all these states/ union territories where a comparatively higher prevalence was recorded about 50-60 percent men had sought treatment for their problem(s).

In every state/ union territory, in comparison to men, the proportion of women who reported at least one symptom of RTI/ STI was much higher. The range of the prevalence of symptom(s) of RTI/ STI among women was from the lowest of 3 percent in Jammu & Kashmir to the highest of 45 percent in Rajasthan. With the exception of Chandigarh and Jammu & Kashmir in every state/ union territory at least one in ten women reported prevalence of symptom(s) of RTI/ STI. In Bihar, Gujarat, Haryana, Mizoram, Punjab, Rajasthan, Tamil Nadu, Tripura, Uttar Pradesh, West Bengal and Pondicherry the prevalence was above 30 percent. In all these states/ union territories where higher level of prevalence of RTI/ STI symptoms among women was recorded, less than 50 percent of the women had sought treatment for their problem. In every state/ union territory as compared to men, the percent of women who sought treatment was on a lower side.

Table 7.2 PREVALANCE OF RTI,STI AMONG MEN AND WOMEN

Percentage of men age 20-54 years and women age 15-44 years who are having symptoms* of RTI/STI and sought treatment by states/union territories, RCH, phase I & II, India.

State/ Union territory	Having at least one symptom of RTI/STI		Sought treatment for RTI/STI	
	Men	Women	Men	Women
State				
Andhra Pradesh	7.6	18.8	65.0	46.5
Arunachal Pradesh	13.3	20.6	33.0	35.3
Assam	15.1	28.5	40.9	38.3
Bihar	17.7	37.7	59.1	37.0
Goa	5.2	16.4	63.2	52.0
Gujarat	15.3	32.0	51.3	36.1
Haryana	9.8	32.3	54.0	38.2
Himachal Pradesh	2.0	19.1	56.3	49.2
Jammu & Kashmir	3.8	3.0	87.4	89.5
Karnataka	4.4	16.3	58.6	53.8
Kerala	4.9	27.7	58.6	50.8
Madhya Pradesh	10.2	26.1	54.6	43.7
Maharashtra	8.9	25.4	69.2	47.9
Manipur	12.7	23.6	46.1	46.1
Meghalaya	8.5	26.6	65.2	31.2
Mizoram	10.2	36.4	40.7	56.1
Nagaland	14.3	16.5	51.9	35.7
Orissa	17.3	15.6	52.4	38.1
Punjab	5.4	30.0	61.0	42.4
Rajasthan	12.5	45.0	51.0	22.6
Sikkim	8.7	11.3	60.0	49.8
Tamil Nadu	10.7	36.5	25.9	31.5
Tripura	15.1	39.8	51.6	45.4
Uttar Pradesh	18.0	36.4	55.0	35.8
West Bengal	18.1	30.4	53.4	30.2
Union territory				
A & N Islands	2.1	13.7	36.0	50.5
Chandigarh	3.4	5.4	75.0	49.0
Dadra & Nagar Haveli	10.0	28.5	82.6	38.7
Daman & Diu	17.0	22.4	55.9	51.0
Delhi	6.3	14.5	73.3	78.0
Lakshdweep	3.8	14.2	68.2	54.8
Pondicherry	0.3	36.0	80.9	33.5
India	12.3	29.7	55.1	37.6

* Refers to three months period prior to survey

APPENDIX I

Definition of the Variables

Marriage below 18	Percentage of girls marrying below age 18
Birth Order 3+	Percent of births of order 3 and above
Know all FP	Percentage of currently married women age 15-44 years knowing all five modern methods of contraception, i.e. male and female sterilization, IUD, Piils and Condom
CPR any Mod	Percentage of currently married women age 15-44 years using any modern method of contraception
Unmet Need	Percentage of currently married women age 15-44 years having unmet need for family planning
ANC	Percentage of women who receive ANC (Any)
Full ANC	Percentage of women who received full ANC (Atleast 3 ANC visits + atleast one TT injection + IFA tablets)
Institutional Delivery	Percentage of women who had institutional delivery
Safe Delivery	Percentage of women who had safe delivery (Either institutional delivery or home delivery attendant by Doctors/Nurse/ANM)
Full Vaccination	Percentage of children who received complete vaccination (BCG + 3 doses of polio + 3 injections of DPT + measles)
No Vaccination	Percentage of children who had no vaccination at all
Aware AIDS Female	Percentage of women who reported knowledge of HIV/AIDS
RTISTI-Female	Percentage of women who had any symptoms of RTI/STI
Aware AIDS-Male	Percentage of men who reported knowledge of HIV/AIDS
RTISTI-Male	Percentage of men who had any symptoms of RTI/STI
RW-ANM	Percentage of rural women who were visited by ANM during three months prior to survey

**Key Indicators, India,
Reproductive and Child Health
Survey: 1998-1999.**

Sample population

Number of households surveyed.....	529817
Number of eligible women interviewed.....	474463
Number of men interviewed.....	257245

Background characteristics of households surveyed

Percent rural.....	78.9
Percent Hindu.....	82.1
Percent Muslim.....	11.8
Percent Christian.....	2.8
Percent SC/ST.....	27.0
Percent living in <i>Kachcha</i> houses.....	39.0
percent living in <i>pucca</i> houses	29.2

Background characteristics of eligible women

Percent below age 30.....	48.5
Percent with age at first cohabitation below 18.....	59.8
Percent illiterate.....	56.1
Percent having 10+ years of schooling.....	15.9
Percent with illiterate husband	30.6
Percent with having 10+ years of schooling	35.3

Completed Fertility and Birth Order Distribution

Mean children ever born to women age 40-44	4.54
Percent of births of order (3 years prior to the survey)	
1.....	28.6
2.....	25.7
3+.....	45.8

Marriages

Mean age at marriage for boys.....	23.8
Mean age at marriage for girls.....	19.2
Percent of boys marrying below legal age at marriage.....	30.7
Percent of girls marrying below legal age at marriage.....	36.9

Knowledge of Family Planning

Percent of Eligible women	
Knowing any Method.....	98.7
Knowing any Modern Method.....	98.6
Knowing any Modern Spacing Method.....	80.9
Knowing all Modern Method.....	57.8

Current Use of Family Planning

Percent of Eligible women / husbands using	
Any Method.....	48.6
Any Modern Method.....	42.5
Female Sterilization.....	33.4
Male Sterilization.....	1.5
IUD.....	1.9
Pills.....	2.4
Condom.....	3.1
Any Traditional Method.....	6.0

Unmet Need

Percent of women having Unmet Need for Limiting.....	14.6
Spacing.....	10.7
Total.....	25.3

Maternal Health Care

Percent of Eligible women with last live /still birth after 1.1.1995	
Who had ANC Check-Up.....	65.3
Who had ANC Check-Up at home.....	22.0
Who had at least one TT injection.....	74.7
Who were given IFA tablets.....	48.7

Who delivered in the health institutions

Government.....	17.3
Private.....	16.6

Who had Safe delivery..... 40.4

Child Care

Percent of children weighed within two days of birth.....	28.0
Percent of children with birth weight below 2500 grams.....	16.9
Percent of women who started breast feeding the child within two hours of childbirth.....	26.3

Percent of children who received

BCG.....	73.0
Three DPT injections.....	66.1
Three doses of Polio.....	68.0
Measles.....	60.4
Complete (BCG + 3-DPT + 3-Polio + Measles).....	54.2
At least one dose of vitamin A.....	35.0

Percent of eligible women whose children

Had Diarrhoea.....	24.8
Were treated with ORS.....	11.2
Had breathing problems.....	26.0
Were treated in government health facility for breathing problems.....	13.2

Reproductive Morbidity

Percentage of eligible women who had	
Pregnancy Complications.....	41.3
Delivery Complications.....	37.0
Post Delivery Complications.....	44.4
Any symptom of RTI/STI.....	29.7
Percent of males having any symptom of RTI/STI.....	12.3

Awareness on RCH

Percentage of women aware of	
Oral Rehydration Solution.....	29.7
Danger signs of Pneumonia.....	44.1
Reproductive Tract Infection	45.4
Sexually Transmitted Infection	28.8
HIV (AIDS).....	41.9

Percentage of males (20-54) aware of		Percent of respondents with symptoms of	
Reproductive Tract Infection (RTI).....	37.2	RTI/STI who sought treatment	
Sexually Transmitted Infection.....	36.4	Male.....	55.1
HIV (AIDS).....	60.3	Female.....	37.6
Home visit by Health Worker		Percent of eligible women who visited	
Percentage of rural households visited by		government health facility during three	25.9
ANM/ health worker during three months		months prior to the survey	
prior to the survey.....	14.8		
Utilization of health services			
Percent of eligible women who sought			
treatment for complications during			
Pregnancy.....	46.7		
Post delivery period.....	46.6		