

DLHS -2

West Bengal

Reproductive and Child Health

District Level Household Survey 2002-04



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



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



TNS India Private Limited
New Delhi – 110 016

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PREFACE AND ACKNOWLEDGEMENT

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 As a first step, family planning target has been withdrawn and an effort is being made to provide a package of reproductive services at different levels of health care centres.

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

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

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

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

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We would be failing in our duty if we do not thank our respondents who spent their valuable time with tremendous patience.

Dr U V Somayajulu
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New Delhi

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KEY INDICATORS, West Bengal

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

Sample size			
Households surveyed.....	18,785		
Currently married women age 15-44.....	15,614		
Husband's of eligible women.....	10,958		
Characteristics of households			
Percent rural.....	63.7		
Percent Hindu.....	77.0		
Percent Muslim.....	21.4		
Percent other religion (Christian).....	0.7		
Percent scheduled caste.....	27.5		
Percent scheduled tribe.....	5.8		
Percent with electricity.....	51.6		
Percent with flush toilet.....	14.3		
Percent with no toilet facility.....	44.5		
Percent living in <i>Kachcha</i> houses.....	51.5		
Percent living in <i>Pucca</i> houses.....	28.1		
Percent with low standard of living.....	51.8		
Percent with high standard of living.....	17.5		
Percent with iodized salt (15-ppm).....	54.8		
Characteristics of currently married women age 15-44 years			
Percent below age 30.....	52.2		
Percent with age at first cohabitation below age 18.....	65.2		
Percent illiterate.....	40.2		
Percent having 10 or more years of schooling.....	15.1		
Percent with illiterate husband.....	28.8		
Percent with husband 10+ years of schooling.....	24.2		
Marriage			
Mean age at marriage for boys.....	24.7		
Mean age marriage for girls.....	18.5		
Percent of boys married below age 21.....	24.0		
Percent of girls married below age 18.....	45.9		
Fertility			
Mean children ever born women age 40-44 years...	3.7		
Percent of births of order 3 and above ¹	31.0		
Current use of family planning method			
Any method.....	74.1		
Any modern method.....	51.0		
Pill.....	13.0		
IUD.....	0.6		
Condom.....	4.6		
Female sterilization.....	31.6		
Male sterilization.....	0.5		
Any traditional method.....	23.0		
Rhythm/safe period.....	10.2		
Withdrawal.....	11.9		
Unmet need for family planning			
Percent with unmet need for spacing.....	4.4		
Percent with unmet need for limiting.....	6.6		
Percent with total unmet need.....	11.0		
Maternal care²			
Percent of women received antenatal check-ups	90.7		
Antenatal check-up at home.....	1.0		
Antenatal check-up in first trimester.....	40.1		
Three or more visit for ANC.....	64.6		
Two or more tetanus toxoid injections.....	86.2		
		Adequate Iron folic acid tablets/syrup ³ 18.1	
		Full antenatal check-up ⁴ 14.0	
		Delivery characteristics²	
		Delivery at home..... 51.6	
		Delivery at government health institutions..... 34.3	
		Delivery at private health institutions..... 12.0	
		Delivery attendant by skilled persons ⁵ 54.1	
		Child health	
		Percent of children whose mother squeezed out milk from her breast ⁶ 47.8	
		Percent of children ⁷ with diarrhoea ⁸ who received ORS..... 44.0	
		Percent of children ⁷ with pneumonia ⁸ who were taken to a health facility or provider..... 80.6	
		Percent of children who received vaccinations⁹	
		BCG..... 87.0	
		DPT (3 injections)..... 68.8	
		Polio (3 drops)..... 65.6	
		Measles..... 65.0	
		All vaccinations ¹⁰ 50.4	
		No vaccination at all..... 7.1	
		Percentage of women who had	
		Pregnancy complication ² 42.2	
		Delivery complication ² 55.6	
		Post delivery complication ² 43.4	
		Symptoms of RTI/STI..... 36.4	
		Problems of vaginal discharge..... 15.7	
		Menstruation related problem..... 27.6	
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		Percent of women who have heard of HIV/AIDS..... 50.2	
		Utilization of government health services	
		Antenatal care..... 53.8	
		Treatment for pregnancy complication..... 28.2	
		Treatment for post-delivery complication..... 18.3	
		Treatment for vaginal discharge..... 13.9	
		Treatment for children with diarrhoea..... 23.4	
		Treatment for children with pneumonia..... 9.0	
		Quality of family planning services	
		Percent non-users ever advised to adopt the family planning method..... 16.5	
		Percent users told about side effects of method..... 13.6	
		Percent users who received follow-up services..... 11.2	
		Characteristics of husband of eligible women	
		Percent of husband knowing NSV..... 24.8	
		Percent of men who have heard of RTI/STI..... 86.7	
		Percent of men who have heard of HIV/AIDS..... 69.4	
		Percentage who had any symptoms of RTI/STI..... 11.5	
		Sought treatment for RTI/STI..... 35.7	

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

SALIENT FINDINGS

For the assessment of district level Reproductive and Child Health indicators, Government of India proposed to undertake district level household surveys through non-governmental agencies on an annual basis. The District Level Household Survey (DLHS) was the result of government's initiative. In West Bengal, TNS, India was entrusted the work of carrying out of the survey. The survey for Phase-1 of the DLHS covering 9 districts of the state was conducted during May 2002 to August 2002. The survey for Phase-2 covering the remaining districts of the state was carried out during Feb 2004 to June 2004. The focus of the survey was on: i) Coverage on ante natal care (ANC) and immunization services, ii) Extent of safe deliveries, iii) Contraceptive prevalence rate and unmet need for family planning, iv) Awareness about RTI/STI and HIV/AIDS and v) Utilization of government health services and users' satisfaction. The salient findings of the survey are presented here.

For both the phases together, the data was collected from 18,785 households in West Bengal. From these households, 15,614 eligible women (usual resident or visitors who stayed in the sample household the night before the interview, currently married aged 15-44 years whose marriage was consummated) and 10,958 husbands of eligible women were interviewed.

Of the total households interviewed in West Bengal, nearly 36 percent were from urban areas. There were 77 percent Hindu households, 21 percent Muslim and two percent came under other category in the sample. Thirty-three percent of the households belonged to either scheduled castes or scheduled tribes. Fifty-two percent of the households lived in *Kachcha* and about 20 percent are in *Semi-pacca* and 28 percent are in *pucca* houses. The majority of the households belonged to low economic status (52 percent in low SLI)

About 70 percent of population aged seven and above are literate. Percent literate among females is 63 where as it is 77 percent for male. Proportion of non-literate is much higher among the older cohort compared to the younger ones. Nearly 40 percent of eligible women in the state are non-literate, and 15 percent have completed 10 or more years of schooling. In West Bengal the level of literacy among the eligible women and their husbands are low. As regards distribution of non-literate women, lesser proportion of younger women below age 30 are illiterate compared to older women age 30 and above, but in case of non-literate husbands across age is more or less uniform, though it is marginally more for husbands below 30 years.

The reporting of the marriages during three years prior to survey gives the mean age at marriage among the boys and girls in the state as 24.7 and 18.5 years respectively. Twenty-four percent of boys and 46 percent of girls in the state got married before attaining the minimum legal age at marriage of 21 and 18 years respectively. In all the districts, except Kolkata, Haora, Dakshin Dinajpur and Bardhaman more than one-fifth

of boys got married below the legal minimum age at marriage. Except in Kolkata, in all the districts, nearly 20 to over 65 percent of the girls got married below the legal minimum age at marriage.

About half of the households (55 percent) use cooking salt that is iodized at the recommended level of 15 parts per million or higher level of iodine content whereas 14 percent of households used salts that are not iodized at all. Lowest proportion of households (2 percent) in Hugli is using non-iodized salt whereas in Murshidabad the highest proportion of households (38 percent) used non-iodized salt. While more than 60 percent of households in Maldah, North 24 Parganas, South 24 Parganas, Koch Bihar, Uttar Dinajpur, Darjiling, Kolkata and Hugli consume adequately iodized salt, only 26 percent of households in Murshidabad do so.

On an average, women on the verge of completion of reproductive period have given birth to 3.7 children. The completed fertility in the states varies from the lowest of 2.3 children ever born per woman in a Kolkata to the highest of 4.7 children in Uttar Dinajpur.

The share of births of order 3 and above in the total births that occurred three years prior to survey is 31 percent. In most of the districts, proportion of higher order births is quite high, ranging from the lowest of around 19 percent in Nadia, to the highest of about 55 percent in Uttar Dinajpur.

The data collected on the utilization of ANC services for the women who had their last live/ still birth during the three years prior to survey shows that the ANC coverage in the state is high as 91 percent of the women received at least one ante-natal care during pregnancy. About one percent of the women during their pregnancy were visited by health worker at their residence for providing ANC. Thirty two percent of the women visited private health facilities and 54 percent received ANC from government health facilities. The percent of women who got some kind of ANC during pregnancy range between 74 percent in Murshidabad to 97 percent in Nadia. In 13 districts out of 18, 90 percent or more women got some antenatal care.

Though 91 percent of the women in West Bengal received ANC, only 67, 61 and 55 percent women had check-up of weight, blood pressure and abdomen respectively. Seventy two percent women received Iron and Folic Acid (IFA) tablets and 92 percent got at least one TT injection. A full package of ANC including minimum three ANC visits, at least one TT injection and 100 or more IFA tablets/Syrup was received by 14 percent of women.

Minimum three ANC and timing of first check up is crucial for maternal and child care. In West Bengal, nearly 40 percent of women got ANC in the first trimester and nearly 65 percent had minimum three antenatal check-ups. An extent of ANC in first trimester varies from minimum of 27 percent in South 24 Parganas to the maximum of 58 percent in Kolkata. In Uttar Dinajpur, only 43 percent of women had minimum three ANC whereas in Kolkata more than 90 percent women had got minimum three ANC.

Nearly 46 percent of the total deliveries in West Bengal were conducted in ~~the~~ health institutions; 7 percentages point up from RCH Round I. ~~The M~~majority of the institutional deliveries were conducted in government institutions (34 percent of total deliveries) as against in 12 percent in private institutions ~~12 percent of total deliveries~~. Fifteen percent of the total deliveries, that took place at home, were assisted by midwifery trained persons i.e. doctor/ nurse and ANM. So in all, 54 percent of the deliveries, slightly up from RCH Round I (46 percent), in the state were assisted by skilled personnel. The extent of institutional deliveries varies from the highest of 87 percent in Kolkata to the lowest of 27 percent in Uttar Dinajpur. In all the districts, comparatively higher proportion of the deliveries took place in government health institutions. Safe deliveries were on the similar pattern in all the districts. The percent of the institutional deliveries increases substantially with women's education and economic status, though the variation in the institutional deliveries by women's education is much conspicuous than that by women's economic status.

In West Bengal, 42, 56 and 43 percent of the women experienced pregnancy, delivery and post delivery complications respectively. About 53 percent of the women sought treatment for the pregnancy and 49 percent for the post-delivery complications. The pregnancy complication varies from the lowest of 32 percent in Haora to the highest of 53 percent in Maldah. The incidence of all the three types of complications seems to be linked with each other. In the districts where the incidence of pregnancy complications is high, the incidence of delivery and post-delivery complications is also high.

In most of the districts and the state as a whole, the practice of breast-feeding is almost universal. However, the practice of initiation of breastfeeding within two hours of birth of the child is not common. In West Bengal, only 28 percent women started breastfeeding the child within two hours of birth and nearly 45 percent started after one day of birth. There is great deal of variation in the pattern of breastfeeding across the districts. In Koch Bihar district only seven percent of the women breastfed the child within two hours of birth. In Birbhum and Bankura district, the percentage is highest (45 and 49 percent respectively).

In West Bengal 87, 69, 66 and 65 percent of the children received the BCG vaccine, three doses of DPT, Polio and measles vaccine respectively. There is 22 percentage points drop from BCG to measles. It means that large number of children that ~~had~~ve contact with ~~services~~ providers are missed out of subsequent services. The complete schedule of immunization including BCG, three doses of DPT and Polio each and measles was received by 50 percent of the children, whereas 7 percent of the children did not receive a single vaccination under routine programme. About 55 percent of the children received supplementation of at least one dose of vitamin A and only 7 percent children received IFA tablets/liquid for iron supplementation.

The extent of complete immunization consisting of BCG, three injections of DPT, three doses of Polio and measles is the lowest in Uttar Dinajpur (20 percent) and highest

in Bankura (68 percent). In 4 districts (Bankura, Darjiling, Hugli and Jalpaiguri) more than 60 percent of the children received complete immunization.

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

The knowledge of family planning methods is universal in all districts of West Bengal, with over 99 percent women reporting knowledge of one method or the other. However, the knowledge of any spacing method is marginally low, but the proportion *per se* is quite high (98 percent). The knowledge of any modern methods is also universal in all the districts, though the knowledge of all modern methods is only 60 percent. The proportion knowing all modern methods (males and females: sterilization, IUD, oral pills and condom) varies from about 33 percent in Puruliya to 86 percent in Kolkata.

In DLHS, knowledge about No-scalpel vasectomy has been asked to husbands of eligible women. About one-fourth of the husbands were aware of no-scalpel vasectomy in the state. The proportion of husbands knowing No-scalpel vasectomy varies from about 10 percent in Puruliya to 41 percent in Bankura.

The contraceptive prevalence rate (any methods) in the state is 74 percent, 5 percentage point up from RCH Round I, comprising of prevalence of about 51 percent of modern methods and 23 percent of traditional methods. Thirty two percent of the couples adopted sterilization. The percent of users of the two male methods - sterilization and condom is only 5 percent. There has been positive association between contraceptive use and female education, economic development and availability of health facility. The highest contraceptive prevalence is in Nadia and Bardhaman (82 percent) followed by Hugli (81 percent) and lowest is in Uttar Dinajpur (57 percent).

In West Bengal, a total of 11 percent of women are found to have unmet need for family planning, with 7 percent for limiting and 4 percent for spacing. There are no inter-district differences in the pattern of unmet need. The total unmet need varies from 6 percent in Bardhaman to 21 percent in Maldah followed by Uttar Dinajpur (20 percent).

Only 13 percent of the women in the state reported that either ANM/LHV or health worker visited them at their residence at least once in the past three months. Less than one third of women who were visited by ANM felt that ANM had given them sufficient time to discuss health-related matters.

In nearly 50 percent of the districts, less than 10 percent of the women reported the visit of ANM/LHV to their residence. In the 4 districts (Dakshin Dinajpur, Hugli, Kooch Bihar and Puruliya) 10-15 percent of the women reported visits of ANM/LHV and in the remaining more than 15 percent of the women reported visit of ANM/LHV.

It has been observed that in the three months period prior to survey, 26 percent of the eligible women who were required to consult health facility visited any of the government health facilities. Very small proportion of the women who visited the health facility rated the facility as excellent. On the other hand, nearly 38 percent of the women who did not visit the government health facility reported government health facility “non-conveniently located” or “time is not suited” as reason.

The district level variation in the utilization of the government health facilities ranges from 18 percent in Hugli to 44 percent in Darjiling. A large percentage of women visited ~~to~~ private health facilities (71 percent) and this proportion, ranges from 53-55 percent in Darjiling and Puruliya, to 75 percent and more in Maldah, South 24 Parganas, Haora, Uttar Dinajpur and Hugli.

In West Bengal 70 and 50 percent of women are aware of RTI/STI and HIV/AIDS respectively. The corresponding level of awareness among husbands of eligible women is 87 percent and 69 percent. The percent of women who are aware of RTI/STI and HIV/AIDS is lowest in Puruliya (42 percent and 23 percent respectively) to highest in Kolkata (85 percent and 88 percent respectively). Similarly awareness level of husbands of eligible women of RTI/STI and HIV/AIDS ~~are-is~~ lowest in Murshidabad (69 percent) and in Puruliya (47 percent) ~~to-and~~ highest in Nadia (97 percent) and in Kolkata (96 percent) respectively. Out of 18, in 11 districts the awareness of HIV/AIDS is below the state figure for women and in 10 districts for husbands of eligible women.

About 36 percent of women and 12 percent of husbands of eligible women in the state reported having at least one symptoms of RTI/STI. In most of the districts the reported prevalence of RTI/STI among husbands was low. The prevalence of RTI/STI is lowest in Puruliya and Kolkata (25 percent each) for women and in Kolkata (2 percent) for husbands ~~to-and~~ highest in Medinipur (46 percent) for women and in Nadia (27 percent) for husbands. About 16 percent of women reported vaginal discharge with the lowest in Puruliya (6 percent) ~~to-and~~ highest in Maldah (29 Percent). Thirty -nine percent of women sought treatment for vaginal discharge problem and 36 percent of husbands sought treatment with at least one symptoms of RTI/STI. It may be noted that in 10 out of 18 districts, higher proportion of women compared to husbands sought treatment for their reproductive health problems.

CHAPTER I

INTRODUCTION

1.1 Background and Objectives of the Survey

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

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

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

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

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

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

For the purpose of conducting DLHS-RCH, all the states and the union territories were grouped into 16 regions. A total of twelve research organizations including Population Research Centres (PRCs) were involved in conducting the survey in 16 regions with IIPS as the nodal agency.

1.2 Survey Design

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

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

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

1.3 House Listing and Sample Selection

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

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

Small villages with less than 50 households were linked with a nearest village. After combining it with the nearest village, the same sampling procedure was adopted as mentioned above.

For the urban PSUs, the selected UFS blocks needed no segmentation as they were of almost equal size and contained less than 300 households.

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

1.4 Questionnaire

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

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

All the questionnaires were bilingual, with questions in both regional and English language.

The Details of questionnaires are as follows:

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

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

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

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

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

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

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

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

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

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

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

1.5 Fieldwork and Sample Coverage

The fieldwork for RCH Round II was done in two phases. During Phase I, 9 districts were covered from May 2002 to August 2002 and remaining 9 districts were covered during Phase II from January 2004 to July 2004.

During Round II, a total of 18,785 thousand households were covered. From these surveyed households, 15,614 currently married women (aged 15-44 years) and 10,958 husbands of eligible women were interviewed.

1.6 Data processing

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

1.7 Sample Weights

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

$$f_1^i = \text{Probability of selection of } i^{\text{th}} \text{ PSU in a district}$$

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

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

$$f_2^i = \text{Probability of selecting segment (s) from segmented PSU}$$

(in case the i^{th} selected PSU is segmented)

$$= \frac{\text{(Number of segments selected after segmentation of PSU)}}{\text{(number of segment created a PSU)}}$$

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

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

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

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

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

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

$$f^i = (f_1^i * f_2^i * f_3^i)$$

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

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

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

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

$$n_i^s = n_i^d * \frac{\left(\frac{n_i^d}{n_s} \right)}{\left(\frac{N_i^d}{N_{sc}} \right)}, \quad \text{where } n_i^d \text{ household sample in } i^{\text{th}} \text{ district, } n_s \text{ is the total sample}$$

in the state, N_i^d is the census population in the i^{th} district and N_{sc} is the census population in the state.

These households' weights are controlled for rural-urban separately.

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

1.8 Sample Implementation

Table 1.1 shows the period of fieldwork, number of households interviewed and household response rate. A total of 18,785 households were interviewed, about two third were rural. The overall household response rate – the number of households interviewed per 100 occupied households – was 99 percent. The household response rate was more than 97 percent in every district.

Table 1.1 NUMBER OF HOUSEHOLDS INTERVIEWED						
Month and year of fieldwork and number of households interviewed by district, West Bengal, 2002-04						
State/District	Month and year of field work		Number of households interviewed			Response rate
	From	To	Total	Rural	Urban	
State	-	-	18,785	11,975	6,810	98.7
State-phase I	05/2002	08/2002	-	-	-	-
State-phase II	01/2004	07/2004	-	-	-	-
Bankura	05/2002	07/2002	1,077	750	327	99.7
Barddhaman	07/2002	08/2002	1,025	667	358	97.8
Darjiling	06/2002	08/2002	1,006	677	329	97.2
Haora	07/2002	08/2002	1,014	518	496	98.6
Koch Bihar	05/2002	07/2002	1,074	757	317	99.4
Kolkata	07/2002	08/2002	982	-	982	97.3
Medinipur	06/2002	07/2002	1,072	750	322	99.4
Murshidabad	05/2002	08/2002	1,068	752	316	99.3
North 24 Parganas	06/2002	08/2002	1,014	472	542	98.3
Birbhum	01/2004	02/2004	1,039	728	311	99.0
Dakshin Dinajpur	03/2004	04/2004	1,064	744	320	98.3
Hugli	02/2004	05/2004	1,041	720	321	99.0
Jalpaiguri	06/2004	07/2004	1,067	751	316	99.5
Maldah	03/2004	04/2004	1,065	745	320	99.3
Nadia	01/2004	02/2004	1,064	748	316	99.3
Puruliya	03/2004	04/2004	1,046	732	314	98.5
South 24 Parganas	04/2004	06/2004	1,029	736	293	98.0
Uttar Dinajpur	04/2004	04/2004	1,038	728	310	98.5

Note: Table based on unweighted cases.

In the interviewed households, interviews were completed with 15,614 currently married women who are the usual members of the household or stayed night before the household interview and 10,958 husbands of eligible women were also interviewed (Table 1.2). The number of completed interviews per 100 identified eligible women and husbands in the households with completed interviews was 89 and 69 respectively. The variation in the womens' response rate by district was highest in Koch Bihar (93 percent) and lowest in Kolkata (83 percent), similarly husbands' response rate was highest in Murshidabad (78 percent) and lowest in Kolkata (60 percent).

Table 1.2 NUMBER OF WOMEN AND HUSBANDS INTERVIEWED								
Number of women and husbands interviewed by district, West Bengal, 2002-04								
State/District	Number of women interviewed			Response rate	Number of husbands interviewed			Response rate
	Total	Rural	Urban		Total	Rural	Urban	
State	15,614	10,557	5,057	89.4	10,958	7,580	3,378	68.6
Bankura	976	710	266	89.0	678	497	181	66.3
Bardhaman	844	580	264	88.9	530	350	180	64.2
Darjiling	739	499	240	87.4	461	325	136	62.6
Haora	814	443	371	90.4	506	272	234	66.1
Koch Bihar	928	684	244	92.5	672	524	148	74.4
Kolkata	602	0	602	82.8	377	-	377	59.6
Medinipur	1,008	732	276	88.0	672	502	170	66.7
Murshidabad	872	637	235	89.4	690	516	174	78.0
North 24 Parganas	736	400	336	87.6	517	293	224	69.2
Birbhum	954	674	280	89.8	628	454	174	63.2
Dakshin Dinajpur	847	604	243	91.7	689	502	187	77.5
Hugli	891	656	235	91.3	662	491	171	71.7
Jalpaiguri	897	641	256	90.3	648	469	179	68.8
Maldah	938	683	255	90.5	651	472	179	69.0
Nadia	864	641	223	90.4	691	515	176	77.1
Puruliya	912	672	240	87.3	663	497	166	67.2
South 24 Parganas	925	687	238	88.8	618	472	146	63.6
Uttar Dinajpur	867	614	253	91.2	605	429	176	67.0

Note: Table based on unweighted cases.

1.9 Basic Demographic Profile of the State

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

The state of West Bengal, located in the eastern part of the country with 80 million population in 2001, is the fourth largest state in India in terms of population. The geographical location of the state is quite unique. In the north, it is bordered by countries like Nepal, Bhutan and the Indian state of Sikkim. In other words, wide range of the Himalayas has bordered this state in the north whereas the southern part is edged by the vast sea of the Bay of Bengal. The country of Bangladesh has covered the eastern part and states like Bihar, Jharkhand and Orissa are situated in the western part of the state. The state consists of 18 districts, 341 sub-districts (Blocks) and 40,782 villages. The urban areas of the state comprise 375 towns as per the 2001 census. Kolkata is the capital of the state.

According to 2001 census, the population of West Bengal is 80.1 million out of which 41.4 millions are males and 38.7 millions are females. The rural and urban breakup of the population shows that 72.0 percent of the population was enumerated in rural areas and 28.0 percent in urban areas. Keeping pace with the national average, West Bengal has recorded a sharp decline in the decadal growth rate from 24.7 per cent in 1981-91 to 17.8 percent during 1991-2001. Among the districts, Uttar Dinajpur with 28.7 percent has the highest decadal growth rate whereas Kolkata with 4.1 percent has the lowest decadal growth rate of total population during 1991-2001.

Percentage of both Scheduled Caste and Scheduled Tribe population has experienced a marginal decline during 1991-2001 and the proportion of scheduled caste and scheduled tribe population in total population of 2001 is 23.0 percent and 5.5 percent respectively. Highest proportion of Scheduled Caste population was recorded in Koch Bihar district (50.1 per cent) and that of Scheduled Tribe in Jalpaiguri (18.9 per cent) while Kolkata has the lowest proportion of both the categories (6.0 per cent SC and 0.2 per cent ST). With a population density of 904 per sq. km., West Bengal ranks 6th among the states and union territories in India and this figure is almost three times higher than the all India density of 324 persons per square km. Among the districts, Kolkata has the highest density (24,718 person/sq. km.) and Puruliya has the lowest density (405 person/sq. km).

The sex ratio of the total population in the state has improved since 1991 Census from 917 to 934 females per 1000 males. Medinipur recorded the highest sex ratio (955) and Kolkata has the lowest (829) within the state.

The literacy rate in the state has improved from 57.7 percent in 1991 to 68.6 percent in 2001 and it is higher than the national average of 64.8 percent. The literacy rate in urban areas (81.2 percent) is considerably higher in the state than that in rural areas (63.4 percent). Among the districts, Kolkata has the highest literacy rate of 80.9 percent. Uttar Dinajpur has the lowest literacy rate of 47.9 percent. The male literacy for the state is 77.0 percent and the female literacy rate is 59.6 percent. Both the rates have increased from 1991 census to 2001 census.

Table 1.3 BASIC DEMOGRAPHIC INDICATOR							
Basic demographic indicator of India, state and districts, Census 2001							
India/state/district	Population (in thousand)	Percentage urban	Percentage decadal growth rate ¹	Sex ratio ²	Percentage literate 7+		
					Male	Female	Persons
India	1,028,737	28.0	21.5	933	75.8	53.7	64.8
State	80,176	28.0	17.8	934	77.0	59.6	68.6
Bankura	3,192	7.4	13.8	952	76.8	49.4	63.4
Bardhaman	6,920	36.9	14.4	922	78.6	61	70.2
Darjiling	1,605	32.3	23.5	937	80.1	62.9	71.8
Haora	4,274	50.4	14.6	906	83.2	70.1	77.0
Koch Bihar	2,478	9.1	14.2	949	75.9	56.1	66.3
Kolkata	4,580	100.0	4.1	829	83.8	77.3	80.9
Medinipur	9,638	10.2	15.7	955	84.9	64.4	74.9
Murshidabad	5,864	12.5	23.7	952	60.7	47.6	54.3
North 24 Parganas	8,930	51.3	22.6	926	73.7	36.5	78.1
Birbhum	3,012	8.6	17.9	950	70.9	51.6	61.5
Dakshin Dinajpur	1,503	13.1	22.1	951	72.4	54.3	63.6
Hugli	5,040	33.5	15.7	947	82.6	67.2	75.1
Jalpaiguri	3,406	17.8	21.5	942	72.8	52.2	62.9
Maldah	3,290	7.3	24.8	948	58.8	41.3	50.3
Nadia	4,603	21.3	19.5	946	72.3	59.6	66.1
Puruliya	2,535	10.1	14.0	954	79.2	59	55.6
South 24 Parganas	6,909	15.7	20.9	937	83.9	71.7	69.4
Uttar Dinajpur	2,442	12.1	28.7	938	58.5	36.5	47.9

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

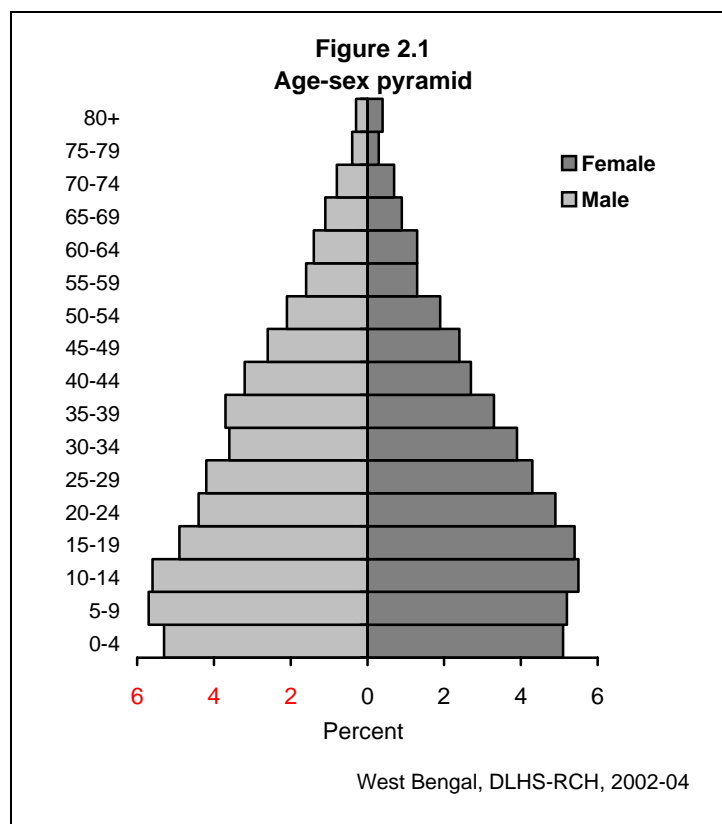
CHAPTER II

BACKGROUND CHARACTERISTICS OF HOUSEHOLD

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

2.1 Age –Sex Structure

The age-sex distribution of sampled household population classified by residence is presented in Table 2.1. The percent distribution is based on sampled *de facto* population of 88,875 persons of whom 66 percent lived in the rural areas of West Bengal. The state of West Bengal depicts a young and growing population with 32 percent below the age of 15 years (Figure 2.1). There are more children below 15 years recorded in rural areas (36 percent) compared to those in urban areas (25 percent).



The overall sex ratio of 103 males per 100 females is recorded for the *de facto* population. The sex ratio is more skewed, 107 in favour of males in urban areas compared to 102 in rural areas.

Table 2.1 HOUSEHOLD POPULATION BY AGE AND SEX									
Percent distribution of the household population by age and by residence and sex, West Bengal, 2002-04									
Age	Total			Rural			Urban		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
< 1	2.0	2.0	2.1	2.4	2.4	2.4	1.4	1.3	1.4
1-4	8.3	8.4	8.2	9.5	9.5	9.4	6.0	6.2	5.8
5-9	10.9	11.2	10.5	12.1	12.6	11.6	8.3	8.4	8.3
10-14	11.1	11.0	11.1	12.2	12.1	12.3	8.9	9.0	8.8
15-19	10.3	9.7	10.9	10.4	9.7	11.2	10.0	9.7	10.4
20-24	9.3	8.6	9.9	9.0	8.3	9.8	9.7	9.2	10.2
25-29	8.4	8.2	8.7	8.2	8.0	8.5	8.8	8.5	9.2
30-34	7.5	7.2	7.9	7.4	7.1	7.6	7.8	7.2	8.4
35-39	7.0	7.3	6.6	6.6	7.0	6.1	7.8	8.0	7.6
40-44	5.9	6.2	5.5	5.4	5.6	5.1	6.9	7.4	6.3
45-49	5.0	5.1	4.9	4.4	4.6	4.1	6.2	6.1	6.4
50-54	4.0	4.2	3.9	3.5	3.5	3.5	5.1	5.5	4.6
55-59	2.8	3.1	2.6	2.5	2.7	2.3	3.5	4.0	3.1
60-64	2.7	2.7	2.6	2.3	2.5	2.2	3.4	3.2	3.5
65-69	1.9	2.1	1.8	1.7	1.7	1.6	2.5	2.8	2.2
70-74	1.4	1.5	1.3	1.2	1.3	1.1	1.9	1.9	1.8
75-79	0.7	0.7	0.7	0.6	0.6	0.5	0.9	0.9	0.9
80+	0.7	0.6	0.8	0.6	0.6	0.6	0.9	0.7	1.1
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of persons	88,875	45,140	43,735	59,095	29,779	29,316	29,779	15,361	14,418
Sex ratio ¹	103	NA	NA	102	NA	NA	107	NA	NA

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

2.2 Household Characteristics

The percent distribution of 18,785 households surveyed in the state of West Bengal by selected characteristics of the household head and the number of usual household members are shown in Table 2.2. This is based on *de jure*, the usual resident population. More than 90 percent of household heads are male invariant of place of residence while only 8 percent are female-headed households. Nearly 70 percent of household heads are in the 30-59 years age group. The median age of household heads is 44 years for the state as a whole, while it is 42 years in rural areas and 47 years in urban areas. About 12 percent of household heads are younger than 30 years and 18 percent are at least 60 years old. Majority of the household heads are Hindu (77 percent), 21 percent are Muslim, and 2 percent belong to other religions. Hindus constitute a higher proportion of population in urban areas (88 percent) than in rural areas (71 percent). About 28 percent of the rural households and 11 percent of urban households are Muslims.

Table 2.2 HOUSEHOLD CHARACTERISTICS			
Percent distribution of the household head by selected characteristics of the household head and household size, according to residence, West Bengal, 2002-04			
Characteristic	Total	Residence	
		Rural	Urban
Sex of the household head			
Male	91.9	92.3	91.2
Female	8.1	7.7	8.8
Age of the household head			
< 30	12.4	14.7	8.2
30-44	39.5	41.9	35.4
45-59	30.3	27.7	34.6
60+	17.8	15.6	21.7
Median age of the household head	44.1	42.3	47.0
Religion of the household head			
Hindu	77.0	71.0	87.5
Muslim	21.4	27.7	10.5
Christian	0.7	0.6	0.8
Sikh	0.3	0.1	0.6
Buddhist	0.3	0.2	0.4
Jain	0.1	0.0	0.2
Zoroastrian	0.0	0.0	0.0
No Religion	0.0	0.0	0.0
Other	0.3	0.4	0.1
Caste/tribe of the household head			
Scheduled caste	27.5	31.6	20.1
Scheduled tribe	5.8	8.0	1.9
Other backward class	6.0	6.2	5.5
Other #	57.4	50.5	69.4
Don't know	3.4	3.6	3.0
Number of usual members			
1	2.6	2.1	3.6
2	8.1	6.8	10.2
3	16.6	13.7	21.6
4	24.1	23.8	24.7
5	19.4	20.7	17.1
6	11.8	12.9	9.8
7	7.0	8.2	4.8
8	4.4	4.8	3.7
9+	6.0	7.0	4.5
Mean household size	4.7	4.9	4.4
Total percent	100.0	100.0	100.0
Number of households	18,785	11,975	6,810
Note: Table is based on the <i>de jure</i> population			
# Higher caste (Not belonging to a scheduled caste, a scheduled tribe and an other backward class)			

Twenty eight percent of the households in West Bengal belong to scheduled caste, 6 percent each to scheduled tribe and other backward classes while the remaining 57 percent of the households are headed by other castes not under scheduled caste, scheduled tribe and other backward classes. About two fifth of the household heads belong to scheduled caste or tribe in rural areas and it is only 22 percent in urban areas. The overall state average household size is 4.7 persons. The rural-urban differential in average household size is 4.9 in rural areas and 4.4 in urban areas.

2.3 Educational Level

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

Table 2.3 indicates that, 30 percent of the population aged seven and above are non-literate. The proportion of non-literates is 37 percent for females compared to 22 percent for males. The proportion of non-literates is much higher among the older cohorts compared to the younger ones. For both males and females, going by the expected trend, the level of literacy is higher in the younger population than in the older age groups with the exception of the youngest age group of 7-9 years (Figure 2.2).

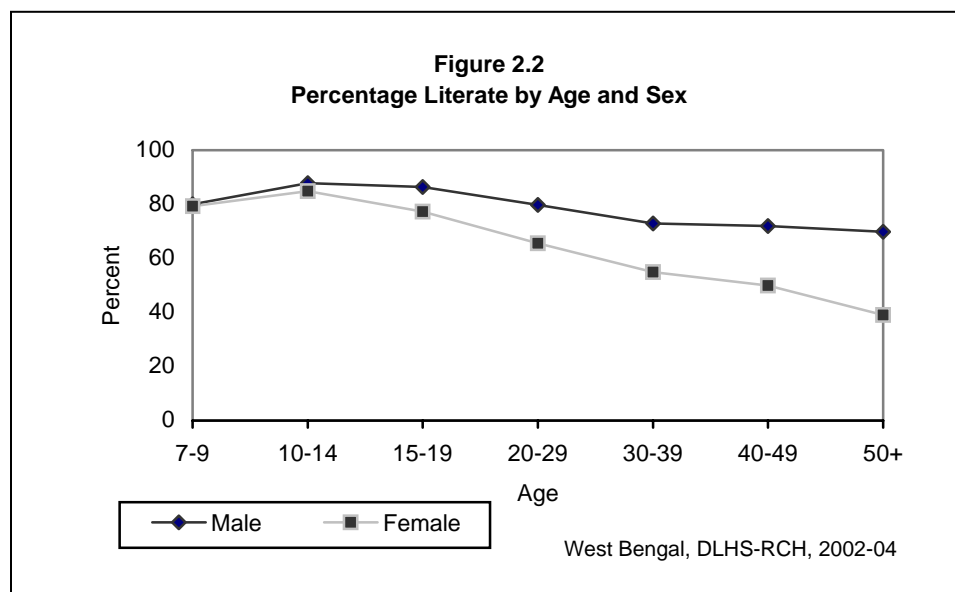


Table 2.3 EDUCATIONAL LEVEL OF THE HOUSEHOLD POPULATION

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

Age	Non-literate	Literate but no schooling	Years of schooling				Missing	Total Percent	Number of persons
			1-5	6-8	9-10	11 or more			
Total									
Male									
7-9	18.6	10.4	69.2	0.4	0.0	0.0	1.4	100.0	2,969
10-14	11.8	1.4	58.7	25.1	2.6	0.0	0.4	100.0	4,985
15-19	13.6	1.0	23.0	28.6	21.8	12.0	0.0	100.0	4,388
20-29	20.2	1.3	20.7	21.0	15.1	21.8	0.0	100.0	7,578
30-39	27.1	2.3	18.3	17.6	15.3	19.5	0.0	100.0	6,545
40-49	28.1	2.0	18.2	14.3	14.8	22.6	0.0	100.0	5,133
50+	30.2	2.7	19.6	13.2	15.7	18.6	0.0	100.0	6,768
Total	22.2	2.5	28.7	18.0	13.2	15.3	0.2	100.0	38,365
Female									
7-9	19.9	10.6	68.3	0.3	0.0	0.0	0.8	100.0	2,771
10-14	14.9	1.5	56.4	24.5	2.3	0.0	0.3	100.0	4,869
15-19	22.7	0.9	23.5	26.8	18.3	7.7	0.0	100.0	4,774
20-29	34.4	1.2	18.9	18.3	12.6	14.6	0.0	100.0	8,142
30-39	45.1	1.4	15.2	15.1	12.0	11.2	0.0	100.0	6,347
40-49	50.0	1.2	15.9	12.2	9.7	10.9	0.0	100.0	4,549
50+	61.0	1.7	16.2	7.1	8.3	5.6	0.0	100.0	5,954
Total	37.3	2.0	26.6	15.8	9.9	8.3	0.1	100.0	37,406
Total									
7-9	19.2	10.5	68.8	0.3	0.0	0.0	1.1	100.0	5,740
10-14	13.4	1.5	57.6	24.8	2.5	0.0	0.4	100.0	9,854
15-19	18.3	0.9	23.3	27.7	20.0	9.8	0.0	100.0	9,162
20-29	27.6	1.3	19.7	19.6	13.8	18.1	0.0	100.0	15,719
30-39	35.9	1.8	16.8	16.4	13.7	15.4	0.0	100.0	12,893
40-49	38.4	1.6	17.1	13.3	12.4	17.1	0.0	100.0	9,682
50+	44.6	2.2	18.0	10.4	12.2	12.5	0.0	100.0	12,722
Total	29.6	2.3	27.7	16.9	11.6	11.8	0.1	100.0	75,771

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

Contd.

Table 2.3 EDUCATIONAL LEVEL OF THE HOUSEHOLD POPULATION (Contd..)									
Percent distribution of household population age 7 and above by literacy level and years of schooling, according to age, residence and sex, West Bengal, 2002-04									
Age	Non-literate	Literate but no schooling	Years of schooling				Missing	Total Percent	Number of persons
			1-5	6-8	9-10	11 or more			
RURAL									
Male									
7-9	21.5	11.8	65.2	0.4	0.0	0.0	1.1	100.0	2,196
10-14	14.0	1.6	60.6	21.6	1.9	0.0	0.2	100.0	3,607
15-19	16.9	1.1	27.6	28.1	18.1	8.1	0.0	100.0	2,894
20-29	26.6	1.4	24.2	22.1	12.6	13.2	0.0	100.0	4,858
30-39	35.6	2.1	21.2	18.8	12.2	10.1	0.0	100.0	4,207
40-49	38.3	2.3	21.8	14.7	12.1	10.8	0.0	100.0	3,054
50+	41.5	2.9	24.1	14.0	10.0	7.5	0.0	100.0	3,860
Total	28.5	2.8	32.7	18.0	10.0	7.8	0.1	100.0	24,675
Female									
7-9	21.3	12.1	65.6	0.3	0.0	0.0	0.7	100.0	2,041
10-14	17.4	1.6	57.5	21.2	2.1	0.0	0.3	100.0	3,596
15-19	28.5	0.8	27.4	25.5	13.8	4.0	0.0	100.0	3,278
20-29	43.8	1.0	22.0	18.7	9.0	5.3	0.0	100.0	5,357
30-39	57.8	1.3	17.2	14.5	6.4	2.9	0.0	100.0	4,031
40-49	64.7	1.1	18.3	9.5	4.3	2.0	0.0	100.0	2,719
50+	79.1	1.1	14.5	3.2	1.6	0.5	0.0	100.0	3,467
Total	45.6	2.1	29.3	14.5	5.9	2.5	0.1	100.0	24,490
Total									
7-9	21.4	12.0	65.4	0.3	0.0	0.0	0.9	100.0	4,236
10-14	15.7	1.6	59.1	21.4	2.0	0.0	0.3	100.0	7,202
15-19	23.1	0.9	27.5	26.7	15.8	5.9	0.0	100.0	6,173
20-29	35.7	1.2	23.0	20.3	10.7	9.0	0.0	100.0	10,215
30-39	46.5	1.7	19.2	16.7	9.3	6.6	0.0	100.0	8,238
40-49	50.8	1.8	20.2	12.2	8.4	6.7	0.0	100.0	5,774
50+	59.3	2.1	19.6	8.9	6.0	4.2	0.0	100.0	7,327
Total	37.0	2.4	31.0	16.3	8.0	5.1	0.1	100.0	49,165

Contd.

Around 69 percent of males and 68 percent of females in this age group had 1-5 years of schooling. Nearly 29 percent of males had education for 1-5 years. Females are not far behind compared to their male counterparts in this category with a corresponding share of 27 percent. Less proportion of females are found in higher education of 9-10 years (10 percent) and 11 or more years (8 percent) compared to the males having corresponding figure of 13 percent and 15 percent respectively. Just about two percent of the total population, three percent of males and two percent of females are literates without any formal schooling.

Table 2.3 EDUCATIONAL LEVEL OF THE HOUSEHOLD POPULATION (Contd..)									
Percent distribution of household population age 7 and above by literacy level and years of schooling, according to age, residence and sex, West Bengal, 2002-04									
Age	Non-literate	Literate but no schooling	Years of schooling				Missing	Total Percent	Number of persons
			1-5	6-8	9-10	11 or more			
URBAN									
Male									
7-9	10.3	6.5	80.5	0.4	0.0	0.0	2.3	100.0	773
10-14	6.2	0.7	53.7	34.0	4.5	0.0	0.9	100.0	1,378
15-19	7.1	0.7	14.1	29.4	29.0	19.6	0.0	100.0	1,494
20-29	8.6	1.1	14.4	19.1	19.4	37.2	0.0	100.0	2,720
30-39	11.8	2.6	13.0	15.5	20.8	36.2	0.0	100.0	2,338
40-49	13.0	1.5	12.8	13.9	18.9	39.8	0.0	100.0	2,079
50+	15.2	2.3	13.6	12.3	23.2	33.4	0.0	100.0	2,908
Total	10.9	1.9	21.4	17.8	18.8	28.9	0.2	100.0	13,690
Female									
7-9	16.0	6.4	75.9	0.5	0.0	0.0	1.3	100.0	730
10-14	8.0	1.4	53.3	33.9	3.0	0.0	0.4	100.0	1,273
15-19	10.1	1.0	15.0	29.7	28.3	15.9	0.0	100.0	1,495
20-29	16.3	1.6	12.8	17.4	19.4	32.4	0.0	100.0	2,784
30-39	22.9	1.5	11.8	16.2	21.9	25.7	0.0	100.0	2,316
40-49	28.2	1.5	12.3	16.3	17.7	24.1	0.0	100.0	1,830
50+	35.8	2.5	18.7	12.5	17.6	12.8	0.0	100.0	2,487
Total	21.4	1.9	21.5	18.2	17.6	19.3	0.1	100.0	12,916
Total									
7-9	13.1	6.5	78.3	0.4	0.0	0.0	1.8	100.0	1,504
10-14	7.1	1.0	53.5	34.0	3.8	0.0	0.7	100.0	2,651
15-19	8.6	0.9	14.6	29.6	28.7	17.8	0.0	100.0	2,989
20-29	12.5	1.4	13.6	18.3	19.4	34.8	0.0	100.0	5,504
30-39	17.3	2.0	12.4	15.9	21.4	31.0	0.0	100.0	4,655
40-49	20.1	1.5	12.6	15.0	18.3	32.5	0.0	100.0	3,909
50+	24.7	2.4	15.9	12.4	20.6	23.9	0.0	100.0	5,395
Total	16.0	1.9	21.5	18.0	18.2	24.2	0.2	100.0	26,606

An examination of the educational attainment by place of residence revealed that the urban-rural differential was quite pronounced. In urban areas, only 16 percent of the total population is non-literate in comparison to 37 percent of the rural population. The numbers of non-literate females live in rural areas of West Bengal accruing a share as high as 46 percent, while non-literate rural males is 29 percent. Prevalence of illiterates is much less in urban areas with figures of 21 percent and 11 percent non-literate females and males respectively. A contrasting feature of rural-urban difference in educational level is that in rural areas, most people had 1-5 years of schooling (31 percent), and those who had 10 or more years of schooling was just 5 percent, whereas in urban areas a significant proportion of people (24 percent) had this level of education.

2.4 Marital Status of the Household Population

The DLHS, collected information on the marital status of all household members aged 10 years and above. Table 2.4 shows the percent distribution of household population by marital status distribution of *de facto* household population by age and sex. Thirty eight percent of females in the age group 15-19 years, followed by 77 percent in the age group 20-24 years, and 89 percent each in the age group 25-29 years and 30-44 years, are currently married. The proportion of never married for both males and female is 33 percent in the state, and it is higher for males (39 percent) than for females (26 percent). The proportion of never married among males declines with increasing age and reaches the lowest by the time they are in the age group 45-59 years. A similar pattern has been observed in the case of females, with the lowest proportion of never married recorded in the age group 30-34 years. The proportion of divorced, separated or widowed are negligible and limited to the older ages. Sixty six percent of women aged 60 years or above are widowed /divorced /separated. Among the *de facto* population aged 10 years and above, 59 percent of males and 61 percent of females are currently married.

Table 2.4 MARITAL STATUS OF THE HOUSEHOLD POPULATION						
Percent distribution of the household population aged 10 years and above by marital status, according to age and sex, West Bengal, 2002-04						
Age	Marital status				Total Percent	Number of persons
	Never married	Currently married	Married, gaunna not performed	Widowed/divorced/ Separated		
Male						
10-14	97.0	2.5	0.5	0.0	100.0	4,985
15-19	94.1	5.4	0.4	0.1	100.0	4,388
20-24	67.6	31.5	0.5	0.4	100.0	3,884
25-29	33.8	65.6	0.1	0.4	100.0	3,693
30-44	7.8	91.2	0.1	1.0	100.0	9,360
45-59	2.1	94.6	0.0	3.2	100.0	5,616
60+	1.8	84.7	0.3	13.2	100.0	3,470
Total	38.8	58.8	0.2	2.2	100.0	35,397
Female						
10-14	95.9	3.2	0.7	0.2	100.0	4,869
15-19	61.2	37.8	0.3	0.7	100.0	4,774
20-24	20.7	77.4	0.0	1.9	100.0	4,337
25-29	7.5	89.3	0.0	3.2	100.0	3,805
30-44	2.5	89.3	0.0	8.2	100.0	8,766
45-59	1.6	73.8	0.2	24.3	100.0	4,954
60+	1.8	31.5	0.4	66.3	100.0	3,130
Total	26.4	61.1	0.2	12.3	100.0	34,635
Total						
10-14	96.5	2.8	0.6	0.1	100.0	9,854
15-19	76.9	22.3	0.4	0.4	100.0	9,162
20-24	42.8	55.7	0.2	1.2	100.0	8,221
25-29	20.5	77.6	0.1	1.8	100.0	7,498
30-44	5.2	90.3	0.0	4.5	100.0	18,126
45-59	1.9	84.9	0.1	13.1	100.0	10,570
60+	1.8	59.5	0.4	38.3	100.0	6,601
Total	32.7	59.9	0.2	7.2	100.0	70,031

Note: Table is based on *de facto* population

2.5 Marriage

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

Table 2.5 MARRIAGE				
Mean age at marriage and percentage of marriages below legal at marriage by sex and by districts, West Bengal, 2002-04				
Place of residence/ District	Mean age at marriage		Percentage of marriage below legal age at marriage	
	Boy	Girl	Boy (<21)	Girl (<18)
State – Total	24.7	18.5	24.0	45.9
State – Rural	23.6	17.5	29.6	57.3
State – Urban	27.1	20.8	10.9	21.6
District				
Bankura	26.0	18.1	21.7	54.0
Bardhaman	25.3	18.0	19.3	59.0
Birbhum	23.6	17.6	30.5	59.8
Dakshin Dinajpur	26.9	17.8	13.0	57.6
Darjiling	23.9	20.9	26.3	21.0
Haora	25.6	19.8	11.6	25.5
Hugli	25.6	19.5	20.6	34.9
Jalpaiguri	25.2	19.0	22.1	38.0
Koch Bihar	25.1	18.2	20.2	51.7
Kolkata	27.9	21.5	5.8	13.6
Maldah	23.7	17.2	30.6	65.9
Medinipur	24.6	17.6	22.9	53.2
Murshidabad	22.4	18.1	34.2	54.8
Nadia	24.5	18.4	24.5	41.0
North 24 Parganas	24.9	19.6	24.5	37.9
Puruliya	23.7	18.3	37.1	51.2
South 24 Parganas	24.0	18.2	30.6	46.7
Uttar Dinajpur	24.6	17.8	23.0	51.2

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

Mean age at marriage for boys and girls in urban areas of West Bengal is 27 years and 21 years respectively. The corresponding figure in rural areas is 24 years and 18 years for boys and girls respectively. On the whole, as far as West Bengal is concerned, both boys and girls seem to oblige the legal age marriage, the average age at marriage being 25 years for boys and 19 years for girls. However, one fourth of boys and nearly one in two girls got married below the corresponding specified legal marriage age. The proportion is much higher in the rural areas compared to the urban areas of the state.

When it comes to district level variation in the mean age at marriage, it is highest in Kolkata, 28 years for boys and 22 years for girls. The lowest mean age at marriage for boys is 22 years recorded for the district of Murshidabad, and for the girls, the lowest is 17 years in Maldah.

It is also found that the percentage of girls who were married below the legal age at marriage was highest in Maldah (66 percent) and lowest in Kolkata (14 percent). In 10 out of 18 districts, more than 50 percent girls got married below the legal age at marriage (see Map-1). In the case of boys, marriage below the legal age at marriage is highest in Puruliya district (37 percent) and lowest in Kolkata (6 percent).

2.6 Morbidity Rates

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

Table 2.6 MORBIDITY RATES			
Prevalence of blindness, tuberculosis, and malaria, according to place of residence, West Bengal, 2002-04.			
Morbidity	Total	Residence	
		Rural	Urban
Prevalence rate of blindness			
Male			
Partial	2775	2598	3126
Complete	629	740	410
Night blindness	286	352	153
Female			
Partial	3242	3173	3385
Complete	628	706	470
Night blindness	237	262	185
Persons			
Partial	3003	2879	3251
Complete	629	723	439
Night blindness	262	308	168
Prevalence rate of tuberculosis			
Male	589	717	336
Female	369	423	260
Person	482	573	299
Prevalence rate of malaria ¹			
Male	349	442	169
Female	299	350	196
Person	324	395	182

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

Partial, Complete and Night Blindness

The overall prevalence of partial blindness is 3,003 per 100,000 population in the state and is lower in rural areas (2,879 per 100,000) than in urban areas (3,251 per 100,000). It is more among females. The prevalence of complete blindness is 629 per 100,000 population with a rural-urban differential of 723 against 439 per 100,000. Sex differential in complete blindness is not significant. The prevalence of night blindness due to vitamin A deficiency is 262 per 100,000 population and is much higher in rural areas (308) than in urban areas (168).

Tuberculosis

The prevalence of tuberculosis is 482 per 100,000 population, with rural areas having a higher prevalence of 573 compared to 299 per 100,000 in urban areas. The prevalence of TB is higher among males (589 per 100,000) than among females (369 per 100,000).

Malaria

In the DLHS-RCH, household respondents were asked to state whether any member of their household suffered from malaria (characterized by recurrent fever with shivering) any time during the two weeks prior to the survey. In the state of West Bengal, 324 persons per 100,000 population were reported to have suffered from malaria. Rural residents are almost two times more likely to suffer from malaria (395 per 100,000) than urban residents (182 per 100,000). The reported prevalence of malaria is higher for males than for females.

2.7 Morbidity Rates by Districts

Table 2.7 shows the prevalence of blindness, tuberculosis and malaria in the districts of West Bengal. The prevalence of partial blindness varies considerably among the districts with the lowest being 355 per 100,000 in South 24 Parganas and the highest, 6,826 per 100,000 in North 24 Pargnas.

Table 2.7 MORBIDITY RATES BY DISTRICTS				
Prevalence of blindness, tuberculosis, and malaria, by district, West Bengal, 2002-04				
District	Prevalence ¹ of morbidity			
	Partial blindness	Complete blindness	Tuberculosis	Malaria ²
Bankura	2,906	302	365	219
Bardhaman	1,878	824	500	244
Birbhum	2,905	564	458	255
Dakshin Dinajpur	438	601	469	138
Darjiling	1,486	614	638	255
Haora	2,903	111	151	143
Hugli	915	114	206	208
Jalpaiguri	2,386	447	658	1,222
Koch Bihar	1,654	638	398	377
Kolkata	3,658	450	285	113
Maldah	3,577	608	684	370
Medinipur	4,054	1,442	821	481
Murshidabad	6,232	1,214	835	504
Nadia	1,051	212	323	306
North 24 Parganas	6,826	528	334	221
Puruliya	1,061	889	425	414
South 24 Parganas	355	167	244	83
Uttar Dinajpur	1,294	289	685	192
West Bengal	3,003	629	482	324

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

The districts with a prevalence rate below 1,000 per 100,000 are South 24 Parganas, Dakshin Dinajpur and Hugli. The prevalence rate of complete blindness ranges from 111 per 100,000 in Haora to 1,442 per 100,000 in Medinipur. Inter-district variations are substantial for tuberculosis and malaria.

The prevalence rate of tuberculosis is the highest in Murshidabad district (835 per 100,000 population) and it is lowest in Haora (151 per 100,000). In the case of malaria, the prevalence rate is highest in Jalpaiguri (1,225 per 100,000) and lowest in South 24 Parganas (83 per 100,000).

2.8 Housing Characteristics

This section describes the availability of basic amenities in the state. Table 2.8 presents the percent distribution of households by selected housing characteristics. Fifty two percent of the households in West Bengal have electricity connection and it is much more in urban areas (88 percent) than in rural areas (31 percent).

As regards household source of drinking water, less than one third (30 percent) of the households get drinking water through taps, while 63 percent drink water from hand pumps/ bore-wells, and 6 percent drink water from wells. About 63 percent of households

in urban areas get piped water for drinking, whereas in rural areas, only 10 percent of the households have such provision.

When it comes to sanitation facility, only 14 percent of the households have flush toilets, while 27 percent have pit based toilets or latrines, 14 percent depend on shared toilets and nearly 45 percent of the households have no toilet facility at all. There is a large rural-urban difference; 66 percent of rural households have no toilet facility, compared to just 7 percent of urban households.

DLHS-RCH has also collected data on type of fuel used in the households for cooking. Twenty percent of the households used liquid petroleum gas or electricity for cooking in West Bengal. About 27 percent of households rely on firewood, 7 percent on kerosene, and a large proportion of households (46 percent) use other types of fuel for cooking. The use of liquid petroleum gas/electricity for cooking is reported more in urban areas (49 percent), and firewood or other sources for cooking are reported more in rural areas.

There is considerable variation in the quality of housing. On the basis of building material, type of floor, walls and roof, households are categorised into *kachcha*, semi-*pucca* and *pucca*. More than half of the households are living in *kachcha* houses, 20 percent in semi *pucca* houses and 28 percent in *pucca* houses. Fifty five percent of urban households live in *pucca* houses compared to 13 percent of rural households.

The possession of consumer durable goods is an indication of a household's socio-economic status. Table 2.8 shows that majority of the households in the state own bicycle (59 percent), an electric fan (46 percent), radio/transistor (39 percent) and television (36 percent).

Table 2.8 HOUSING CHARACTERISTICS			
Percent distribution of the household by housing characteristics and percentage of households owing selected durable goods, according to residence, West Bengal, 2002-04			
Housing characteristic	Total	Residence	
		Rural	Urban
Electricity			
Yes	51.6	31.1	87.7
No	48.4	68.9	12.3
Source of drinking water			
Tap inside	11.0	1.9	27.0
Tap shared public	18.5	8.4	36.3
Hand pump/ bore well	63.0	79.7	33.6
Well covered	0.6	0.7	0.5
Well uncovered	5.4	7.4	1.9
River	0.5	0.8	0.1
Pond	0.1	0.2	0.0
Spring	0.5	0.6	0.2
Other	0.3	0.2	0.4
Sanitation facility			
Own flush toilet	14.3	8.8	24.0
Own pit toilet / latrine	26.5	19.7	38.5
Shared toilet of any type	13.9	5.7	28.4
Public / community toilet	0.8	0.4	1.6
No toilet facility	44.5	65.5	7.4
Main type of fuel used for cooking			
Liquid petroleum gas/ electricity	20.3	4.1	48.7
Kerosene	7.0	1.7	16.4
Wood	27.1	37.2	9.4
Other	45.6	57.1	25.5
Type of house			
Kachcha	51.5	72.5	14.7
Semi - pucca	20.4	15.0	29.9
Pucca	28.1	12.5	55.4
Household assets			
Fan	45.5	24.4	82.8
Radio/transistor	38.6	34.6	45.5
Sewing machine	9.8	3.5	20.8
Television	35.9	17.8	67.9
Telephone	12.4	4.2	26.8
Bicycle	58.6	61.9	53.0
Motor cycle/ scooter	7.3	4.7	11.8
Car / Jeep	1.4	0.4	3.1
Tractor	0.7	0.5	0.9
Standard of living index			
Low	51.8	73.5	13.8
Medium	30.7	22.0	46.0
High	17.5	4.5	40.3
Number of households	18,785	11,975	6,810

Other durable goods owned in the surveyed households include telephone (12 percent), sewing machine (10 percent), and motorcycle or scooter (7 percent). Car/jeep and tractor each are owned by one percent of households in West Bengal. Ownership of most of the consumer durable items is more among the urban households than among the rural households. However, a higher proportion of households in rural areas than in urban areas own a bicycle.

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

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

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

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

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

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

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

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

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

As per the standard of living index, nearly half of the households come under the low standard of living category, 31 percent of households to medium standard of living, and 18 percent of the households to high standard of living.

The proportion of sample households with medium and high standard of living is comparatively higher in urban areas than in rural areas, and the proportion of households with a low standard of living is much higher in rural households (74 percent) than in urban households (14 percent) in the state of West Bengal.

2.9 Housing Characteristics by Districts

The 18 districts in West Bengal are not uniform in terms of basic amenities and possession of consumer durables. Table 2.9 presents an inter-district comparison of housing characteristics. The percentage of households with electricity is less than 40 percent in the districts of Koch Bihar (33 percent), Uttar Dinajpur (34 percent), Medinipur and Dakshin Dinajpur (35 percent each) and Puruliya (36 percent). The proportion of households with electricity is highest in Kolkata (96 percent). Ninety percent or more of households used piped water or water from a hand pump for drinking

in most of the districts except for Darjeeling (58 percent), Puruliya (65 percent) and Jalpaiguri (67 percent).

Largely, the districts in West Bengal have inadequate toilet facility as in 11 of the 18 districts, less than 60 percent of the households have toilet facilities and it is the least in Bankura and Puruliya districts (23 percent each).

In Kolkata district, the percentage of households using liquid petroleum gas/electricity for cooking is 55 percent and in the rest of the districts, it is relatively low ranging between 12 to 33 percent. The percentage of households living in *pucca* house is quite low in all the districts of West Bengal. In 12 of the 18 districts, less than one third of the households live in *pucca* house. Kolkata is the only district where more than half of the households (58 percent) live in *pucca* house.

Table 2.9 HOUSING CHARACTERISTICS BY DISTRICT					
Selected housing characteristics by district, West Bengal, 2002-04					
Districts	Percentage of households:				
	With electricity	With drinking water ¹	With toilet facility	Using Liquid petroleum gas/ electricity	Living in pucca house
Bankura	45.2	90.7	23.3	12.5	24.7
Bardhaman	49.8	93.5	52.4	20.4	31.1
Birbhum	50.3	93.0	29.2	13.9	23.8
Dakshin Dinajpur	35.4	99.5	40.7	17.1	15.0
Darjiling	62.5	57.5	65.2	32.4	21.8
Haora	65.0	99.0	70.0	26.0	39.4
Hugli	69.8	99.8	68.4	22.5	42.7
Jalpaiguri	48.2	66.7	56.7	15.6	10.0
Koch Bihar	33.2	90.4	51.1	16.3	7.9
Kolkata	96.0	99.8	99.9	54.8	57.5
Maldah	42.4	92.9	42.3	18.3	24.6
Medinipur	35.2	89.7	39.6	11.7	16.3
Murshidabad	43.0	99.7	43.0	12.0	25.5
Nadia	46.5	100.0	70.8	15.1	33.1
North 24 Parganas	69.0	99.4	81.2	33.0	43.0
Puruliya	36.1	65.1	23.3	11.5	20.4
South 24 Parganas	49.9	99.5	61.3	12.9	17.7
Uttar Dinajpur	34.0	97.3	35.8	13.1	13.3
West Bengal	51.6	93.1	55.5	20.3	28.1

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

2.10 Iodization of Salt

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

In the DLHS-RCH survey, each interviewer was provided with a test kit to measure the level of iodine content of salt consumed by the surveyed households. The test results (Table 2.10) are classified by degree of ionization of salt and categorised by background characteristics. It is observed that nearly 55 percent of households used salt that contained a minimum recommended 15 ppm or higher level of iodine content whereas 14 percent of households used salt that is not iodized at all and another 29 percent used salt, which was inadequately iodized.

In rural areas, 17 percent of households against 8 percent in urban areas used non-iodized salt. Percentage of households using inadequately iodized salt in rural areas is almost two times higher compared to that in urban areas. Number of households using non-iodized or inadequately iodized salt is closely associated with the educational level of the household head. Nearly 77 percent of households headed by persons who had more than 10 years of schooling reported the use of adequately iodized salt. Consumption of adequately iodised salt among households of other caste is 59 percent, followed by 54 percent in other backward class households and among scheduled caste and scheduled tribe it is more than 40 percent of households.

Table 2.10 IODIZATION OF SALT						
Percent distribution of household heads by degree of Iodization of salt, according to selected background characteristics, West Bengal, 2002-04						
Background characteristic	Not iodised	7ppm	15+ppm	Other ¹	Total percent	Number of households
Place of Residence						
Rural	17.3	36.1	44.7	1.8	100.0	11,975
Urban	7.8	16.7	72.6	2.9	100.0	6,810
Education of the household heads						
Non-literate	18.1	37.7	41.9	2.3	100.0	6,407
0-9@ years	14.7	29.7	53.8	1.7	100.0	8,198
10 and above	5.9	14.6	76.5	3.0	100.0	4,178
Religion of household head						
Hindu	12.8	28.1	56.9	2.2	100.0	14,459
Muslim	18.1	33.2	46.3	2.5	100.0	4,026
Christian	8.9	22.6	67.5	1.0	100.0	129
Buddhist	1.1	16.7	80.3	1.9	100.0	57
Other	15.4	23.3	59.8	1.5	100.0	114
Caste/tribe of the household head#						
Scheduled caste	16.3	33.0	48.7	2.0	100.0	5,160
Scheduled tribe	16.4	37.5	44.1	2.0	100.0	1,093
Other backward class	12.6	31.9	53.6	1.9	100.0	1,118
Other	12.5	25.9	59.3	2.4	100.0	10,775
Standard of living index						
Low	19.4	38.6	39.9	2.1	100.0	9,738
Medium	10.8	25.3	61.8	2.2	100.0	5,766
High	2.9	7.6	86.9	2.6	100.0	3,281
Total	13.9	29.1	54.8	2.2	100.0	18,785
Note: Ppm: Parts per million. @ Literate persons with no years of schooling are also included. # Total number of cases may not add upto N due to do not know and missing cases. ¹ Includes salt not at home, salt not tested, refused and missing cases.						

Differential in the consumption of properly iodized salt is more pronounced when analysed by religion of the household head and standard of living index. Percentage of households using adequately iodized salt is only 46 percent among Muslims households, whereas the corresponding figure for Hindu and Christian households is 57 percent and 67 percent respectively. Again, households with low standard of living are more likely to use non-iodized or inadequately iodized salt compared to households with medium or high standard of living index. While 19 percent of households with low standard of living used non-iodized salt, only 3 percent households with a high standard of living fall in this category. The number of households with a high standard of living using adequately iodized salt is twice of those with a low standard of living.

2.11 Iodization of Salt by Districts

Table 2.11 shows district level variation in the percent distribution of households by level of iodization of salt used in the households. Hugli has the lowest proportion of households (2 percent) using non-iodized salt, whereas Murshidabad has the highest proportion of households (38 percent) using non-iodized salt. Percentage of households using inadequately iodized salt is the highest (42 percent) in Medinipur and the lowest in Kolkata (14 percent). Around 55 percent of the households in the state used adequately iodized salt, the highest being in the district of Hugli (81 percent). Less than two fifth of the households in Murshidabad (26 percent) and Medinipur (36 percent) were using adequately iodized salt (see Map-2).

District	Not iodized	7ppm	15+ppm	Other ¹
Bankura	24.9	30.9	43.2	1.0
Bardhaman	27.6	24.5	45.4	2.5
Birbhum	11.0	27.8	59.7	1.5
Dakshin Dinajpur	9.9	33.4	56.2	0.6
Darjiling	6.1	21.0	70.3	2.6
Haora	14.0	28.5	54.9	2.6
Hugli	1.8	16.0	80.8	1.4
Jalpaiguri	17.7	35.2	44.6	2.6
Koch Bihar	7.5	26.6	64.3	1.6
Kolkata	6.7	14.2	75.5	3.6
Maldah	3.2	30.4	63.3	3.1
Medinipur	19.4	41.7	36.1	2.8
Murshidabad	38.0	33.3	25.8	2.9
Nadia	6.0	33.5	58.7	1.7
North 24 Parganas	8.8	25.6	63.2	2.5
Puruliya	15.7	31.4	51.9	1.0
South 24 Parganas	5.2	30.9	63.2	0.7
Uttar Dinajpur	8.6	25.3	64.9	1.2
West Bengal	13.9	29.1	54.8	2.2

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

2.12 Availability of Facility and Services to the Rural Population

The DLHS-RCH collected information about surveyed village from knowledgeable persons such as, the ‘Sarpanch’ or ‘Pradhan’, (village head) or other village officials or other persons including ‘teacher’ in the villages on health and educational facilities and other services available in the village. One important aspect was on the distance of the village, if not available within the village, from various types of education facilities, including primary school, middle school, secondary school, higher secondary school, college, *Gurujee* scheme and ‘*Madarsa*’. Further information on the distance of the village, if not available within the village, from various types of health facility, including sub-centres, primary health centres (PHCs), community health centres/ Rural Hospitals (CHCs/RHs), Government dispensary, hospital, private clinic or hospitals and health facilities of Indian system of Medicine (ISM).

Table 2.12 gives the distance of surveyed villages from an education facility. The unit of analysis is usual resident of rural population. Majority of the rural residents (91 percent) (the *de jure* rural population) in the state live in villages that have a primary school, 18 percent live in villages with middle school and one fourth of the rural population live in villages with secondary schools and *Gurujee* scheme. Higher secondary schools are available for 10 percent of the rural population. Nineteen percent of the rural population live in villages, which have *Madarassas*. Only one percent of the surveyed villages have a college. As regards the distribution of educational institutions within 5 kilometres distance from of the village, it can be seen that, 41 percent of the villages have middle school, 56 percent have secondary school, 48 percent have higher secondary school and 30 percent have a ‘*Madarassa*’ within this distance. For 59 percent of the villages, the college is more than 10 kilometres away and *madarassa* are available at this distance for 18 percent of the villages.

Table 2.12 DISTANCE FROM THE NEAREST EDUCATION FACILITY						
Percent distribution of rural household population by distance from the nearest education facility, West Bengal, 2002-04						
Education facility	Within village	Distance from the village:			Don't know/missing	Total percent
		< 5 km	5-9 km	10+ km		
Primary School	91.4	7.3	0.0	0.2	1.1	100.0
Middle School	18.1	40.9	10.2	4.2	26.6	100.0
Secondary School	23.8	56.0	16.0	2.3	1.8	100.0
Higher Secondary School	10.4	48.4	27.6	12.7	0.8	100.0
College	1.0	14.7	24.3	59.1	0.9	100.0
Gurujee Scheme	23.5	24.5	1.9	6.5	43.7	100.0
Madarsa	19.1	30.2	15.5	18.4	16.9	100.0

Note: Table based on rural *de jure* population.

Table 2.13 DISTANCE FROM THE NEAREST HEALTH FACILITY						
Percent distribution of rural household population by distance from the nearest health facility, West Bengal, 2002-04						
Health facility	Within village	Distance from the village:			Don't know/missing	Total percent
		< 5 km	5-9 km	10+ km		
Rural household population						
Sub-centre	48.2	38.3	7.9	2.3	3.3	100.0
Primary health centre	9.8	36.6	29.9	19.9	3.7	100.0
Either sub-centre or PHC	49.7	39.2	8.2	1.9	1.1	100.0
Community health centre/Referral hospital	9.5	14.8	16.1	34.6	24.9	100.0
Government dispensary	15.2	16.4	9.1	14.0	45.3	100.0
Government hospital	3.6	10.2	10.5	72.0	3.7	100.0
Private clinic	16.9	31.6	20.7	27.7	3.1	100.0
Private hospital	6.9	12.5	14.9	56.1	9.5	100.0
ISM health facility	29.4	28.1	14.9	19.0	8.6	100.0

Note: Table based on rural *de jure* population.

Table 2.13 summarises the availability of health facilities within the surveyed villages and provides information on the distance between the villages and the nearest health facility. About 48 percent of the rural population live in villages with Sub-centres. Only 10 percent of the rural household population live in a village with a primary health centre, though the proportion of villages having facilities of either Sub-centre or primary health centre is 50 percent. The proportion of rural population with other health facilities is 10 percent for CHCs/RHs, 15 percent for Government dispensary, 4 percent for Government hospital, 17 percent for private clinic, 7 percent for private hospital and 29 percent for Indian System of Medicine facility.

Table 2.14 AVAILABILITY OF SERVICES	
Percentage of rural residents living in villages that have sleeted services, West Bengal, 2002-04	
Services	Percentage of rural residents
Anganwadi centre	87.2
Anganwadi worker	79.5
Private doctor	20.6
Visiting doctor	15.4
Homeopathic doctor	35.6
Village health guide	33.1
Trained birth attendant	37.2
Traditional healer	35.9
Dai	64.0

Note: Table based on rural *de jure* population.

The proportion of rural population located within a distance of 5 kilometres from health facilities is 38 percent for sub-centre, 37 percent for primary health centre, 15 percent for CHC/RH, 16 percent for a Government dispensary, 10 percent for Government hospital, 32 percent for private clinic, 12 percent for private hospital and 28 percent for ISM health facilities. Distance of particular health facility is beyond 10 kilometres from the surveyed villages in the case of Government hospital (72 percent) and for private hospital (56 percent).

Table 2.14 shows the proportion of rural residents in the state that live in the villages with various health services. Almost 87 percent of rural residents live in villages that have an *anganwadi*, (a nursery school for children age 3-6 years) and at the same time 80 percent of rural households live in villages with *anganwadi* workers (*Anganwadi* workers provide integrated child development services) are available.

About one fifth of the rural residents live in villages that have a private doctor, 15 percent live in villages with a visiting doctor, 36 percent with a homeopathy doctor, 33 percent with a village health guide, 37 percent with a trained birth attendant and 36 percent with a traditional healer. Little less than two third of the rural residents live in villages that have a *Dai* (*Dai* provides the services for the delivery).

2.13 Availability of Education Facility and Health Services by Districts

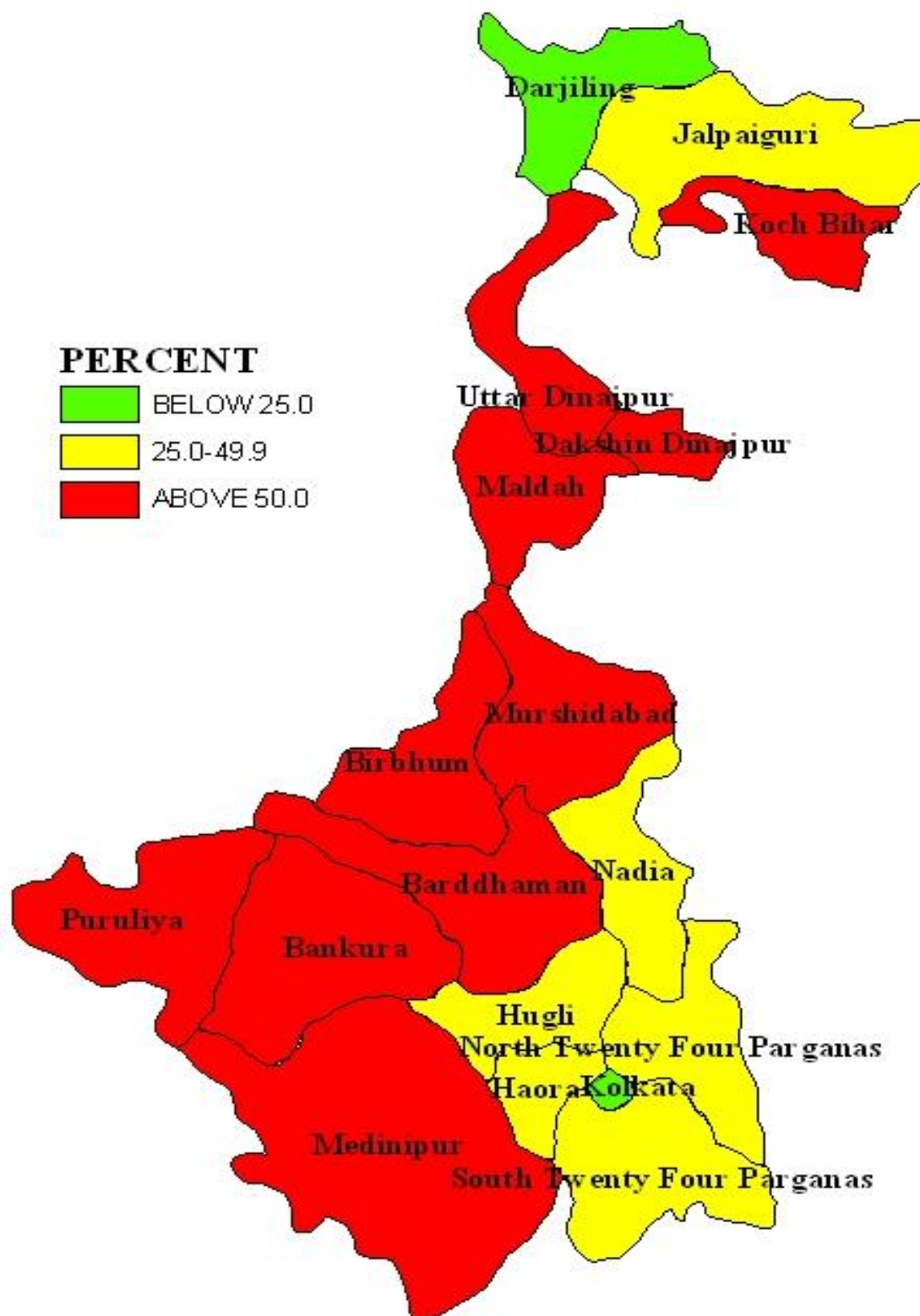
Table 2.15 shows the availability of education and health facilities for the rural population within the surveyed villages by districts in West Bengal. In the districts of Bardhaman, Murshidabad, North 24 Parganas and Jalpaiguri, all the rural population have access to primary schools. In the state of West Bengal, 91 percent of the rural population live in villages having primary schools. Around 48 percent of the rural population in the state have sub-centres within the village, with the highest coverage of 69 percent in North 24 Parganas and the lowest of 17 percent of the population in Puruliya.

There are some districts with no PHCs within the villages. These districts include Medinipur, Dakshin Dinajpur and Uttar Dinajpur. Highest availability of PHCs within the village is found in North 24 Parganas (43 percent). In Bardhaman, all the households in the rural area have access to at least one government health facility including sub-centre, primary health centre, community health centre or referral hospital, government hospital and government dispensary within the village.

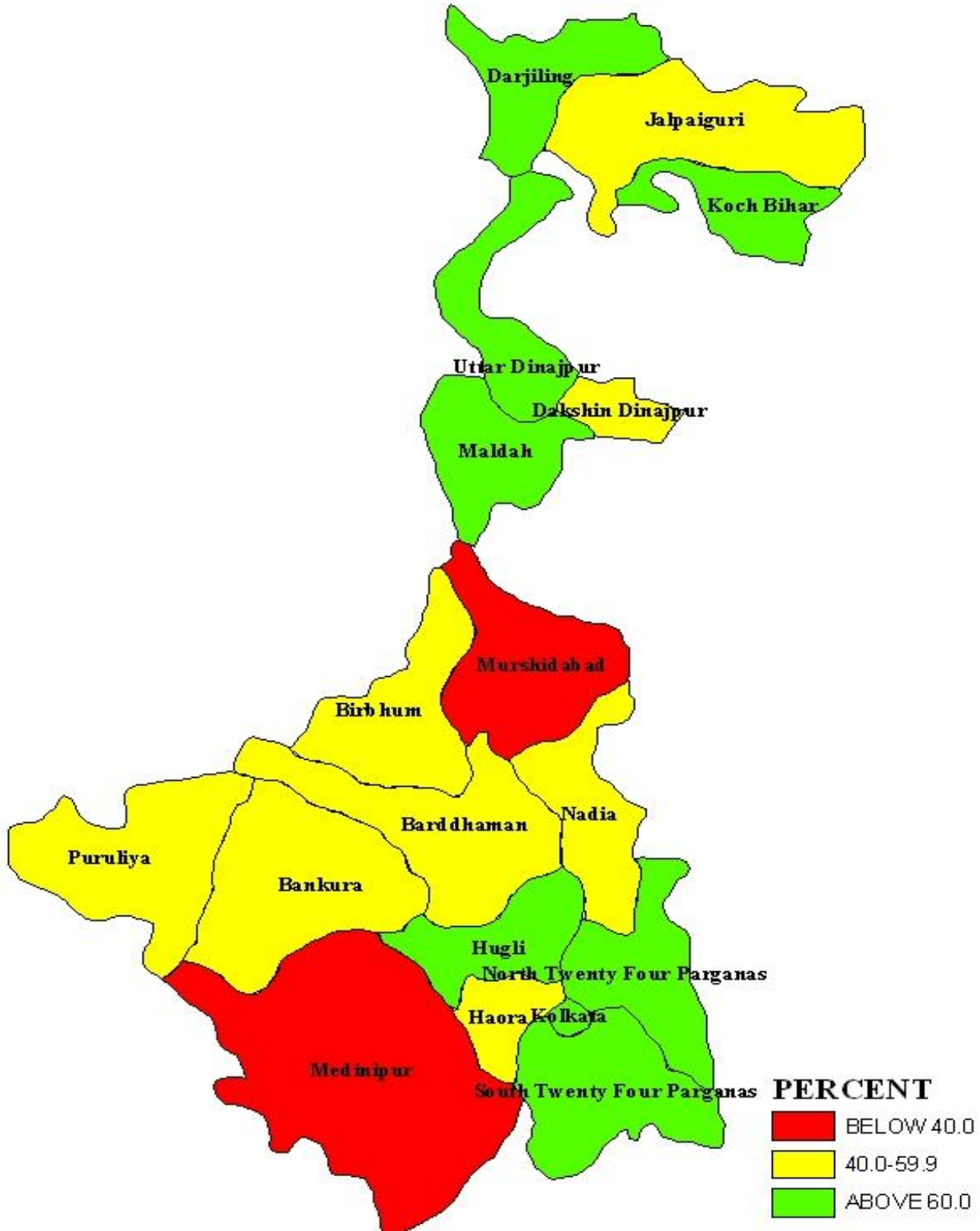
Table 2.15 AVAILABILITY OF FACILITY AND SERVICES BY DISTRICT
Selected facility and services of rural household population within village by district, West Bengal, 2002-04
Percentage of rural household population with:

Districts

MAP-1
Percent Girls Marrying Below Legal Age at Marriage



MAP-2
Percentage of Households Using Salt That Contains 15 ppm
Level of Iodine



CHAPTER III

CHARACTERISTICS OF WOMEN, HUSBANDS AND FERTILITY

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

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

3.1 Background Characteristics of Women

The percent distribution of currently married women in the reproductive age group 15-44 years by residence, religion and caste of head of household, economic standard of household and other demographic characteristics are shown in Table 3.1. A sample of 15,614 eligible women represents the state of West Bengal in DLHS-RCH and nearly two-third of these women are drawn from rural areas. About 60 percent of the currently married women are in the age range of 20-34 years and a similar age distribution is observed both for urban and rural areas. Age at consummation of marriage, particularly in rural areas is found to be very low with as many as 76 percent of the women having cohabited before 18 years of age, while it is 43 percent in urban areas. Looking at the distribution of marital duration it is noted that about 39 percent of the women across the state are married for more than 15 years.

Among the sample 15,614 representative women in West Bengal, Hindus and Muslims constitute 76 percent and 23 percent respectively. More, Hindu women are found in urban areas (87 percent) than in rural areas (71 percent). The presence of women belonging to other religious groups is insignificant in proportional and absolute terms. Twenty eight percent of the women belong to scheduled castes, 6 percent to scheduled tribes and an equal proportion to other backward classes. Majority of the sample women

(57 percent) belong to a general caste other than scheduled caste/tribe and other backward class. In rural areas, there are more women belonging to scheduled caste, scheduled tribe and other backward classes than in urban areas, while more women from other castes are found in urban areas. There is a clear rural-urban differential in the educational attainment of women. For the state of West Bengal, 40 percent of women are non-literate and women of this literacy category constitute 49 percent in rural areas, while it is just 22 percent in urban areas.

Table 3.1 BACKGROUND CHARACTERISTICS OF WOMEN			
Percent distribution of currently married women aged 15-44 by selected background characteristics, according to residence, West Bengal, 2002-04			
Background characteristic	Total	Residence	
		Rural	Urban
Age group			
15-19	11.5	14.4	5.4
20-24	20.0	21.6	16.7
25-29	20.7	20.2	21.8
30-34	19.2	18.3	21.2
35-39	15.8	14.0	19.6
40-44	12.8	11.5	15.5
Age at consummation of marriage			
Below 18 years	65.2	75.9	42.9
18 years & above	34.8	24.1	57.1
Marital duration			
0-4	20.6	20.6	20.5
5-9	20.8	20.9	20.6
10-14	19.4	19.4	19.3
15+	39.2	39.1	39.5
Religion			
Hindu	76.0	70.7	87.2
Muslim	22.5	28.1	10.7
Christian	0.6	0.5	0.6
Sikh	0.3	0.1	0.7
Buddhist	0.3	0.2	0.5
Jain	0.1	0.0	0.2
Zoroastrian	0.0	0.0	0.0
No religion	0.0	0.0	0.0
Other	0.3	0.4	0.1
Caste/tribe			
Scheduled caste	27.6	31.0	20.4
Scheduled tribe	5.8	7.4	2.3
Other backward class	6.0	6.2	5.6
Other #	57.3	51.9	68.5
Don't know	3.4	3.5	3.3
Education (Years of schooling)			
Non-literate	40.2	49.1	21.6
0-9@ years	44.6	44.9	44.1
10 years & above	15.1	5.9	34.3
Missing	0.1	0.1	0.0
Husband's education (Years of schooling)			
Non-literate	28.8	36.9	11.9
0-9@ years	46.0	48.1	41.7
10 years & above	24.2	13.9	45.8
Don't know	0.9	1.0	0.6
Missing	0.0	0.0	0.0
Standard of living index			
Low	51.7	70.5	12.5
Medium	31.3	24.4	45.7
High	16.9	5.1	41.7
Number of women	15,614	10,557	5,057

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

More than 44 percent of women across the state have completed 0-9 years of schooling. Only a handful, 6 percent of rural women have completed 10 or more years of schooling compared to 34 percent of urban women. Men are more literate than their spouses. In West Bengal, 29 percent of the husbands of eligible women are non-literate and the corresponding figures are 37 percent in rural areas and 12 percent in urban areas. The DLHS-RCH, includes data on material used for floor, walls and roof of the housing structure along with status of possession of a list of durables and these are utilized to construct a composite index of household standard of living. Households are further classified as those with low, medium and high standard of living. Fifty two percent of women in the state live in low standard of living households and this is 71 percent in rural areas and 13 percent in urban areas. Majority of women across the state live in households categorised as medium standard of living. In urban areas, 42 percent of women belong to high standard of living households and the corresponding figure is just 5 percent in rural areas.

3.2 Educational Level of Women

Table 3.2 provides details of educational level of eligible women in terms of classification by years of schooling, and selected background characteristics, such as, place of residence, religion, and caste and husbands' education. As regards distribution of non-literate women, it is observed that less proportion of younger women below 30 years of age are non-literate compared to older women above 30 years. This age divide remains true even among literate women. A distinct pattern of educational attainment of women is that maximum of them attended schooling either for 1-5 years or 6-8 years and not many had 11 or more years of schooling. For the women in the age group 15-19 years, 29 percent and 24 percent had 1-5 years and 6-8 years of schooling respectively, while only 2 percent had 11 or more years of schooling. Among the women in the age group 40-44 years, distribution by year of schooling is more or less uniform with 14 percent, 13 percent, 13 percent and 11 percent having attended school for 1-5, 6-8, 9-10 and 11 or more years respectively.

There is a significant rural-urban differential in the level of education of women in West Bengal. About 50 percent of rural eligible women are non-literate and 22 percent, 18 percent, 8 percent and 3 percent of the women had 1-5, 6-8, 9-10 and 11 or more years of schooling respectively. The corresponding figures in urban areas are 22 percent non-literate and 13 percent, 18 percent, 23 percent and 23 percent respectively. More Muslim women (51 percent) are non-literate compared to Hindu women (37 percent), Christian women (35 percent) and women belonging to other religious communities (29 percent). Most of the literate eligible women from all religious communities, had either 1-5 or 6-8 years of schooling. The proportion of Hindu women with 1-5 years of schooling is 17 percent and the same is 24 percent for Muslim women, 18 percent for Christian women and 12 percent for women from other religions. Among the literate Muslim women, hardly 3 percent had 11 or more years of schooling, while 11 percent of literate Hindu women had this level of education.

The uneven level of educational attainment by caste can be noted from the recorded proportion of non-literate women among scheduled caste (57 percent), scheduled tribe (70 percent), other backward class (34 percent) and other caste or tribe (29 percent). The literate women belonging to different castes or tribes are concentrated more in the range of 1-5 to 6-8 years of schooling. The husband's education is an important characteristic, which has strong association with the education of eligible women. As many as 79 percent of women whose husbands are non-literate are also non-literate, while only 2 percent of women whose husbands have 11 or more or years of schooling are non-literate. Forty five percent of literate women educated for 11 or more years of schooling have husbands who have the same level of education.

Table 3.2 LEVEL OF EDUCATION OF ELIGIBLE WOMEN

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

Background characteristic	Non-literate	Literate but no schooling	Years of schooling				Missing	Total percent	Number of women
			1-5 years	6-8 years	9-10 years	11 or more years			
Age group									
15-19	35.5	1.1	28.6	23.9	8.7	2.1	0.1	100.0	1,792
20-24	34.9	1.4	22.8	22.3	11.6	6.9	0.1	100.0	3,124
25-29	37.6	1.4	18.2	17.7	13.2	11.8	0.1	100.0	3,237
30-34	43.0	1.6	15.1	15.2	13.3	11.8	0.1	100.0	3,001
35-39	44.5	1.3	15.3	15.6	13.4	9.8	0.0	100.0	2,463
40-44	47.4	1.1	14.1	13.0	13.1	11.3	0.1	100.0	1,998
Place of residence									
Rural	49.1	1.3	21.5	17.7	7.6	2.8	0.1	100.0	10,557
Urban	21.6	1.6	13.0	18.3	22.5	23.0	0.0	100.0	5,057
Religion									
Hindu	37.2	1.0	17.2	19.1	14.3	11.2	0.1	100.0	11,872
Muslim	51.1	2.4	24.2	13.9	5.7	2.6	0.1	100.0	3,506
Christian	35.3	2.2	18.4	15.6	21.6	7.0	0.0	100.0	87
Other	29.0	1.7	11.7	18.6	16.7	22.4	0.0	100.0	150
Caste/tribe #									
Scheduled caste	56.8	1.3	18.5	13.6	6.8	3.0	0.1	100.0	4,306
Scheduled tribe	69.8	1.1	15.2	7.1	5.3	1.4	0.0	100.0	898
Other backward class	33.9	0.8	19.0	20.9	13.7	11.6	0.1	100.0	935
Other	29.0	1.5	19.1	20.9	16.1	13.3	0.0	100.0	8,944
Husband's education									
Non-literate	78.8	0.8	14.1	5.0	0.9	0.2	0.1	100.0	4,501
Literate but no schooling	58.8	15.8	17.2	6.8	0.6	0.9	0.0	100.0	351
1-5 years	45.9	2.1	31.7	15.8	4.0	0.5	0.1	100.0	3,082
6-8 years	24.8	1.1	27.0	35.0	10.4	1.6	0.0	100.0	2,664
9-10 years	14.2	1.2	17.0	30.9	28.6	8.1	0.0	100.0	2,156
11 or more years	2.2	0.1	4.9	16.2	32.1	44.5	0.1	100.0	2,719
Total	40.2	1.4	18.7	17.9	12.4	9.3	0.1	100.0	15,614

Note: # Total number may not add upto N due to don't know and missing cases. Table includes 142 missing / do not know cases on husband's education who were not shown separately.

3.3 Background Characteristics of Husbands of Eligible Women

In DLHS-RCH husbands of eligible women were also interviewed. The response rate for husbands is relatively low compared to that of eligible women. Selected background characteristics of husbands are shown in Table 3.3. Across the state of West Bengal, husbands are mostly in the age group of 25-34 years. Fewer husbands are 45 years or older. In West Bengal, 77 percent of the husbands are Hindus, 22 percent are Muslims and presence of other religious groups is insignificant. Twenty nine percent of husbands in the state belong to the scheduled caste and it is little more in rural areas (32 percent) than in urban areas (21 percent). Nearly 56 percent of the husbands belong to castes other than scheduled caste, scheduled tribe and other backward classes. In urban areas,

Table 3.3 BACKGROUND CHARACTERISTICS OF MEN			
Percent distribution of husbands of eligible women by selected background characteristics, according to residence, West Bengal, 2002-04			
Background characteristic	Total	Residence	
		Rural	Urban
Age group			
< 25	7.8	9.4	4.3
25-34	32.7	35.0	27.7
35-44	36.6	34.7	40.8
45 +	22.9	20.9	27.2
Religion			
Hindu	77.2	72.3	88.0
Muslim	21.4	26.5	9.8
Christian	0.5	0.5	0.7
Sikh	0.2	0.1	0.4
Buddhist	0.3	0.2	0.6
Jain	0.1	0.0	0.3
Zoroastrian	0.0	0.0	0.0
No religion	0.0	0.0	0.0
Other	0.3	0.4	0.1
Caste/tribe			
Scheduled caste	28.6	31.8	21.4
Scheduled tribe	5.9	7.6	2.0
Other backward class	6.4	6.6	6.0
Other #	55.9	51.0	67.0
Don't know	3.2	3.0	3.6
Education (Years of schooling)			
Non-literate	29.1	36.7	12.0
0-9@ years	48.0	49.9	43.7
10 years & above	22.9	13.3	44.3
Missing	0.1	0.1	0.1
Standard of living index			
Low	52.8	70.7	12.8
Medium	31.2	24.5	46.2
High	16.0	4.8	41.1
Number of living children			
0	8.9	8.5	9.9
1	23.0	18.0	34.4
2	30.1	30.7	28.9
3	19.5	21.0	16.2
4+	18.5	22.0	10.7
Number of Men	10,958	7,580	3,378

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

husbands from other castes constitute 67 percent, while it is 51 percent in rural areas. As regards educational characteristics of the husbands of surveyed eligible women, more than 40 percent have completed 0-9 years of schooling and the proportion of non-literate husband ranges from 12 percent in urban areas to 38 percent in rural areas, while the overall state figure is 29 percent.

The proportion of husbands living in households classified as low, medium and high standard of living index is 53 percent, 31 percent and 16 percent respectively. In rural areas, 71 percent of the husbands live in low standard of living households compared to 13 percent in urban areas. This is complementary in the case of husbands living in high standard of living households, 41 percent in urban and 5 percent in rural. In terms of household standard of living composition, those living in medium standard of living dominate in urban (46 percent) and in rural West Bengal most (71 percent) husbands live in low standard of living households. Around 30 percent of husbands across the state reported to have two living children. More husbands in urban areas (34 percent) reported to have one living child, while more husbands in rural areas (31 percent) have two living children. Above 40 percent of the husbands of rural eligible women have more than three living children and it is 27 percent for husbands of urban eligible women.

3.4 Educational Level of Husbands of Eligible Women

Educational levels in categories of years of schooling classified by age, place of residence, religion and caste/tribe of husbands of eligible women are shown in Table 3.4. The distribution of non-literate husbands across age is more or less uniform, though it is marginally more for husbands below 25 years (31 percent) and other than 45 years (27 percent) compared to 29 percent and 30 percent for husbands in the age groups 25-34 years and 35-44 years respectively. Among the literate husbands, irrespective of their age at the time of survey, most of them had 1-8 years of schooling, 55 percent of those below 25 years and 34 percent of those above 45 years of age. As expected, few of the younger husbands (3 percent) below 25 years had 11 or more years of schooling compared to 25 percent of those above 45 years. As in the case of eligible women, 44 percent of Muslim husbands are non-literate while the corresponding non-literate husbands of Hindu and other religions are 25 percent and 19 percent respectively. The proportion of husbands of Hindu, Muslim and other religions who had 11 or more years of schooling constitute 19 percent, 6 percent and 40 percent respectively. Most of the literate Muslim husbands (26 percent) have completed 1-5 years of schooling and the corresponding number is 21 percent and 10 percent respectively for Hindu and other religions husbands. Educational attainment of husbands of eligible women varies according to the caste/tribe they belong to. There are more non-literate husbands belonging to scheduled tribes (48 percent) followed by scheduled caste husbands (39 percent). Among the scheduled caste and scheduled tribe husbands, 17 percent and 14 percent of them had 9 or more years of schooling. The literacy level of other backward classes is comparable with that of husbands from castes other than scheduled tribe, scheduled caste and other backward classes. Among the husbands belonging to other backward classes, 20 percent of them are non-literate and 40 percent of them had 9 or more years of schooling.

Table 3.4 LEVEL OF EDUCATION OF MEN									
Percent distribution of husbands of eligible women by years of schooling, according to selected background characteristics, West Bengal, 2002-04									
Background characteristics	Non-literate	Literate but no schooling	Years of schooling				Missing	Total percent	Number of men
			1-5 years	6-8 years	9-10 years	11 or more years			
Age group									
< 25	31.2	2.4	35.3	19.6	8.5	2.9	0.1	100.0	858
25-34	28.5	2.5	21.8	20.6	13.7	12.8	0.1	100.0	3,588
35-44	30.4	2.4	20.2	15.2	14.7	17.0	0.1	100.0	4,007
45+	27.1	2.2	21.3	13.1	11.5	24.6	0.1	100.0	2,506
Place of residence									
Rural	36.7	2.3	24.7	16.9	10.9	8.5	0.1	100.0	7,580
Urban	12.0	2.6	16.5	16.7	18.3	33.8	0.1	100.0	3,378
Religion									
Hindu	25.1	2.0	21.3	17.9	14.7	18.9	0.1	100.0	8,456
Muslim	44.2	3.6	26.1	13.1	7.3	5.6	0.1	100.0	2,344
Christian	27.1	9.8	14.8	20.0	8.4	19.8	0.0	100.0	59
Other	18.5	4.6	10.2	9.3	17.8	39.6	0.0	100.0	99
Caste/tribe #									
Scheduled caste	39.1	3.1	25.7	15.3	9.1	7.6	0.1	100.0	3,135
Scheduled tribe	47.5	3.8	23.5	11.7	8.6	5.0	0.0	100.0	643
Other backward class	20.2	1.4	20.9	18.4	16.8	22.3	0.1	100.0	703
Other	22.6	1.9	20.2	17.8	15.6	21.7	0.1	100.0	6,129
Total	29.1	2.4	22.2	16.8	13.1	16.3	0.1	100.0	10,958

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

3.5 Children Ever Born and Surviving

In DLHS-RCH, currently married women in the age group of 15-44 years were asked about the children ever born alive and the number of children surviving. Table 3.5 shows mean children ever born and mean surviving children by selected background characteristics and sex of children. A look at the mean children ever born by age of the woman reveals that older women had more average live births than younger women. On an average, women in the reproductive age group have given birth to more male children than female children and similarly a sex differential is also noted when it comes to mean number of surviving children. Completed fertility, that is, mean children ever born to women in the age group 40-44 years is 3.7 for the state of West Bengal and it comprises an average of 1.9 male children and 1.8 female children. Out of the 3.7 mean children ever born to women in the 40-44 year age group, an average of 3.2 children survived. By sex of children, out of 1.9 mean number of males, 1.7 survived on the average and the corresponding mean number of females surviving was 1.5 out of 1.8.

Women with longer marital duration have higher mean number of children ever born. On the average, women who are married for 15 or more years have 3.5 children ever born and on the average 3.1 of them are surviving. There is a clear rural-urban divide in terms of mean children ever born with 2.6 children in rural areas and 2.0 children in urban areas. The mean children ever born to women who are Hindu, Muslim, Christian and other religions is 2.2, 3.2, 2.6 and 2.2 respectively. The corresponding

mean number of surviving children is respectively 2.0, 2.8, 2.3 and 2.1 for these religious groups. The average children ever born also vary by caste/tribe of the eligible women. For women belonging to scheduled caste, the mean number of children ever born is 2.5, 2.6 for the scheduled tribes, 2.2 for other backward classes and 2.3 for other castes. For all religious groups, the mean number of surviving children is slightly more than 2 with the combination mostly being one surviving male and one surviving female child on the average.

Table 3.5 CHILDREN EVER BORN AND LIVING							
Mean children ever born (CEB) and children surviving (CS) by selected background characteristics of currently married women aged 15-44 years, West Bengal, 2002-04							
Background characteristic	Mean children ever born			Mean children surviving			Number of women
	Total	Male	Female	Total	Male	Female	
Age group (years)							
15-19	0.8	0.4	0.4	0.7	0.4	0.4	1,792
20-24	1.7	0.8	0.8	1.5	0.8	0.8	3,124
25-29	2.3	1.2	1.1	2.1	1.1	1.0	3,237
30-34	2.8	1.5	1.3	2.6	1.3	1.2	3,001
35-39	3.2	1.7	1.5	2.8	1.5	1.4	2,463
40-44	3.7	1.9	1.8	3.2	1.7	1.5	1,998
Marital duration							
0-4	0.8	0.4	0.4	0.7	0.4	0.4	3,212
5-9	1.8	1.0	0.9	1.7	0.9	0.8	3,246
10-14	2.5	1.3	1.2	2.3	1.2	1.1	3,031
15+	3.5	1.8	1.7	3.1	1.6	1.5	6,126
Residence							
Rural	2.6	1.4	1.3	2.3	1.2	1.1	10,557
Urban	2.0	1.0	0.9	1.8	1.0	0.9	5,057
Religion							
Hindu	2.2	1.1	1.0	2.0	1.0	0.9	11,872
Muslim	3.2	1.6	1.5	2.8	1.5	1.4	3,506
Christian	2.6	1.3	1.3	2.3	1.1	1.3	87
Other	2.2	1.2	1.1	2.1	1.1	1.0	150
Caste/tribe #							
Scheduled caste	2.5	1.3	1.2	2.2	1.2	1.1	4,306
Scheduled tribe	2.6	1.4	1.2	2.3	1.2	1.1	898
Other backward class	2.2	1.2	1.1	2.0	1.1	1.0	935
Other	2.3	1.2	1.1	2.1	1.1	1.0	8,944
Education							
Non-literate	3.2	1.6	1.5	2.8	1.4	1.3	6,277
0-9@ years	2.1	1.1	1.0	1.9	1.0	0.9	6,969
10 years & above	1.3	0.7	0.6	1.3	0.7	0.6	2,357
Standard of living index							
Low	2.8	1.4	1.4	2.5	1.3	1.2	8,074
Medium	2.2	1.1	1.1	2.1	1.1	1.0	4,895
High	1.6	0.8	0.7	1.5	0.8	0.7	2,646
All women	2.4	1.3	1.2	2.2	1.1	1.0	15,614

Note: # Total number may not add upto N due to don't know and missing cases. Table includes 11 women with missing information on education. @ Literate women with no year of schooling are included.

The mean number of children ever born is higher for non-literate women (3.2) than women who have completed 0-9 years of schooling (2.1) and 10 or more years of schooling (1.3). The mean number of surviving children for women corresponding to these educational levels is 2.8, 1.9 and 1.3 respectively. Further, the mean number of children ever born for women classified into low, medium and high standard of living by SLI is 2.8, 2.2 and 1.6 respectively. For the state of West Bengal, the DLHS-RCH shows inverse association between mean children ever born and educational attainment of women and also the level of household economic comfort, as expected.

3.6 Completed Fertility by District

The level of completed fertility as measured by mean number of children ever born to women of 40-44 years by districts in West Bengal together with mean number of surviving children is shown in Table 3.6. On the average, women on the verge of completing reproductive period have given birth to 3.7 children in their reproductive life of which 3.2 children are surviving on the average. Completed fertility in West Bengal varies from the low of 2.3 mean children ever born for Kolkata to the highest of 4.7 children in Uttar Dinajpur district. Completed fertility in terms of mean number of children ever born is high in the districts of Maldah (4.6), South 24 Parganas (4.4), Koch Bihar (4.2), Murshidabad (4.2), Birbhum (3.8), Puruliya (3.7) and Haora (3.6). With the exception of Kolkata, mean children ever born in all other districts of West Bengal is more than 3 children. It is also true that in most of the districts, mean number of male children is more than that of female children born to women in the 40-44 year age group. South 24 Parganas (3.9) and Uttar Dinajpur (3.8) recorded highest mean number of surviving children. Looking at the absolute difference between mean children ever born and mean number of surviving children, it seems that infant and child mortality is quite high and varies among the districts in West Bengal.

District	Mean children ever born			Mean children surviving		
	Total	Male	Female	Total	Male	Female
Bankura	3.5	1.9	1.6	3.0	1.6	1.3
Bardhaman	3.0	1.5	1.5	2.7	1.3	1.3
Birbhum	3.8	2.0	1.8	3.3	1.7	1.5
Dakshin Dinajpur	3.3	1.6	1.7	2.9	1.4	1.5
Darjiling	3.2	1.6	1.6	2.9	1.4	1.5
Haora	3.6	1.9	1.7	3.2	1.7	1.5
Hugli	3.4	1.7	1.7	3.1	1.5	1.6
Jalpaiguri	4.1	2.2	1.9	3.3	1.8	1.5
Koch Bihar	4.2	2.2	2.1	3.6	1.9	1.7
Kolkata	2.3	1.4	1.0	2.2	1.3	0.9
Maldah	4.6	2.3	2.2	3.8	1.9	1.9
Medinipur	4.0	2.0	2.0	3.5	1.7	1.8
Murshidabad	4.2	2.0	2.2	3.7	1.8	1.9
Nadia	3.2	1.7	1.6	2.9	1.5	1.4
North 24 Parganas	3.3	1.9	1.4	3.0	1.7	1.3
Puruliya	3.7	1.8	1.9	3.2	1.6	1.7
South 24 Parganas	4.4	2.3	2.1	3.9	2.1	1.8
Uttar Dinajpur	4.7	2.6	2.1	3.8	2.1	1.7
West Bengal	3.7	1.9	1.8	3.2	1.7	1.5

3.7 Birth Order

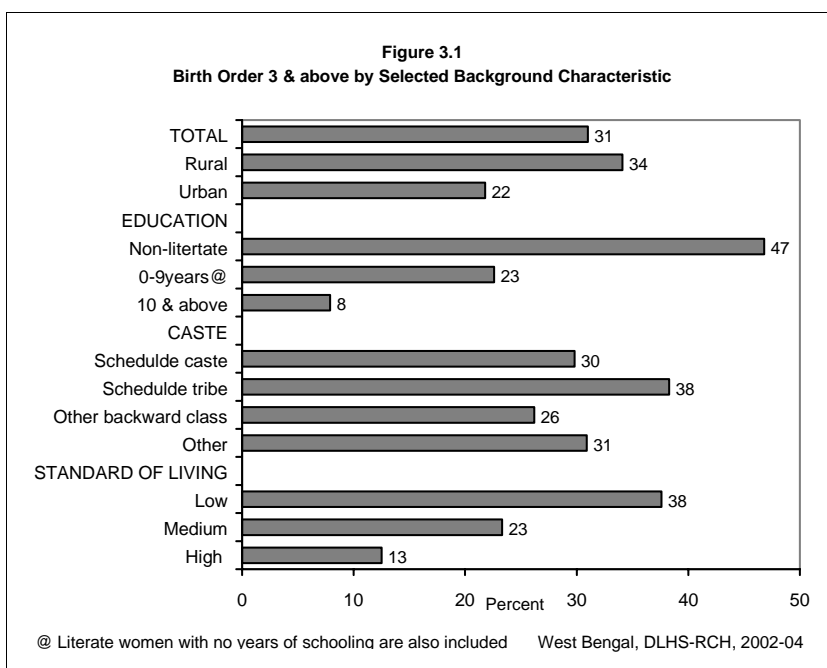
Birth order distribution by selected background characteristics of women is provided in Table 3.7 and Figure 3.1. This distribution can be used as a measure of fertility in the absence of formal measures of fertility, such as, crude birth rate and total fertility rate.

Table 3.7 BIRTH ORDER						
Percent distribution of births during three years preceding the survey by birth order by selected background characteristics, West Bengal, 2002-04						
Background characteristic	Birth order				Total percent	Number of births
	1	2	3	4+		
Age of women						
15-19	73.7	23.5	2.6	0.2	100.0	1,133
20-24	38.1	38.9	17.1	5.9	100.0	2,149
25-29	24.1	26.0	21.8	28.2	100.0	1,222
30-34	12.2	21.7	15.5	50.5	100.0	507
35-39	3.3	22.1	17.5	57.1	100.0	147
40-44	(4.7)	(16.3)	(2.3)	(76.7)	(100.0)	38
Place of residence						
Rural	35.5	30.4	15.7	18.4	100.0	3,874
Urban	48.4	29.8	12.2	9.6	100.0	1,323
Education (Years of schooling)						
Non-literate	24.5	28.7	18.9	27.9	100.0	2,144
0-9@ years	45.1	32.2	13.2	9.4	100.0	2,456
10 years & above	64.4	27.7	6.2	1.7	100.0	592
Religion						
Hindu	43.4	32.2	14.5	9.9	100.0	3,494
Muslim	29.5	25.8	14.9	29.8	100.0	1,619
Christian	(31.6)	(26.3)	(18.4)	(23.7)	(100.0)	33
Other	(30.6)	(47.2)	(11.1)	(11.1)	(100.0)	49
Caste/tribe #						
Scheduled caste	36.8	33.4	17.4	12.4	100.0	1,450
Scheduled tribe	30.1	31.6	18.1	20.2	100.0	357
Other backward class	37.3	36.4	13.6	12.6	100.0	285
Other	41.2	27.9	13.0	17.9	100.0	2,880
Standard of living index						
Low	32.2	30.2	16.8	20.8	100.0	3,195
Medium	45.4	31.3	12.5	10.8	100.0	1,440
High	59.9	27.6	8.8	3.7	100.0	561
Total	38.8	30.2	14.8	16.2	100.0	5,196

Note: Total includes 5 births with missing information on mother's education. # Total number of births may not add upto N due to don't know and missing cases. () Based on less than 50 unweighed cases.

For the state of West Bengal, 39 percent of the births in the three years period preceding the survey were of first order, 30 percent of second order and the remaining 31 percent were of order 3 and higher. By current age of eligible women, more than 50 percent of births to women in the age group 35-39 years and 40-44 years are 4 and higher order births. For women of 15-19 years, 74 percent births are of first order and 24 percent births are of second order. In the case of eligible women in urban areas, 22 percent of the births are of 3rd and higher whereas this order births constitute 34 percent for rural women indicating that higher order births are more concentrated in rural areas. Of the

total births to non-literate women, 47 percent are 3rd and higher order births, followed by 23 percent for women with 0-9 years of schooling and 8 percent for women who had 10 or more years of schooling. In short, births to non-literate women are of higher order whereas much lower order births occurred to women who completed 10 or more years of schooling. Looking at the religion differential in birth order distribution, it is observed that 45 percent of births to Muslim women are 3rd and higher order births. For Hindu and women from other religions, the 3rd and higher order births constitute 24 percent and 22 percent respectively. The occurrence of births of order 3 and above is more among scheduled tribe (38 percent) than among scheduled caste (30 percent), other backward classes (26 percent) and other castes (31 percent) women. Incidence of births of order 3 and above for women classified by household standard of living index is 12 percent for high, 23 percent for medium and 38 percent for low living standard households women.



3.8 Birth Order by District

Table 3.8 and Figure 3.2 show the birth order distribution by districts in West Bengal. The proportion of births of order 3 and above ranges from the lowest of 19 percent in Nadia to the highest of 55 percent in Uttar Dinajpur. The districts, which have lower proportion of births of order 3 and above, are North 24 Paraganas (24 percent), Bankura (24 percent), Kolkota (25 percent), Haora (26 percent) and Bardhaman (27 percent). The districts, which can be classified as having higher proportion of births of order 3 and

above, are Murshidabad (38 percent), Maldah (45 percent), Jalpaiguri (36 percent) and Birbhum (34 percent). The remaining districts fall midway between these districts in terms of incidence of births of order 3 and above.

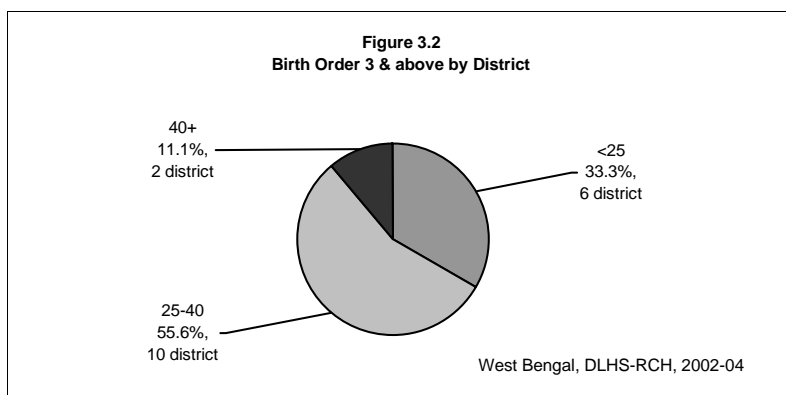


Table 3.8 BIRTH ORDER BY DISTRICT
Percent distribution of births during three years preceding the survey by birth order, according to district, West Bengal, 2002-04

District	Birth order			
	1	2	3	4+
Bankura	40.5	35.5	13.9	10.2
Bardhaman	39.3	33.5	14.4	12.7
Birbhum	37.7	28.0	18.0	16.3
Dakshin Dinajpur	33.1	36.4	16.2	14.2
Darjiling	36.8	31.1	13.9	18.2
Haora	39.8	34.7	9.6	16.0
Hugli	39.8	36.7	15.3	8.3
Jalpaiguri	36.1	28.5	16.4	19.1
Koch Bihar	39.5	27.5	15.4	17.5
Kolkata	44.9	30.4	16.1	8.6
Maldah	28.1	26.6	16.9	28.4
Medinipur	43.6	32.9	14.5	9.0
Murshidabad	35.2	26.8	16.6	21.5
Nadia	47.1	34.2	11.7	7.0
North 24 Parganas	50.5	25.7	9.3	14.4
Puruliya	32.3	32.8	17.9	17.0
South 24 Parganas	39.5	29.9	15.0	15.5
Uttar Dinajpur	21.9	23.3	15.7	39.1
West Bengal	38.8	30.2	14.8	16.2

3.9 Fertility Preference

The distribution of currently married women desiring additional children and preferred sex of additional children by number of living children of the women is shown in Table 3.9 and Figure 3.3. Out of the 1,517 women with no living child, 26 percent are currently pregnant and 22 percent are using spacing methods, while 39 percent want to have a child within two years, 2 percent want to have a child after two years, 3 percent are undecided about the timing of birth and 2 percent desired not to have any children. Among the currently married women, the desire for additional children dwindles down with increasing number of living children. As many as 66 percent of the women having one living child are using spacing methods, 9 percent of them want additional child within two years, 4 percent after two years, 3 percent are undecided about the timing of the next child, 4 percent of them want no more additional children and 3 percent are sterilized. Use of permanent as well as temporary means of contraception tends to be accelerated with number of living children. In the state of West Bengal, out of the 15,614 surveyed representative women, 7 percent desired to have additional children within two years, 2 percent after two years, 7 percent want no more children, 6 percent are currently pregnant and 74 percent are using either terminal or temporary contraceptive methods. A total of 1,748 women want additional children irrespective of the number of living children. Out of 700 women who have no living children and desire for additional children, 28 percent want a boy as the first child, 5 percent desired for girl, while for 53 percent, the sex of the child is immaterial and 14 percent leave it to God. With increasing number of living children, is male the dominating preferred sex of the next child though a sizeable proportion of women desiring additional children expressed that the sex of the child was immaterial.

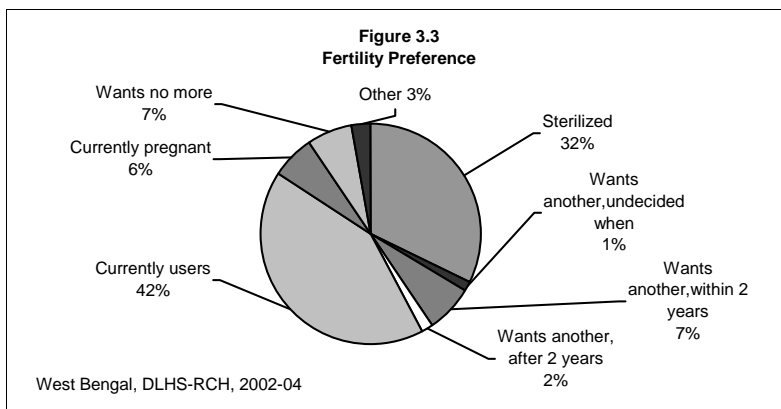


Table 3.9 FERTILITY PREFERENCE						
Percent distribution of currently married women by desire for children, according to number of living children, West Bengal, 2002-04						
Desire for children	Number of living children					Total
	0	1	2	3	4+	
Desire for additional child						
Wants another soon ¹	39.2	9.0	2.6	1.6	1.1	7.1
Wants another later ²	1.6	3.8	1.4	0.7	0.4	1.6
Want another, undecided when	2.9	2.7	0.9	0.5	0.3	1.3
Undecided	1.8	1.6	0.5	0.6	0.3	0.8
Up to God	0.7	0.3	0.3	0.1	0.2	0.3
Want no more	2.3	4.3	7.3	6.9	10.0	6.6
Sterilized	1.2	2.9	39.6	56.6	47.6	32.2
Currently users ³	21.8	66.4	42.8	29.4	33.8	41.9
Currently pregnant	26.4	7.8	3.4	2.3	3.0	6.4
Declared infecund	1.8	1.0	1.0	1.2	3.2	1.6
Missing	0.4	0.2	0.2	0.0	0.2	0.2
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	1,517	3,590	4,400	2,806	3,302	15,614
Preferred sex of additional children						
Boy	28.3	34.6	41.6	56.6	43.7	34.7
Girl	5.4	20.5	13.8	15.2	10.0	12.8
Doesn't matter	52.5	31.8	26.7	18.5	23.2	38.2
Upto God	13.8	13.0	17.9	9.7	23.2	14.3
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	700	624	252	98	75	1,748

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

3.93.10 Pregnancy Outcomes

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Table 3.10 shows distribution of pregnancy outcomes including live birth, stillbirth, induced abortion and spontaneous abortion by districts in West Bengal. For the state as a whole, 88 percent of pregnancy ended in live birth, 6 percent in induced abortion, 4 percent in spontaneous abortion and 2 percent in stillbirth. More pregnancies in rural areas end in live births (89 percent) than in urban areas (84 percent), while the incidence of induced abortion is more in urban areas (9 percent) than in rural areas (5 percent). The proportion of pregnancies ending in live births ranges from 84 percent in Dakshin Dinajpur to 94 percent in Birbhum. The district on the lower side of pregnancies ending in live birth includes Puruliya, Maldah, and Bardhaman with 85 percent of pregnancies in these districts ending in live birth. Murshidabad and Kolkata are the two other districts with more than 90 percent of pregnancies ending in live births. The incidence of stillbirth is highest in Maldah (5 percent) followed by Murshidabad (4 percent) while it is almost nil in Kolkata. Induced abortion is higher in the districts of South 24 Parganas (10 percent), Dakshin Dinajpur (8 percent), Puruliya (8 percent), Medinipur (7 percent) and Haora (7 percent). Spontaneous abortion is least in South 24 Parganas, about 2 percent and highest in Bankura (6 percent). In terms of incidence of induced abortion and spontaneous abortion, Kolkata is moderate.

Table 3.10 OUTCOMES OF PREGNANCY						
Percent distribution of all pregnancies of currently married women aged 15-44 years by their outcomes three year preceding the survey currently married women, according to districts, West Bengal, 2002-04						
Districts	Live birth	Stillbirth	Induced abortion	Spontaneous abortion	Missing	Total percent
State-Rural	89.3	2.3	4.7	3.5	0.2	100.0
State-Urban	84.3	2.0	8.7	5.1	0.0	100.0
State-Total	87.9	2.2	5.8	3.9	0.2	100.0
Bankura	87.6	1.6	5.0	5.8	0.0	100.0
Bardhaman	85.4	2.7	6.5	5.1	0.3	100.0
Birbhum	93.6	1.4	2.5	1.9	0.6	100.0
Dakshin Dinajpur	83.6	1.8	8.3	5.8	0.5	100.0
Darjiling	86.7	3.5	6.2	3.7	0.0	100.0
Haora	87.2	2.1	7.0	3.7	0.0	100.0
Hugli	89.4	0.9	5.7	2.6	1.4	100.0
Jalpaiguri	86.9	2.0	4.7	6.4	0.0	100.0
Koch Bihar	89.3	2.3	3.7	4.7	0.0	100.0
Kolkata	91.3	0.6	4.2	3.8	0.0	100.0
Maldah	84.8	5.0	5.1	5.1	0.0	100.0
Medinipur	87.3	1.4	7.2	4.1	0.0	100.0
Murshidabad	92.7	4.0	1.5	1.9	0.0	100.0
Nadia	88.4	2.6	5.6	3.5	0.0	100.0
North 24 Parganas	86.7	1.7	6.4	5.2	0.0	100.0
Puruliya	84.6	2.3	7.8	4.1	1.2	100.0
South 24 Parganas	87.2	1.6	9.8	1.5	0.0	100.0
Uttar Dinajpur	88.1	2.7	4.6	4.6	0.0	100.0

CHAPTER IV

MATERNAL HEALTH CARE

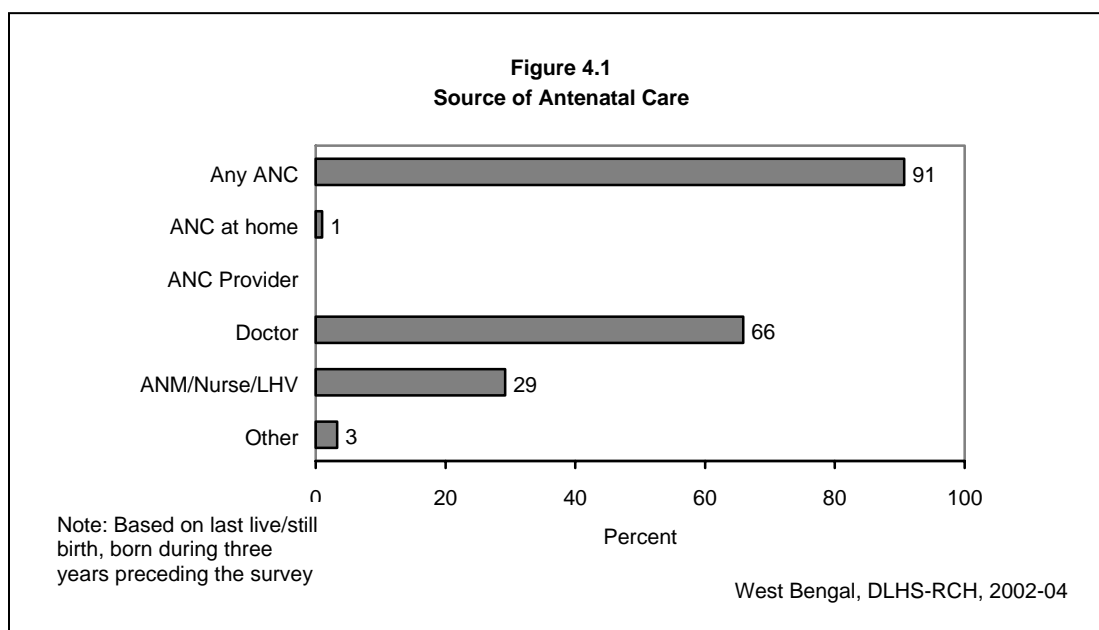
Provision of maternal health care services to ensure safe motherhood is one of the major components of the Reproductive and Child Health (RCH) programme. The RCH programme services for antenatal care, include at least three antenatal care visits, iron prophylaxis for pregnant and lactating women, at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

The National Population Policy (NPP), 2000 adopted by the Government of India (Ministry of Health and Family Welfare, 2000) reiterates the Government's commitment to the safe motherhood programme within the wider context of reproductive health. Among the national socio-demographic goals for 2010 specified by the policy, several goals pertain to safe motherhood, that 80 percent of all deliveries should take place in institutions by 2010, hundred percent deliveries should be attended by trained personnel, and the maternal mortality ratio should be reduced to a level below 100 per 100,000 live births. Empowering women for improved health and nutrition is one of the 12 strategic themes identified in the policy to be pursued either as stand-alone programmes or as intersectoral programmes.

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

4.1 Antenatal Check-Ups

Women who had given a birth during the three years preceding the survey were asked whether they had gone for antenatal check-ups outside the home, and if they had, what type of service provider had given them the check-ups. They were also asked whether any health worker had visited them at home to provide antenatal check-ups. Table 4.1 and Figure 4.1 present the percentage of women who had given birth during the three years preceding the survey, and information regarding the antenatal check-ups they had by source of antenatal check-ups according to some selected background characteristics. Results show that nine out of every ten women received antenatal check-ups during the three years preceding the survey, slightly more than RCH Round I (84 percent). Sixty six percent of women received antenatal check-ups from doctors, and 29 percent from ANM/Nurse/LHV. Only one percent women received antenatal check-ups at the doorstep from the ANMs or health worker.



Antenatal check-ups are more common among younger women age below 35 years than among older women, and it is more common among those women who had given their first birth. The percentage of women who received antenatal check-up was comparatively higher in urban areas (96 percent) than in rural areas (89 percent), and the percentage of women who received antenatal check-ups from doctors is much higher in urban areas (89 percent) than in rural areas (58 percent), and on the other hand 36 percent of rural women received antenatal check-ups from auxiliary nurse midwife, nurse or LHVs, with the corresponding figure for women in urban areas being 9 percent. Eighty five percent of non-literate women received antenatal check-ups, nearly all women (98 percent) who had completed high school received antenatal check-ups for their last pregnancy that terminated into birth (either live or still birth) during the three years preceding the survey.

Table 4.1 ANTENATAL CHECK-UP							
Percentage of women* who received any antenatal check-up (ANC) during pregnancy by source of antenatal provider, according to selected background characteristics, West Bengal, 2002-04							
Background characteristic	Any ¹ antenatal check-up	Antenatal check-up only at home by ANM	Health personnel providing ANC ²				Number of women
			Doctor	ANM/ Nurse/ LHV	Other health professional	Other ³	
Age group							
Less than 20 years	94.0	1.2	66.1	35.2	0.4	3.0	1,004
20-34 years	90.3	0.8	66.3	27.9	0.7	3.2	3,751
35 years & above	82.7	1.8	59.0	24.1	0.0	5.3	209
Children ever born							
1	95.6	0.4	79.5	24.0	0.3	1.9	1,775
2	91.7	0.8	65.1	31.2	0.3	3.1	1,553
3	89.0	0.5	58.7	33.0	1.4	3.0	762
4+	79.7	2.7	45.2	32.5	0.9	6.8	829
Residence							
Rural	88.9	1.2	57.6	36.4	0.7	4.4	3,660
Urban	95.7	0.2	89.3	8.9	0.3	0.2	1,305
Education							
Non-literate	85.0	1.6	48.0	39.0	0.7	4.9	1,999
0-9 @ years	93.7	0.6	74.0	26.0	0.5	2.5	2,361
10 years & above	97.8	0.2	93.9	8.7	0.5	0.9	599
Religion							
Hindu	93.4	0.6	71.3	28.4	0.3	2.5	3,399
Muslim	84.8	1.9	53.7	31.1	1.2	5.3	1,492
Other	86.6	0.0	67.6	25.6	0.0	0.4	74
Caste/tribe#							
Scheduled caste	93.3	0.9	64.5	36.1	0.4	2.1	1,349
Scheduled tribe	83.2	1.6	45.7	41.1	0.0	3.3	330
Other backward class	84.8	0.4	64.8	25.7	0.7	4.8	274
Other	91.0	1.0	69.9	24.5	0.8	3.7	2,800
Standard of living index							
Low	87.8	1.3	53.2	39.1	0.8	4.7	2,984
Medium	93.8	0.7	81.2	17.9	0.3	1.5	1,400
High	98.5	0.0	94.8	5.8	0.3	0.5	580
Availability of health facility⁴ in the village							
No	87.8	1.3	58.4	35.3	0.6	5.1	1,637
Yes	89.8	1.2	57.0	37.4	0.7	3.7	2,023
Total	90.7	1.0	65.9	29.2	0.6	3.3	4,964

Note: * Women who had their last live/still birth since 1-1-1999/1-1-2001. Total includes 45 women with zero parity and 5 with missing information on education who were not shown separately.¹ Antenatal check-ups either at home or outside from home at health facility. ² Antenatal check-ups outside home and percentage add more than 100.0 due to multiple responses
³ Other also includes trained and untrained *dai*. # Total figure may not add to N due to do not know and missing cases. @ Literate women with no years of schooling are also included. ⁴ Includes sub-centre, primary health centre, community health centre or referral hospital, government hospital, and government dispensary within the village.

The proportion of women who received antenatal check-ups from a doctor, increased steadily with the level of education and the standard of living index. Forty eight percent non-literate women as compared to 94 percent having education of more than 10 years received ANC from doctors. Similarly, 53 percent women belonging to households with a low standard of living against 95 percent of that from a high standard of living fall in this category. The proportion of Hindu women who received antenatal check-ups from doctors (71 percent) is much higher than that of Muslim women (54 percent), and 'other' religion women (68 percent). Seventy percent of

women from the 'other castes' category received antenatal check-ups from doctors, while it was 65 percent for scheduled caste women, and 46 percent for scheduled tribe women, and for women from other backward classes, it was 65 percent. Women from scheduled tribes were more likely to receive antenatal check-ups from auxiliary nurse midwives, or LHVs. Forty one percent of scheduled tribe women received antenatal check-ups from ANMs, while it was 36 percent among scheduled castes, 26 percent among other backward class women, and 25 percent of women from the 'other' castes category.

4.2 Antenatal Check-Ups at Health Facility

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

Table 4.2 PLACE OF ANTENATAL CHECK-UP									
Percentage of women* who received any antenatal check-ups (ANC) during pregnancy by source and place of antenatal check-ups, according to selected background characteristics, West Bengal, 2002-04									
Background characteristic	Antenatal check-up only at home	Place of antenatal check-ups ¹							Number of women
		Government ² health facility	Private ³ health facility	PHC	SC	ISM ⁴ facility			
						Govt.	Private	Other	
Age group									
Less than 20 years	1.2	62.9	31.6	11.8	38.4	1.1	16.0	3.8	1,004
20-34 years	0.8	52.3	31.4	8.4	29.5	1.9	13.9	6.4	3,751
35 years & above	1.8	36.6	42.0	5.8	23.5	0.7	11.2	6.4	209
Children ever born									
1	0.4	53.6	38.1	8.0	24.4	1.4	16.1	5.9	1,775
2	0.8	55.9	30.7	9.5	34.2	2.1	14.7	5.0	1,553
3	0.5	56.1	27.3	11.2	33.6	1.3	11.9	6.7	762
4+	2.7	48.8	23.9	8.6	39.2	2.1	11.2	6.6	829
Residence									
Rural	1.2	56.6	29.5	11.7	41.0	1.6	13.3	5.9	3,660
Urban	0.2	45.9	38.4	2.2	5.7	2.1	16.5	5.7	1,305
Education									
Non-literate	1.6	58.5	23.2	11.8	42.2	1.2	10.5	5.7	1,999
0-9 @ years	0.6	56.6	33.1	8.5	29.1	1.9	15.1	5.3	2,361
10 years & above	0.2	26.9	55.9	2.9	7.5	2.6	21.6	8.0	599
Religion									
Hindu	0.6	55.6	31.9	9.4	29.7	2.0	15.0	6.4	3,399
Muslim	1.9	50.8	30.9	8.2	35.9	1.0	12.8	4.4	1,492
Other	0.0	31.4	49.2	3.5	12.7	0.4	5.3	6.1	74
Caste/tribe#									
Scheduled caste	0.9	65.7	27.1	11.3	38.1	1.5	10.9	5.7	1,349
Scheduled tribe	1.6	56.4	23.3	13.1	45.5	0.0	10.6	5.1	330
Other backward class	0.4	45.8	35.7	11.6	27.2	5.0	10.9	5.0	274
Other	1.0	48.2	35.2	7.3	26.3	1.8	16.6	6.2	2,800
Standard of living index									
Low	1.3	59.3	25.3	12.6	43.2	1.5	13.1	5.6	2,984
Medium	0.7	53.9	35.3	5.0	18.6	1.5	14.2	6.2	1,400
High	0.0	25.2	57.0	2.0	5.4	3.1	19.3	6.1	580
Availability of health facility⁵ in the village									
No	1.3	57.3	31.0	13.4	41.2	1.3	12.6	4.4	1,637
Yes	1.2	56.1	28.3	10.4	40.9	1.8	13.9	7.0	2,023
Total	1.0	53.8	31.9	9.0	31.2	1.7	14.2	5.8	4,964

Note: * Women who had their last live/still birth since 1-1-1999/1-1-2001. Total includes 45 women with zero parity, 5 with missing information on education who were not shown separately. # Total figure may not add to N due to do not know and missing cases. @ Literate women with no years of schooling are also included. ¹ Antenatal check-ups outside home and percentage add more than 100.0 due to multiple responses. ² Includes sub-centre, primary health centre, community health centre or rural hospital, urban health centre/urban health post/ urban family welfare centre, government hospital or dispensary. ³ Includes Private hospital/clinic or non-governmental hospital/ trust hospital or clinic. ⁴ Indian system of medicine. ⁵ Includes sub-centre, primary health centre, community health centre or referral hospital, government hospital, and government dispensary within the village.

Table 4.2 shows the percentage of women who had received antenatal check-ups during pregnancy by place. During pregnancy, women received antenatal check-ups from multiple sources such as, health workers providing ANC at home, Government health facility, private health facility, and at Indian System of medicine facility etc. Women who received antenatal check-ups both at home and outside the home are categorised as having received care outside the home. Around 54 percent of women received antenatal check-ups at Government health facility, including 9 percent through primary health centre and 31 percent through sub-centre, and 32 percent at a private health facility. Other than this, 2 percent of women reported that they had received antenatal check-ups at the Government Indian system of medicine, and 14 percent at private Indian system of medicine. As mentioned above, women availed antenatal check-ups from multiple sources. Women who were visited by an ANM might have also visited government and/or private health facilities including Indian system of medicine.

Younger women were more likely to receive antenatal-check-ups at government health facilities (63 percent) than older women - 52 percent for age 20-34 and 37 percent for age 35 and above. Fifty seven percent women from rural areas availed government health facilities for antenatal check-ups. This proportion is higher in rural areas compared to urban areas (46 percent). A high proportion of women (38 percent) from urban areas availed private health facilities for antenatal check-ups than women from rural areas (30 percent). It may be mentioned that about two fifth of the women from rural areas (41 percent) and younger women aged below 20 years (38 percent) received antenatal check-ups at sub-centre. This indicates that the services are reaching the target population, particularly through the public sector. A comparatively high proportion of women who received antenatal check-ups at Government health facilities are non-literate, Hindu, scheduled caste or tribe, living in households with a low standard of living and women from those villages where health facilities are not available.

4.3 Antenatal Check-Ups by District

Table 4.3 indicates the antenatal coverage in West Bengal that ranges from the highest of 97 percent in Nadia to the lowest of 74 percent in Murshidabad. In almost all districts, except Murshidabad, more than 80 percent of women got some kind of antenatal check-ups for their last birth during the three years preceding the survey. Antenatal check-ups received from doctor was low in Uttar Dinajpur (37 percent), and Koch Bihar (42 percent), and in all the remaining districts, more than half of the women received antenatal check-ups from doctor and it is highest in Kolkata (96 percent) followed by Haora (81 percent). In 3 out of 18 districts, Koch Bihar (51 percent), South 24 Paraganas (56 percent), and Dakshin Dinajpur (58 percent), more than half of women received antenatal check-ups by ANM/Nurse/LHV.

The extent of utilisation of government health facilities for antenatal check-ups was higher than that of private health facilities. The range of antenatal check-ups

coverage through government facilities was highest in Nadia (74 percent) with the lowest of 37 percent recorded in Bardhaman, and only in two districts- Dakshin Dinajpur and Hugli -more than half of the women visited private health facility. In West Bengal, 35 percent pregnant women in Medinipur district availed the Indian system of medicine (either government or private) for an antenatal check-up. In 10 out of 18 districts, more than 10 percent of women availed such services through the Indian system of medicine facility.

Table 4.3 ANTENATAL CHECK-UPS BY DISTRICT							
Percentage of women* who received any antenatal care (ANC), by source and place of antenatal check-ups by district, West Bengal, 2002-04							
District	Any ¹ antenatal check-up	Antenatal check-up only at home by ANM	Health personnel providing ANC		Place of antenatal check-ups		
			Doctor	ANM/ Nurse	Government ² health facility	Private ³ health facility	ISM ⁴ facility
Bankura	96.2	1.4	76.5	24.7	68.5	11.3	28.3
Bardhaman	93.1	2.5	66.2	25.1	37.0	22.0	17.9
Birbhum	91.2	1.4	71.7	20.3	44.8	39.9	10.5
Dakshin Dinajpur	91.5	0.3	61.8	57.7	67.7	54.1	2.1
Darjiling	85.3	1.1	60.6	31.3	63.4	16.5	8.7
Haora	91.4	1.1	81.4	10.1	44.1	31.3	19.3
Hugli	93.5	0.0	76.9	31.4	63.1	58.5	6.4
Jalpaiguri	95.0	0.0	60.2	46.8	67.4	41.9	10.1
Koch Bihar	92.0	0.7	42.2	51.4	62.4	18.9	13.5
Kolkata	96.2	0.0	96.2	1.7	47.6	39.6	15.4
Maldah	95.1	0.0	50.8	47.7	59.5	34.8	9.5
Medinipur	93.9	0.5	77.2	21.2	45.0	24.1	34.9
Murshidabad	74.0	1.9	56.0	15.3	37.5	19.4	16.2
Nadia	97.3	0.0	74.3	23.0	74.3	39.0	6.4
North 24 Parganas	88.4	2.4	74.1	14.5	50.8	30.4	12.2
Puruliya	86.5	0.0	62.3	42.2	63.9	42.9	2.1
South 24 Parganas	94.3	0.5	52.9	55.9	64.8	42.4	4.7
Uttar Dinajpur	81.4	0.5	36.9	44.0	53.6	37.5	6.3
West Bengal	90.7	1.0	65.9	29.2	53.8	31.9	14.2

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

4.4 Reasons for Not Seeking Antenatal Check-Ups

Table 4.4 shows the percentage of women who had given live/still birth during the three years preceding the survey and who did not receive any antenatal check-up by the main reason for not seeking check-ups according to residence and availability of health facility in the village. Thirty one percent of women stated that it was not necessary to have an antenatal check-up. It was surprising to see that a higher proportion of urban women (50 percent) than rural women (28 percent) felt that it was not necessary to have an antenatal check-up. Thirty percent of the women stated that an antenatal check-up was not necessary in villages with a health facility whereas 26 percent of women from those villages where a health facility is not available fall in this category. About 16 percent of women felt that it was not customary to go for an antenatal check-up. Other factors

contributing to non-use of antenatal care were that it costs too much (8 percent), it was situated too far, or there was no transportation (9 percent), no time to go and family did not allow to avail antenatal care (9 percent each), and other 7 percent reported lack of knowledge of these services. Two percent of the women reported 'poor quality of services' as the main reason. Thirteen percent of women from villages with a health facility reported that they had no time to go, and 14 percent of women reported that their family did not allow them to have an antenatal check-up. The corresponding figure is 7 percent of women each from villages without a health facility.

Table 4.4 REASONS FOR NOT SEEKING ANTENATAL CHECK-UPS					
Percentage of women* who did not receive any antenatal check-up by the main reason for not receiving an antenatal check-up, according to residence and availability of health facility in the village, West Bengal, 2002-04					
Reason	Total	Residence		Availability of health facility ¹ in the village	
		Rural	Urban	No	Yes
Not Necessary	30.7	28.1	49.9	26.1	30.0
Not customary	16.2	17.0	10.7	18.3	15.6
Cost too much	7.8	8.7	1.3	8.2	9.1
Health facility too far/ No transport	8.8	10.0	0.0	9.5	10.4
Poor quality service	2.3	2.3	2.3	2.1	2.5
No time to go	8.9	10.1	0.9	6.8	13.2
Family did not allow	8.9	10.1	0.9	6.5	13.5
Lack of knowledge	7.1	7.6	3.5	6.9	8.2
Other	11.2	10.3	17.9	11.3	9.3
Number of women	461	405	57	199	206

Note: * Women who had their last live/still birth since 1-1-1999/1-1-2001.
¹ Includes sub-centre, primary health centre, community health centre or referral hospital, government hospital, and government dispensary within the village.
 Percentage may add more than 100.0 due to multiple responses.

4.5 Components of Antenatal Check-ups

Women who received any kind of antenatal check-ups were asked whether they received each of the several components of antenatal check-ups at least once during their pregnancy. Table 4.5 presents the percentage of women who received specific components of check-ups by residence. Except for X-rays (which are not recommended as a standard component of antenatal care), all of the measurements and tests are part of essential obstetric care are required for monitoring high-risk pregnancies.

Sixty seven percent of women were weighed, 61 percent had their blood pressure checked, and 55 percent had an abdominal examination as the part of the antenatal check-ups. Other common components of antenatal check-ups were blood test (51 percent), urine test (43 percent), the measurement of height (13 percent), internal examination (22 percent), and breast examination (8 percent). About 14 percent of women had a sonogram or ultrasound, 4 percent had an X-ray and only one percent of women reported that they had amniocentesis test. All of these measurements or producers were performed more often during antenatal check-ups in urban areas than in rural areas.

The type of advice received by women who had antenatal check-ups for last live/still births during three years preceding the survey is also presented in Table 4.5. Advice on

diet was given to 78 percent of urban women as compared to 63 percent of rural women and 67 percent in general. Forty five percent of the women received advice on danger signs of pregnancy. Women were less likely to receive advice on delivery care (30 percent), on breastfeeding (21 percent), and on newborn care (23 percent). Advice on family planning was given to 28 percent of rural women and 23 percent of urban women.

Table 4.5 COMPONENTS OF ANTENATAL CHECK-UPS			
Percentage of women* who received an antenatal check-up by specific components of antenatal check-up, according to residence, West Bengal, 2002-04			
Components of antenatal check-ups	Total	Rural	Urban
Antenatal measurements/tests			
Weight measured	66.7	60.8	82.1
Height measured	13.4	10.1	22.3
Blood pressure checked	60.7	52.5	82.2
Blood tested	51.4	40.6	79.6
Urine tested	42.6	31.1	72.5
Abdomen examined	55.0	47.4	74.9
Internal examined	21.8	15.9	37.1
Breast examined	8.1	6.7	11.8
X-ray	3.8	2.6	6.7
Sonography /ultrasound	13.8	6.4	32.9
Amniocentesis	1.2	0.8	2.1
Antenatal advice			
Diet	67.0	62.8	77.9
Danger signs of pregnancy	44.8	43.4	48.5
Delivery care	30.4	29.5	32.8
Breast feeding	21.4	18.3	29.4
New born care	22.7	21.6	25.7
Family planning	26.6	28.1	22.8
Number of women who received any antenatal check-up	4,503	3,255	1,248
Note: * Women who had their last live/still birth since 1-1-1999/1-1-2001			

4.6 Antenatal Care Services

In India, the Reproductive and Child Health Programme includes all pregnant women should be registered in the first 12-16 weeks (Ministry of Health and Family Welfare, 1997). Accordingly, the first antenatal check-up should take place at latest during the first trimester of the pregnancy. It also includes the provision of at least three antenatal care visits, of at least one tetanus toxoid injection, and supplementary iron in the form of IFA tablets daily for 100 days. To assess whether the women had received all the care during pregnancy, information was collected regarding number of antenatal visits, timing of the first visit, receipt of tetanus toxoid injection and supplement iron folic acid tablets. The results are presented in Table 4.6. In West Bengal, 65 percent of the women received at least three antenatal check-ups and 46 percent had four or more check-ups. At least three antenatal check-ups were received by 85 percent of women in urban areas compared with 58 percent of women in rural areas. Number of visits for antenatal care varies by education, children ever born, religion, caste and standard of living index. Fifty percent of non-literate women, 70 percent literate women (educated below high school) and 91 percent of women who had 10 or more years of schooling reported a minimum of three antenatal care visits. Parity of women is negatively associated with the number of antenatal check-ups. About three fourth of women with parity one received three antenatal check-ups compared to less than half of the women with parity 4 and above.

Table 4.6 ANTENATAL CARE

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

Antenatal care indicators	Total	Residence		Education			Children ever born				
		Rural	Urban	Non-literate	0-9@ years	10 years & above	1	2	3	4+	
Number of ANC visits											
No visit	9.3	11.1	4.3	15.1	6.3	2.2	4.4	8.3	11.0	20.3	
1	5.9	7.1	2.6	7.2	5.9	1.8	4.6	5.4	4.7	10.5	
2	20.2	24.4	8.6	27.5	17.9	5.3	15.3	20.3	27.4	23.8	
3	18.5	20.1	14.1	22.6	18.6	3.9	14.9	19.6	18.6	23.6	
4+	46.1	37.4	70.4	27.7	51.3	86.9	60.8	46.4	38.2	21.9	
Stage of pregnancy at the time of the first antenatal check-up											
No antenatal check-up	9.3	11.1	4.4	15.1	6.3	2.2	4.4	8.3	11.0	20.3	
First trimester	40.1	32.9	60.3	26.6	41.9	77.9	51.2	39.6	31.8	24.9	
Second trimester	44.0	48.2	32.5	50.3	45.4	17.8	39.6	46.3	49.5	44.1	
Third trimester	6.6	7.9	2.8	8.1	6.4	2.1	4.7	5.9	7.7	10.8	
Women who received TT											
No TT	7.5	8.6	4.5	11.2	5.3	3.6	4.9	5.8	7.5	16.2	
1	5.8	6.2	4.6	7.3	5.1	3.4	3.0	7.1	7.3	8.3	
2+	86.2	84.8	90.1	80.9	89.1	92.5	91.9	86.3	84.6	75.4	
Do not remember/missing	0.5	0.4	0.7	0.5	0.4	0.5	0.3	0.8	0.6	0.1	
Women who received IFA tablets/syrup											
No IFA/syrup	27.6	25.8	32.4	31.2	24.9	25.8	20.8	26.5	31.1	41.2	
Received but not consumed	4.7	5.3	3.1	4.4	5.3	3.2	5.1	5.2	5.1	2.8	
Consumed one IFA per day	48.8	50.5	43.9	46.7	49.9	51.7	53.5	48.9	47.5	39.4	
Received 100+ IFA tablets/syrup	18.1	15.9	24.0	13.2	18.0	34.6	21.4	19.1	14.4	12.6	
Percentage of women who received full ¹ antenatal check-ups	14.0	11.0	22.3	8.4	14.2	31.9	18.0	14.4	9.9	8.4	
Number of women	4,964	3,660	1,305	1,999	2,361	599	1,775	1,553	762	829	

Note: Total includes 45 women with zero parity and 5 women with missing information on education who were not shown separately.

@ Literate women with no years of schooling are also included. ¹ At least three visits for antenatal check-ups, at least one TT injection received and were given adequate amount of IFA tablets/syrup.

Continued.....

Table 4.6 ANTENATAL CARE (contd..)

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

Antenatal care indicators	Religion			Caste#				Standard of living index			Availability of health facility ² in the village	
	Hindu	Muslim	Other	Scheduled caste	Scheduled tribe	Other backward class	Other	Low	Medium	High	No	Yes
Number of ANC visits												
No visit	6.6	15.2	13.4	6.7	16.8	15.2	9.0	12.2	6.2	1.5	12.2	10.2
1	4.8	8.4	6.8	6.3	8.0	4.0	5.4	7.2	4.3	2.9	6.8	7.3
2	18.0	25.3	17.8	25.3	20.3	17.8	17.3	26.8	13.3	3.1	24.4	24.4
3	17.4	21.3	11.2	20.7	27.9	17.2	16.6	21.7	17.0	5.4	21.9	18.5
4+	53.1	29.9	50.7	41.0	26.9	45.8	51.6	32.0	59.1	87.1	34.7	39.7
Stage of pregnancy at the time of the first antenatal check-up												
No antenatal check-up	6.7	15.2	13.4	6.8	16.8	15.2	9.0	12.3	6.2	1.6	12.2	10.2
First trimester	43.0	33.1	48.4	32.9	31.1	41.7	44.9	28.2	49.6	78.0	32.4	33.2
Second trimester	45.0	42.5	33.9	53.4	46.1	38.9	39.8	51.0	39.7	19.0	47.1	49.0
Third trimester	5.4	9.3	4.3	6.9	5.9	4.2	6.3	8.5	4.5	1.4	8.3	7.6
Women who received TT												
No TT	6.7	9.3	8.8	6.4	13.2	11.3	7.2	9.0	6.2	2.9	10.2	7.3
1	5.3	6.3	18.7	5.7	9.2	2.8	5.2	6.6	4.3	5.2	6.1	6.4
2+	87.5	84.0	72.5	87.4	77.2	85.4	87.2	84.0	89.1	90.8	83.4	86.0
Do not remember/missing	0.5	0.3	0.0	0.5	0.4	0.4	0.5	0.3	0.5	1.1	0.4	0.3
Women who received IFA tablets/syrup												
No IFA/syrup	24.6	33.8	35.3	19.3	28.2	33.2	30.7	27.0	28.3	28.6	27.3	24.6
Received but not consumed	4.5	5.5	1.3	4.4	2.2	4.7	5.1	4.9	4.8	3.6	4.9	5.6
Consumed one IFA per day	50.5	44.6	53.2	55.1	54.7	43.4	45.4	50.8	46.7	43.3	47.8	52.7
Received 100+ IFA tablets/syrup	20.4	12.3	27.8	17.5	19.4	24.2	18.0	15.5	16.2	35.9	15.9	16.0
Percentage of women who received full ¹ antenatal check-ups	16.4	7.9	25.1	12.1	13.6	19.3	14.6	10.2	13.8	33.6	11.2	10.8
Number of women	3,399	1,492	74	1,349	330	274	2,800	2,984	1,400	580	1,637	2,023

Note: ¹ At least three visits for antenatal check-ups, at least one TT injection received and was given adequate amount of IFA tablets/syrup. # Total figure may not add to N due to don't know and missing cases. ² Includes sub-centre, primary health centre, community health centre or referral hospital, government hospital, and government dispensary within the village.

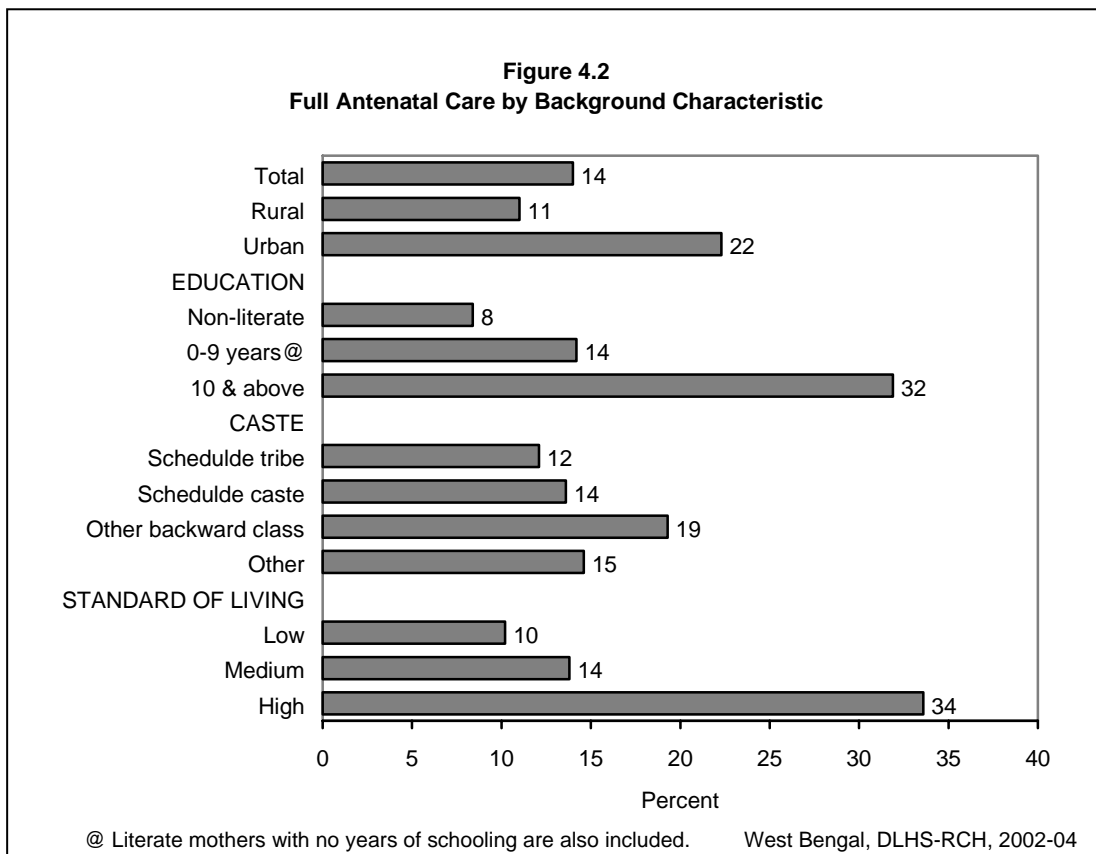
Hindu women (71 percent) were more likely to have at least three visits for antenatal check-ups than Muslim women (51 percent) and women from 'other' religions (62 percent). Coverage is substantially lower for women from scheduled tribes (55 percent) than non-scheduled tribe women (63-68 percent). Having three or more antenatal visits also increased with the standard of living-54 percent for women with a low standard of living, 76 percent for women with a medium standard of living and 93 percent for women with a high standard of living. Availability of health facility in the village does not make any difference to the minimum three visits for antenatal check-ups.

Data on timing of first antenatal check-up shows that about two-fifth of the women received their first antenatal check-up in the first trimester of pregnancy, and another 44 percent received their first check-up in the second trimester, while 7 percent of women received their first check-up in the third trimester. A relatively higher proportion of women in the urban areas (60 percent) as compared to those in rural areas (33 percent) had a check-up in the first trimester of pregnancy. The first antenatal check-up in the first trimester has steadily increased with education. Twenty-seven percent of non-literate women had undergone their first antenatal check-up in the first trimester, and 78 percent of women who had completed at least 10 years of schooling received their first antenatal check-up in the first trimester. More than half of the women (51 percent) with parity-1 were visited in first trimester and only one-quarter (25 percent) women with parity-four and above had undergone antenatal check-up in first trimester. Muslim women were less likely to go for first antenatal check-up in first trimester of their pregnancy as compared to Hindu women and women of other religion, and less than one-third (31 percent) of scheduled tribe women were visited in first trimester for first antenatal check-ups compared with 33 percent to scheduled caste women, 42 percent of other backward class of women and 45 percent women from 'other' caste category. Twenty-eight percent women with low standard of living, 50 percent with medium standard of living, and 78 percent of women with high standard of living respectively had undergone their first antenatal check-up in the first trimester of their pregnancy period.

Nutritional deficiencies in women are often exacerbated during pregnancy because of the additional nutrient requirements of foetal growth; therefore a pregnant woman needs six times more iron than a non-pregnant woman. The information on receipt of iron folic acid tablets/syrup during pregnancy was also collected. Table 4.6 shows that women in West Bengal received IFA supplements for more than two-third (72 percent) of the last birth during three years preceding the survey. The coverage of IFA tablets is relatively higher in rural areas (74 percent) than in urban areas (68 percent). IFA coverage is much below for non-literate women, women with medium standard of living, scheduled caste and tribe women, and women of higher parity. IFA coverage is also lower among 'other' religion women (65 percent) than Hindu (75 percent) and Muslim (66 percent) women. Again, during pregnancy in the last three years preceding the survey, only 18 percent of women received 100 or more IFA, 16 percent in rural areas and 24 percent in urban areas. Intake of 100 or more IFA is positively associated with education and standard of living index and negatively

associated with parity. Women from other religions and other backward classes received 100 or more IFA than their counterparts. Such a large difference in receiving IFA or intake of 100 or more IFA tablets/syrup is not found while analysing the situation by availability of health facility in the village.

For the last live birth or stillbirth during the three years preceding the survey, women were asked whether they were given tetanus toxoid injection to prevent them and their baby from getting tetanus. Table 4.6 shows that eighty six percent of the women received two or more tetanus toxoid injections. Coverage of two or more TT injection is slightly higher in urban areas (90 percent) than that in rural areas (85 percent). The coverage of at least one tetanus toxoid injection for Hindu women (93 percent) is more than that for Muslim women (90 percent) and women from other religions (91 percent). Coverage of at least one tetanus toxoid injection is almost similar for scheduled tribe (86 percent), scheduled caste (93 percent), other backward classes (88 percent), and for 'other' caste category women (92 percent). Non-literate women received at least one tetanus toxoid injection for 88 percent of their last birth, whereas literate women with 9 years of schooling received at least one tetanus toxoid injection for 94 percent, and women who had completed 10 years or more of schooling received at least one tetanus toxoid injection for 96 percent of their last births. Ninety six percent of women with a high standard of living received at least one tetanus toxoid injection, and 91-92 percent women with low or medium standard of living received at least one tetanus toxoid injection for their last live/still birth. The coverage varies inversely by parity. At least one tetanus toxoid injection was received by 95 percent women of Parity-1 compared with 84 percent of Parity 4 and above.



The percentage of women who received full antenatal care, (that is, at least three antenatal check-ups, and at least one tetanus toxoid injection and supplementary iron in the form of IFA tablets daily for 100 days as recommended by the RCH programme) is presented in Figure 4.2. Only 14 percent of women in West Bengal received full antenatal care. Coverage of full antenatal care is low for non-literate women, women with higher parity, Muslim women, women from scheduled caste, women with a low standard of living, and women from those villages where health facilities are available. Full antenatal coverage was also lower in rural areas (11 percent) than in urban areas (22 percent).

4.7 Antenatal Care Indicator by District

Table 4.7 shows the percentage of women who had given live/still birth during the three years preceding the survey who received different types of antenatal care; (the percentage who received antenatal check-up in the first trimester of pregnancy, the percentage who received at least three antenatal check-ups, the percentage who received at least one tetanus toxoid injection, the percentage given 100 or more iron folic acid tablets/syrup, and the percentage who received full antenatal care services) by district.

Table 4.7 ANTENATAL CARE INDICATORS BY DISTRICT					
Percentage of women* who received different type of antenatal care by district, West Bengal, 2002-04					
District	Percentage that received an antenatal check-up in the first trimester of pregnancy	Percentage that received three or more antenatal check-ups	Percentage that received at least one tetanus toxoid injection	Percentage that received adequate amount of IFA ¹	Percentage that received full ² antenatal check-ups
Bankura	36.1	74.8	95.7	29.4	23.1
Bardhaman	50.5	63.6	92.7	14.1	10.1
Birbhum	35.1	63.0	92.8	12.9	10.8
Dakshin Dinajpur	44.5	68.2	90.2	18.0	14.5
Darjiling	36.0	51.3	87.9	12.8	8.9
Haora	44.6	77.9	93.3	20.2	17.6
Hugli	48.3	78.1	91.6	31.4	26.4
Jalpaiguri	32.7	61.6	92.8	24.1	18.0
Koch Bihar	35.9	47.0	94.5	13.7	8.3
Kolkata	58.3	91.6	96.8	21.0	19.9
Maldah	47.5	62.2	92.6	19.7	14.3
Medinipur	39.9	73.9	93.0	15.0	13.0
Murshidabad	32.9	39.4	88.0	14.9	6.9
Nadia	39.2	67.6	98.6	14.4	11.9
North 24 Parganas	48.3	64.5	92.0	25.0	20.4
Puruliya	34.4	69.8	85.7	19.5	14.9
South 24 Parganas	27.0	65.4	93.2	11.5	8.0
Uttar Dinajpur	32.2	42.7	80.2	9.8	6.5
West Bengal	40.1	64.6	92.0	18.1	14.0

Note: * Women who had their last live/still birth since 1-1-1999/1-1-2001. ¹ 100 or more iron folic acid tablets including syrup. ² At least three visits for antenatal check-ups, at least one TT injection received and adequate amount of IFA.

The utilisation of antenatal care services differs from district to district. In 2 out of 18 districts, viz., Bardhaman and Kolkata more than half the women received their first antenatal check-up in the first trimester of pregnancy. The percentage of women who received at least three visits for antenatal check-ups ranges from 39 percent in Murshidabad to 92 percent in Kolkata. In three districts namely Murshidabad, Uttar Dinajpur and Koch Bihar, the coverage of at least three visits of ANC is less than 50 percent (see Map-3). There has been good coverage of tetanus toxoid injection in the all districts, ranging from 80 to 99 percent, but on the other hand, performance regarding receipt of 100 or more IFA is poor. In all the districts, the value ranges from 10 to 31 percent, and it is lowest in Uttar Dinajpur. The percentage of women who received full antenatal care ranges from 7 percent in Uttar Dinajpur and Murshidabad to 26 percent in Hugli. In 9 of 18 districts, Uttar Dinajpur, Murshidabad, South 24 Parganas, Koch Bihar, Darjiling, Bardhaman, Birbhum, Nadia and Medinipur coverage of full antenatal care is below than that of the state average.

4.8 Pregnancy Complications and Treatment

Complications during pregnancy may affect both women's health and the outcome of the pregnancy adversely. Early detection of complications during pregnancy and their management are important components of the safe motherhood programme. In the survey, all the eligible women who had given last live or still birth during the three years preceding the survey were asked if at any time during the pregnancy, they had experienced any of the following pregnancy related problems such as swelling of hands and feet, paleness, visual disturbance, vaginal bleeding, convulsions, weak or no movement of foetus, abnormal position of foetus, and other problems. All the information is based on women's self reporting which is presented in Table 4.8 and Figure 4.3.

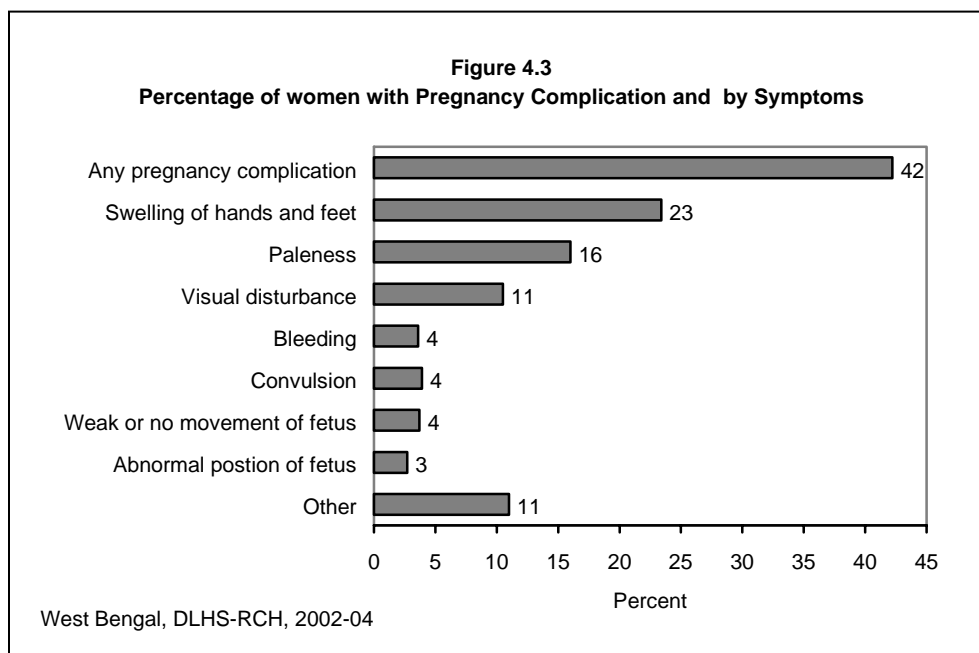


Table 4.8 PREGNANCY COMPLICATIONS

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

Background characteristic	Percentage of women with any pregnancy complication	Type of pregnancy complication;								Number of women
		Swelling of hands and feet	Paleness	Visual disturbances	Bleeding	Convulsion	Weak or no movement of foetus	Abnormal position of foetus	Other	
Age group (years)										
15-19	41.2	19.8	15.5	10.3	4.9	4.5	4.2	3.1	10.9	1,004
20-24	38.8	21.1	14.7	9.7	2.5	3.1	3.2	3.0	9.8	1,976
25-29	43.8	26.3	15.4	10.7	4.7	3.8	2.9	2.3	11.5	1,254
30-34	50.0	29.7	21.5	12.3	3.2	6.1	5.2	2.5	12.2	520
35-39	50.1	32.5	17.5	14.4	2.6	3.1	8.0	2.9	16.8	166
40-44	(47.6)	(19.0)	(21.4)	(16.7)	(4.8)	(4.8)	(4.8)	(2.4)	(14.3)	42
Children ever born										
1	42.2	25.9	12.0	6.6	4.3	2.7	4.1	4.0	9.4	1,775
2	37.5	21.2	15.8	9.5	2.0	2.9	3.0	1.9	9.1	1,553
3	43.0	19.5	15.8	14.4	3.7	5.5	2.4	2.3	14.1	762
4+	49.3	25.7	24.4	16.8	4.9	7.0	4.6	2.2	14.4	829
Residence										
Rural	42.7	22.6	17.4	12.8	3.4	4.3	3.7	3.1	11.2	3,660
Urban	40.8	25.7	12.0	4.2	4.1	2.8	3.6	1.8	10.3	1,305
Standard of living index										
Low	43.1	22.1	18.3	14.3	4.1	4.5	3.7	3.0	10.7	2,984
Medium	40.6	24.3	13.7	6.0	2.8	3.2	3.2	2.3	11.6	1,400
High	41.2	28.0	9.6	1.9	3.1	2.2	4.7	2.5	10.9	580
Received any ANC										
Yes	43.3	23.9	15.8	10.6	3.5	3.9	3.8	3.0	11.6	4,503
No	31.4	18.3	17.9	9.5	5.1	3.9	2.4	0.6	5.0	461
Total	42.2	23.4	16.0	10.5	3.6	3.9	3.7	2.7	11.0	4,964

Note: Total includes 45 women with zero parity, who were not shown separately. @ Literate women with no years of schooling are also included. () Based on less than 50 unweighted cases.

About 42 percent of the women experienced at least one pregnancy related problem. The proportion is higher among rural women (43 percent) than among urban women (41 percent). Women aged 30 years and above, and women with higher parity face at least one pregnancy related problem more than younger women and women with low parity do. This proportion is relatively higher among women who had received some kind of antenatal care during the pregnancy. Forty three percent of women who had an antenatal check-up reported that they had experienced at least one problem during their pregnancy while 31 percent of women did not receive any antenatal check-up during their pregnancy fall in this category. The major problems reported were 'swelling of hand and feet' (23 percent), 'paleness' (16 percent), and 'visual disturbance' (11 percent). Only 3 percent reported 'abnormal position of foetus', and 'vaginal bleeding', 'convulsions', and 'weak or no movement of foetus' (4 percent each). Other problems related to pregnancy were reported by 11 percent of women. Swelling of hands and feet is more common among older women, women with parity-1 and parity-4 and above, and women with high a standard of living. The percentage of women who were more anaemic belonging to the age group 30-34 years, and 40-44 years, women from rural areas, women with a low standard of living and women who did not receive any kind of antenatal care during the pregnancy. Anaemia, visual disturbance, and convulsion increased steadily with increase of parity, whereas women with parity-1 reported vaginal bleeding, weak or no movement of foetus and abnormal position of foetus more. The younger women (15-19 years of age) were more likely to report vaginal bleeding and abnormal position of foetus as pregnancy complications.

Women who reported at least one pregnancy related complication were asked whether they had consulted someone or had sought treatment for their problem and also the source of treatment. Table 4.9 shows the percentage of women who had pregnancy complications who obtained advice or had sought treatment by source of treatment according to residence and availability of health facility in the village. Fiftythree percent of women reported that they had obtained advice or consulted someone for their problem. The proportion was higher among urban women (60 percent) than among rural women (51 percent), and 50 percent of women sought treatment from those villages where health facility was available as compared to 52 percent of women with non-availability of health facility within the village.

Among women who sought treatment for pregnancy complications, 28 percent visited a government health facility including a primary health centre (4 percent) and sub-centre (7 percent). More than half of them visited a private health facility, and 9 percent had gone to a facility with the Indian system of medicine, while another 11 percent obtained advice from another health facility. The proportion of women who visited a private health facility is higher in urban areas (61 percent) than in rural areas (57 percent). Among women who sought treatment, 85 percent went to a doctor and 6 percent to an auxiliary nurse midwife or nurse or LHV, and another 7 percent to someone else. Ninetyfive percent of these women in urban areas, and 81 percent in rural areas were examined by a doctor, whereas ANM/Nurse/LHV examined 7 percent women in rural areas and 2 percent in urban areas.

Table 4.9 TREATMENT FOR PREGNANCY COMPLICATIONS					
Percentage of women* who had any pregnancy complication, sought treatment and source of treatment according to residence and availability of health facility in the village, West Bengal, 2002-04					
Treatment and source	Total	Residence		Availability of health facility ⁵ in the village	
		Rural	Urban	No	Yes
Percentage of women sought treatment who had any pregnancy complication	53.3	50.9	60.2	51.5	50.4
Number of women	2,094	1,562	533	716	846
Percentage sought treatment at health facility					
Government health facility ¹	28.2	28.3	28.0	29.7	27.1
Primary health centre	3.8	5.1	0.8	6.3	3.9
Sub centre	6.5	8.1	2.6	5.9	10.0
Private health facility ²	58.1	56.8	61.3	55.8	57.7
ISM ³ facility	9.4	10.5	6.8	10.1	10.9
Other	10.5	12.0	6.7	12.1	12.0
Percent distribution of women who obtained treatment from					
Doctor	85.1	81.4	94.5	83.0	79.9
ANM/nurse/midwife/LHV	5.8	7.4	1.8	6.3	8.4
Other ⁴	6.6	8.8	1.1	8.5	9.1
Missing	2.5	2.4	2.6	2.2	2.6
Total percent	100.0	100.0	100.0	100.0	100.0
Number of women	1,116	796	321	369	426
Note: ¹ Include municipal hospital, dispensary, urban health centre/urban health post/urban family welfare centre, community health centre/rural hospital, primary health centre and sub centre. ² Include private hospital/clinic and non-governmental organization/trust hospital. ³ Either government or private Indian system of medicine. ⁴ Other includes <i>Dai</i> (trained or untrained), other health professional and ISM practitioner. ⁵ Includes sub-centre, primary health centre, community health centre or referral hospital, government hospital, and government dispensary within the village.					

4.9 Delivery Care

4.9.1 Place of Delivery

One of the important thrusts of the Reproductive and Child Health Programme is to encourage deliveries under proper hygienic conditions under the supervision of trained health professionals. The provision of delivery services in the government health institutions is one of the components of the RCH programme. For each live/still birth during three years preceding the survey, DLHS-RCH asked the women where (place) their children were born, who assisted during the deliveries in case of home deliveries, characteristics of delivery, and any problems that occurred during the delivery. Table 4.10 and Figure 4.4 present the place of delivery. A little more than one third of the birth (34 percent) took place in government health institutions, 12 percent in private health

institutions, and a large proportion of births (52 percent) took place at home. About threefourth of the deliveries in urban areas and onethird of the deliveries in rural areas took place in health institutions. Deliveries in health facilities in West Bengal rose from 39 percent in Round-I to 46 percent in Round-II.

Table 4.10 PLACE OF DELIVERY						
Percent distribution of women who had given live/still births during three years preceding the survey, by place of delivery, according to selected background characteristics, West Bengal, 2002-04						
Background characteristics	Health institutions				Total percent	Number of women
	Public	Private	Home	Other		
Age group (in years)						
Below 20	41.2	7.6	49.5	1.7	100.0	1,004
20-34	33.5	12.8	51.8	1.9	100.0	3,751
35 and above	16.3	17.9	58.6	7.2	100.0	209
Children ever born						
1	46.6	18.2	31.1	4.1	100.0	1,775
2	33.7	12.3	52.9	1.2	100.0	1,553
3	25.2	6.7	67.1	1.0	100.0	762
4+	16.6	3.3	79.9	0.2	100.0	829
Residence						
Rural	28.1	6.6	64.4	1.0	100.0	3,660
Urban	51.7	27.1	15.9	5.3	100.0	1,305
Education						
Non-literate	23.5	3.0	72.9	0.5	100.0	1,999
0-9@ years	42.7	11.3	43.9	2.1	100.0	2,361
10 years & above	37.4	44.4	10.8	7.3	100.0	599
Religion						
Hindu	41.3	14.6	41.5	2.6	100.0	3399
Muslim	18.8	4.7	75.5	0.9	100.0	1492
Other	25.5	36.1	38.4	0.0	100.0	74
Caste#						
Scheduled caste	38.2	5.9	54.7	1.2	100.0	1,349
Scheduled tribe	25.5	4.0	69.4	1.1	100.0	330
Other backward class	41.7	15.0	42.1	1.2	100.0	274
Other	33.0	15.9	48.2	2.8	100.0	2,800
Standard of living index						
Low	26.2	4.2	68.8	0.8	100.0	2,984
Medium	50.6	12.8	34.3	2.2	100.0	1400
High	36.6	49.9	5.1	8.4	100.0	580
Number of antenatal check-ups						
No check-up	19.6	5.1	75.1	0.3	100.0	462
1	17.9	6.6	75.5	0.1	100.0	293
2	23.0	4.6	71.5	0.9	100.0	1,003
3	34.0	4.0	61.3	0.7	100.0	918
4+	44.4	20.5	31.3	3.8	100.0	2,288
Delivery characteristics						
Normal	32.1	7.4	59.2	1.3	100.0	4,191
Caesarean	45.3	41.3	5.5	7.8	100.0	596
Assisted	49.3	22.6	26.0	2.0	100.0	158
Availability of health facility¹ in the village						
No	28.2	5.8	65.5	0.6	100.0	1,637
Yes	28.0	7.2	63.5	1.3	100.0	2,023
Total	34.3	12.0	51.6	2.1	100.0	4,964

Note: Total includes 45 women with zero parity, 5 with missing information on education, and 20 on delivery characteristics who were not shown separately. # Total figure may not add to N due to do not know and missing cases. @ Literate women with no years of schooling are also included. ¹ Includes sub-centre, primary health centre, community health centre or referral hospital, government hospital, and government dispensary within the village.

The proportion of births occurring in health institutions is higher for young women under 35 years (46-49 percent) than for women aged 35 years and above (34 percent). Institutional deliveries, particularly in private health facilities, increase sharply with education and the standard of living. Around one-fourth (27 percent) of the births to non-literate women and 82 percent births to literate women who had completed at least 10 or more years of schooling took place at health institutions. Women with a high standard of living were more likely to give birth in health institutions than women with a low standard of living (Figure 4.4). The proportion of institutional deliveries decreases as parity increases from parity one (65 percent) to parity four and above (20 percent). Institutional delivery is much lower for Muslim women (24 percent) than for Hindus (56 percent) and other religion women (62 percent). Only 30 percent births of women from scheduled tribes are institutional deliveries as compared to 44 percent of births to women from scheduled castes, 57 percent in case of women from other backward classes and 49 percent of births to women from the 'other' caste category. Institutional deliveries are more common among women who had four or more antenatal check-ups (65 percent) than among who had fewer antenatal check-ups (25-38 percent). Institutional deliveries are least prevalent among births to women who did not receive any antenatal check-ups (25 percent). As expected, a large proportion of births occurred through caesarean section (87 percent), and 72 percent of assisted deliveries took place at health institutions. At the same time, 6 percent of caesarean deliveries and 26 percent of assisted deliveries took place at home. Thirty five percent of births took place at health institutions in the village with availability of health facility compared to 34 percent of births from villages without any health facility.

4.9.2 Assistance During Home Delivery

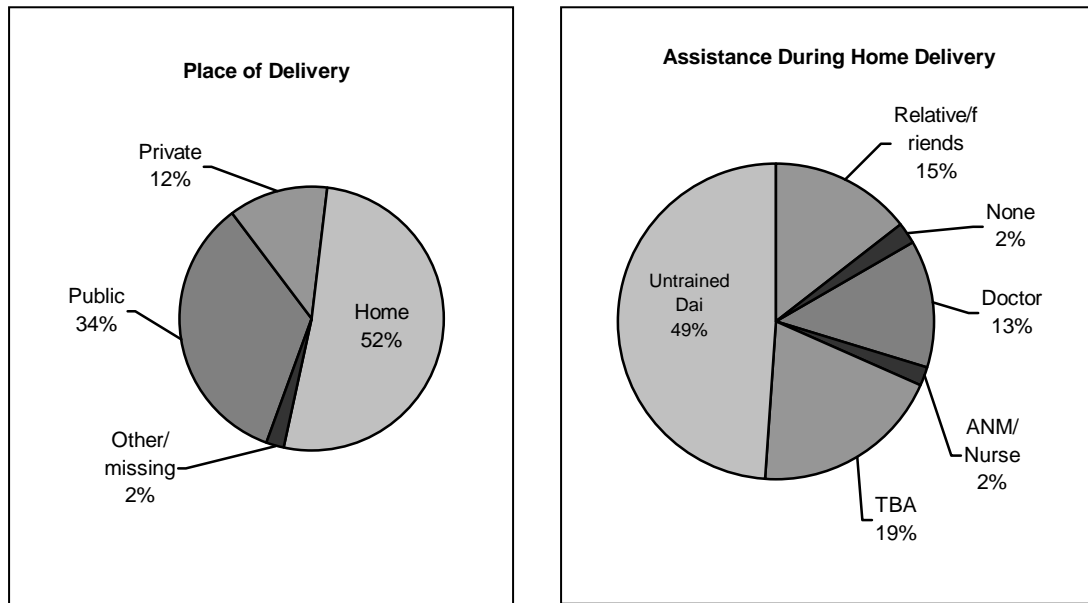
Table 4.11 shows distribution of assistance during home delivery by selected background characteristics. Generally, assistance during delivery can be provided by medical staff (doctors, ANM/nurse/LHV, TBA, un-trained *dai*), and relatives/friends. If more than one type of attendant assisted during the delivery, then only the most qualified person is considered. In the last three years only 13 percent of home deliveries were attended by doctors, two percent by ANM or nurse or LHV, 19 percent by trained birth attendants, 49 percent by untrained *dais*, 15 percent were attended by relatives and friends and 2 percent of home deliveries were not attended by anyone (Figure 4.4). Overall, health professionals attended 15 percent of deliveries that took place at home. The percentage of births (home delivery) attended by health professionals do not differ much by woman's age. About 15-16 percent of births attended by health professional for women age below 20 and 20-34 years and only 7 percent of births for women age 35 and above were attended by health professionals. In rural areas, 15 percent of births were attended by health professionals as compared to 17 percent of that in urban areas. The percentage of births attended by health professionals decreased steadily with increase in parity of women.

Births to literate women who had completed 10 or more years of schooling which were attended by health professionals is three times higher than those of non-literate women. About one-fourth (24 percent) of home deliveries to women with a medium standard of living and 13 percent of deliveries to women with a low standard of living were attended by health professionals. Home deliveries are more likely to be attended by health professionals among Hindu women (18 percent) than among Muslim women (11 percent). Only 14 percent of births to women from scheduled castes, 16 percent to scheduled tribes, 12 percent to other backward classes and 16 percent to women belonging to 'other castes' category were attended by health professionals. Ten percent of home deliveries to women who did not have any antenatal check-ups were attended by health professionals compared to 24 percent of home deliveries to women who had four or more antenatal check-ups. About 14 percent of home deliveries that were normal were attended by health professionals, which differ substantially from births by either caesarean section or assisted (53-62 percent), but the result should be interpreted with caution due to the small number of cases. Fifteen percent home deliveries were attended by health professionals in villages with non-availability of a health facility as well in villages with availability of a health facility.

Table 4.11 ASSISTANCE DURING HOME DELIVERY AND SAFE DELIVERY								
Percent distribution of women who had given live/still births during three years preceding the survey, by assistance during home delivery, and percentage of safe delivery, according to selected background characteristics, West Bengal, 2002-04								
Background characteristics	Attendant assisting during home delivery ¹						Number of women	Percentage of safe ² delivery
	Doctor	ANM/ Nurse/ LHV	TBA	Un- trained <i>dai</i>	Relative / friends	None		
Age group (in years)								
Below 20	14.5	0.6	19.2	49.0	14.9	1.8	497	56.3
20-34	13.2	2.5	19.3	48.2	14.7	2.2	1,944	54.4
35 and above	4.3	2.5	22.8	56.5	9.6	4.4	122	38.1
Children ever born								
1	18.4	1.9	19.7	46.1	11.5	2.3	552	71.1
2	15.0	2.7	17.5	48.3	14.6	2.1	821	55.3
3	9.7	1.6	22.3	48.8	16.1	1.4	511	39.5
4+	8.5	2.1	19.5	51.7	15.3	2.8	662	28.4
Residence								
Rural	13.2	1.8	19.3	48.4	14.9	2.4	2,356	44.3
Urban	10.7	6.4	20.9	52.0	10.0	0.0	208	81.5
Education								
Non-literate	9.8	1.4	18.6	53.5	14.0	2.6	1,458	34.7
0-9@ years	16.7	2.6	20.7	42.9	15.3	1.8	1,037	62.4
10 years & above	26.1	11.0	18.5	30.8	13.6	0.0	65	85.9
Religion								
Hindu	16.5	2.1	17.5	48.3	13.3	2.2	1,409	63.6
Muslim	8.9	2.0	21.8	49.0	16.1	2.2	1,126	31.8
Other	(6.3)	(6.3)	(18.8)	(50.0)	(15.6)	(3.1)	28	65.9
Caste#								
Scheduled caste	12.1	1.7	21.4	48.2	14.7	2.0	738	51.6
Scheduled tribe	11.3	4.7	12.1	59.5	11.6	0.7	229	40.6
Other backward class	11.3	0.8	21.0	54.5	9.8	2.7	115	61.8
Other	14.1	2.2	19.3	47.4	14.3	2.6	1,351	56.9
Standard of living index								
Low	11.4	1.7	19.4	50.5	14.5	2.4	2,053	39.4
Medium	19.9	3.6	19.1	40.9	15.2	1.3	481	71.5
High	(12.5)	(20.8)	(20.8)	(43.8)	(2.1)	(0.0)	30	87.4
Number of antenatal check-ups								
No check-up	8.4	1.3	19.9	53.7	14.7	2.0	347	31.9
1	12.0	2.3	24.2	45.5	12.7	3.2	221	35.2
2	10.1	0.8	19.3	52.4	14.9	2.5	718	35.4
3	11.4	1.6	18.5	53.8	12.7	1.9	563	45.9
4+	19.7	4.2	18.6	39.6	16.0	1.9	715	72.4
Delivery characteristics								
Normal	12.2	1.9	19.7	49.2	14.8	2.3	2,483	47.8
Caesarean	(43.3)	(10.0)	(10.0)	(33.3)	(3.3)	(0.0)	33	89.0
Assisted	(50.0)	(11.9)	(7.1)	(21.4)	(7.1)	(2.4)	41	86.9
Availability of health facility³ in the village								
No	12.8	2.0	16.8	50.6	15.0	2.7	1,071	43.6
Yes	13.5	1.5	21.3	46.6	14.8	2.2	1,284	44.8
Total	13.0	2.1	19.4	48.7	14.5	2.2	2,564	54.1

Note: Total includes 17 women with zero parity, 4 with missing information on education and 7 on delivery characteristics who were not shown separately. @ Literate women with no years of schooling are also included. # Total figure may not add to N due to do not know and missing cases. ¹ If the respondent mentioned more than one attendant, only the most qualified attendant is shown. ² Either institutional delivery or home delivery assisted by doctor/ANM/Nurse/LHV. ³ Includes sub-centre, primary health centre, community health centre or referral hospital, government hospital, and government dispensary within the village. () Based on less than 50 unweighted cases

Figure 4.4
Place of Delivery and Assistance During Delivery



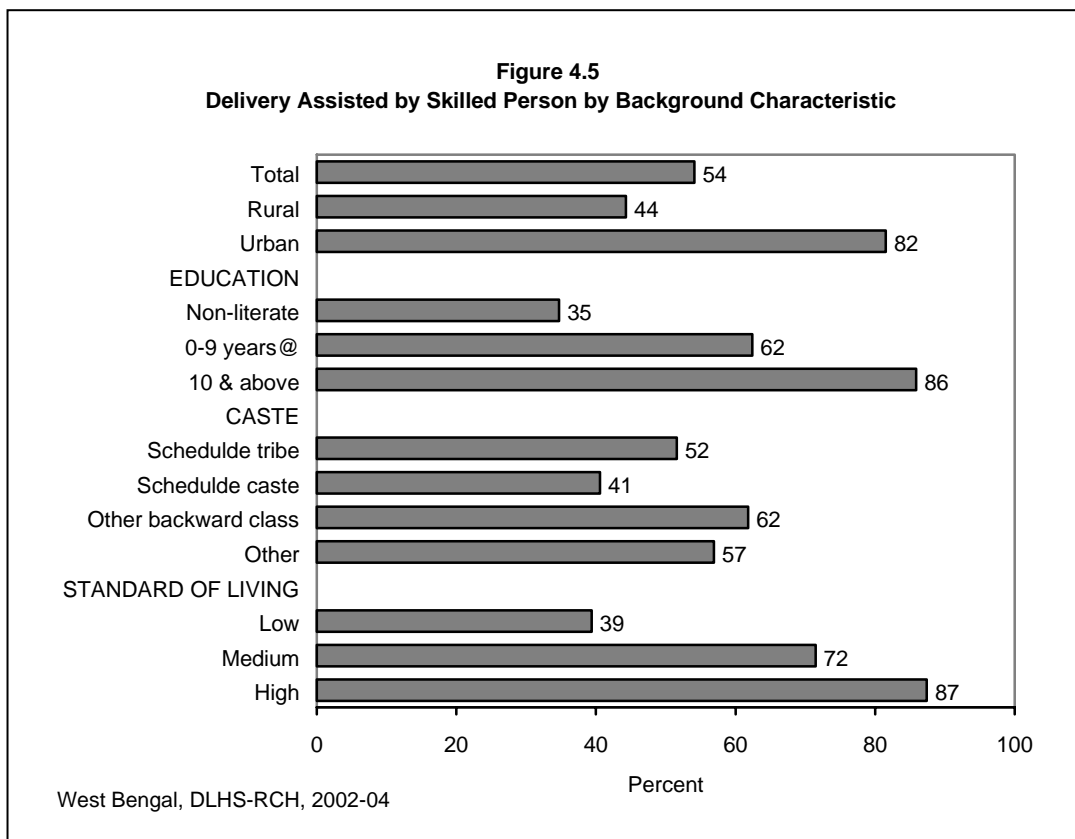
Note: Percentage may add more than 100.0 due to rounding

West Bengal, DLHS-RCH, 2002-04

4.9.3 Delivery Assisted by Skilled Persons

The extent of safe deliveries varied substantially by background characteristics of women (Table 4.11 and Figure 4.5). More than half of the births (54 percent) were safe in West Bengal. In urban areas, more than three-fourth (82 percent) of the deliveries were safe as against little more than two-fifth (44 percent) in rural areas. About 54-56 percent of the deliveries were safe for younger women aged below 35 than to elderly women (38 percent). The proportion of safe deliveries was much lower among Muslim women (32 percent) than among Hindu women and women from other religions (64-66 percent). Only 41 percent of births to women from scheduled tribe were safe deliveries, compared to 52 percent to women from scheduled castes, 62 percent to women from other backward classes, and 57 percent of births to women from 'other castes' category. Proportion of safe deliveries decreases as parity rises from 1 (71 percent) to 4 and above (28 percent). Safe deliveries were least prevalent among women who did not receive any antenatal check-ups (32 percent), and it is most prevalent among women who had four or more antenatal check-ups (72 percent). The proportion of safe deliveries increased

sizeably with woman's education and standard of living. Only thirtyfive percent of non-literate women had safe deliveries whereas its prevalence is 86 percent among women who had completed at least high school. Women with a high standard of living had 87 percent safe deliveries compared to 72 percent of women with a medium standard of living and 39 percent with a low standard of living. As compared to women who had caesarean and assisted deliveries (87-89 percent) only 48 percent of women with normal deliveries are safe deliveries. The proportion of safe deliveries was slightly higher in villages with a health facility than to women from those villages where health facilities are not available.



4.10 Reasons for Not Going to Health Institutions for Delivery

Table 4.12 shows the percentage distribution of women who did not deliver in health institutions in the three years preceding the survey. The main reason for not going to health institutions has been presented according to residence and availability of health facility in the village. A little less than onequarter (24 percent) of the women stated that it was not necessary to deliver in health institutions. It is surprising to see that a higher proportion of urban women (28 percent) than rural women (24 percent) felt this way. Also, 26 percent of women stated that it was not necessary to deliver in health institutions when their villages were equipped with health facilities, compared to 21 percent of women from villages where a health facility is not available. About 20 percent of the

women felt that it was not customary to deliver in health institutions. Other factors contributing for not going to health institutions for delivery were, 'it costs too much' (9 percent), 'no transportation' or 'health facility is too far' (4 percent), 'no time to go' (9 percent), 'family did not allow' (7 percent), 'better care at home' (5 percent), and 'other' (3 percent). About 12 percent reported lack of knowledge regarding the delivery facilities. Five percent women did not opt for institutional delivery due to poor quality of services. The corresponding figures were 6 percent in urban areas and 5 percent in rural areas. It needs to be mentioned that 12 percent of women from villages with a health facility reported lack of knowledge as a reason for not having delivery at home.

Table 4.12 REASONS FOR NOT GOING TO HEALTH INSTITUTIONS FOR DELIVERY					
Percent distribution of women who had given last live/still birth at home during three years preceding the survey by the main reason for not going to health institution for delivery, according to residence and availability of health facility in the village, West Bengal, 2002-04					
Reason	Total	Residence		Availability of health facility ¹ in the village	
		Rural	Urban	No	Yes
Not Necessary	24.0	23.7	28.4	21.0	25.9
Not customary	20.1	20.4	17.0	21.9	19.1
Cost too much	9.2	9.4	6.9	10.7	8.3
Health facility too far/ No transport	4.4	4.4	5.3	5.9	3.1
Poor quality service	5.4	5.4	6.3	5.1	5.6
No time to go	9.3	9.5	7.0	9.7	9.4
Family did not allow	6.8	6.7	7.5	5.5	7.7
Better care at home	5.3	5.5	3.0	4.6	6.2
Lack of knowledge	12.3	12.0	15.6	11.8	12.1
Other	3.2	3.2	3.0	3.8	2.7
Total percent	100.0	100.0	100.0	100.0	100.0
Number of women	2,564	2,356	208	1,071	1,284

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

4.11 Delivery Characteristics by District

Table 4.13 shows the delivery characteristics by district; institutional delivery (delivery in government or private health institutions), home delivery and attendant assistance during home delivery for last live/still birth to women during the three years preceding the survey. The proportion of institutional delivery is lowest in Uttar Dinajpur (21 percent) followed by Maldah (27 percent) and highest in Kolkata (82 percent).

Table 4.13 DELIVERY CHARACTERISTICS BY DISTRICT				
Place of delivery, assistance during home deliveries, and percentage of safe deliveries by district, West Bengal, 2002-04				
Districts	Percentage of women who had institutional delivery	Percentage of women who had delivery at home	Home delivery assisted by skilled ¹ persons	Percentage of safe ² delivery
Bankura	62.3	36.9	11.0	66.4
Bardhaman	58.9	35.4	8.9	62.0
Birbhum	48.1	51.9	9.0	52.8
Dakshin Dinajpur	44.9	55.1	9.3	50.0
Darjiling	42.9	53.9	8.5	47.5
Haora	56.7	40.5	22.3	65.7
Hugli	75.2	24.8	20.6	80.3
Jalpaiguri	40.2	59.8	7.0	44.4
Koch Bihar	36.9	62.0	5.3	40.1
Kolkata	82.1	15.1	(31.8)	86.9
Maldah	27.4	72.6	5.8	31.7
Medinipur	43.7	54.3	34.6	62.5
Murshidabad	33.2	64.4	9.4	39.2
Nadia	65.1	34.9	31.8	76.2
North 24 Parganas	50.2	43.4	11.3	55.1
Puruliya	48.9	51.1	21.7	60.0
South 24 Parganas	30.5	69.5	12.2	39.0
Uttar Dinajpur	20.6	79.4	7.9	26.9
West Bengal	46.3	51.6	15.1	54.1

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

Compared to delivery in a private health facility, deliveries in a government health facility are more common in all the districts of West Bengal. A little less than 50 percent of births are institutional delivery in the state, but in 11 of 18 districts, more than half of the births took place at home and in Uttar Dinajpur and Maldah more than 70 percent of deliveries are home deliveries. Except Kolkata, Medinipur and Nadia district, less than one third of home deliveries were attended by a health professional. The extent of safe deliveries also varies by district, in 9 of 18 districts, the proportion of safe deliveries is below the state average, it ranges from 27 percent in Uttar Dinajpur to 87 percent in Kolkata. The proportion of safe deliveries is less than 40 percent in three districts i.e. Uttar Dinajpur, Maldah, South 24 Parganas and Murshidabad (see Map-4).

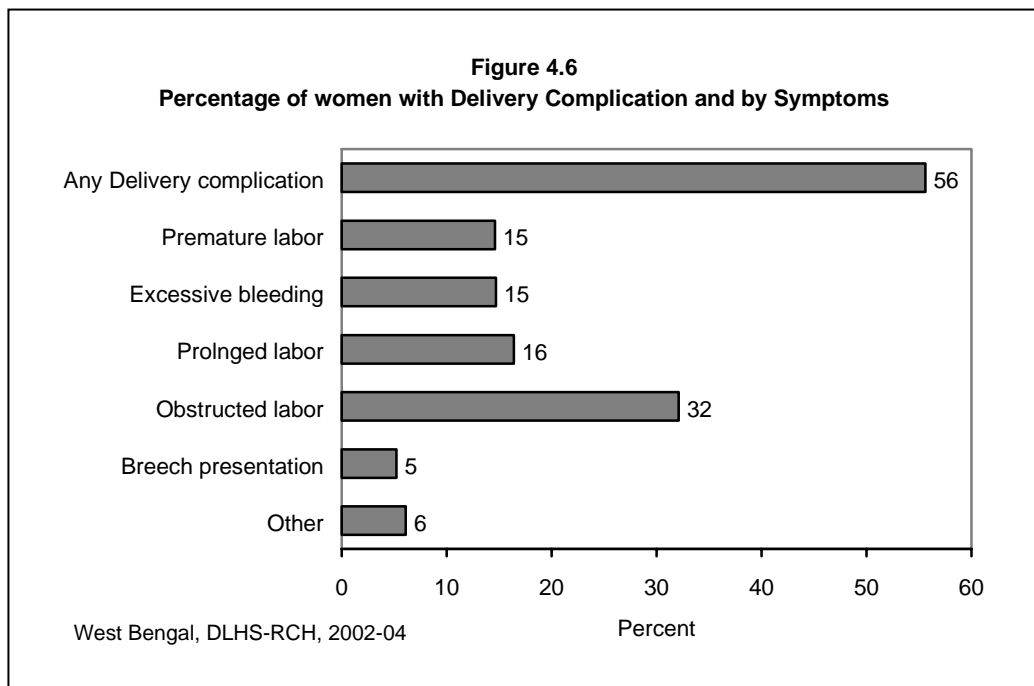
4.12 Complications During Delivery

Complications during delivery include ‘premature labour’, ‘obstructed labour’, ‘prolonged labour (more than 12 hours)’, ‘breech presentations’, ‘excessive bleeding during delivery’ and ‘other problems’ at the time of delivery reported by women during the three years preceding the survey. More than half the women experienced at least one problem during delivery (Table 4.14 and Figure 4.6). The proportion of delivery complications is higher among rural women (57 percent) than among urban women (51

percent). Younger women below the age of 20 years, and women with low parity (1-2) reported at least one delivery related problem than older women aged 35 years and above and women with higher parity. This proportion is relatively higher among women who had received some kind of antenatal care during their pregnancy. Forty three percent of women who did not have any antenatal check-up reported that they experienced at least one problem during their pregnancy, compared to 55-60 percent of women who had received some kind of antenatal check-up. Among women who had an assisted or caesarean delivery, 65-78 percent reported experiencing such problems, and 54 percent women with normal deliveries also cited complications during delivery. A relatively higher proportion of women who delivered in health institutions (56-59 percent) faced at least one delivery complication compared to those who delivered at home or other places (52-54 percent).

Table 4.14 DELIVERY COMPLICATIONS								
Percentage of women who had given last live/still births during three years preceding the survey by delivery complication, according to selected background characteristics, West Bengal, 2002-04								
Background characteristic	Any delivery complication	Type of delivery complication:						Number of women
		Premature labour	Excessive bleeding	Prolonged labour	Obstructed labour	Breech presentation	Other	
Age group (in years)								
Below 20	60.4	15.1	17.4	21.4	39.2	5.5	4.9	1,004
25-34	54.6	14.5	13.7	15.1	30.3	5.3	6.5	3,751
35 and above	50.5	13.0	20.6	15.3	29.2	3.9	4.8	209
Children ever born								
1	61.8	15.9	14.2	19.7	38.1	7.6	8.0	1,775
2	52.6	14.6	13.1	14.8	27.4	3.8	5.8	1,553
3	49.3	12.2	15.0	12.1	28.9	4.4	3.5	762
4+	53.4	13.2	18.1	15.5	30.8	3.4	4.9	829
Residence								
Rural	57.1	14.4	16.1	17.5	34.4	4.4	4.7	3,660
Urban	51.3	15.0	10.8	13.3	25.5	7.7	10.0	1,305
Number of antenatal check-ups								
No check-up	42.5	16.4	14.5	17.5	16.5	1.3	1.7	462
1	59.6	18.1	19.0	21.6	28.7	5.0	7.3	293
2	54.5	11.8	16.4	15.6	34.8	3.6	3.8	1,003
3	59.7	15.6	15.7	16.5	35.7	2.3	5.9	918
4+	56.5	14.6	13.1	15.8	33.1	8.0	7.9	2,288
Delivery characteristics								
Normal	53.5	14.7	15.5	16.7	31.0	3.3	3.7	4,191
Caesarean	64.6	11.6	9.4	11.7	35.2	16.7	19.7	596
Assisted	78.3	24.2	14.2	25.7	49.6	13.2	17.5	158
Place of delivery								
Government sector	58.7	18.1	12.5	20.4	34.2	7.8	6.4	1,702
Private sector	55.6	15.9	12.6	15.8	26.6	9.1	14.0	594
Home	53.6	11.7	16.6	14.0	32.4	2.6	3.9	2,564
Other	52.3	20.1	17.5	12.4	20.8	6.4	11.7	104
Total	55.6	14.6	14.7	16.4	32.1	5.2	6.1	4,964
Note: Table include 45 women with zero parity and 20 missing cases on delivery characteristic who were not shown separately.								

The major problems reported were ‘obstructed labour’ (32 percent), ‘prolonged labour’ (16 percent), ‘premature labour’ and ‘excessive bleeding’ (15 percent each). Only 5 percent reported ‘breech presentation’, and 6 percent reported ‘other’ problems related to delivery. Premature labour, prolonged labour, obstructed labour and breech presentation are more common among younger women, and women with low parity. Rural women were more likely to report delivery complications such as excessive bleeding, prolonged labour, and obstructed labour, whereas premature labour and breech presentations are more prevalent among urban women. Premature labour, prolonged labour, obstructed labour and other health problems related to delivery were more among women whose last delivery was assisted with instruments, and breech presentation was more likely among those who had a caesarean, and excessive bleeding during delivery than by women with normal delivery during the three years preceding the survey. Women whose recent delivery was performed in medical institutions were more likely to report premature labour, prolonged labour, breech presentation and obstructed labour compared with place of delivery other than medical institutions.



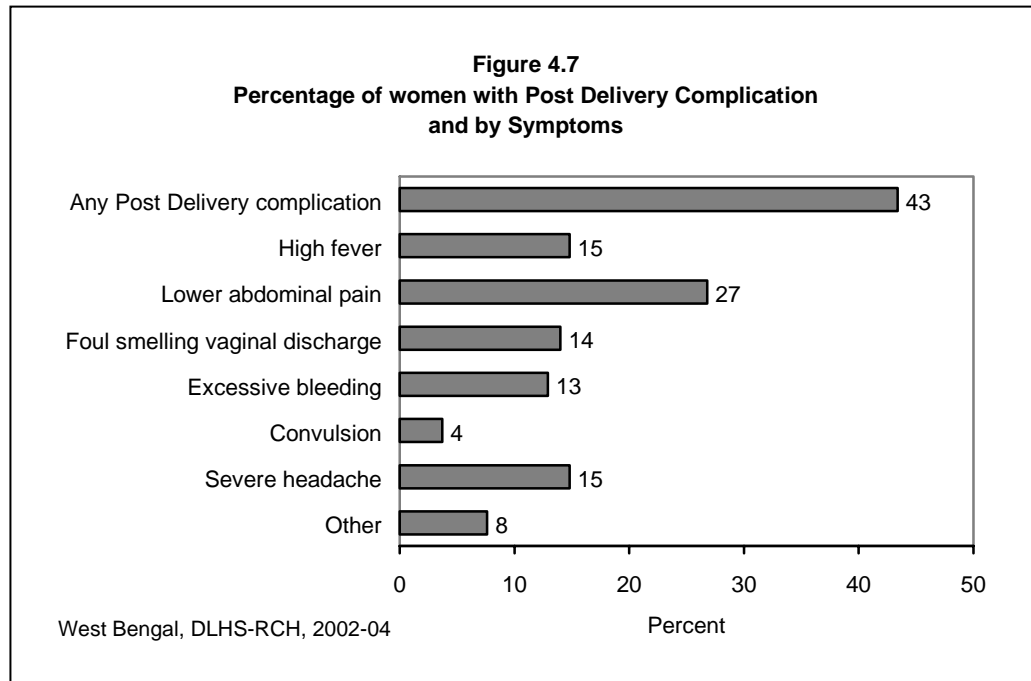
4.13 Post Delivery Complications and Treatment

Table 4.15 and Figure 4.7 present information about women who faced complications after delivery according to some selected background characteristics. The incidence of post delivery complications judged by any of the following during the first six weeks of delivery- 'high fever', 'lower abdominal pain', 'foul smelling vaginal discharge', 'excessive bleeding', 'convulsion', 'severe headache', and 'other' problems. Forty four percent of women reported that they faced any of the problems during the first six weeks after their delivery. The proportion of women who cited at least one post delivery complication is higher in rural areas (46 percent) than in urban areas (37 percent). Older women aged 35 years and above, and women with higher parity 4 and over, had their deliveries assisted with instruments, and those whose deliveries took place at home, and those whose deliveries at home were attended by none are more prone to report at least one post delivery related problem.

Table 4.15 POST DELIVERY COMPLICATIONS									
Percentage of women who had given last live/still births during three years preceding the survey by post delivery complication, according to selected background characteristics, West Bengal, 2002-04									
Background characteristic	Any post delivery complication	Type of post delivery complication;							Number of women
		High fever	Lower abdominal pain	Foul smelling vaginal discharge	Excessive bleeding	Convulsion	Severe headache	Other	
Age									
Below 20	44.5	15.9	26.0	12.9	13.6	4.0	14.4	8.7	1,004
25-34	42.9	14.1	26.8	14.2	12.6	3.6	14.6	7.2	3,751
35 and above	45.7	21.8	32.0	16.6	15.0	3.5	20.8	10.1	209
Children ever born									
1	39.1	11.2	20.1	11.1	11.5	3.0	11.3	7.5	1,775
2	42.4	13.8	26.8	13.6	11.6	3.2	13.0	6.9	1,553
3	44.1	14.5	30.3	14.9	12.4	2.8	14.9	8.0	762
4+	53.5	24.7	38.4	20.4	18.9	7.0	25.4	8.4	829
Residence									
Rural	45.7	16.7	29.0	15.1	13.7	4.0	16.1	7.8	3,660
Urban	36.9	9.4	20.9	10.9	10.8	2.8	11.1	7.1	1,305
Delivery characteristics									
Normal	44.4	15.1	28.0	14.9	13.4	3.7	15.2	7.5	4,191
Caesarean	36.2	11.6	20.0	7.4	9.2	2.0	11.5	7.2	596
Assisted	45.9	18.8	24.8	17.0	17.3	9.5	17.4	12.5	158
Place of delivery									
Government sector	37.9	11.3	19.9	11.9	11.9	3.1	10.7	7.0	1,702
Private sector	34.9	5.9	19.8	11.3	8.4	1.8	10.4	6.2	594
Home	49.1	19.3	33.1	16.4	14.7	4.6	18.4	8.2	2,564
Other	39.5	10.7	26.2	6.4	11.0	0.7	16.5	9.6	104
Assistance during home delivery									
Doctor	51.2	20.3	32.7	17.7	15.2	4.0	21.0	6.7	333
ANM/Nurse/LHV	33.2	3.1	17.1	16.5	5.9	10.0	2.7	8.8	55
TBA	49.9	20.4	30.8	17.5	17.3	4.4	17.0	8.0	498
Untrained dai	49.3	19.4	34.2	16.3	13.8	4.2	19.3	8.4	1,249
Relative/friends	47.5	17.6	35.0	14.9	16.7	6.0	17.0	8.1	372
None	52.9	28.1	36.8	10.6	6.9	6.0	20.4	16.8	57
Total	43.4	14.8	26.8	14.0	12.9	3.7	14.8	7.6	4,964

Note: Table include 45 women with zero parity and 20 missing cases on delivery characteristic who were not shown separately.

Women reported high fever and severe headache (15 percent each), lower abdominal pain (27 percent), foul smelling vaginal discharge (14 percent), excessive vaginal bleeding (13 percent), and convulsion (4 percent). Eight percent of women reported other problems. Rural-urban differences in all symptoms of postpartum complication are large. All the postpartum complications, except convulsions, are more prevalent among older women aged 35 years and above than among women below 35 years. The experiencing of symptoms of postpartum complications increased steadily with increased parity. There are minimal differences in the likelihood of having different symptoms in the postpartum period by place of delivery. Women who had the last delivery at home and were not assisted by anyone were more likely to have high fever, lower abdominal pain and other postpartum problems during the first six weeks of delivery. Symptoms like high fever and severe headache are more common for women who delivered at home assisted by a doctor than for women whose home deliveries were assisted by a ANM/nurse/LHV, trained birth attendant, untrained *dai*, or relatives or friends.



Women who reported at least one complication during the postpartum period were asked, whether they had consulted or sought treatment for their problems and also the source of treatment. Table 4.16 shows the percentage of women who had post delivery complications and who sought treatment by source of treatment according to residence and availability of health facility in the village. Forty nine percent of women reported that they had obtained advice or had consulted someone for their problems. The proportion was higher among urban women (55 percent) than among rural women (48 percent), and 49 percent of women sought treatment from those villages where health

facility was available as compared to 45 percent of women who did not have a health facility within the village.

Table 4.16 TREATMENT FOR POST DELIVERY COMPLICATIONS					
Percentage of women who had last live/still births during three years preceding the survey and who had any post delivery complication, sought treatment for the problems, and source of treatment according to residence and availability of health facility in the village, West Bengal, 2002-04					
Treatment and source	Total	Residence		Availability of health facility ⁵ in the village	
		Rural	Urban	No	Yes
Percentage of women sought treatment who had any post delivery complication	48.8	47.2	54.7	45.1	48.9
Number of women	2,154	1,673	481	752	921
Percentage sought treatment at health facility					
Government health facility ¹	18.3	15.8	25.8	16.1	15.6
Primary health centre	2.3	2.9	0.8	4.3	1.8
Sub centre	2.0	2.7	0.0	2.2	3.1
Private health facility ²	55.5	53.7	61.1	57.3	51.0
ISM ³ facility	9.7	11.7	4.0	11.7	11.6
Other	20.8	23.6	12.4	21.7	25.0
Percent distribution of women who obtained treatment from					
Doctor	75.7	69.7	93.7	67.2	71.6
ANM/nurse/midwife/LHV	5.1	5.8	3.0	5.3	6.1
Other health professionals ⁴	2.2	2.7	0.6	3.4	2.1
Other	17.0	21.8	2.7	24.1	20.1
Total percent	100.0	100.0	100.0	100.0	100.0
Number of women	1,052	789	263	339	450
Note: ¹ Include municipal hospital, dispensary, urban health centre/urban health post/urban family welfare centre, community health centre/rural hospital, primary health centre and sub centre. ² Include private hospital/clinic and non-governmental organization/ trust hospital. ³ Either government or private Indian system of medicine. ⁴ Other health professionals include <i>Dai</i> (trained or untrained), relative/friends and ISM practitioner. ⁵ Includes sub-centre, primary health centre, community health centre or referral hospital, government hospital, and government dispensary within the village					

Among women who sought treatment for complications in the postpartum period, only 18 percent visited a government health facility including primary health centre and sub-centre (2 percent each). More than fifty percent of women visited a private health facility, and 10 percent went to a facility with the Indian system of medicine (either government or private) and another 21 percent obtained advice from other health facilities. The proportion of women who visited a government health facility is relatively higher in urban areas (26 percent) than in rural areas (16 percent). On the other hand, the proportion of women seeking treatment from a private health facility is more among women who belonged to villages with non-availability of health facility within the village. Among women who sought treatment, 76 percent preferred to go to a doctor and

5 percent visited an auxiliary nurse midwife or nurse or LHV, 2 percent went to other health professionals, and 17 percent went to some one else. Ninety four percent of these women in urban areas, and 70 percent in rural areas went to a doctor, whereas a visit to an ANM/nurse/LHV was 6 percent in rural areas and 3 percent in urban areas. There are also differences by availability of health facilities and non-availability of health facilities in the village. Seventy two percent of women who belonged to villages with availability of health facilities were seen by doctor compared to 67 percent of women belonging to villages with non-availability of health facilities.

4.14 Obstetric Morbidity by District

The extent of health problems/ complications women suffer during pregnancy, delivery and post delivery period indicates the state of obstetric morbidity. Table 4.17 presents the incidence of pregnancy, delivery and post delivery complications and treatment seeking behaviour in case of pregnancy and post delivery complications by district. As mentioned earlier, in the state, 42 percent, 57 percent and 43 percent of the women experienced pregnancy, delivery and post delivery complications respectively. About 53 percent of the women sought treatment for pregnancy complications and 48 percent for post delivery complications. In every district, a minimum of one third of the women experienced at least one of the symptoms of pregnancy complications.

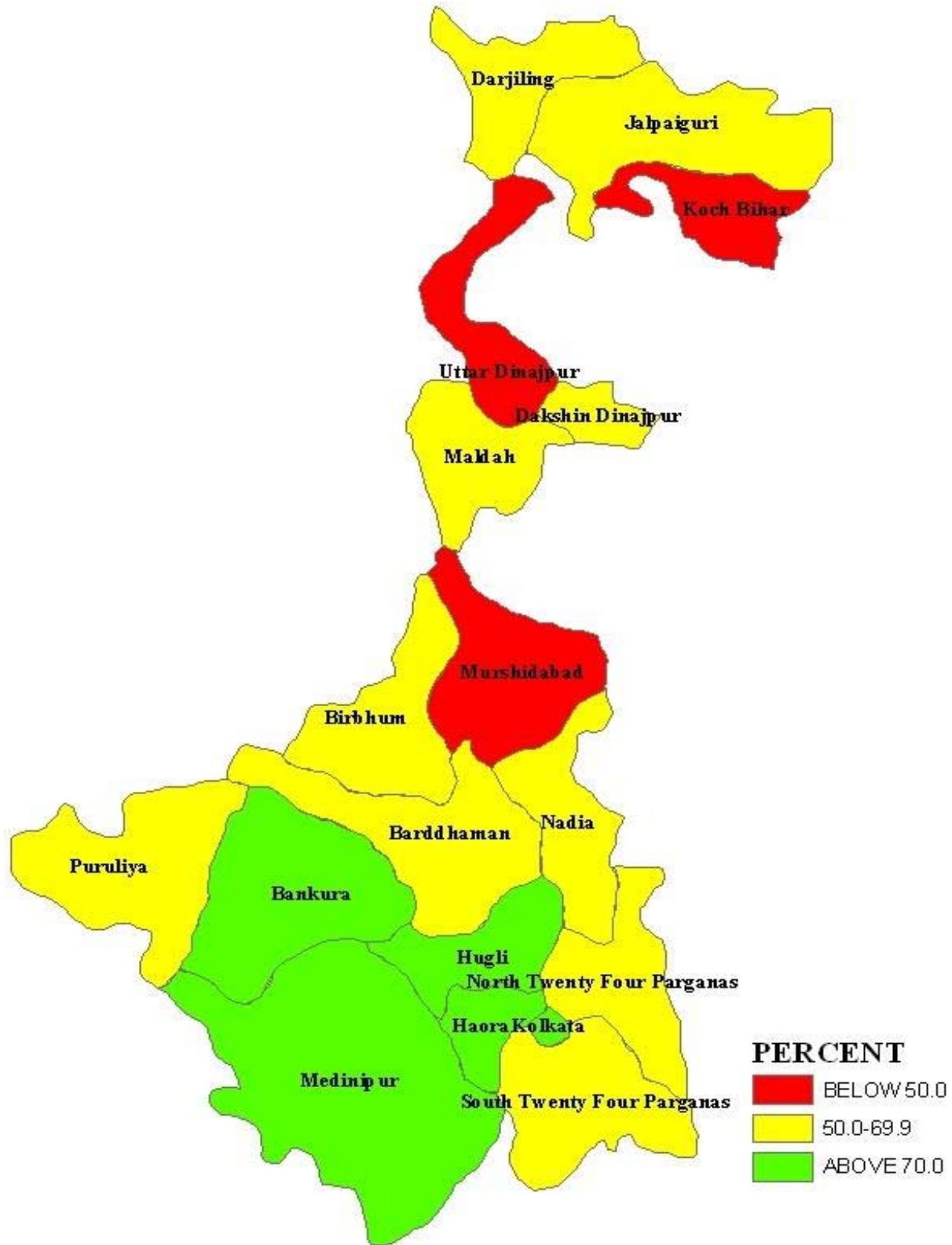
Table 4.17 PREGNANCY, DELIVERY AND POST DELIVERY COMPLICATIONS					
Extent of pregnancy, delivery and post delivery complications and treatment seeking behaviour by districts, West Bengal, 2002-04					
District	Percentage of women ¹				
	Who had complication during pregnancy	Sought treatment for pregnancy complication ²	Who had delivery complication	Who had post delivery complication	Sought treatment for post delivery complication ³
Bankura	37.9	49.0	39.7	39.7	30.7
Bardhaman	32.9	52.5	44.4	37.8	61.2
Birbhum	46.0	46.8	60.1	34.3	47.6
Dakshin Dinajpur	34.2	55.6	55.5	40.5	53.2
Darjiling	36.8	42.5	47.1	41.6	43.5
Haora	32.2	51.6	37.3	32.7	64.7
Hugli	39.7	69.1	62.8	31.4	57.0
Jalpaiguri	41.9	54.6	85.7	50.1	38.2
Koch Bihar	46.2	47.9	48.9	48.8	45.8
Kolkata	33.0	63.3	35.8	37.4	51.6
Maldah	52.8	55.3	63.9	52.9	58.3
Medinipur	41.3	63.9	51.3	45.8	46.4
Murshidabad	47.8	44.8	62.1	56.0	33.5
Nadia	44.0	64.5	64.2	37.2	61.4
North 24 Parganas	40.5	48.6	47.2	38.1	45.8
Puruliya	39.2	58.6	64.7	33.8	49.5
South 24 Parganas	50.1	54.1	73.5	46.9	56.1
Uttar Dinajpur	49.6	46.8	66.7	58.9	45.2
West Bengal	42.2	53.3	55.6	43.4	48.8

Note: ¹ Women who had last live/still birth during three years preceding the survey. ² Women who reported at least one complication of pregnancy. ³ Women who reported at least one post delivery complication.

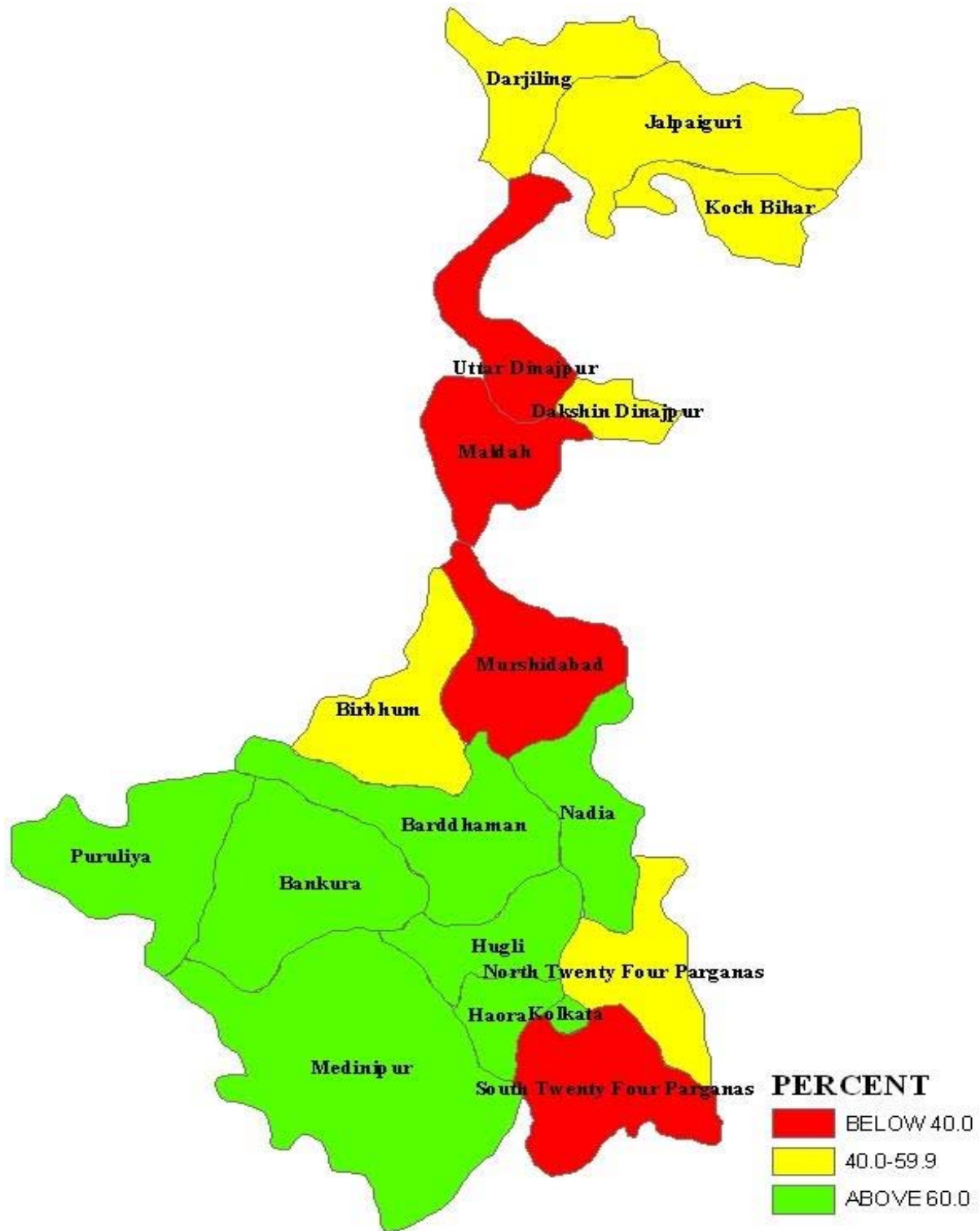
In a few districts like, Uttar Dinajpur (50 percent), South 24 Parganas (50 percent) and Maldah (53 percent), the incidence of pregnancy complications is comparatively higher than in other districts. The incidence of delivery complication is higher than that of pregnancy and post delivery complications. The percentage of women who experienced at least one type of delivery complication ranges from 36 percent in Kolkata to 86 percent in Jalpaiguri, and incidence of post delivery complication varies from 31 percent in Hugli to 59 percent in Uttar Dinajpur. The incidence of all three types of complications seems to be linked with each other in varying proportions.

In most of the districts of West Bengal, about three quarters of the women received some kind of antenatal care. In spite of a large proportion of women having contact with a doctor or any other health workers during the antenatal period, in all the districts (except Kolkata, Medinipur, Nadia, Medinipur and Hugli) less than 60 percent of the women sought treatment for pregnancy complication. Similarly, among women who experienced at least one symptom of postpartum complication, the proportion seeking treatment also varies across the districts, ranging from 31 percent in Bankura to 65 percent in Haora.

MAP-3
Percentage of Women Received Three or More Antenatal Check-ups



MAP-4
Percentage of Delivery Attended by Skilled Person



CHAPTER V

CHILD CARE AND IMMUNIZATION

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

5.1 Breastfeeding

Educating mothers on correct breastfeeding practices and child nutrition is one of the components of the RCH programme. Infant feeding practices have significant effects on the health of both mothers and children. Mothers are affected through the influence of breastfeeding on the period of postpartum infertility, and hence on fertility levels and the length of birth intervals. These effects vary according to the duration and intensity of breastfeeding. Proper infant feeding, starting from the time of birth, is important for the physical and mental development of the child. Breastfeeding improves the nutritional status of young children and reduces morbidity and mortality. Breast milk not only provides important nutrients, but also protects the child against infection. The timing and type of supplementary foods introduced in an infant's diet have significant effects on the child's nutritional status.

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

Table 5.1 shows the breastfeeding practices among children born during the three years preceding the survey in West Bengal. Although, the practice of breastfeeding is common in West Bengal, the initiation of breastfeeding within two hours of the birth of the child is not always followed. Twenty eight percent of the children were breastfed within two hours of birth, and 54 percent were breastfed within one day of birth (including those who were breastfed within two hours of birth), while 45 percent of children were breastfed after one day of birth. As shown in Figure 5.1, about 26 percent of the children were breastfed within one day of birth but after two hours of birth, 32

percent were breastfed after the first day of birth but before 3 days, and 13 percent children were put to the breast after three days. One percent of the children were never breastfed. A little less than half of the women (45 percent) who gave birth to children during the three years preceding the survey squeezed the first milk from the breast before they began breastfeeding. Not more than 34 percent of children in any socio-economic group shown in Table 5.1 were breastfed within two hours of birth. Thirty four percent of children from scheduled tribe were breastfed within two hours of birth, and 61 percent of children from scheduled castes were breastfed within one day of birth. Women who reside in urban areas, women who have had high school education and above and women who live in households with a high standard of living are much less likely to start breastfeeding their children early. A large proportion of children from urban areas (50 percent), Muslim children (48 percent), children from other castes (49 percent), children of educated mothers (57 percent), and children from households with a high standard of living were put to the breast after one day of birth.

Table 5.1 INITIATION OF BREASTFEEDING

Percentage of children under age 3 whose mother started breastfeeding within two hours of birth, within one day of birth, and after one day of birth and percentage whose mother squeezed the first milk from her breast before breastfeeding by selected background characteristics, West Bengal, 2002-04

Background characteristic	Percentage started breastfeeding			Percentage whose mother squeezed first milk from breast	Number of children
	Within two hours of birth	Within one day of birth ¹	After one day of birth		
Residence					
Rural	31.1	56.4	42.9	47.9	3,305
Urban	19.0	48.1	50.0	47.8	1,200
Mother's education					
Non-literate	30.2	56.2	43.2	49.6	1,787
0-9@ years	29.0	55.8	43.2	49.0	2,159
10 and above	15.7	41.4	56.6	37.9	554
Religion					
Hindu	28.8	55.7	43.5	49.1	3,072
Muslim	25.9	50.9	47.9	44.1	1,372
Other	24.5	53.6	42.3	69.2	61
Caste/tribe#					
Scheduled caste	33.2	61.1	37.7	51.7	1,239
Scheduled tribe	34.3	55.4	44.3	48.1	299
Other backward class	24.7	54.0	45.7	41.7	250
Other	24.4	50.3	48.6	45.8	2,524
Standard of living index					
Low	31.3	56.7	42.7	48.4	2,681
Medium	25.9	53.4	45.0	49.4	1,289
High	15.5	43.6	55.1	41.3	535
Total	27.9	54.2	44.8	47.8	4,505
Note: Table based on youngest living child born during the three years preceding the survey. Table includes 4 children with missing information on mother's education who were not shown separately.					
¹ Includes children whose mother started breastfeeding within two hours of births.					
@ Literate mother with no years of schooling are included. #Total figure may not add to N due to do not know and missing cases.					

The custom of squeezing the first milk from the breast before breastfeeding is widely practised in every group, but it is slightly higher among the mothers of scheduled caste children, children with other religion, and children whose mothers are Non-literate. Children who live in households with a high standard of living are less likely than children in other households to have mothers who squeezed the first milk from the breast before breastfeeding. There is no Rural-Urban differential of the custom of squeezing the first milk from the breast before breastfeeding. Mothers of children born in the three years preceding the survey were asked whether the child had been fed breast milk exclusively and if so, what the duration was. Here it needs to be mentioned that, exclusive breastfeeding includes breastfeeding the child without giving it anything including water. Results are shown in Table 5.2.

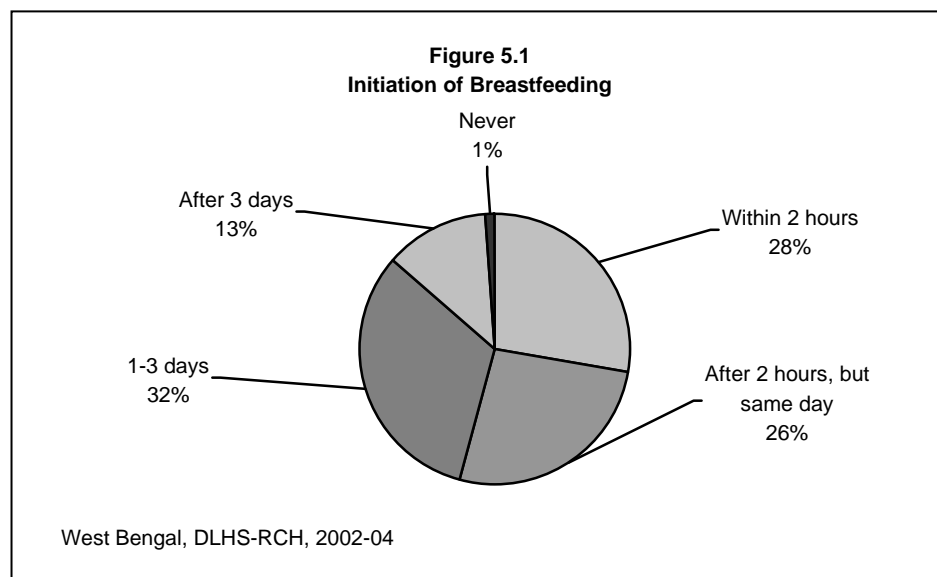


Table 5.2 EXCLUSIVE BREASTFEEDING BY CHILD'S AGE				
Percentage of children under age 3 years by exclusive breastfeeding and child's age in month, West Bengal, 2002-04				
Age in months	Status of exclusive breastfeeding			Number of children
	Exclusive breastfeeding	At least 4 months	At least 6 months	
<2	46.6	*	*	188
2-3	26.5	*	*	260
4-5	19.5	39.0	*	311
6-7	5.6	39.4	17.1	290
8-9	3.3	42.3	19.6	306
10-11	2.8	33.1	12.2	242
12-13	1.3	41.7	13.8	240
14-15	2.3	41.0	20.8	238
16-17	1.2	37.2	11.6	288
18-19	1.7	44.1	20.5	295
20-21	4.4	40.2	15.6	274
22-23	1.0	34.4	17.2	185
24-25	1.9	33.4	12.7	281
26-27	2.7	34.3	16.7	184
28-29	0.7	40.1	13.6	285
30-31	1.3	32.6	14.4	251
32-33	4.5	38.1	20.0	179
34-35	0.9	32.3	13.6	210
< 4 months	35.0	*	*	448
4-6 months	16.2	41.6	*	450
7-9 Months	3.1	38.9	18.7	456

Note: Table based on youngest living child born during the three years preceding the survey.

In West Bengal, only 35 percent of children under four months of age are exclusively breastfed. The percentage of infants exclusively breastfed drops steadily from 47 percent for children under 2 months of age to 20 percent for children who are 4-5 months old. About 42 percent of children in the age group 4-6 months were exclusively breastfed up to 4 months and 19 percent of children in the age group 7-9 months are exclusively breastfed upto 6 months.

5.1.1 Breastfeeding by Districts

Table 5.3 shows that in all the districts of West Bengal, except Bankura and Birbhum, not more than 40 percent of the children were put to the breast within two hours of birth. Less than 10 percent of the children were breastfed within two hours of birth in Koch Bihar district. More than two fifth of the children were put to the breast after one day of birth in Darjiling, Koch Bihar, Murshidabad, North 24 Parganas, Medinipur, Haora, Kolkata, Jalpaiguri, Uttar Dinajpur, Dakshin Dinajpur and Nadia districts. In 8 of the 19 districts, the mothers of more than 56 percent children squeezed the first milk before breastfeeding.

Table 5.3 BREASTFEEDING BY DISTRICT

Percentage of children under age 3 whose mother started breastfeeding within two hours of birth, within one day of birth and after one day of birth, percentage whose mother squeezed the first milk from her breast before breastfeeding and percentage of children who were exclusively breastfed by district, West Bengal, 2002-04

District	Percentage started breastfeeding			Percentage whose mother squeezed first milk from breast	Exclusive breastfeeding ²
	Within two hours of birth	Within one day of birth ¹	After one day of birth		
Bankura	49.0	69.5	28.7	56.4	7.5
Bardhaman	28.2	60.8	37.0	47.0	15.7
Birbhum	45.0	72.0	27.1	44.5	19.5
Dakshin Dinajpur	32.3	53.1	46.9	21.4	10.4
Darjiling	31.7	55.5	43.5	58.9	24.2
Haora	20.4	48.8	51.2	62.4	16.4
Hugli	34.2	70.0	30.0	30.7	7.7
Jalpaiguri	21.4	40.9	57.9	48.4	3.9
Koch Bihar	7.1	26.0	74.0	55.4	21.2
Kolkata	21.8	45.8	54.2	68.2	21.3
Maldah	33.9	65.9	32.0	42.8	20.9
Medinipur	26.6	43.5	55.0	57.8	13.4
Murshidabad	29.5	58.8	41.2	60.5	20.2
Nadia	28.4	56.5	42.8	29.3	3.1
North 24 Parganas	24.7	48.7	49.8	45.5	27.5
Puruliya	31.4	70.5	29.1	55.4	26.1
South 24 Parganas	31.7	60.5	36.9	30.5	9.7
Uttar Dinajpur	21.2	43.1	56.5	32.3	13.3
West Bengal	27.9	54.2	44.8	47.8	15.9

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

There is a great deal of variation in the extent of exclusive breastfeeding for six months. It is highest in North 24 Parganas (28 percent) and lowest in Nadia (3 percent) and in Jalpaiguri (4 percent).

5.2 Immunization of Children

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

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

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

Table 5.4, Figures 5.2 and 5.3 present vaccination coverage rates for children in the age group 12-25 months. Only 50 percent of the children are fully vaccinated, and around 7 percent have not received any routine vaccination. Coverage of each vaccination except Polio 0 is much higher than the percentage fully vaccinated. BCG, the first and second dose of DPT and Polio vaccine has each been given to more than three fourth of children (Figure 5.3). Only 69 percent of the children have received three doses of DPT and 66 percent of the children received 3 drops of Polio, and only 65 percent of the children have been vaccinated against measles. Moreover, not all children who begin the DPT and polio vaccination series, go on to complete them. The differences between the percentage of children receiving the first and third doses is 18percentage points for DPT and 20 percentage points for polio.

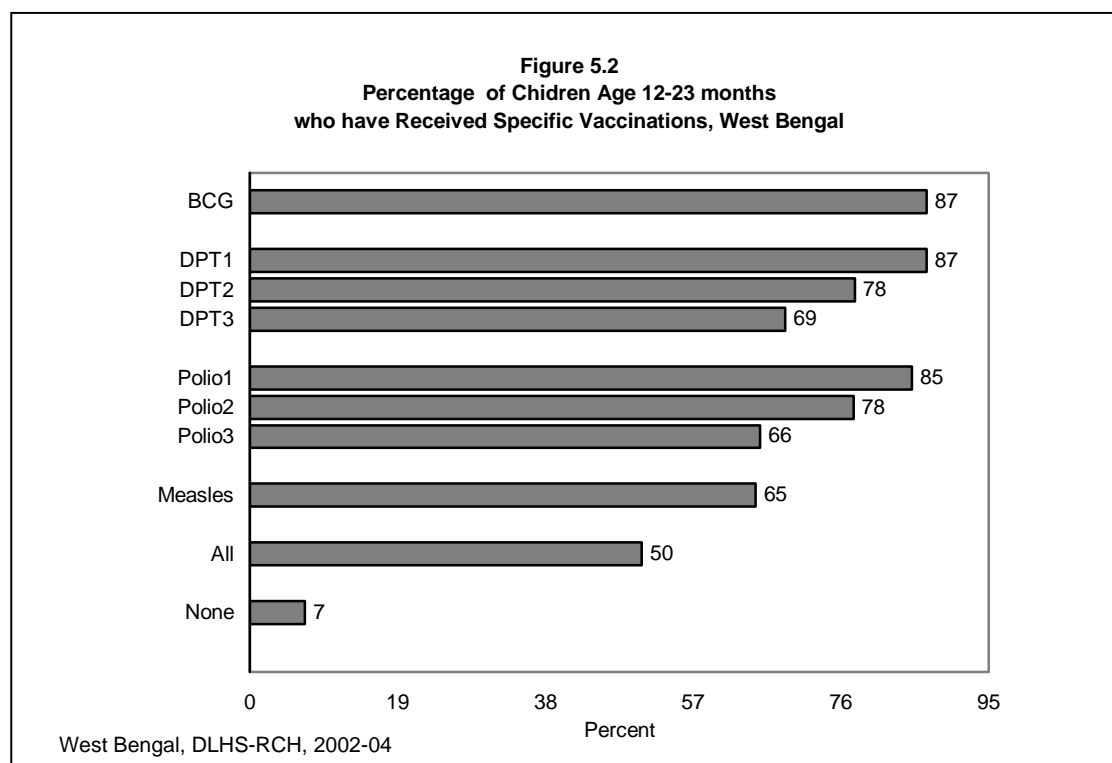
There has been some improvement in full vaccination coverage in West Bengal since the time of Round I in 1998-99. These data indicate that despite the progress that has been made in immunization coverage for children in West Bengal, coverage levels are still low and a large proportion of children who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

Table 5.4 VACCINATION OF CHILDREN												
Percentage of children age 12-23 months who received vaccination according to some selected background characteristics, West Bengal, 2002-04												
Background characteristic	Polio 0	BCG	DPT			Polio			Measles	Full ¹ vaccination	No vaccination	Number of children
			1	2	3	1	2	3				
Residence												
Rural	38.2	85.5	85.2	77.5	68.4	83.5	76.6	64.5	64.4	51.0	7.8	1,168
Urban	78.7	91.6	92.0	78.9	69.9	89.7	80.4	68.8	66.6	48.5	5.0	404
Sex of the child												
Male	49.7	87.3	88.1	78.4	68.3	85.0	77.3	64.2	63.5	48.9	7.2	825
Female	47.4	86.7	85.8	77.3	69.3	85.3	77.9	67.2	66.6	52.0	7.0	747
Birth order												
1	63.6	90.9	92.0	82.0	73.4	90.6	82.5	70.8	72.0	54.2	2.7	621
2	46.9	90.5	90.1	81.4	74.3	85.9	78.3	68.9	70.9	56.1	5.4	499
3	37.4	81.4	81.0	75.2	61.7	79.5	73.3	57.1	58.9	45.7	11.2	205
4+	23.7	75.0	72.7	62.3	51.7	74.2	67.4	53.3	40.4	33.0	18.2	246
Mother's education												
Non-literate	34.8	78.3	78.1	66.7	56.3	78.4	69.9	56.6	49.8	39.1	13.7	637
0-9@ years	52.3	91.9	91.6	83.6	75.6	89.2	81.3	70.4	71.8	56.5	3.2	747
10 years and above	81.3	97.6	98.7	92.4	83.8	91.6	89.0	77.2	89.5	63.9	0.1	185
Religion												
Hindu	57.0	92.2	92.2	83.9	75.6	89.5	82.7	71.4	73.0	56.6	3.6	1,051
Muslim	30.7	76.1	75.9	64.8	54.2	75.8	66.8	53.5	48.8	37.5	14.6	507
Caste/tribe#												
Scheduled caste	51.0	92.0	90.8	81.0	72.3	88.8	80.9	69.5	67.7	51.8	4.1	486
Scheduled tribe	26.5	79.8	79.9	73.4	58.2	81.9	76.1	59.2	49.0	42.3	12.6	89
Other backward class	58.4	91.1	96.0	87.7	79.7	92.8	85.9	74.3	66.6	53.7	1.3	72
Other	49.6	84.3	84.7	75.5	67.2	82.8	75.3	64.0	65.7	50.9	9.0	851
Standard of living index												
Low	33.7	83.2	82.7	73.2	63.2	81.3	73.3	59.6	58.6	45.3	9.5	921
Medium	63.6	91.1	90.5	82.6	74.3	90.2	82.9	73.3	70.0	55.2	5.0	468
High	85.6	96.1	99.2	89.1	82.5	91.4	85.5	76.3	84.6	63.5	0.4	182
Total	48.6	87.0	87.0	77.8	68.8	85.1	77.6	65.6	65.0	50.4	7.1	1,572

Note: Table includes only last and last but one living child born since 1.1.1999/1.1.2001. Total includes 3 children with missing information on mother's education and 14 children with other religion were not shown separately. @ Literate mothers with no years of schooling are included. # Total figure may not add to N due to do not and missing cases.

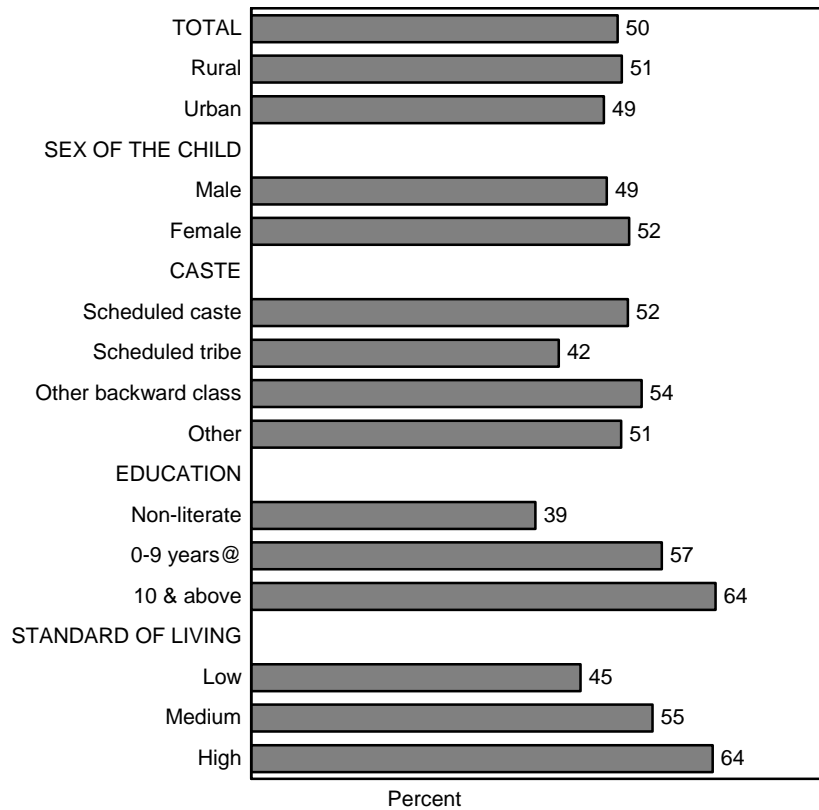
¹ BCG, three injection of DPT, three doses of Polio (excluding Polio 0) and measles.

The data indicates that the coverage of each type of vaccine is more in urban areas than in rural areas. Fifty one percent of the children in rural areas had received all the recommended vaccinations by the time of the survey, compared with 49 percent in urban areas. Differentials in rural-urban against polio 0 may be observed from the table. Seventy nine percent of the children have received polio vaccine at the time of birth in urban areas whereas just half it received the same in the rural areas.



Female children (52 percent) are more likely than male children (49 percent) to be fully vaccinated. Female children are also much more likely than male children to have received most of the individual vaccinations. The relationship between vaccination coverage and birth order is consistently negative for almost all vaccinations. A large majority of first order births occur to younger women who are more likely than older women to utilize child health care services. As with the use of child health care services, there is a positive relationship between mother's education and children's vaccination coverage. Only 39 percent children of non-literate mothers are fully vaccinated compared to 57 percent of children with mothers' education below high school and 64 percent of mothers who have at least completed high school. Hindu children are much more likely than Muslim children to have received each of the recommended vaccinations. Children from Scheduled Castes are more likely to have BCG, other backward classes are more likely to have DPT-1, DPT-2, Polio-1, Polio-2, Polio-3 and measles vaccinations. The standard of living index of the household has a strong positive relationship with vaccination coverage. Sixty four percent of children from households with a high standard of living are fully vaccinated, whereas only 45 percent of children are from households with a low standard of living.

Figure 5.3
Percentage of Children Age 12-23 months
Who Have Received All Vaccination, West Bengal



West Bengal, DLHS-RCH, 2002-04

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

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

The proportion of children fully vaccinated by age 12 months increased slightly from 50 percent for children in the age group 12-23 months to 58 percent for children in the age group 24-35 months. A rural-urban differential for the coverage of full vaccination is also observed. Fifty percent of children in the age group 12-23 months are fully vaccinated against 55 percent of children in the age group 24-35 months in rural areas, and this gap is much wider in urban areas (Figure 5.4). Only 49 percent of children in the age group 12-23 months have received all vaccinations in urban areas compared to 68 percent with children in the age group 24-35 months. Younger children aged 12-23 months are more likely to receive each type of vaccine except Polio-3, DPT-3 and measles.

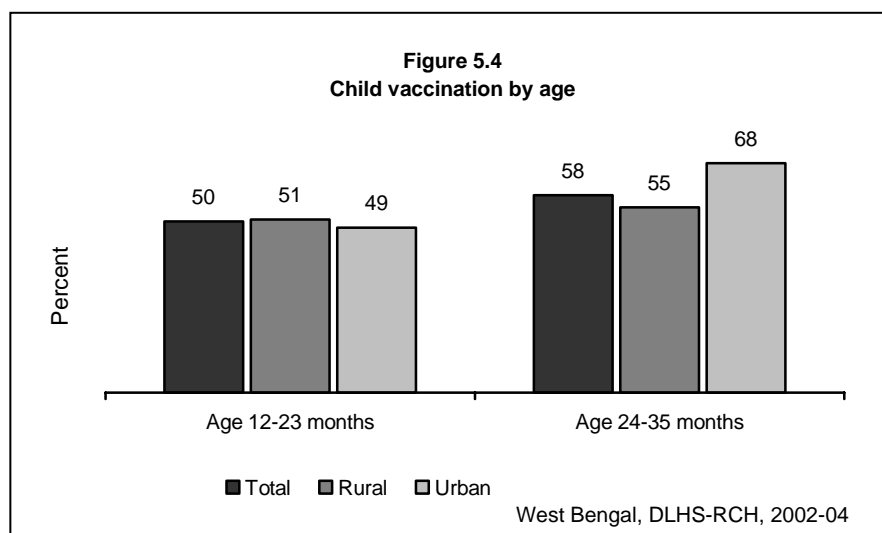
Table 5.5 CHILDHOOD VACCINATION RECEIVED BY 12 MONTHS OF AGE

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

Vaccination status	Total		Rural		Urban	
	12-23 months	24-35 months	12-23 months	24-35 months	12-23 months	24-35 months
Vaccination card shown to interviewer	69.5	63.4	69.2	64.9	70.6	59.6
Percentage vaccinated by 12 months of age						
Polio 0	48.6	48.5	38.2	37.6	78.7	77.7
BCG	87.0	85.9	85.5	83.5	91.6	92.2
Polio doses						
No Polio	12.3	12.7	14.1	14.8	7.1	7.1
1	7.7	6.0	7.1	6.8	9.5	3.7
2	12.2	9.1	12.3	10.1	11.9	6.6
3	67.1	69.9	65.8	66.7	70.8	78.7
Don't remember	0.7	2.2	0.8	1.8	0.7	3.8
DPT injection						
No DPT	12.1	14.5	13.9	16.4	6.8	9.3
1	9.1	6.5	7.8	7.1	13.1	4.9
2	9.1	6.9	9.1	8.4	9.1	2.8
3	68.8	70.7	68.4	66.9	69.9	80.8
Don't remember/missing	0.9	1.4	0.9	1.1	1.1	2.3
Measles	65.0	70.0	64.4	66.2	66.6	80.1
Full ¹ vaccination	50.4	58.1	51.0	54.5	48.5	67.6
No vaccination at all	7.1	7.9	7.8	9.2	5.0	4.4
Number of children	1,572	1,752	1,168	1,278	404	475

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

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



5.3 Source of Immunization

Table 5.6 gives the percent distribution of children under three years of age who have received any vaccination by the source of last vaccine, according to place of residence and availability of health facilities in the village. The sub-centre is the primary provider of childhood vaccinations in West Bengal. Most of the children (87 percent) were immunized at the government health facilities and only six percent at private health facilities. Further, among the children immunized, 62 percent of them had received vaccination from the sub-centre, 14 percent from municipal hospital, and 10 percent from community health centre or from primary health centre. The percentage of children receiving vaccination from the private sector is considerably lower in rural areas (2 percent) than in urban areas (15 percent). Even in urban areas, 74 percent of children received their vaccination from the government health facility. Children from those villages where health facilities are available are slightly more likely to receive vaccination from the government health facility.

Table 5.6 SOURCE OF CHILDHOOD VACCINATION					
Percent distribution of children under age 3 who have received any vaccination by source of last vaccination, according to place of residence and availability of health facilities in the village, West Bengal, 2002-04					
Source of vaccination	Total	Residence		Availability of health facility ¹ in the village	
		Rural	Urban	No	Yes
Government health sector					
Government/municipal hospital	13.8	6.1	34.1	5.7	6.4
Community/primary health centre	9.7	9.4	10.3	9.3	9.5
Sub-centre	61.9	74.1	29.7	74.2	73.9
RCH/MCP camp	1.3	1.7	0.2	1.4	2.0
Private health sector					
Private hospital	0.9	0.6	1.7	0.7	0.4
Private doctor	5.0	1.8	13.5	2.0	1.7
ISM ² health facility	1.1	0.8	2.1	0.9	0.7
Other	5.3	4.7	7.0	5.1	4.3
Do not remember	1.0	0.9	1.3	0.7	1.0
Total percent	100.0	100.0	100.0	100.0	100.0
Number of children	4,364	3,170	1,194	1,409	1,762
Note: Table includes last and last but one living children born in the three years preceding the survey. ¹ Includes sub-centre, primary health centre, community health centre or referral hospital, government hospital, and government dispensary within the village. ² Either government or private health facility of Indian System of Medicine					

5.4 Reason for Not Immunizing the Children

Table 5.7 presents the percent distribution of children under the age of three years who did not receive any vaccination by reason as reported by the mother according to place of residence and availability of health facilities in the village. About 16 percent of the children did not receive any vaccination because the mothers of children were unaware of the need for immunization, and 23 percent of children were not vaccinated, as the mothers feel that they were too young. The other reasons for not immunizing the children as reported by the mothers were place or time of vaccination was not known (14 percent), place or time of vaccination was inconvenient (9 percent), fear of side effects (7 percent), no faith in vaccination (4 percent) and ANM absent/ vaccine not available (3 percent), and other reasons (11 percent). The percentage of children who did not receive any vaccinations is considerably lower in rural areas (15 percent) than in urban areas (17 percent), as they were unaware of the need for immunization as reported by their mothers. Children from those villages where health facilities are available are less likely to report that they were unaware of the need for immunization as compared to those villages where health facilities are not available. Where health facilities were available, fear of side effects and no faith in immunization were reported more as reasons for not immunizing the children compared to the areas without having the same.

Table 5.7 REASON FOR NOT GIVING VACCINATION					
Percent distribution of children under age 3 who did not receive any vaccination by reason reported by mother for not giving vaccination, according to place of residence and availability of health facilities in the village, West Bengal, 2002-04					
Reason	Total	Residence		Availability of health facility ¹ in the village	
		Rural	Urban	No	Yes
Unaware of need for immunization	15.6	15.4	17.1	15.8	14.8
Place/time unknown	14.0	13.9	14.2	13.0	15.0
Place/time inconvenient	8.5	9.7	2.3	15.7	3.2
Fear of side effect	7.1	6.7	9.7	3.7	9.9
No faith in Immunization	4.1	4.0	4.7	3.0	5.2
ANM absent/vaccine not available	3.4	3.4	3.3	5.2	1.4
Long waiting time	0.8	0.7	1.3	0.0	1.5
Child too young	22.6	22.3	24.2	19.3	25.6
Family problems ²	13.2	13.4	12.0	13.9	12.8
Other	10.6	10.5	11.2	10.5	10.5
Total percent	100.0	100.0	100.0	100.0	100.0
Number of children	549	462	87	241	221

Note: Table includes last and last but one living children born in the three years preceding the survey. ¹ Includes sub-centre, primary health centre, community health centre or referral hospital, government hospital, and government dispensary within the village. ² Includes mother too busy, family problems, including illness of mother, and illness of child.

5.5 Vitamin A and IFA Supplements

Vitamin A deficiency is one of the most common nutritional deficiency disorders in the world, affecting more than 250 million children worldwide (Bolem et. al., 1997). The child survival programme also includes administration of five doses of Vitamin A for prevention of night blindness and distribution of IFA for iron supplement. In Round II, mothers of children born during the three years before the survey were asked whether their children had received a dose of Vitamin A and IFA tablets/syrup. Those who said that their children had received a dose of Vitamin A and IFA tablets/syrup were further asked how many doses were given. Table 5.8 shows the percentage of children in the age group 12-35 months who received at least one dose of Vitamin A and IFA tablets/syrup by selected background characteristics. In the state of West Bengal as a whole, 55 percent of the children received at least one dose of Vitamin A, and only seven percent received IFA tablets/syrup. This indicates that a large number of children in West Bengal did not receive Vitamin A supplements and very few children received IFA tablets/syrup supplementation.

Table 5.8 VITAMIN A AND IFA SUPPLEMENTATION FOR CHILDREN			
Percentage of children age 12-35 months who have received at least one dose of Vitamin A and iron folic acid tablets/syrup, according to selected background characteristics, West Bengal, 2002-04			
Background characteristic	Percentage who received at least one dose of vitamin A	Percentage who received iron folic acid tablets/syrup	Number of children
Age of the child			
12-23 months	52.6	5.6	1,572
24-35 months	57.1	8.1	1,752
Sex of the child			
Male	54.0	7.4	1,671
Female	56.0	6.4	1,653
Birth order			
1	61.2	7.4	1,303
2	58.6	8.6	1,001
3	47.1	4.7	493
4+	40.0	4.8	527
Residence			
Rural	55.5	6.8	2,445
Urban	53.6	7.4	879
Mother's education			
Non-literate	44.8	4.5	1,384
0-9 years@	61.6	7.6	1,561
10 years and above	65.0	13.0	374
Religion			
Hindu	61.0	7.6	2,228
Muslim	42.3	5.7	1,041
Other	51.7	1.9	55
Caste/tribe #			
Scheduled caste	60.3	7.2	955
Scheduled tribe	49.6	3.2	208
Other backward class	54.0	9.4	173
Other	53.1	6.9	1,841
Standard of living index			
Low	52.7	5.3	1,964
Medium	54.5	8.3	981
High	68.1	12.2	380
Availability of health facility in the village¹			
Yes	57.3	7.4	1,319
No	53.3	6.0	1,127
Total	55.0	6.9	3,324
Note: Table includes last and last but one living children born in the three years preceding the survey. Total includes 4 children with missing information with mother education were not shown separately. @ Literate mother with no years of schooling are also included here. # Total figure may not add to N due to do not know and missing cases. ¹ Includes sub-centre, primary health centre, Community health centre or referral hospital, government hospital, and government dispensary within the village.			

Children in the age group 24-35 months are more likely to receive at least one dose of Vitamin A and IFA tablets/syrup each than children in the age group 12-23 months. Female children are more likely to receive Vitamin A than male children but in case of IFA tablets/syrup the pattern is reverse. Children living in rural areas, children whose mother completed high school and above, children living in households with a high standard of living, and children living in those villages where health facilities are

available are more likely to receive a dose of Vitamin A and IFA tablets/syrup. Children of birth order 4 or above are much less likely than children of birth order 1, 2 or 3 to receive any dose of vitamin A and IFA tablets/syrup. Similarly, children from Schedule Tribes are less likely to receive at least one dose of Vitamin A and a dose of IFA tablets/syrup than other caste category.

Table 5.9 CHILDHOOD VACCINATION BY DISTRICT
Percentage of children who received specific vaccinations and Vitamin A supplementation by district, West Bengal, 2002-04

District	Percentage vaccinated ¹							Percentage received at least one dose of Vitamin A ³
	Polio 0	BCG	DPT3	Polio3	Measles	Full ²	None	
Bankura	59.8	96.7	84.5	80.2	75.4	67.5	2.2	73.4
Bardhaman	50.2	91.8	69.4	73.5	69.0	54.6	4.2	61.6
Birbhum	44.6	80.4	63.1	66.2	50.0	40.7	8.4	38.5
Dakshin Dinajpur	55.5	94.8	78.9	78.2	64.0	59.8	4.0	71.8
Darjiling	39.9	95.8	82.3	83.4	66.8	62.3	1.0	57.8
Haora	48.9	77.1	61.6	56.5	60.0	46.6	15.0	51.1
Hugli	72.2	93.8	76.7	71.2	74.0	63.2	4.5	72.5
Jalpaiguri	46.8	93.2	81.9	84.4	69.9	67.3	4.6	63.0
Koch Bihar	35.8	87.8	72.4	58.7	67.7	51.8	1.9	57.1
Kolkata	85.7	98.1	51.6	54.6	78.7	45.0	1.9	34.9
Maldah	44.0	84.3	60.2	61.5	55.5	45.4	9.6	39.5
Medinipur	44.2	86.0	74.0	74.3	70.5	55.5	5.4	57.8
Murshidabad	30.1	79.4	62.8	44.9	62.7	34.6	12.6	41.5
Nadia	62.4	97.2	79.8	69.4	72.0	58.5	2.0	69.5
North 24 Parganas	60.3	91.5	76.1	67.1	76.6	53.6	1.2	71.4
Puruliya	61.0	86.2	72.5	73.3	64.1	58.2	3.3	47.1
South 24 Parganas	38.9	88.1	65.7	64.4	63.4	52.1	9.2	55.6
Uttar Dinajpur	29.8	56.7	33.9	35.2	30.2	20.2	32.3	27.8
West Bengal	48.6	87.0	68.8	65.6	65.0	50.4	7.1	55.0

Note: Table includes only last and last but one living child born since 1.1.1999/1.1.2001
¹ Children age 12-23 months, ² BCG, three injection of DPT, three doses of Polio (excluding Polio 0) and measles.
³ Children age 12-35 months.

5.6 Immunization Coverage by District

The coverage of vaccination rates for all vaccines for children in the age group 12-23 months in each district is presented in Table 5.9. There are inter-district differentials in the coverage for different vaccinations, and for children receiving all vaccinations and those that did not receive any vaccination at all. The percentage of children who are fully vaccinated ranges from 20 percent in Uttar Dinajpur to 68 percent in Bankura. In two districts, namely Uttar Dinajpur (20 percent) and Murshidabad (35 percent) the coverage of full immunization is below 40 percent (see Map-5) and including these two districts in Birbhum (40 percent), Maldah (45 percent), Kolkata (45 percent), and Haora (47) the coverage rate of full immunization is below the state average of 50 percent. Thirty two percent of children in Uttar Dinajpur district were not vaccinated at all, and in five districts, the percentage of children not vaccinated is higher than the state average. In nearly all the districts, fewer children have received the measles vaccine than any of the

other vaccinations. The coverage of polio drops at the time of birth varies from the lowest in Uttar Dinajpur and Murshidabad (30 percent) to the highest in Kolkata (86 percent).

District wise variations in the percentage of children who received at least one dose of Vitamin A are also shown in Table 5.9. The percentage of children in the age group 12-35 months who received at least one dose of Vitamin 'A' supplements ranges from 28 percent in Uttar Dinajpur to 73 percent each in Bankura and Hugli. Kolkata (35 percent), Maldah (40 percent), Murshidabad (42 percent), Puruliya (47 percent), Birbhum (39 percent) and Haora (51 percent) stand out as having below the state average to receive at least one dose of Vitamin A.

5.7 Child Morbidity and Treatment

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

5.7.1 Awareness of Diarrhoea

Diarrhoea is a major killer disease of children under five years of age. Deaths from acute diarrhoea are mostly due to dehydration resulting from loss of water and electrolytes. An attempt was made to collect data on awareness of diarrhoea management and the practice followed during the episode of diarrhoea. This has been presented in Table 5.10.

In West Bengal, 80 percent of the mothers with births in the three years preceding the survey were aware of what to do when a child had diarrhoea, as compared to 73 percent in Round I, and 35 percent were aware of ORS, which was four percent points down from Round I. Fifty six percent of the women were aware of salt and sugar solution. Some of the women also reported that they would continue normal food (5 percent), continue breastfeeding (12 percent), and give plenty of fluids (6 percent), and about 13 percent of women did not know what to give a child who had diarrhoea. As expected, knowledge of ORS is higher among urban women (40 percent) than rural women (33 percent), and among high school and above educated women (53 percent) as compared to non-literate women (28 percent). Women belonging to Scheduled Tribes (24 percent) are less likely to know about ORS than women belonging to other caste groups (37 percent). Forty six percent of women with children having a high standard of living know about ORS and it declines to 38 percent for women with a medium standard of living and 31 percent with a low standard of living. Knowledge of ORS is more among middle age groups and among older women than among younger women. Women from villages with availability of health facilities are more aware of diarrhoea management than women from other villages.

Table 5.10 AWARENESS OF DIARRHOEA								
Percentage of women who are aware of diarrhoea management, type of practice followed if child gets diarrhoea, and percentage of women whose child suffered ¹ from diarrhoea by selected background characteristics, West Bengal, 2002-04								
Background characteristic	Knowledge of diarrhoea management	Type of practices to be followed if child gets diarrhoea						Number of women
		Give ORS	Salt and sugar solution	Continue normal food	Continue breastfeeding	Give plenty of fluids	Do not know	
Age								
15-24	75.6	33.2	51.2	4.3	12.4	4.2	15.8	2,999
25-34	85.2	37.4	64.4	6.1	11.5	9.0	9.5	1,774
35-44	87.5	37.4	62.2	4.0	16.9	13.9	9.2	193
Residence								
Rural	78.4	33.1	54.4	5.2	12.4	5.0	14.1	3,614
Urban	82.4	39.5	61.6	4.0	11.6	9.8	11.1	1,353
Mother's education								
Non-literate	74.1	28.0	47.4	5.4	13.0	3.9	18.7	1,967
0-9@ years	80.8	35.6	59.7	4.4	10.9	5.8	10.8	2,371
10 and above	91.4	53.2	71.4	5.2	14.8	15.1	5.4	624
Religion								
Hindu	77.4	35.4	54.4	4.6	11.6	7.1	15.0	3,418
Muslim	84.2	34.3	60.7	5.5	14.0	4.7	9.2	1,476
Other	80.8	18.9	61.7	3.0	5.3	1.0	13.4	73
Caste/tribe#								
Scheduled caste	74.9	33.5	53.8	4.5	12.6	5.4	15.3	1,354
Scheduled tribe	65.0	23.9	37.7	5.8	12.8	1.3	26.0	322
Other backward class	82.1	34.4	58.1	5.4	13.7	6.4	15.0	273
Other	83.7	37.2	59.6	5.1	12.1	7.5	10.5	2,808
Standard of living index								
Low	76.1	30.9	51.1	4.9	12.3	4.7	15.2	2,935
Medium	81.6	38.1	60.3	4.4	12.1	6.0	12.6	1,416
High	90.8	46.1	72.4	5.8	12.2	14.3	5.8	616
Availability of health facility² in the village								
Yes	79.9	34.5	56.6	5.6	12.1	5.2	12.8	1,995
No	76.5	31.4	51.6	4.7	12.9	4.7	15.7	1,619
Total	79.5	34.8	56.3	4.9	12.2	6.3	13.3	4,966

Note: Table based on women with living children born since 01.01.1999 for phase - I /01.01.2001 for phase - II. ¹ Last two weeks prior to survey. Total includes 4 women with missing information on education who are not shown separately. @ Literate mother with no years of schooling are included. # Total figure may not add to N due to do not know and missing cases. ² Includes sub-centre, primary health centre, Community health centre or referral hospital, government hospital, and government dispensary within the village.

5.7.2 Treatment of Diarrhoea

During the two weeks before the survey, 6 percent of the women reported that their children suffered from diarrhoea (Table 5.11). Women, whose children had diarrhoea, were further asked about treatment with ORS, any other medical treatment and source of treatment. About 44 percent of the women mentioned that they gave ORS therapy, and 72 percent of the women said that their child had been treated at health facility. Use of ORS for the treatment of childhood diarrhoea in West Bengal is relatively high among urban women than among rural women.

It was observed that a relatively high proportion of women from those villages where health facilities are available within the village used ORS for the treatment of childhood diarrhoea.

Table 5.11 TREATMENT OF DIARRHOEA					
Percentage of women who sought treatment whose child suffered from diarrhoea and by source of treatment, according to place of residence and availability of health facility in the village, West Bengal, 2002-04					
Sought treatment/ source of treatment	Total	Residence		Availability of health facility ² in the village	
		Rural	Urban	Yes	No
Percentage of women whose child suffered ¹ from diarrhoea	6.2	7.1	3.9	7.3	6.9
Number of women	4,966	3,614	1,353	1,955	1,619
Percentage of women whose child suffered ¹ from diarrhoea treated with ORS	44.0	43.7	45.4	47.5	39.9
Percentage of women whose child suffered ¹ from diarrhoea sought treatment	72.0	72.5	69.4	72.9	71.9
Number of women	310	257	53	146	111
Source of treatment					
Government health facility					
Hospital/dispensary	15.9	10.8	(21.6)	10.2	11.5
UHC/UHP/UFWC	0.3	0.3	(0.0)	0.0	0.8
CHC/ Rural hospital	2.6	3.1	(0.0)	4.9	0.8
Primary health centre	2.7	3.2	(0.0)	2.6	4.0
Sub centre	3.8	4.5	(0.0)	3.9	5.4
Private health facility					
NGO/Trust hospital/clinic	0.6	0.7	(0.0)	1.3	0.0
Private hospital clinic	40.2	41.5	(43.2)	42.1	40.7
ISM ³ facility	29.6	25.2	(32.4)	25.8	24.5
Home remedy	8.3	8.3	(10.8)	8.8	7.5
Other	22.0	25.0	(13.5)	26.3	23.3
Percent distribution of women who seek treatment by					
Doctor	83.2	80.6	(91.9)	83.2	77.1
ANM/Nurse/LHV	8.6	9.7	(5.4)	8.9	10.8
<i>Dai</i> (trained or untrained)	0.1	0.1	(0.0)	0.2	0.0
Relative/friends	1.9	2.3	(0.0)	0.7	4.4
Chemist/medical shop	1.0	1.2	(2.7)	0.7	1.9
ISM practitioner	3.6	4.3	(0.0)	4.3	4.2
Missing	1.5	1.8	(0.0)	2.0	1.6
Total percent	100.0	100.0	100.0	100.0	100.0
Number of women	223	186	37	106	80
Note: Table based on women with living children born since 01.01.1999 for phase - I /01.01.2001 for phase - II. ¹ Last two weeks prior to survey. ² Includes sub-centre, primary health centre, Community health centre or referral hospital, government hospital, and government dispensary within the village. ³ Either government or private health facility of Indian System of Medicine. () Based on less than 50 unweighted cases.					

Among those mothers whose children suffered from diarrhoea during the last two weeks before the survey and those women who consulted or obtained advice, about 40 percent of women visited private hospitals/clinics and 30 percent of women treated their children through the Indian System of Medicine.

5.7.3 Awareness of Pneumonia

Another major killer disease among infants and children is Acute Respiratory Infections (ARI) including pneumonia. Early diagnosis and treatment with antibiotics can prevent a large proportion of ARI/pneumonia deaths. An attempt was made to understand the awareness level of pneumonia, and the proportion of children who had suffered from pneumonia during the last two weeks before the survey and their health seeking behaviour. This is presented in Table 5.12. It was found that a low proportion (23 percent) of women with births in the three years preceding the survey in West Bengal were aware of danger signs of pneumonia. The figure was slightly up from 19 percent in Round I. A relatively higher proportion of women in urban areas (36 percent) were aware of the danger signs of pneumonia as compared to women from rural areas (18 percent). Knowledge of danger signs of pneumonia is higher among older women (30 percent), women from other religion (34 percent), other castes category (27 percent), highly educated women (44 percent), women living in high standard of living household (45 percent), and women living in those villages with health facilities (19 percent).

Women, who were aware of the danger signs of pneumonia, were further asked about the different types of signs of pneumonia. Most of the women mentioned about 'difficulty in breathing' (80 percent), 'pain in chest and productive cough' (61 percent), 'wheezing / whistling' (35 percent), 'chest in drawing' (16 percent), 'not able to drink or take a feed' 20 percent), 'rapid breathing' (16 percent), 'condition get worse than before' (8 percent) and 'excessive drowsy and difficulty in keeping awake' (5 percent).

5.7.4 Treatment of Pneumonia

About 16 percent of women reported that their child had suffered from pneumonia during the two weeks before the survey, the corresponding figure was 19 percent in rural areas and 8 percent in urban areas (Table 5.13). The incidence of pneumonia varies slightly with availability of health facilities in the villages.

Table 5.13 also shows that the percentage of women whose children suffered from ARI symptoms in the last two weeks before the survey who sought advice/treatment and taken to a health facility or provider. Eighty one percent of women received some advice or treatment whose children were ill with ARI. This percentage is relatively low in rural areas (79 percent) than in urban areas (89 percent) and village without health facilities (78 percent) than village with health facility (80 percent).

Among them who got advice for children ill with ARI, 56 percent of women visited private hospital/clinic, and only 5 percent went to government hospital/dispensary, whereas 18 percent of them obtained treatment through Indian System of Medicine.

Table 5.12 AWARENESS OF PNEUMONIA											
Percentage of women who are aware of danger signs of pneumonia by signs by selected background characteristics and availability of health facility in the village, West Bengal, 2002-04											
Background characteristic	Percentage of women aware of danger signs of pneumonia	Number of women	Danger signs of ARI								Number of women
			Difficulty in breathing	Chest in-drawing	Not able to drink or take a feeding	Excessive drowsy and difficulty in keeping awake	Pain in chest and productive cough	Conditions get worse than before	Wheezing/whistling	Rapid breathing	
Age											
15- 24	19.8	2,999	78.6	15.0	18.9	4.9	58.1	10.2	35.2	16.8	594
25-34	27.6	1,774	82.3	16.8	20.6	5.5	62.6	6.1	34.7	15.2	490
35-44	30.3	193	76.9	15.6	25.3	4.0	68.9	10.0	35.2	12.1	58
Residence											
Rural	18.3	3,614	76.2	15.8	21.2	5.7	58.3	10.9	35.9	14.5	662
Urban	35.6	1,353	85.4	15.8	18.2	4.2	63.8	5.1	33.7	17.8	481
Mother's education											
Non-literate	15.9	1,967	76.8	15.9	22.2	6.2	56.7	9.9	37.4	14.1	313
0-9@ years	23.5	2,371	80.1	16.8	19.0	4.7	59.4	9.4	37.8	16.8	556
10 and above	43.6	624	83.7	13.5	19.1	4.3	67.5	4.6	26.1	15.8	272
Religion											
Hindu	22.1	3,418	80.0	15.9	20.3	5.5	60.3	7.7	33.9	14.2	753
Muslim	24.8	1,476	79.0	15.3	20.0	4.0	61.7	10.5	37.1	19.1	365
Other	33.7	73	(88.2)	(11.8)	(17.6)	(11.8)	(52.9)	(0.0)	(35.3)	(23.5)	25
Caste/tribe#											
Scheduled caste	18.8	1,354	80.2	16.2	21.8	5.6	53.8	8.8	32.6	15.6	255
Scheduled tribe	9.7	322	(61.8)	(25.0)	(6.3)	(12.5)	(46.9)	(3.1)	(34.4)	(9.4)	31
Other backward class	22.3	273	73.1	15.2	22.4	4.2	51.0	14.0	32.6	15.3	61
Other	26.7	2,808	81.2	16.3	19.6	5.2	65.2	8.2	36.1	17.1	751
Standard of living index											
Low	15.7	2,935	75.3	18.4	20.9	5.2	56.6	11.2	36.4	14.0	459
Medium	28.6	1,416	83.3	10.6	20.0	5.9	60.9	7.1	37.1	17.6	405
High	45.3	616	83.3	19.2	18.4	3.8	66.9	5.9	29.6	16.4	279
Availability of health facility² in the village											
Yes	19.2	1,995	77.3	12.6	20.6	4.8	61.3	7.5	34.3	10.7	383
No	17.2	1,619	74.8	20.3	22.1	7.0	54.2	15.5	38.0	19.7	278
Total	23.0	4,966	80.1	15.8	20.0	5.1	60.6	8.4	35.0	15.9	1,143

Note: Table based on women with living children born since 01.01.1999 for phase - I /01.01.2001 for phase - II. ¹ Last two weeks prior to survey.
 @ Literate mother with no years of schooling are included. # Total figure may not add to N due to do not know and missing cases.
² Includes sub-centre, primary health centre, Community health centre or referral hospital, government hospital, and government dispensary within the village.
 Total includes 4 women with missing information on education who are not shown separately.
 () Based on less than 50 unweighted cases.

Table 5.13 TREATMENT OF PNEUMONIA

Percentage of women who sought treatment whose child suffered¹ from cough and cold and source of treatment, according to place of residence and availability of health facility in the village, West Bengal, 2002-04

Sought treatment/ source of treatment	Total	Residence		Availability of health facility ² in the village	
		Rural	Urban	Yes	No
Percentage of women whose child suffered from cough, cold and difficulty in breathing	15.8	18.7	8.1	18.9	18.5
Number of women	4,966	3,614	1,353	1,995	1,619
Percentage of women sought treatment whose child suffered from cough and cold	80.6	79.2	88.9	80.1	78.1
Number of women	786	676	109	377	299
Source of treatment					
Government health facility					
Hospital/dispensary	4.6	4.9	2.8	5.1	4.7
UHC/UHP/UFWC	0.2	0.2	0.0	0.0	0.5
CHC/ Rural hospital	1.2	1.2	1.5	1.2	1.2
Primary health centre	2.6	2.7	1.9	1.5	4.3
Sub centre	1.3	1.5	0.0	1.6	1.5
Private health facility					
NGO/Trust hospital/clinic	0.2	0.2	0.0	0.0	0.5
Private hospital clinic	55.7	53.9	65.7	53.4	54.4
ISM ³ facility	17.5	16.6	21.9	13.0	21.4
Home remedy	5.5	5.9	3.5	4.9	7.2
Other	15.4	17.1	6.3	22.4	10.1
Percent distribution of women who seek treatment by					
Doctor	80.6	79.4	87.6	80.0	78.6
ANM/Nurse/LHV	2.7	2.9	1.5	3.4	2.4
Dai (trained or untrained)	0.2	0.3	0.0	0.3	0.3
Relative/friends	1.6	1.4	2.9	1.7	1.0
Chemist/medical shop	0.5	0.5	0.5	0.1	0.9
ISM practitioner	2.7	2.6	3.6	1.8	3.5
Other	11.5	12.9	3.9	12.7	13.3
Total percent	100.0	100.0	100.0	100.0	100.0
Number of women	633	536	97	302	233
Note: Table based on women with living children born since 01.01.1999 for phase - I /01.01.2001 for phase - II. ¹ Last two weeks prior to survey. ² Includes sub-centre, primary health centre, community health centre or referral hospital, government hospital, and government dispensary within the village. ³ Either government or private health facility of Indian System of Medicine.					

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

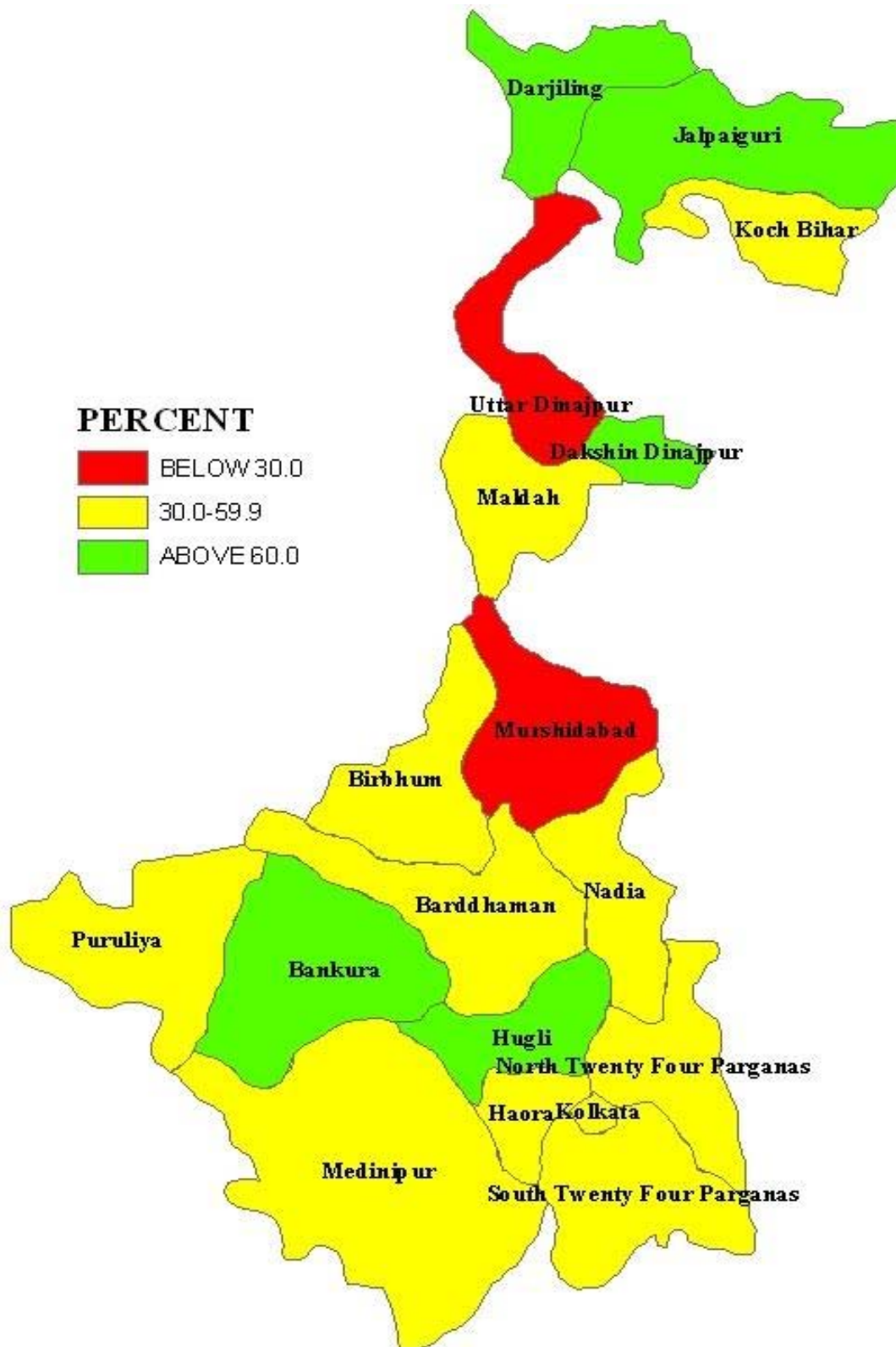
Table 5.14 presents the knowledge of diarrhoea management, knowledge of ORS, and incidence of diarrhoea by district. Although knowledge of diarrhoea management is high in almost all the districts but knowledge about ORS is low. Knowledge of ORS is also not common, and it is lowest in Barddhaman (19 percent). Women in Darjiling, Nadia, Koch Bihar, Uttar Dinajpur, Murshidabad, North 24 Parganas and Jalpaiguri also have relatively low level of knowledge of ORS. The incidence of diarrhoea is 6 percent in the state as a whole and it varies from two percent in Nadia to 12 percent in Murshidabad. Table 5.14 also shows differentials in the awareness of danger signs of pneumonia and incidence of pneumonia. In comparison to awareness about diarrhoea management, the awareness of danger signs of pneumonia is quite low. It is the lowest in Medinipur (9 percent) and highest in Jalpaiguri (41 percent). Incidence of ARI symptoms is comparatively high in nearly all the districts in West Bengal. It is highest in Hugli (34 percent), Birbhum and Murshidabad (28 percent each) Maldah (26 percent), and lowest in Kolkata (6 percent), South 24 Parganas (7 percent), Haora and Puruliya (8 percent each).

Table 5.14 KNOWLEDGE OF DIARRHOEA MANAGEMENT AND PNEUMONIA BY DISTRICT					
Percentage of women by awareness of diarrhoea management, ORS, danger signs of pneumonia and whose child had suffered from diarrhoea and pneumonia during last two weeks prior to survey by district, West Bengal, 2002-04					
District	Percentage of women aware of		Percentage of women whose child suffered ¹ from diarrhoea	Percentage of women aware of danger signs of pneumonia	Percentage of women whose child suffered ¹ from pneumonia
	Diarrhoea Management	ORS			
Bankura	80.2	48.7	4.4	17.5	13.4
Barddhaman	69.0	19.4	5.0	19.6	14.4
Birbhum	88.8	49.2	7.6	27.1	28.2
Dakshin Dinajpur	88.2	34.2	3.3	10.8	8.8
Darjiling	62.3	24.6	8.1	34.9	10.9
Haora	89.5	43.4	6.1	30.8	7.6
Hugli	83.7	43.3	2.7	35.0	33.5
Jalpaiguri	87.2	32.5	5.1	41.0	9.9
Koch Bihar	75.6	26.3	7.0	37.1	19.7
Kolkata	90.1	41.7	1.5	39.1	6.0
Maldah	85.9	37.6	9.5	18.7	25.7
Medinipur	70.1	43.1	9.3	9.0	17.1
Murshidabad	77.8	28.5	12.4	22.5	28.2
Nadia	89.9	25.5	2.0	20.6	17.3
North 24 Parganas	79.7	29.3	6.5	22.7	14.2
Puruliya	69.6	41.5	2.7	10.9	7.5
South 24 Parganas	83.2	43.3	3.0	22.9	6.6
Uttar Dinajpur	87.4	30.2	6.7	27.5	12.7
West Bengal	79.5	34.8	6.2	23.0	15.8

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

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

MAP-5
Percentage of Children (age 12-23 months), Who Have Received Full Vaccination



CHAPTER VI

FAMILY PLANNING

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

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

6.1 Knowledge of Family Planning Methods

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

The extent of knowledge of contraceptive methods among currently married women for specific methods and selected background characteristics are shown in Table 6.1 and Figure 6.1. Knowledge of any method including any modern contraceptive method is almost universal in the state of West Bengal. The knowledge of any method and any modern method do not vary much by residence. The knowledge of modern spacing method among currently married women is around 98 percent, and slightly higher among the women with an urban residence. There are large differentials in knowledge of all modern methods with respect to the aforesaid background characteristics. For instance, 53 percent of women from rural areas are aware about all modern methods compared to 74 percent of their urban counterparts.

Table 6.1 KNOWLEDGE OF CONTRACEPTIVE METHODS					
Percentage of currently married women age 15-44 years who know any contraceptive method by specific method and selected background characteristics, West Bengal, 2002-04					
Contraceptive methods	Total	Residence		Availability of health facility in the village ³	
		Rural	Urban	No	Yes
Any method	99.6	99.4	100.0	99.1	99.6
Any modern method	99.5	99.3	100.0	99.0	99.5
Any modern spacing method ¹	97.5	96.7	99.1	95.9	97.3
All modern methods ²	59.5	52.6	73.8	48.1	56.1
Female sterilization	98.9	98.5	99.7	98.3	98.6
Tubectomy	95.8	95.0	97.5	94.0	95.7
Laparoscopy	82.1	81.0	84.5	80.6	81.2
Male sterilization	81.6	78.2	88.6	77.1	79.1
Vasectomy	61.3	56.5	71.5	51.0	60.7
No-scalpel vasectomy	31.5	30.1	34.4	28.3	31.4
IUD/Loop	75.3	70.3	85.8	66.3	73.4
Pills	96.4	95.4	98.6	94.5	96.1
Daily	83.9	80.8	90.5	79.4	81.9
Weekly	22.4	20.1	27.0	19.1	20.9
Condom/Nirodh	80.5	75.6	90.9	71.6	78.7
Sponge (today)	18.9	13.7	29.8	13.6	13.8
Injectables	57.8	59.6	54.0	55.2	63.1
Norplant	6.1	5.6	7.0	5.7	5.6
Contraceptive herbs	47.7	49.8	43.3	50.5	49.2
Any traditional method	91.5	89.9	94.7	87.6	91.7
Any other Indian system of medicinal contraceptives	36.3	34.5	40.0	33.3	35.5
Number of women	15,614	10,557	5,057	4,608	5,949

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

Female sterilisation is the most widely known method of all contraceptive methods in West Bengal followed by Pills. Overall, 99 percent of currently married women are aware of female sterilization and 82 percent knew about male sterilization. There is no rural - urban difference in knowledge of female sterilization but it is not the case of male sterilization. A sizable number of urban women (72 percent) know about male sterilization as compared to 56 percent of rural women. There are differentials in users of spacing methods such as IUD/Loop, Pill and condom with respect to the background characteristics. The best known spacing methods are Pills (96 percent) and condoms (81 percent). Only 75 percent of women know about the IUD/Loop. There is a large differential in knowledge of spacing methods by residence- 76 percent of the rural women know condom compared to 91 percent of urban women. The modern spacing methods, Pill and IUD are known to 95 and 70 percent of rural women respectively while the corresponding figure in urban areas is 99 and 86 percent respectively of eligible women respondents. The knowledge of these spacing methods remains low as compared to knowledge of sterilization.

In West Bengal, more than 92 percent of the women are aware of a traditional method and more than one third are also aware of other contraceptives of the Indian System of Medicine. It is also observed that women from villages with a health facility are slightly more aware about modern spacing methods.

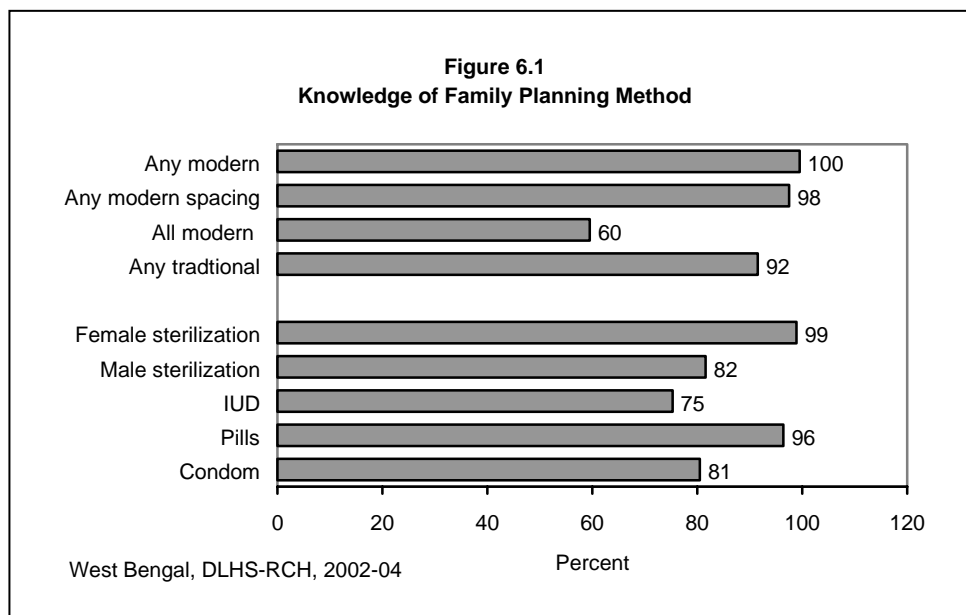


Table 6.2 KNOWLEDGE OF CONTRACEPTIVE METHODS BY DISTRICTS

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

Districts	Any method	Any modern ¹ method	Any modern spacing ² method	All modern ³ methods	Male sterilization	Female sterilization	IUD	Pill	Condom /Nirodh	Any traditional method
Bankura	99.7	99.7	96.9	59.7	87.4	99.5	76.3	96.0	73.5	88.9
Bardhaman	100.0	100.0	96.7	59.4	84.8	99.6	73.7	96.2	78.3	92.5
Birbhum	97.6	97.6	95.9	40.4	73.3	96.3	57.7	95.0	71.9	86.0
Dakshin Dinajpur	99.2	99.1	97.8	60.4	84.6	99.1	68.8	97.5	83.3	91.6
Darjiling	99.5	99.3	97.3	61.0	82.2	99.1	77.9	96.8	82.2	92.4
Haora	100.0	100.0	99.4	74.7	87.4	100.0	88.5	99.0	91.3	97.0
Hugli	99.2	99.2	97.9	69.8	87.7	98.9	80.9	96.7	88.4	91.9
Jalpaiguri	99.9	99.8	98.3	57.4	82.8	99.0	71.9	97.2	82.3	92.9
Koch Bihar	99.7	99.7	98.2	54.6	84.8	99.3	79.8	95.5	73.1	89.9
Kolkata	100.0	100.0	99.5	85.8	93.5	99.9	94.4	99.4	93.9	97.0
Maldah	99.6	99.5	98.0	49.5	76.2	98.1	62.4	97.5	78.5	92.5
Medinipur	100.0	100.0	98.8	65.9	91.9	99.9	87.0	97.7	73.6	89.9
Murshidabad	99.0	98.6	92.8	42.4	74.0	95.9	54.9	90.7	70.1	86.9
Nadia	99.9	99.9	98.9	60.4	77.0	99.7	77.8	98.4	86.8	97.0
North 24 Parganas	100.0	99.7	98.5	65.1	80.0	99.0	79.7	97.0	91.3	95.9
Puruliya	97.3	97.2	92.5	32.9	53.1	96.3	50.1	90.2	72.7	79.8
South 24 Parganas	100.0	100.0	99.6	63.8	77.4	99.8	81.6	99.4	87.0	93.1
Uttar Dinajpur	99.4	99.0	95.7	41.2	77.3	98.5	53.2	94.6	69.9	87.8
West Bengal	99.6	99.5	97.5	59.5	81.6	98.9	75.3	96.4	80.5	91.5

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

6.1.1 Knowledge of Family Planning Methods by Districts

Table 6.2 shows the knowledge of contraceptive methods by districts in West Bengal. In all the districts, more than 97 percent of women know about contraceptives including modern methods. A large differential is noticed in the knowledge of all modern methods by districts. The awareness ranges from 32 percent women in Puruliya to 86 percent in Kolkata district. There is not much variation in the knowledge of female sterilization, with the lowest in Murshidabad (96 percent) and the highest in Haora district (100 percent). Knowledge about IUD/Loop and condom is 50 and 70 percent respectively in Puruliya and Uttar Dinajpur districts, whereas the same is around 94 percent for each method in Kolkata district. As for any traditional method, awareness is 97 percent in Nadia, Kolkata and Haora districts and the least in Puruliya district (80 percent).

6.1.2 Knowledge of No-Scalpel Vasectomy (NSV)

Knowledge of no-scalpel vasectomy among the husbands of currently married women in the state of West Bengal is shown in Table 6.3. Only one fourth (25 percent) of the husbands know about the no-scalpel vasectomy. In rural areas, 23 percent of husbands know about NSV compared to 29 percent in urban areas. For women residing in villages with a health facility, 23 percent of their husbands are aware of No-scalpel vasectomy and it is nearly the same, that is, 23 percent for those living in villages without health facilities. Among the husbands who know about NSV, 76 percent reported that NSV is simpler than a conventional family planning method, 48 percent feel that NSV does not lead to any complication and 39 percent reported that NSV does not affect a man's sexual performance. Only 39 percent of the husbands in villages with a health facility reported that, NSV does not affect sexual performance compared to 40 percent of husbands in villages without a health facility.

Table 6.3 KNOWLEDGE OF NO-SCALPEL VASECTOMY (NSV)					
Husbands knowledge of NSV by residence and availability of health facility in the village, West Bengal, 2002-04					
Knowledge of NSV	Total	Residence		Availability of health facility in the village ¹	
		Rural	Urban	No	Yes
Percentage of husband who had knowledge about NSV	24.8	22.9	29.1	22.9	22.9
Number of husbands	10,958	7,580	3,378	3,357	4,223
Who know that NSV is simpler than conventional vasectomy	76.4	76.0	77.1	70.7	80.3
Who feel that NSV does not lead to any complication	48.1	47.1	49.9	46.7	47.5
Who feel that NSV does not affect man's sexual performance	39.0	39.2	38.6	39.8	38.8
Number of husbands	2,721	1,738	983	770	968

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

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

No-scalpel vasectomy awareness by districts in West Bengal is provided in Table 6.4. The districts in which at least 25 percent of husbands know about NSV are Bankura (41 percent), Medinipur (38 percent), Birbhum (31 percent), Haora (30 percent), Hugli (28 percent), Braddhaman (28 percent), Darjiling (28 percent) and Kolkata (26 percent). Only 10 percent of the husbands in Puruliya district know about the no-scalpel vasectomy. That NSV does not lead to any complications was reported by 69 percent of the husbands in Jalpaiguri district, followed by 67 percent in Uttar Dinajpur and 62 percent in Dakshin Dinajpur, and only 41 percent in North 24 Paraganas, Darjiling and Bankura. The husbands who reported that the NSV does not affect a man's sexual performance were highest 59 percent in Jalpaiguri district and the lowest in Koch Bihar (26 percent).

Districts	Knowledge about NSV	NSV is simpler than conventional method	Who reported NSV does not lead to any complication	Who reported NSV does not affect man's sexual performance
Bankura	41.3	62.9	41.4	48.0
Barddhaman	28.0	88.0	49.8	36.3
Birbhum	30.7	74.5	46.3	47.9
Dakshin Dinajpur	20.9	81.6	62.4	50.7
Darjiling	28.3	70.3	41.3	39.9
Haora	30.1	72.8	44.7	32.4
Hugli	28.0	68.7	44.7	34.4
Jalpaiguri	16.9	90.0	68.8	58.7
Koch Bihar	19.6	81.3	48.7	25.8
Kolkata	25.5	74.2	52.6	38.4
Maldah	20.9	82.8	49.0	55.1
Medinipur	37.8	75.6	46.6	36.9
Murshidabad	20.9	65.0	51.8	44.8
Nadia	25.1	87.3	46.0	37.0
North 24 Parganas	19.0	76.6	40.5	42.1
Puruliya	9.8	89.1	46.5	37.9
South 24 Parganas	16.1	72.5	47.8	27.7
Uttar Dinajpur	14.6	88.7	67.0	47.9
West Bengal	24.8	76.4	48.1	39.0

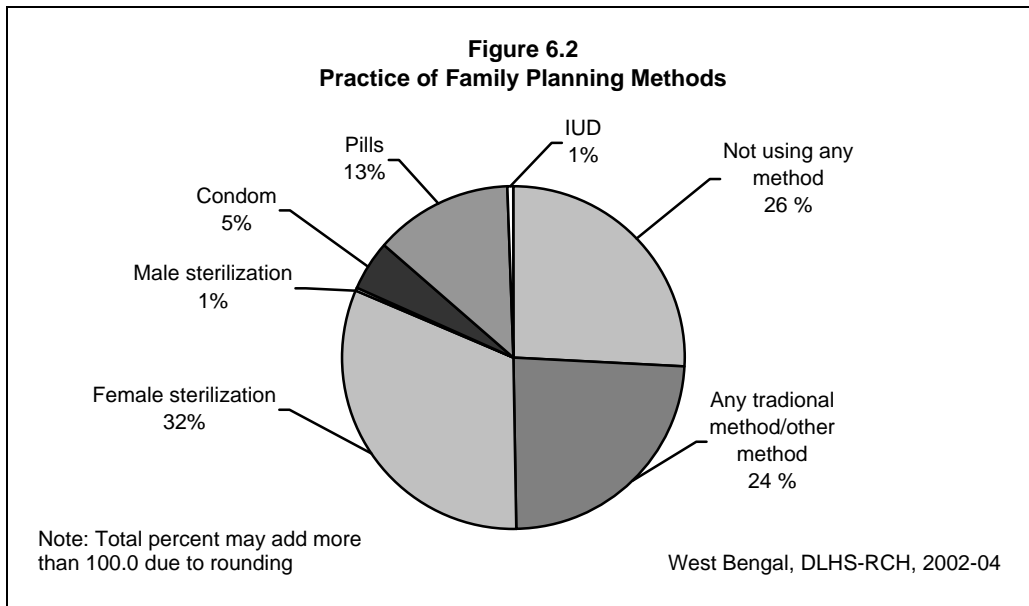
6.2 Current use of Family Planning Methods

Table 6.5 and Figure 6.2 provide the information on current use of family planning methods for currently married women in West Bengal. At the time of DLHS-RCH, 74 percent of currently married women were using some method of contraception, 5 percentage points up from Round I. Current contraceptive use is slightly higher in urban areas (80 percent) than in rural areas (71 percent). Use of modern method is reported by 51 percent of the women, the breakdown of which is 32 percent for permanent methods and 18 percent for spacing methods. Among the users of sterilization methods, most prefer female sterilization, which invalidates the use of male sterilization (0.5 percent).

Table 6.5 CONTRACEPTIVE PREVALENCE RATE													
Percentage of currently married women age 15-44 years currently using any contraceptive method by selected background characteristics, West Bengal, 2002-04													
Method	Any method	Any modern ¹ method	Any modern spacing method ²	Any sterilization	Male sterilization	Female sterilization	IUD/ Loop	Pill	Condom / Nirodh	Any traditional method ³	Rhythm/ periodic abstinence	Withdrawal	Number of women
Residence													
Rural	71.4	51.9	16.2	35.2	0.6	34.6	0.4	13.0	2.8	19.5	10.0	8.2	10,557
Urban	79.8	49.3	22.6	25.8	0.4	25.4	1.0	13.0	8.6	30.5	10.5	19.7	5,057
Education													
Non-literate	71.2	56.4	12.0	43.9	0.8	43.1	0.4	10.0	1.7	14.8	8.0	5.5	6,277
0-9@ years	74.4	50.1	21.1	28.3	0.4	27.9	0.8	15.5	4.8	24.3	10.4	12.9	6,969
10 years & above	80.8	39.7	26.2	12.7	0.5	12.1	0.8	13.4	12.1	41.1	15.0	25.7	2,357
Religion													
Hindu	77.0	52.8	16.7	35.5	0.6	34.9	0.5	11.6	4.6	24.2	10.2	13.0	11,872
Muslim	64.4	44.8	23.3	20.6	0.3	20.4	1.0	18.0	4.3	19.5	10.0	8.4	3,506
Christian	78.0	54.3	18.7	33.5	0.8	32.8	0.0	10.8	7.9	23.7	13.6	10.1	87
Other	72.6	59.0	19.3	39.1	1.5	37.7	1.7	5.4	12.2	13.6	4.8	8.8	150
Caste/tribe#													
Scheduled caste	75.2	56.7	13.6	42.8	0.8	42.0	0.4	10.8	2.5	18.5	9.1	8.3	4,306
Scheduled tribe	61.9	46.6	9.2	36.6	0.7	35.9	0.3	6.6	2.2	15.3	7.4	6.0	898
Other backward class	71.6	48.0	16.5	30.4	0.4	30.0	0.3	11.1	5.1	23.6	7.3	15.5	935
Other	75.3	49.1	21.6	26.8	0.4	26.4	0.8	14.9	5.9	26.3	11.4	14.0	8,944
Standard of living index													
Low	69.0	52.0	14.0	37.6	0.6	37.0	0.3	11.6	2.0	17.0	8.9	6.7	8,074
Medium	77.6	53.5	21.9	30.8	0.6	30.2	1.0	15.6	5.4	24.1	10.4	12.9	4,895
High	83.1	43.4	24.3	18.4	0.3	18.1	0.8	12.2	11.3	39.7	13.5	25.9	2,646
Availability of health facility in the village ⁴													
No	68.3	50.1	14.7	35.0	0.8	34.3	0.4	11.9	2.4	18.2	9.2	7.5	4,608
Yes	73.7	53.3	17.3	35.4	0.5	34.9	0.5	13.8	3.0	20.4	10.6	8.6	5,949
Total	74.1	51.0	18.2	32.2	0.5	31.6	0.6	13.0	4.6	23.0	10.2	11.9	15,614

Note: ¹ Include Female sterilization, Male sterilization, IUD, Pills and Condom. ² Include IUD, Pills and Condom. ³ Include Rhythm/Periodic abstinence, Withdrawal and Other traditional method. ⁴ Includes sub-centre, primary health centre, community health centre or referral hospital, government hospital, and government dispensary within the village.

The use of traditional methods is reported by 23 percent of the women of whom 12 percent are using withdrawal and 10 percent follow the rhythm or periodic abstinence practice. The rural-urban differential is visible in the case of traditional methods, where 30 percent of the urban women are using this means of contraception compared to 20 percent of the rural women.



Current use of contraception is high among women of scheduled castes and other castes (75 percent each) than among backward class women (72 percent). The current use is also high among the women who have 10 or more years of schooling (81 percent) than the women who have less than 10 years of schooling (74 percent) and also among non-literate women (71 percent). Similarly, current contraceptive use varies positively with respect to the standard of living of the women, increasing the prevalence rate from 69 percent to 83 percent for women from the lowest to the highest standard of living households. The availability of the health facility in the village is an important factor in motivating eligible women to use contraceptives. Seventy four percent of the women living in villages with a health facility are currently under contraception and this is higher than the women from villages deprived of a health facility (68 percent). The current use of the traditional method is also higher among women with a higher education level and with a high standard of living than their counterparts not on par with these categories of women.

6.2.1 Current Use of Family Planning Methods by Districts

Table 6.6 presents a picture of current contraceptive use in the districts of West Bengal. The contraceptive use is a couple concept as family planning methods can be used either by women or by their husbands. In most of the districts, the current use of contraception exceeds 60 percent of eligible women except for the district of Uttar Dinajpur and

Maldah (see Map-6). The state figure of use of current spacing methods is 18 percent and it ranges from 11 percent in Puruliya district to 27 percent in North 24 Paraganas. The variation in contraceptive prevalence at district level is basically due to the variation in the use of spacing methods while both modern and traditional contraceptive uses do not show much variation across districts.

Table 6.6 CONTRACEPTIVE PREVALENCE RATES BY DISTRICTS
Percentage of currently married women age 15-44 years currently using any contraceptive method by districts, West Bengal, 2002-04

Districts	Any method	Any moder Method ¹	Any modern spacing method ²	Male sterilization	Female sterilization	IUD	Pill	Condom/Nirodh	Any traditional method ³
Bankura	76.0	62.7	14.0	1.0	46.9	0.2	10.4	3.4	13.3
Bardhaman	82.4	58.2	15.0	0.7	42.3	0.0	12.3	2.7	24.2
Birbhum	72.3	55.9	21.4	0.0	33.7	0.1	17.9	3.4	16.4
Dakshin Dinajpur	74.7	51.9	21.6	0.1	29.8	0.0	17.1	4.5	22.9
Darjiling	74.8	54.8	20.6	2.2	30.8	3.2	11.7	5.7	20.0
Haora	77.6	55.2	22.7	0.4	30.9	1.3	16.9	4.5	22.4
Hugli	80.8	58.7	16.3	0.1	42.3	0.3	12.5	3.5	22.0
Jalpaiguri	70.9	52.4	21.5	0.1	30.7	0.3	12.8	8.4	18.5
Koch Bihar	73.3	49.3	14.5	3.0	31.8	0.6	11.4	2.5	24.0
Kolkata	79.6	47.5	21.6	0.3	24.0	1.2	11.1	9.3	32.0
Maldah	59.8	33.6	17.7	0.1	15.4	0.4	12.3	5.0	26.2
Medinipur	75.6	55.7	16.8	1.0	37.7	0.7	13.6	2.5	19.8
Murshidabad	68.3	52.3	12.1	0.6	38.7	0.2	8.5	3.5	16.0
Nadia	82.3	46.3	14.6	0.4	30.9	0.8	8.2	5.6	35.9
North 24 Parganas	75.9	48.3	27.0	0.6	19.8	0.8	17.3	8.9	27.6
Puruliya	61.3	48.3	11.4	0.0	36.6	0.4	7.1	3.9	12.9
South 24 Parganas	73.4	50.0	25.4	0.0	23.1	0.7	20.5	4.2	23.3
Uttar Dinajpur	57.2	32.1	11.5	0.3	20.1	0.2	9.4	1.9	25.1
West Bengal	74.1	51.0	18.2	0.5	31.6	0.6	13.0	4.6	23.0

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

The pattern of use of contraceptive methods in West Bengal is different from the general existing pattern in India. The contraceptive prevalence rate of 23 percent for traditional methods in the state is much higher than that in other states in the country except Assam (29 percent). The use of oral Pills exceeds 15 percent in the districts of Birbhum, Dakshin Dinajpur, Haora, North 24 Paraganas and South 24 Paraganas. The districts in which the use of condom is more than 5 percent are in Darjiling, Jalpaiguri, Kolkata, North 24 Paraganas, and Nadia.

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

Table 6.7 provides information on current contraceptive use and ever used of contraception by age and number of surviving children, living sons and daughters. The current use of any method of contraception among currently married women in the 15-19 years age group is 39 percent and this attains a peak of 89 percent in the age group, 35-39 years. A similar age pattern of contraceptive use is also observed both in case of modern and traditional methods. The use of traditional method is 27 percent for the women aged 35-39 years and 26 percent for the women aged 40-44 years and it is least (18 percent)

for the women in younger age groups 15-19 years. The use of modern methods ranges from 21 percent for women in the age group 15-19 years to 63 percent for women in the age group 30-34 years.

Table 6.7 USE OF CONTRACEPTION BY WOMEN							
Percentage of currently married women in 15-44 years by current use and ever use of contraception according to selected demographic characteristics, West Bengal, 2002-04							
Demographic Characteristic	Percentage of women/husbands using				Percentage of women/husbands by contraceptive status		
	Any modern method ¹	Any traditional method ²	Any method	Not using any method	Ever used	Never used	Number of women
Age-group							
15-19	20.9	18.4	39.4	60.6	53.0	47.0	1,792
20-24	41.5	20.3	61.7	38.3	74.8	25.2	3,124
25-29	55.1	22.8	77.9	22.1	85.7	14.3	3,237
30-34	62.5	24.2	86.7	13.3	91.6	8.4	3,001
35-39	61.8	26.8	88.6	11.4	93.3	6.6	2,463
40-44	56.1	25.5	81.6	18.4	88.8	10.9	1,998
Surviving children							
0	7.3	15.2	22.5	77.5	36.1	63.8	1,618
1	32.2	37.9	70.1	29.9	80.7	19.2	3,846
2	62.6	20.8	83.4	16.6	90.1	9.8	4,773
3 or more	67.5	16.7	84.2	15.8	90.9	9.1	5,377
Surviving sons							
0	27.1	26.2	53.3	46.7	66.1	33.8	4,652
1	55.2	25.7	80.9	19.1	87.9	12.0	6,206
2 or more	69.0	16.5	85.5	14.5	91.3	8.6	4,757
Surviving daughters							
0	37.6	25.3	62.9	37.1	72.0	28.0	5,562
1	58.1	22.4	80.6	19.4	88.0	11.9	5,973
2 or more	59.0	20.8	79.9	20.1	88.7	11.3	4,079
All women	51.0	23.0	74.1	25.9	82.5	17.5	15,614

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

It is crucial to understand the association between the number of living children and contraceptive use. The contraceptive use is high among the women who have three or more surviving children invariably of methods in West Bengal. The use of any method of contraception is 86 percent for the women who have two or more sons and is marginally higher than the women who have two or more daughters (80 percent). The same trend can be observed in the case of use of any modern method which is 69 percent for the women who have two or more surviving sons and it is higher than the women who have two or more daughters (59 percent).

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

Information pertaining to current use of family planning methods among the husbands of currently married women in West Bengal by age and number of surviving children, sons and daughters are given in Table 6.8. The current use of any method of contraception

among the husbands (aged below 25 years) of currently married women is 45 percent and it gradually picks up with the age of husband, to a peak of 86 percent in the age group, 35-44 years. Similar age patterns of contraceptive use are observed in the case of modern methods. Among the husbands in the age group, 45 years and above the use of traditional methods is 28 percent and it is least (17 percent) among the husbands in the younger age group of below 25 years. The use of modern methods ranges from 28 percent for husbands below 25 years of age to 62 percent for the husbands in the age group 35-44 years.

Table 6.8 USE OF CONTRACEPTION BY MEN					
Percentage of husband of currently married women by current use and ever use of contraception by selected demographic variables, West Bengal, 2002-04					
Demographic Characteristics	Percentage of husbands/women using				Number of men
	Any modern method ¹	Any traditional method ²	Any method	Not using any method	
Age-group					
<25	27.8	17.2	45.0	55.0	858
25-34	49.5	21.3	70.8	29.2	3,588
35-44	62.1	23.6	85.7	14.3	4,007
45+	57.9	27.6	85.6	14.4	2,506
Surviving children					
0	8.8	13.3	22.1	77.9	976
1	33.9	40.3	74.2	25.8	2,521
2	64.4	21.5	86.0	14.0	3,300
3 or more	69.5	16.6	86.1	13.9	4,161
Surviving sons					
0	27.8	27.8	55.6	44.4	2,977
1	58.4	26.0	84.4	15.6	4,348
2 or more	71.3	16.2	87.5	12.5	3633
Surviving daughters					
0	42.4	24.9	67.3	32.7	3,666
1	59.7	23.8	83.5	16.5	4,120
2 or more	61.2	20.6	81.8	18.2	3,172
All men	54.4	23.3	77.6	22.4	10,958
Note: ¹ Include Female sterilization, Male sterilization, IUD, Pills and Condom.					
² Include Rhythm/Periodic abstinence, Withdrawal and Other traditional method.					

6.3 Reasons for Not Using Male Methods

The DLHS-RCH asked husbands of currently married women about the contraceptive methods that he or his wife was using currently. The husbands who were not using male methods were further asked the reasons for it. Table 6.9 provides the information about reasons for not using male contraceptive methods in West Bengal. Among all the husbands interviewed, 61 percent reported about female methods. Reporting of female methods is higher in rural areas (67 percent) than in urban areas (49 percent). The reasons cited for not preferring the male methods are fear of weakness (47 percent), greater popularity of female methods (36 percent), lack of sexual pleasure (6 percent), fear of method failure (4 percent) and fear of operation (4 percent). Only one percent reported fear of impotency as one of the reasons for not using male methods. However, there is not

much rural-urban differential in the reasons for not using male methods, except in the case of fear of weakness. The expression for fear of weakness is higher in rural areas (49 percent) than in urban areas (43 percent). Popularity of female methods as a reason for not using male methods of contraception is more in urban areas (39 percent) than in rural areas (34 percent).

Table 6.9 REASONS FOR NOT USING MALE METHODS			
Percentage of husbands with their choice of family planning methods and reasons for not accepting male methods according to residence, West Bengal, 2002-04			
Female method users and reason for not accepting male methods	Total	Residence	
		Rural	Urban
Percentage of husband who have reported female methods	61.2	67.3	48.8
Number of men	8,505	5,706	2,799
Reasons for not accepting male methods*			
Fear of impotency	1.4	1.3	1.6
Lack of sexual pleasure	6.4	5.6	8.6
Fear of method failure	3.6	3.5	4.0
Fear of operation	3.5	3.6	3.3
Fear of weakness	47.2	48.8	43.0
Female methods are more popular	35.6	34.4	39.1
Other	14.8	15.1	13.9
Number of men	5,205	3,839	1,366

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

6.4 Source of Contraceptive Methods

To assess the various sources of contraceptive methods, DLHS-RCH collected information on source of obtaining methods. Table 6.10 and Figure 6.3 show the percent distribution of current users of modern contraceptives by source of contraceptives. Family planning methods and services in West Bengal are provided primarily through a network of government hospitals. The services are also provided by private hospitals and clinics, as well as non-governmental organisations (NGOs). Modern spacing methods like IUD, Pill and condom are available through both the government and private sectors. Government/municipal hospitals are the main source for female sterilization (41 percent) followed by community health centres or primary health centres (23 percent), family planning camps or RCH camp (20 percent) and private hospital (7 percent). For male sterilization as well, the aforesaid are the main sources with the exception of 8 percent obtaining the service from sub-centre. Among the IUD users, 40 percent reported the source as government/municipal hospital and 12 percent from the community health centres and 11 percent each from sub-centre, private hospital or private doctor. It is found that the chemist is the main source for Pills (77 percent) and condom (76 percent).

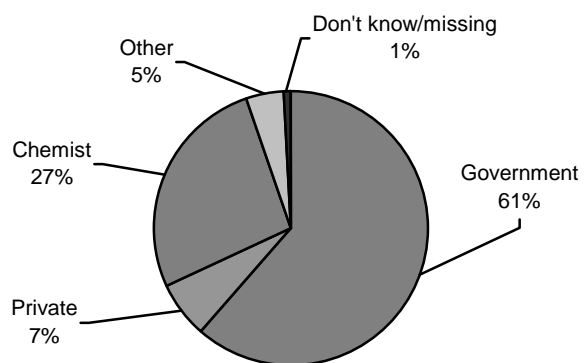
Table 6.10 SOURCE OF MODERN CONTRACEPTIVE METHODS

Percent distribution of current users of modern contraceptive methods by method and source of supply, West Bengal, 2002-04

Source	Contraceptive method					All modern methods ¹
	Female sterilization	Male sterilization	IUD/ Loop	Pills	Condom / Nirodh	
Government medical centre	87.0	81.2	63.3	14.7	15.0	61.4
Government/Municipal hospital	41.4	42.4	39.7	1.8	2.8	27.7
CHC/PHC	23.3	28.0	12.1	1.1	3.2	15.6
Sub-centre	1.5	7.5	10.5	9.9	6.1	4.3
Government doctor	0.1	0.0	0.0	0.3	0.2	0.2
Government nurse/ ANM	0.0	0.0	0.0	0.8	0.2	0.2
Family planning/RCH camp	20.0	3.3	1.1	0.4	2.0	12.9
Out reach/MCP clinic in village	0.4	0.0	0.0	0.3	0.0	0.3
Mobile clinic	0.2	0.0	0.0	0.1	0.4	0.2
Private medical centre	7.9	4.6	21.6	4.5	1.0	6.5
Private hospital	7.1	4.6	10.5	0.1	0.5	4.7
Private doctor	0.8	0.0	11.1	4.4	0.4	1.8
Private nurse	0.1	0.0	0.0	0.0	0.0	0.1
Chemist	NA	NA	NA	76.5	76.1	26.7
Other	4.7	9.1	12.4	3.4	4.5	4.5
Do not know	0.4	4.0	2.7	0.8	3.4	0.8
Missing	0.0	1.0	0.0	0.0	0.0	0.0
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of users	4,941	85	95	2,027	726	7,874

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

Figure 6.3
Source of Family Planning Among Current Users of Modern Contraceptive Methods



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

West Bengal, DLHS-RCH, 2002-04

6.5 Problems with Current Use of Contraceptive Methods

Women who were using a modern contraceptive method were asked if they had experienced any problems related with the current methods they are using. Table 6.11 shows the percentage of current contraceptive users who reported specific health problems, treatment seeking behaviour and their satisfaction about the method. The analysis of the method specific problems reveals that 31 percent of the sterilized women have problem with the contraceptive methods in use. The most common problems experienced by sterilized women are weakness or inability to work (55 percent), white discharge (52 percent), dizziness (47 percent), body ache or backache (37 percent), cramps (12 percent), irregular periods (10 percent), nausea or vomiting (9 percent) and excessive bleeding (5 percent). With regard to the modern spacing methods, 25 percent and 19 percent of women had problems in using Pills and IUD respectively. The most common problems of Pill users were dizziness (70 percent), weakness or inability to work (60 percent), white discharge (32 percent), nausea or vomiting (15 percent), body ache or backache (12 percent) and irregular periods (10 percent).

Health problems/side effect	Type of method		
	Female sterilizations	IUD/loop	Pill
Women who were informed about all the available methods	13.6	0.0	0.0
Women who were informed about the side effects before adoption of the method	13.5	46.7	15.3
Women who had side effect/health problem due to use of contraceptive method	30.7	19.1	25.2
Number of current users	4,941	95	2,027
Type of health problems/side effects¹			
Weakness/inability to work	55.1	*	59.6
Body ache/ backache	36.5	*	11.8
Cramps	11.9	*	2.4
Weight gain	2.7	*	4.5
Dizziness	47.4	*	70.1
Nausea/vomiting	9.1	*	15.2
Breast tenderness	3.0	*	1.2
Irregular periods	10.4	*	9.8
Excessive bleeding	5.2	*	3.1
Spotting	2.2	*	1.3
White discharge	51.8	*	32.1
Number of users with side effects	1,515	18	511
Note: ¹ Percentages may add to more than 100.0 because multiple problems could be recorded. * Percentage not shown – based on very few cases.			

6.6 Treatment for Health Problems with Current Use of Contraception

The study of respondents who sought treatment for contraceptive related health problems reveals that 62 percent of the sterilized women sought treatment and 35 percent in the case of Pills. Regarding the satisfaction about the method, 91 percent of the sterilized women reported satisfaction with sterilization. In the case of spacing methods, 89 percent of women using Pills and 83 percent of women using IUD were satisfied with the respective methods.

Those women who had sought treatment for contraceptive use related problems, majority of them have taken treatment from private hospitals/clinics. For female sterilization related health problems, 45 percent had taken treatment from private hospitals/clinics, 18 percent from government hospitals/dispensaries, 17 percent from Indian System of Medicine health facilities and 13 percent got treatment from health visitors. Private hospital/clinic is the source of treatment for 72 percent of women who had health problem in using IUD and the corresponding figures for the same source of treatment among Pill users is 54 percent.

Table 6.12 FOLLOW-UP VISIT AND SOUGHT TREATMENT FOR HEALTH PROBLEMS WITH CURRENT USE OF CONTRACEPTION			
Percentage of women who had follow-up visit, satisfied with current method and sought treatment with side effects with the method by use of method, West Bengal, 2002-04			
Health problems/side effect	Type of method		
	Female sterilizations	IUD/loop	Pill
Women who had follow up visit by health worker after adoption of method	12.9	18.2	8.8
Women who are satisfied with method of current use	91.1	82.8	88.7
Number of current users	4,941	95	2,027
Women who sought treatment for the health problem	62.4	*	34.8
Number of women with side effects	1,515	18	511
Source of treatments			
Government health facility			
Government hospital/dispensary	17.8	*	5.8
UHC/UHP/UFWC	0.0	*	1.6
CHC/Rural hospital	2.6	*	0.5
PHC	8.0	*	3.0
Sub-centre	3.4	*	5.4
Out reach/MCP clinic in village	0.9	*	0.5
Private health facility			
NGO/trust hospital clinic	1.6	*	4.0
Private hospital/clinic	44.7	*	53.9
ISM health facility ¹	17.3	*	11.3
Chemist/Medical shop	5.6	*	8.3
Home remedy	1.0	*	3.4
Other	13.1	*	10.4
Number of women with side effects	945	13	178
Note: ¹ Either government or Private. * Percentage not shown – based on very few cases.			

6.7 Advice to Non-Users and their Future Intention to Use Contraception

Information about non-users who were advised by the ANM/health worker to adopt contraceptives and their future intention to use by preferred method according to their background characteristics are presented in Table 6.13. In DLHS-RCH currently married women who were not using any method of contraception, were asked about advice given by ANM/health worker for adoption of any contraceptive method. It is evident that 17 percent of the women were advised by ANM/health worker to adopt any family planning method in West Bengal. Among rural women, 18 percent were advised by ANM/health worker to adopt any method and it is higher than the urban women (12 percent) who were advised so.

Table 6.13 ADVICE ON CONTRACEPTIVE USE					
Percentage of current non-users* who were advised by the ANM/health worker to use contraception by suggested method according to place of residence and availability of health facility in the village, West Bengal, 2002-04					
Advise/future intension to use	Total	Residence		Availability of health facility in the village ¹	
		Rural	Urban	No	Yes
Percentage of current non-users advised by ANM/health worker to use of contraceptive method	16.5	17.8	12.4	16.6	18.9
Number of non-users	3,799	2,858	941	1,371	1,486
Percent distribution of women who were advised by method					
Female sterilization	38.8	38.6	39.9	39.1	38.1
Male sterilization	5.7	4.5	11.2	3.9	4.9
IUD/loop	12.3	12.8	9.8	10.9	14.4
Pill	36.0	36.6	33.4	38.1	35.4
Condom/Nirodh	4.4	4.4	4.2	5.6	3.4
Rhythmic /periodic abstinence	1.9	2.1	1.2	1.4	2.7
Withdrawal	0.8	1.0	0.2	0.9	1.0
Other	0.0	0.0	0.1	0.0	0.0
Total percent	100.0	100.0	100.0	100.0	100.0
Number of non-users	625	509	116	228	281

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

The recommended contraceptive methods by ANM/health worker is dominated by female sterilization (39 percent) and Pill (36 percent). Only 17 percent were advised either to adopt IUD/loop or Condom/Nirodh as spacing methods. Male sterilization has been advised to 6 percent. This pattern of advice also emerges irrespective of residence and availability of health facility in the village.

6.7.1 Future Intentions

Among the non-users, 51 percent of women have expressed their intention to use any method of contraception in the future. The intention to use any method of contraception is higher in rural areas (54 percent) than in urban areas (43 percent).

Among the women who intended to use permanent methods of contraception, 38 percent preferred female sterilization whereas only one percent of the women preferred male sterilization. In case of temporary methods, the preferred methods by women are oral Pills (41 percent), rhythm/periodic abstinence (6 percent), condoms (4 percent), withdrawal (3 percent), IUD (one percent) and other methods (7 percent) respectively.

Fifty percent of the husbands intended to use contraception in the future, among them 53 percent belong to rural areas and 39 from urban areas. Method wise choice in intention to use contraception is dominated female sterilization being reported by 58 percent, followed by Pills (17 percent), rhythm/periodic abstinence (9 percent) and condom (8 percent) and withdrawal (2 percent)

Table 6.14 FUTURE INTENTION TO USE						
Percentage of current non-users* who were intended to use contraception in future by preferred method according to place of residence, West Bengal, 2002-04						
Future intention to use/method	Women			Husband		
	Total	Rural	Urban	Total	Rural	Urban
Percentage of respondents who intend to use contraceptive in future	50.8	53.5	42.5	49.9	53.4	38.6
Number of non-users	3,799	2,858	941	2,378	1,817	561
Percent distribution of non-user who were preferred to use family methods by preferred method						
Female sterilization	38.4	38.1	39.7	57.9	59.6	50.3
Male sterilization	1.0	1.0	1.1	1.9	1.4	4.1
IUD/copper-T/loop	1.2	1.0	2.2	1.6	0.9	4.3
Oral pills	40.5	42.7	32.0	17.0	18.0	12.4
Condom/Nirodh	3.8	2.8	7.6	7.9	6.7	13.3
Rhythm/periodic abstinence	5.7	5.6	5.9	8.5	8.5	8.1
Withdrawal	2.6	2.1	4.6	2.1	1.7	3.9
Other	6.7	6.6	7.5	3.2	3.1	3.6
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of non-users	1,874	1,485	389	1,186	970	217

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

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

Currently married women who were not using any contraceptive method at the time of survey were asked about their intentions to use a method in the future. Those women who intended to use contraceptives in the future were further asked about preferred methods. This type of information aids the managers and programmers to identify the potential groups of future users and to provide the type of contraceptives that are likely to be in demand. Table 6.15 provides the information on intention to use contraception in future according to number of living children and residence background in West Bengal. Among the current non-users, around 29 percent of the women intended to use contraception within the next twelve months. Only 8 percent of women wanted to use within one to two years whereas 14 percent reported their intention to use contraceptives

after two years. About 30 percent are not sure of their intention to use, where as 20 percent reported no intention to use. The intention of using contraception is high among the women who have two or more living children compared to the women who have either one or no living children. Around 45 percent of the women who have no living children reported that they are yet to decide about the use of contraceptives.

Table 6.15 FUTURE USE OF CONTRACEPTION BY NUMBER OF LIVING CHILDREN						
Percent distribution of currently married women* who were not currently using any contraceptive method by intention to use in the future, according to number of living children and residence, West Bengal, 2002-04						
Intention to use in the future	Number of living children					Total
	0	1	2	3	4+	
Total						
Intends to use in next 12 months	11.9	31.9	40.3	42.9	38.0	28.6
One to two years	7.7	7.8	8.3	7.1	10.6	8.1
More than two years	17.0	18.2	11.7	5.9	3.1	14.0
Does not intend to use	17.6	16.5	18.4	25.4	31.5	19.5
Not yet decided	45.4	25.3	20.5	18.3	16.5	29.5
Missing	0.4	0.3	0.8	0.4	0.2	0.4
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	1,224	1,110	746	340	379	3,799
Rural						
Intends to use in next 12 months	11.5	32.4	40.8	44.4	39.3	30.1
One to two years	9.8	7.7	9.4	7.5	11.1	9.0
More than two years	18.5	19.0	11.7	4.6	3.3	14.1
Does not intend to use	18.2	15.1	16.1	26.6	30.0	19.1
Not yet decided	41.4	25.7	21.0	17.0	16.3	27.3
Missing	0.5	0.1	1.0	0.0	0.0	0.4
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	816	834	592	285	330	2,858
Urban						
Intends to use in next 12 months	12.6	30.4	38.4	34.8	29.1	23.9
One to two years	3.3	8.2	4.0	5.5	7.3	5.2
More than two years	14.2	15.7	11.8	13.2	2.0	13.6
Does not intend to use	16.4	20.7	27.6	18.7	41.8	20.8
Not yet decided	53.6	24.1	18.2	25.3	18.2	36.0
Missing	0.0	0.9	0.0	2.4	1.6	0.5
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	408	276	154	54	48	941
Note: * Exclude women who are in menopause or those who have undergone hysterectomy. () Based on less than 50 unweighted cases.						

6.8 Reasons for Discontinuation and Non-Use of Contraception

Currently married non-pregnant women who were not using any contraceptive method at the time of survey were categorised as past users and never users according to their contraceptive experience. In DLHS-RCH, women who had discontinued contraceptive use were asked about the main reason for discontinuation. The survey also asked women who had never used contraceptives about the main reason for not doing so. Table 6.16 shows the main reason for not using contraceptives among both the past never users and

current non users. Among the past users, around 51 percent of the women mentioned that they discontinued the use because they had wanted child, method failed/became pregnant (11 percent), weakness/inability to work (6 percent), irregular periods (4 percent), method was inconvenient and dizziness (3 percent) and other reasons (17 percent). For urban women 5 percent have reported method failure/become pregnant due to discontinuation. In urban areas, 23 percent of women reported as other reason for discontinuing the use and where as the same is 15 percent among rural women.

Table 6.16 REASONS FOR DISCONTINUATION OF CONTRACEPTION			
Percent distribution of women who were past users (current non-users) by reason for discontinuation of the contraceptive method according to place of residence, West Bengal, 2002-04			
Reasons	Total	Place of residence	
		Rural	Urban
Reason for discontinuation			
Wanted child	50.6	48.9	55.0
Method failed/became pregnant	10.7	13.1	4.6
Supply not available	0.5	0.5	0.6
Difficult to get method	0.5	0.6	0.2
Weakness/inability to work	6.2	5.8	7.2
Body ache/ Backache	0.3	0.4	0.0
Cramps	0.1	0.0	0.3
Weight gain	0.4	0.5	0.1
Dizziness	3.2	3.9	1.4
Nausea/vomiting	0.5	0.5	0.2
Breast tenderness	0.7	0.8	0.3
Irregular periods	4.4	4.5	4.2
Excessive bleeding	0.9	1.0	0.4
Spotting	0.0	0.0	0.1
White discharge	0.3	0.4	0.0
Lack of pleasure	0.7	0.6	1.1
Method was inconvenient	2.9	3.4	1.6
Other	17.2	15.0	22.8
Total percent	100.0	100.0	100.0
Number of past users	1,309	939	370

6.8.1 Reasons for Not Using Contraceptive Methods

DLHS asked women and husbands who are currently not using any contraception and main reasons why they were not currently using a method. The reported main reasons for not using contraceptives are, difficult to become pregnant (8 percent), health does not permit (5 percent), lack of knowledge about family planning methods (5 percent), opposed to family planning (5 percent), against the religion (2 percent) and afraid of sterilization (1percent). About 69 percent of the women reported other reasons for not using contraception. As far as rural-urban differentials are concerned, a little variation is observed in the reasons for not using any contraceptive.

Table 6.17 REASON FOR NOT USING CONTRACEPTIVE METHOD						
Percent distribution of current non-users who were currently not using contraceptive method by reason according to place of residence, West Bengal, 2002-04						
Reason	Women			Husbands*		
	Total	Rural	Urban	Total	Rural	Urban
Lack of Knowledge about FP method	5.0	4.8	5.3	1.9	2.3	0.7
Against the Religion	1.8	1.9	1.6	4.2	3.6	6.2
Opposed to family planning	5.0	5.5	3.2	1.0	1.3	0.0
Not like existing method	0.3	0.2	0.7	0.1	0.0	0.3
Afraid of sterilization	1.2	1.4	0.2	0.9	1.2	0.0
Can not work after sterilization	0.4	0.4	0.2	0.5	0.6	0.0
Worry about side effects	1.2	0.9	2.1	0.8	0.9	0.4
Costs too much	1.1	1.1	1.2	0.5	0.6	0.0
Health does not permit	5.3	4.8	6.7	6.4	6.8	4.8
Hard/inconvenient to get method	0.8	0.9	0.1	0.2	0.2	0.5
Inconvenient to use method	1.2	1.3	0.8	0.7	0.7	0.5
Difficult to become pregnant	7.6	7.2	9.0	12.2	9.5	22.5
Wife is pregnant ¹	-	-	-	9.7	8.8	13.0
Other	69.0	69.2	68.4	60.9	63.4	51.3
Missing	0.2	0.1	0.4	0.1	0.1	0.0
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of current non-users	1,733	1,332	400	915	725	190

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

6.9 Unmet Need for Family Planning Services

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

The unmet need is higher for women below 20 years, mainly for spacing rather than for limiting. Unmet need is also relatively higher for women aged 20-24 years (17 percent) for both spacing and limiting. Among the older women of age 25-29 years, 10 percent have unmet need, and mostly for limiting. Among the women age 30 years and above, unmet need is exclusively for limiting. The rural women have high unmet need (13 percent) than the urban women (8 percent). The unmet need for family planning is higher (13 percent) among the non-literate women than among the women with 0-9 years of schooling (10 percent) and 10 or more years of schooling (8 percent) women. Hindu

women have less unmet need for family planning (10 percent) compared to the Muslim women (16 percent) or Christian women (11 percent). Unmet need for family planning is higher (16 percent) for Scheduled tribe followed by other backward class (12 percent), other caste (11 percent) and Scheduled caste (10 percent) women.

Table 6.18 UNMET NEED FOR FAMILY PLANNING SERVICES				
Percentage of currently married women with unmet need for family planning services by selected background characteristics, West Bengal, 2002-04				
Background Characteristic	Unmet need for FP			Number of women
	Spacing ¹	Limiting ²	Total	
Age				
15-19	16.4	5.1	21.5	1,792
20-24	8.2	8.5	16.8	3,124
25-29	3.0	7.0	10.0	3,237
30-34	0.9	4.9	5.8	3,001
35-39	0.5	5.0	5.6	2,463
40-44	0.2	8.7	8.9	1,998
Residence				
Rural	5.1	7.5	12.6	10,557
Urban	2.9	4.8	7.8	5,057
Education				
Illiterate	4.4	8.7	13.1	6,277
0-9 @ years	4.9	5.5	10.4	6,969
10 years and above	3.1	4.4	7.6	2,357
Religion				
Hindu	3.8	5.7	9.5	11,872
Muslim	6.5	9.7	16.2	3,506
Christian	5.0	6.0	11.0	87
Others	1.4	6.0	7.4	150
Caste/tribe#				
Scheduled caste	4.1	5.9	10.0	4,306
Scheduled tribe	7.9	8.5	16.4	898
Other backward class	4.9	7.6	12.4	935
Others	4.2	6.5	10.7	8,944
Number of living children				
0	7.0	2.4	9.3	1,618
1	9.7	4.5	14.2	3,846
2	3.0	7.4	10.4	4,773
3	1.3	7.4	8.7	2,882
4+	0.9	10.1	11.1	2,495
Standard of living Index				
Low	5.4	8.5	13.9	8,074
Medium	3.7	5.4	9.2	4,895
High	2.6	3.0	5.6	2,646
All women	4.4	6.6	11.0	15,614
<p>Note: ¹ Unmet need for spacing includes the proportion of currently married women who are neither in menopause or had hysterectomy nor are currently pregnant and who want more children after two years or later and are currently not using any family planning method. The women who are not sure about whether and when to have next child are also included in unmet need for spacing.</p> <p>² Unmet need for limiting includes the proportion of currently married women who are neither in menopause or had hysterectomy nor are currently pregnant and do not want any more children but are currently not using any family planning method.</p> <p>Total unmet need refers to unmet for limiting and spacing.</p> <p>@ Literate women with no years of schooling are also included. # The total figure may not add to N due to do not know and missing cases.</p>				

Women in low standard of living households have high (14 percent) unmet need than the women of medium (9 percent) and high standard of living (6 percent). Unmet need is much higher for the women with one living child (14 percent) than women with either no children (9 percent) or two or more children (10 percent). Among the women with no children or one child, the unmet need is mainly for spacing, where as for women with two children or more unmet need is exclusively for limiting.

6.9.1 Unmet Need for Family Planning Services by Districts

Table 6.19 provides the information about unmet need for limiting, spacing and total by district. The unmet need for family planning services for state is 11 percent and it ranges from 6 percent in Barddhaman to 21 percent in Maldah. In 10, out of 18 districts unmet need for family planning is more than state average. Unmet need for limiting was lowest in Barddhaman (3 percent) followed by Murshidabad, Haora, Kolkata, North 24 Parganas and Hugli (5 percent each), and highest in Uttar Dinajpur (14 percent). Similarly, unmet need for spacing ranged from two percent in Hugli to 8 percent in Maldah. It may also be observed that except Murshidabad district, in all the districts of West Bengal, unmet need for limiting was more than spacing.

Table 6.19 UNMET NEED BY DISTRICTS			
Percentage of currently married women with unmet need by district, West Bengal, 2002-04			
Districts	Unmet need for		
	Spacing	Limiting	Total
Bankura	2.7	5.8	8.5
Barddhaman	2.7	3.4	6.1
Birbhum	3.6	9.5	13.1
Dakshin Dinajpur	3.2	7.4	10.5
Darjiling	4.3	8.1	12.4
Haora	3.5	5.1	8.7
Hugli	2.3	5.4	7.6
Jalpaiguri	3.6	8.0	11.6
Koch Bihar	5.3	6.2	11.5
Kolkata	2.6	5.1	7.7
Maldah	8.1	13.2	21.3
Medinipur	5.4	5.6	11.0
Murshidabad	6.7	4.9	11.6
Nadia	2.7	5.5	8.1
North 24 Parganas	4.3	5.1	9.4
Puruliya	6.3	9.8	16.1
South 24 Parganas	3.4	8.5	11.9
Uttar Dinajpur	6.4	13.9	20.3
West Bengal	4.4	6.6	11.0

MAP-6
Current Use of Any Family Planning Method



CHAPTER VII

ACCESSIBILITY AND PERCEPTION ABOUT GOVERNMENT HEALTH FACILITIES

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

7.1 Home Visit by Health Workers

Table 7.1 shows the percentage of currently married women visited by health workers at home during the three months prior to the survey. Around 13 percent of the women in West Bengal reported that the health worker visited them at their residence at least once in last three months preceding the survey. Younger women seemed more likely to report a home visit than older women. Seventeen percent of women in the age group 15-24 years reported at least one home visit compared to only 8 percent of women in the age group 35 years and older. The percentage of women in West Bengal receiving home visits is higher in rural areas (15 percent) than in urban areas (8 percent). Women who were non-literate (14 percent) and women with a low standard of living (15 percent) seemed more likely to report home visits. More Muslim women (17 percent) reported home visits than Christian women (14 percent), Hindu women (11 percent) and other religious groups (4 percent). There was not much variation by caste/tribe. Home visits were less common for women residing in the villages with a health facility.

Women who reported a home visit during the three months preceding the survey were asked who visited their household during the past three months and whether they were satisfied with the kind of services/advice received, and the time spent by these health workers. Among women who received services at home, 89 percent received services from ANM/LHV, 14 percent from male health worker and two percent from a doctor. There were less rural-urban differentials by visit of households by health worker. Thirty two percent of women who received services at home were satisfied with the time

spent with them and 83 percent of women were satisfied with the services or advice given to them.

Table 7.1 HOME VISIT BY HEALTH WORKER

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

Background characteristic	Percentage with home visit	Number of women	Home visit by ¹			Percentage of women satisfied with		Number of women
			Doctor	ANM / LHV	Male health worker	Amount of time	Services/ advices	
Age								
15-24	16.8	4,915	1.7	90.3	12.8	32.0	85.4	827
25-34	12.6	6,238	2.5	87.4	14.9	31.5	81.5	786
35-44	7.7	4,461	1.4	88.8	16.4	34.7	80.9	342
Residence								
Rural	14.7	10,557	2.0	88.0	15.1	29.4	84.0	1,552
Urban	8.0	5,057	1.8	91.9	10.9	43.4	79.2	403
Education								
Non-literate	13.9	6,277	2.2	88.1	15.5	25.5	82.2	870
0-9 years@	12.2	6,969	1.7	89.4	13.6	34.6	84.1	850
10 and above	9.8	2,357	2.1	89.6	12.0	48.7	82.0	231
Religion								
Hindu	11.4	11,872	2.4	89.6	12.5	34.4	82.0	1,348
Muslim	16.8	3,506	0.8	86.9	18.6	27.3	85.1	590
Christian	13.5	87	*	*	*	*	*	12
Other	4.3	150	*	*	*	*	*	6
Caste/tribe[#]								
Scheduled caste	13.4	4,306	3.1	89.4	12.2	29.6	79.4	578
Scheduled tribe	12.1	898	0.8	89.6	11.3	32.9	90.3	109
Other backward class	11.0	935	0.3	94.3	11.4	32.5	77.2	103
Other	12.3	8,944	1.2	88.3	15.8	34.2	84.9	1,103
Standard of living index								
Low	15.0	8,074	1.8	87.8	15.0	28.1	82.1	1,212
Medium	10.9	4,895	2.9	90.4	13.9	36.8	85.2	532
High	8.0	2,646	0.5	90.6	11.1	44.6	83.2	211
Availability of health facility² in the village								
No	16.1	4,608	1.8	87.6	14.6	30.8	86.4	743
Yes	13.6	5,949	2.1	88.4	15.7	28.0	81.9	808
Total	12.5	15,614	1.9	88.8	14.3	32.3	83.0	1,955

Note: Total includes 11 cases with missing information on education were not shown separately. ¹ Percentage may add to more than 100.0 due to multiple responses. @ Literate women with no years of schooling are also included. [#] Total number may not add to N due to do not know and missing cases. ² Includes sub-centre, primary health centre, Community health centre or referral hospital, government hospital, and government dispensary within the village. *Percentage not shown: based on few cases.

The proportion of women who were satisfied with the amount of time spent, and advice provided by health workers varied across various background characteristics. As compared to older women, younger women were less likely to report about satisfaction with amount of time spent by the health workers during home visits. Thirty two percent of women in the age group of 15-24 years and 25-34 years reported satisfaction with the time spent by health workers as compared to 35 percent of women aged 35 years and

older. Eighty five percent of women in the age group 15-24 years reported satisfaction with services as compared to 82 percent of women in the age group 25-34 and 81 percent of women of age 35 years and older. Urban women (43 percent) were more likely than rural women (29 percent) to report that they were satisfied with the time spent by health workers during home visits, but they were less satisfied with service/ advice received. Women who were non-literate, women from other religions and scheduled caste women, and women with a low standard of living are less likely to report being satisfied with amount of time spent by health workers during home visits. Women residing in the village with availability of health facility are slightly less satisfied with the time spent than women from those villages where health facilities are not available.

7.2 Home Visit by Health Workers by Districts

In half of the districts in West Bengal, health workers visited less than 10 percent of the women at home (Table 7.2 and Figure 7.1). In districts like Puruliya, Hugli, Koch Bihar and Dakshin Dinajpur, 10-15 percent of the women were visited by health workers. There are only five districts in which about one fifth or more of women received home visits (Maldah, Jalapaiguri, Uttar Dinajpur and Birbhum). In Maldah district, health workers approached 37 percent of women. Among women who were visited by health worker at home, more than three quarter of them approached by ANM/LHV in almost all the districts. Proportion of women who were approached by male worker at home is lowest in Haora (2 percent) district and highest in Dakshin Dinajpur (34 percent) district. And except Darjiling (11 percent) percentage of women visited by doctor at home was below 10 percent in all districts.

Except Haora and Hugli, all other districts have less than two fifth of the women reported that the worker had spent enough time with them. On the other hand, more than 90 percent women in Uttar Dinajpur (91 percent), Birbhum (92 percent), Puruliya (91 percent), Dakshin Dinajpur (94 percent) and 80-90 percent in Nadia, Hugli, Haora, Barddhaman, Maldah, Jalpaiguri, Medinipur and South 24 Parganas reported satisfaction with services/advice given by the health workers.

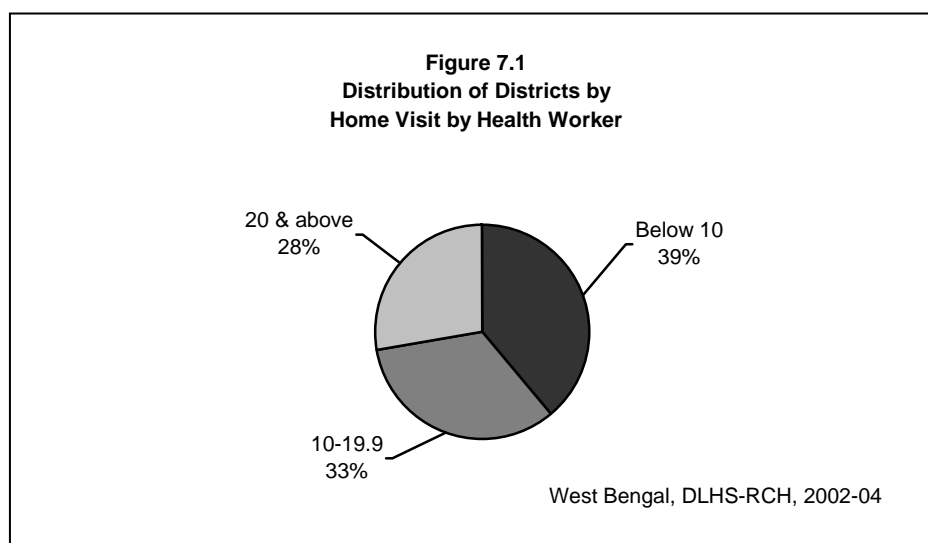


Table 7.2 HOME VISIT BY HEALTH WORKER BY DISTRICT						
Percentage of women who had home visit by a doctor, ANM/LHV, or male health worker in the 3 months preceding the survey, among women who had home visit, satisfied with time spent by health workers and with services provided by district, West Bengal, 2002-04						
District	Percentage with home visit	Home visit by ¹			Percentage of women satisfied with	
		Doctor	ANM / LHV	Male health worker	Time spent	Services
Bankura	6.6	3.1	93.7	5.1	37.0	78.7
Bardhaman	7.3	6.6	83.5	10.9	27.5	84.4
Birbhum	23.4	3.1	91.7	7.7	31.5	91.6
Dakshin Dinajpur	11.0	2.8	78.2	34.2	24.6	94.2
Darjiling	6.4	10.9	87.4	7.7	35.1	72.1
Haora	5.9	0.0	99.2	2.4	61.4	83.5
Hugli	10.4	0.9	97.6	6.5	51.0	82.5
Jalpaiguri	22.4	0.6	93.4	7.7	27.0	84.7
Koch Bihar	11.7	3.8	90.4	5.8	24.1	59.5
Kolkata	4.4	0.0	86.2	13.8	25.0	69.7
Maldah	37.4	0.0	87.1	13.3	35.9	86.2
Medinipur	8.3	1.5	91.6	9.6	34.8	86.2
Murshidabad	4.6	0.0	86.3	27.1	28.5	69.8
Nadia	16.1	0.7	87.6	18.7	28.6	81.8
North 24 Parganas	6.9	6.7	77.8	28.6	34.0	59.1
Puruliya	11.5	2.6	92.0	20.6	26.9	91.4
South 24 Parganas	19.8	1.7	91.4	16.4	22.8	89.5
Uttar Dinajpur	27.6	0.0	79.1	25.7	21.8	91.1
West Bengal	12.5	1.9	88.8	14.3	32.3	83.0

Note: ¹ Percentage add to more than 100.0 due to multiple responses.

7.3 Matters Discussed during Home visits or Visits to Health Facilities

Women who were visited at home by a family planning worker, as well as those who visited government health facility or other health facility during the three months preceding the survey were asked about the different topics discussed with the workers during any of these visits. Table 7.3 shows the percentage of women who discussed the health and family planning or any health related matters with the health workers during home visits or visits to a health facility during the past three months. There are 1,080 pregnant woman or women with children born during the reference period, and other women include 768 current users and 107 current non-users, who were visited by health workers at home.

The major focus of discussion during home visits was childcare (46 percent) and immunization (38 percent). In addition, discussions were also made on disease prevention (14 percent), family planning (10 percent), and antenatal care (4 percent), nutrition as well as treatment of health problems (3 percent each). Discussions about family planning were mentioned more often by current users of contraception and by current non-users (16 percent each) than pregnant women or women with child born after reference period (10 percent). As expected, pregnant women or women with child born after reference period were much more likely than other women to report that they discussed childcare,

immunization, antenatal care, postpartum care, and breastfeeding. A higher proportion of current contraceptive users and current non-users discussed disease prevention, treatment of health problems, sanitation/cleanliness and other health related matters during home visit by health workers in the past three months preceding the survey.

Table 7.3 MATTER DISCUSSED DURING CONTACT WITH A HEALTH WORKER				
Percentage of women who were visited by health worker in the three months preceding the survey, and percentage of women who visited health facility, and the percentage of women ¹ who discussed specific topics with the health worker, West Bengal, 2002-04				
Topic discussed	Pregnant women or women with children after reference period ²	Other women		Total
		Current contraceptive users	Current nonusers	
During home visit				
Family planning	10.3	16.0	15.7	12.8
Breastfeeding	1.0	0.5	0.7	0.8
Supplementary feeding	1.6	1.8	1.7	1.7
Immunization	37.6	22.1	20.0	30.5
Nutrition	2.8	2.5	2.9	2.7
Diseases prevention	14.4	23.9	30.3	19.0
Treatment of health problem	3.1	12.5	5.1	6.9
Antenatal care	4.2	0.8	3.3	2.8
Delivery care	0.4	0.1	0.0	0.3
Postpartum care	1.2	1.0	0.7	1.1
Childcare	46.4	29.5	38.2	39.3
Sanitation / cleanliness	2.4	5.0	1.9	3.4
Oral rehydration	1.1	1.7	0.0	1.3
Other	7.1	15.8	6.4	10.5
Number of women	1,080	768	107	1,955
During visit to health facility				
Family planning	4.9	3.0	2.5	4.1
Breastfeeding	1.2	0.1	3.1	0.9
Supplementary feeding	2.4	1.3	6.8	2.2
Immunization	39.9	2.3	2.6	24.3
Nutrition	2.8	3.1	2.8	2.9
Diseases prevention	11.9	26.2	20.8	17.6
Treatment of health problem	13.5	46.6	49.6	27.4
Antenatal care	17.5	2.7	10.4	11.7
Delivery care	7.0	0.7	4.6	4.6
Postpartum care	4.4	1.3	2.8	3.2
Childcare	16.6	13.7	8.6	15.1
Sanitation / cleanliness	3.0	1.4	1.8	2.3
Oral rehydration	1.5	2.0	2.6	1.7
Other	6.3	16.4	20.3	10.7
Number of women	1,152	727	92	1,972
Note: Percentage add to more than 100.0 due to multiple responses.				
¹ Women who visited private health facility are not included.				
² Reference period for phase I, January 1 st 1999 and for phase II, January 1 st .2001				

The topic discussed most often during visits to health facility by women was treatment of health problems (27 percent), immunization (24 percent), disease prevention (18 percent), childcare (16 percent) antenatal care (12 percent) and other health related topics (11 percent). Only four percent women reported that they discussed family planning during the visit. During visit to health facility about two fifth of the pregnant women or women with children born during the reference period discussed on

immunization, 18 percent discussed about antenatal care, 17 percent discussed childcare, 14 percent discussed treatment of a health problem, and 12 percent discussed disease prevention. A few pregnant women or women with children born after reference period also discussed about delivery care, postpartum care, breastfeeding, nutrition, oral re-hydration and breastfeeding during visit to health facility. A higher proportion of current users and non-users discussed on treatment of health problems, disease prevention, and other health related problems than pregnant women with children after reference period during visit to health facility in three months prior to survey.

7.4 Visit to Health Facility

Table 7.4 presents the percentage of currently married women who needed to visit health facility and visited the health facility by residence and availability of health facility in the village. Around 33 percent of women needed to visit health facility but did not visit in comparison with 44 percent of women who needed to visit health facility and visited in past three months of the survey. The proportion of such women was slightly higher in urban areas (47 percent) than in rural areas (43 percent). Among those who visited any health facility, 55 percent of women reported that they had visited a private dispensary, (54 percent in rural areas and 56 percent in urban areas).

Table 7.4 VISIT TO HEALTH FACILITY					
Percentage of women who need to visit health facility and visited, and percent distribution of women visited health facility by type of health facility and according to place of residence and availability of health facilities in the village, West Bengal, 2002-04					
Health facility	Total	Residence		Availability of health facility ¹ in the village	
		Rural	Urban	No	Yes
Percentage of women who needed to visit health facility and not visited	32.5	33.9	29.6	33.7	34.0
Percentage of women who needed to visit health facility and visited	44.2	42.7	47.3	43.4	42.1
Number of women	15,614	10,557	5,057	4,608	5,949
Government health facility					
Hospital / CHC / FRU /RH	10.0	7.0	15.6	7.1	6.8
Dispensary	1.1	0.9	1.4	1.0	0.8
Primary health center	6.2	8.2	2.5	8.0	8.3
Sub-center	8.6	11.6	2.8	11.3	11.9
Private health facility					
Hospital	2.7	2.3	3.6	3.1	1.6
Dispensary	54.7	53.9	56.3	53.0	54.5
ISM ² hospital/dispensary	14.4	13.7	15.7	14.4	13.2
Other	2.3	2.5	2.0	2.1	2.9
Total percent	100.0	100.0	100.0	100.0	100.0
Number of women	6,894	4,504	2,390	1,998	2,506
Note: CHC: Community health centre, FRU: First referral unit, RH: Referral Hospital. ¹ Includes sub-centre, primary health centre, Community health centre or referral hospital, government hospital, and government dispensary within the village. ² Either government or private health facility of Indian System of Medicine.					

Twenty six percent of the women visited a government health facility, of which 10 percent visited government health facility such as, hospital/CHC/FRU/RH, 9 percent visited sub-centre, 6 percent visited primary health centre and one percent visited to government dispensary. Fourteen percent of the women reported that they visited Indian system of medicine hospital/ dispensary either government or private. There is not much difference in visit to any health facility according to availability of health facility in the village in the past three months of the survey.

7.5 Visit to Health Facility by Districts

Table 7.5 presents the percentage of currently married women who needed to visit health facility and visited the health facility by districts. Fifty nine percent of currently married women in Murshidabad and 49 percent in North 24 Parganas, needed to visit a health facility, but they did not visit. Out of 18, in 8 districts i.e. Nadia, Jalpaiguri, Barddhaman, South 24 Parganas, Maldah, Dakshin Dinajpur and Hugli more than half of the women visited health facility for their health problems. In Murshidabad, only 18 percent of women visited health facility when needed. Among those who visited health facility, less than a quarter women visited government health facility in 7 districts (Hugli, Haora, Uttar Dinajpur, Medinipur, South 24 Parganas, Kolkata and Nadia) and in all districts more than half of the women visited to private health facility in past three months the survey.

Table 7.5 VISIT TO HEALTH FACILITY BY DISTRICT				
Percentage of women who needed to visit health facility, but not visited and percentage of women who visited health facility by type of health facility and by district, West Bengal, 2002-04				
Districts	Percentage of women who need to visit health facility, but not visited	Percentage of women who need to visit health facility and visited	Percentage of women who visited to	
			Government health facility	Private health facility
Bankura	32.2	33.4	39.0	59.5
Barddhaman	25.2	54.4	26.1	70.3
Birbhum	36.7	43.0	26.9	69.7
Dakshin Dinajpur	33.8	53.8	30.5	68.6
Darjiling	35.4	34.4	43.9	53.4
Haora	28.7	41.9	20.2	76.6
Hugli	18.2	59.9	18.2	81.3
Jalpaiguri	25.1	55.1	32.0	68.0
Koch Bihar	30.7	36.6	33.6	66.2
Kolkata	31.9	38.9	24.6	73.6
Maldah	24.7	59.1	23.6	75.1
Medinipur	23.3	45.7	22.3	73.7
Murshidabad	58.9	17.7	30.7	68.6
Nadia	23.1	52.7	25.8	72.5
North 24 Parganas	49.2	30.5	26.6	67.7
Puruliya	27.3	43.8	40.7	55.1
South 24 Parganas	32.0	55.3	25.0	75.0
Uttar Dinajpur	36.7	52.1	22.4	77.0
West Bengal	32.5	44.2	26.3	71.4

7.6 Client's Perception of Quality of Government Health Services

Utilization of services is an essential indicator reflecting the quality of services. Better quality of services would have a higher utilization rate, which is very important from the policy point of view. Unless clients are satisfied with the services provided by the government, efforts made by the government will be wasted. In order to assess the utilization of government health facilities, a question was asked whether they had visited any health facility for their health problem during the past three months preceding the survey. Those who visited the government health facility were asked about their perceptions about quality of services, (personal manner like courtesy, respect, sensitivity, and friendliness of the physician and staff, technical skills and quality like thoroughness, carefulness, and competence and waiting time for receiving the services) and same is presented in Table 7.6. Women in general perceived that the quality of services, personal manner as well technical skills and quality of physician, ANM/nurse and other staff was good. Majority of the respondents perceived that personal manner (courtesy, respect, sensitivity, and friendliness) and technical skills (thoroughness, carefulness, and competence) of the physician, nurses and other staff were good, a few respondents mentioned that personnel manner of doctor (14 percent), nurse (10 percent), and other staff including paramedical staff (7 percent) was excellent.

Table 7.6 QUALITY OF GOVERNMENT HEALTH FACILITY			
Percentage of women who visited government health facility and rated quality and availability of services during most recent visit to a government health facility in the three months preceding the survey, West Bengal, 2002-04			
Quality indicator	Poor	Good	Excellent
The convenience of the health facility location	16.1	64.6	19.3
Length ¹ of time spend towards waiting	25.0	63.0	11.9
Personal manner ² of the physician ⁵	5.6	80.1	14.3
The technical skills and quality ³ of the physician ⁵	5.3	79.8	14.9
Personal manner ² of nurse	6.2	83.8	10.0
The technical skills and quality ³ of nurse	5.7	85.9	8.4
Personal manner of other staff ⁶	4.5	88.6	6.9
The technical skills and quality of other ⁴ staff	4.7	88.8	6.4
The explanation of what was done to her	5.9	85.2	8.9
Medical, surgical and diagnostic equipment	20.7	69.9	9.4
General comfort	12.1	79.9	7.9

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

7.7 Reason for not visiting Government Health Centre

Women who visited the private health centre were asked the main reason for not visiting the government health centre and the results are presented in Table 7.7. Twenty six percent of the currently married women reported inconvenient location of the centre as one of the reason for not visiting the government health centre for their health problems, as expected this reason is more reported by rural women (31 percent) than urban women (18 percent), and women from those villages where health facilities are available (32 percent). About 17 percent reported that they did not feel the necessity to visit the

government health centre due to poor quality of service, 15 percent in rural area and 19 percent in urban area. Other reasons for not visiting government health centres were: time is not suited (12 percent), heavy rush (9 percent), doctor/ health workers do not examine properly (9 percent), medicine rarely/not given or of bad quality (10 percent), non-availability or rare availability of doctors/ health workers (2 percent).

Table 7.7 REASON FOR NOT PREFERRING GOVERNMENT HEALTH FACILITY
Percent distribution of women who visited private health facility by reason for not visiting government health facility and according to residence and availability of health facilities in the village, West Bengal, 2002-04

Reason	Total	Residence		Availability of health facility ¹ in the village	
		Rural	Urban	No	Yes
Not conveniently located	26.3	31.0	18.3	29.5	32.2
Time is not suited	11.6	9.4	15.5	9.3	9.4
Poor quality of services	16.5	15.0	19.0	16.2	14.1
Heavy rush	8.7	6.3	12.7	6.7	6.0
Non/rare-availability of doctors/health workers	2.0	2.3	1.5	1.9	2.6
Doctors/health workers do not examine properly	8.6	8.8	8.5	9.5	8.1
Medicine not/rarely given or of bad quality	9.9	13.1	4.4	13.0	13.2
Doctors/paramedical staff does not behave properly	0.4	0.4	0.2	0.5	0.4
Services are charged	0.9	1.1	0.7	1.3	0.9
Referred by government doctor	0.5	0.5	0.5	0.5	0.4
Other	14.5	12.1	18.7	11.5	12.6
Total percent	100.0	100.0	100.0	100.0	100.0
Number of women	4,924	3,125	1,799	1,400	1,725

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

7.8 Family Planning Information and Advice Received

Women who are currently not using any contraceptive method were asked whether they were ever advised by ANM or family planning health worker to adopt family planning method and method advised during any of the contact. Seventeen percent of the current non-users said that they had advice or discussion on method of family planning with ANM or family planning health worker (Table 7.8). The most frequently discussed method was female sterilization (39 percent) and pills (36 percent). Only four percent of women received advice to adopt condom and 6 percent of women received advice to adopt male sterilization as a contraceptive method. Discussions about traditional method, such as rhythm or withdrawal were rare. There is no much variation by type of residence in terms of family planning information and advice received.

7.9 Availability of Pills and Condom

To explore difficulties faced in the procurement of condoms and pills, current users of these methods were asked whether they had been able to get their supply whenever needed. The results are presented in Table 7.9. Only 6 percent of condom users and 5 percent of pills users reported that they had a problem in getting these methods. A little higher proportion of rural women than urban women had problems in getting a supply of condom.

Table 7.8 ADVISE TO ADOPT FAMILY PLANNING METHOD			
Percentage of current non-users who reported ever advised to adopt family planning method by method of family planning by ANM/health worker, according to residence, West Bengal, 2002-04			
Method	Total	Rural	Urban
Percentage of non-users who were advised to adopt family planning method	16.5	17.8	12.4
Number of women	3,799	2,858	941
Method			
Female sterilization	38.8	38.6	39.9
Male sterilization	5.7	4.5	11.2
IUD	12.3	12.8	9.8
Pills	36.0	36.6	33.4
Condom	4.4	4.4	4.2
Rhythm/periodic abstinence	1.9	2.1	1.2
Withdrawal	0.8	1.0	0.2
Other	0.0	0.0	0.1
Total percent	100.0	100.0	100.0
Number of women	625	509	116

Table 7.9 AVAILABILITY OF REGULAR SUPPLY OF CONDOMS/PILLS		
Percentage of current condom or pill users who ever had a problem getting a supply of condoms/pills by residence, West Bengal, 2002-04		
Method/residence	Percentage who had a problem getting supply	Number of users
Condom		
Rural	6.6	1,371
Urban	4.5	656
Total	5.9	2,027
Pills		
Rural	3.3	290
Urban	5.3	435
Total	4.5	726

7.10 Quality of Care of Family Planning Services

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

Around 14 percent of sterilized women reported that ANM or health worker informed them about alternative methods that they could use (Table 7.10) before adopting sterilization. Around fifteen percent of sterilized women received such information from ANM or health worker in the government health facilities compared to around 12 percent of women who were sterilized in private health facilities, and 9 percent of women received this information in the family planning or RCH camp or out reach/ MCH clinic in village at the time of accepting the sterilization. About 19 percent of such women were informed about alternative methods by others but not by a health worker working in government or private health sector.

Table 7.10 INFORMATION OF OTHER MODERN METHOD BEFORE STERILIZATION				
Percentage of current users of sterilization who were informed about other modern method by the source where they get sterilized, according to the source of sterilization and residence, West Bengal, 2002-04				
Source of sterilization	Total	Rural	Urban	Number of users
Government health facility	14.6	13.9	16.5	3,344
Family planning or RCH camp/ village session	9.3	7.9	18.0	1,012
Private health facility	12.1	12.7	11.6	396
Other	19.4	20.7	17.3	240
Total	13.6	12.8	15.8	5,026

Note: Table includes 10 women who said that do not remember and 33 women with missing information on other methods before sterilization. Total includes 9 and 24 women said that they sterilized at mobile clinic, and who do not know including missing information not shown separately.

Table 7.11 INFORMATION ON SIDE EFFECT AND FOLLOW-UP FOR CURRENT METHOD			
Percentage of current users of modern contraceptive methods who were told about side effects or other problems of current method by a health worker or ANM/Nurse at the time of accepting the method and percentage who received follow-up services after accepting the method by current method and according to place of residence, West Bengal, 2002-04			
Information/follow-up	Total	Rural	Urban
Told about side effects			
Sterilization	13.6	14.3	11.5
Other modern method	13.8	14.8	12.3
Any modern method	13.6	14.4	11.9
Received follow-up			
Sterilization	12.9	14.1	9.3
Other modern method	8.3	9.3	6.9
Any modern method	11.2	12.6	8.2

Another important facet of informed contraceptive choice is being fully informed about any side effects and any other problems associated with the method. In West Bengal, only 14 percent of users of any modern method were informed about possible side effects or health problems associated with the current method. Fourteen percent of acceptors of sterilization in rural area and 12 percent in urban area reported that they were informed about side effects. Among users of modern methods other than sterilization, 15 percent of rural users and 12 percent of urban users were informed about side effects. It is clear

from the results that ANM or health workers in West Bengal are not providing sufficient information to couples who need to make an informed choice about contraceptive methods. The situation with respect to follow-up services is also not encouraging. Follow-up services among sterilization users are slightly higher than among the users of other modern methods. About fourteen percent of sterilization users in rural area and about 9 percent in urban area reported that they received follow-up services by ANM or health worker. Only 8 percent of the users of other modern methods received follow-up services. In all, only 13 percent of the users of any modern method in rural area and only 8 percent in urban areas received follow-up services.

7.11 Quality of Care Indicators for Contraceptive Users by District

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

Table 7.12 QUALITY OF CARE INDICATORS FOR CONTRACEPTIVE USERS BY DISTRICT						
Among currently married women who are current users of modern contraceptive methods, quality of care indicators related to the use of their current contraceptive method by district, West Bengal, 2002-04						
District	Percentage informed about other methods before getting sterilization ¹	Percentage told about side effects or other problems with method ²		Percentage who received follow-up ²		Percentage non-user told ever had advised to adopt contraceptive method
		Sterilization	Other modern method	Sterilization	Other modern method	
Bankura	12.6	14.2	21.2	10.7	6.2	14.3
Bardhaman	8.4	8.8	22.1	11.0	10.5	20.5
Birbhum	15.1	16.3	12.8	16.6	7.6	17.4
Dakshin Dinajpur	4.5	9.3	14.8	4.6	7.4	15.0
Darjiling	15.3	15.6	13.6	17.4	6.0	20.0
Haora	16.0	12.1	16.1	14.7	11.3	20.7
Hugli	10.9	15.4	15.3	12.9	11.4	17.9
Jalpaiguri	7.3	7.8	12.7	10.3	10.5	27.5
Koch Bihar	16.2	21.2	17.9	23.2	9.9	28.2
Kolkata	20.1	15.6	11.1	3.2	3.4	5.2
Maldah	14.7	15.2	13.7	13.6	10.7	16.6
Medinipur	6.7	10.0	12.6	10.3	10.3	16.8
Murshidabad	28.0	21.2	15.8	14.5	5.2	9.6
Nadia	15.0	13.6	11.5	17.0	9.7	10.5
North 24 Parganas	22.8	15.2	9.9	8.5	5.5	10.8
Puruliya	8.2	16.4	15.6	24.4	15.6	17.5
South 24 Parganas	11.0	14.5	10.4	7.1	6.6	18.2
Uttar Dinajpur	8.3	6.5	9.2	6.9	4.3	14.9
West Bengal	13.6	13.6	13.8	12.9	8.3	16.9

Note: ¹ At the time of accepting the current method.
² By a health worker or ANM/Nurse after accepting the current method.

The percentage of sterilization-users who were told about alternate method is lowest in Dakshin Dinajpur (5 percent) but it is highest in Murshidabad (28 percent). There are also large inter-district variations in the percentage of sterilization users and

users of other modern contraceptive methods who were told about the possible side effect. In case of sterilization, the proportion varied from a low of 8 percent in Jalpaiguri to a high of 21 percent in Murshidabad and in Koch Bihar. For other modern contraceptive methods, more than 20 percent users in Barddhaman and Bankura and a minimum of 9 percent of users in Uttar Dinajpur were told about the side effects of the method. Follow-up services are slightly better for acceptors of sterilization than for other modern methods in most of the districts of West Bengal. Table 7.12 also shows district wise variation in the percentage of current non-users who were ever advised to adopt contraceptive methods, which varies from a low of 5 percent in Kolkata to a high of 28 percent in Koch Bihar.

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

7.12 Quality of Care of Maternal Health Care

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

Table 7.13 ADVISED TO HAVE DELIVERY AT HEALTH FACILITY AND FOLLOW-UP SERVICES FOR POSTPARTUM CHECK-UP			
Percentage of women* who were advised to have delivery at health facility by doctor/ health worker and percentage who receive follow-up services within 2 weeks and within 6 weeks of delivery by ANM, according to residence, West Bengal, 2002-04			
Advise/follow-up service	Total	Rural	Urban
Percentage of women who were advised to have delivery at health facility	38.8	35.4	48.5
Percentage of women who were visited within 2 weeks of delivery	12.6	14.7	6.9
Percentage of women who were visited at least once within 6 weeks of delivery	18.2	21.0	10.4
Number of women	4,964	3,660	1,305
Note: * Women who had their last live/still birth during three years preceding the survey			

About two fifth of the women with last live/still birth during three years preceding the survey reported that they were advised by doctor or health worker to have delivery in health facility. Women from urban areas (49 percent) were more likely than rural areas (35 percent) to get advised to deliver their child at health facility.

In district wise variation, the percentage varies from as low as 23 percent in Uttar Dinajpur to as high as 56 percent in Nadia (Table 7.14). In nine of the 18 districts, less than two fifth of the women were advised to deliver their child in health facility.

Table 7.14 QUALITY OF CARE INDICATORS FOR MATERNAL CARE			
Among currently married women who are given last live/still birth three years preceding the survey, quality of care indicators related to delivery care by district, West Bengal, 2002-04			
District	Percentage of women		
	Advised to have delivery at health facility by doctor/ health worker	Visited within 2 weeks of delivery by ANM	Visited at least one within 6 weeks of delivery by ANM
Bankura	52.8	14.9	18.1
Bardhaman	38.5	17.2	27.7
Birbhum	33.0	13.4	20.4
Dakshin Dinajpur	40.6	6.6	8.5
Darjiling	35.9	10.3	14.1
Haora	44.1	12.4	13.7
Hugli	44.9	9.9	20.7
Jalpaiguri	40.3	13.9	15.1
Koch Bihar	45.0	16.1	22.9
Kolkata	52.3	5.6	8.5
Maldah	28.7	15.1	17.5
Medinipur	50.3	21.9	32.3
Murshidabad	28.5	7.2	7.7
Nadia	55.9	14.2	20.9
North 24 Parganas	35.5	6.3	10.3
Puruliya	30.3	13.0	20.7
South 24 Parganas	37.0	11.8	18.0
Uttar Dinajpur	22.5	5.2	8.0
West Bengal	38.8	12.6	18.2

Thirteen percent of the women reported that they were visited by an ANM within two weeks of delivery; such visit was only 7 percent in urban areas and 15 percent in rural areas. Only 21 percent of the women in rural areas and 10 percent in urban areas received at least one follow-up service within six weeks of delivery. Not more than one quarter women received postpartum check-up within 2 weeks of delivery in any district of West Bengal, and the proportion of women who had at least one postpartum check-up within six weeks of delivery varied from a low of 8 percent in Murshidabad and Uttar Dinajpur to high of 32 percent in Medinipur (Table 7.14).

CHAPTER VIII

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

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

8.1 Awareness of RTI/STI

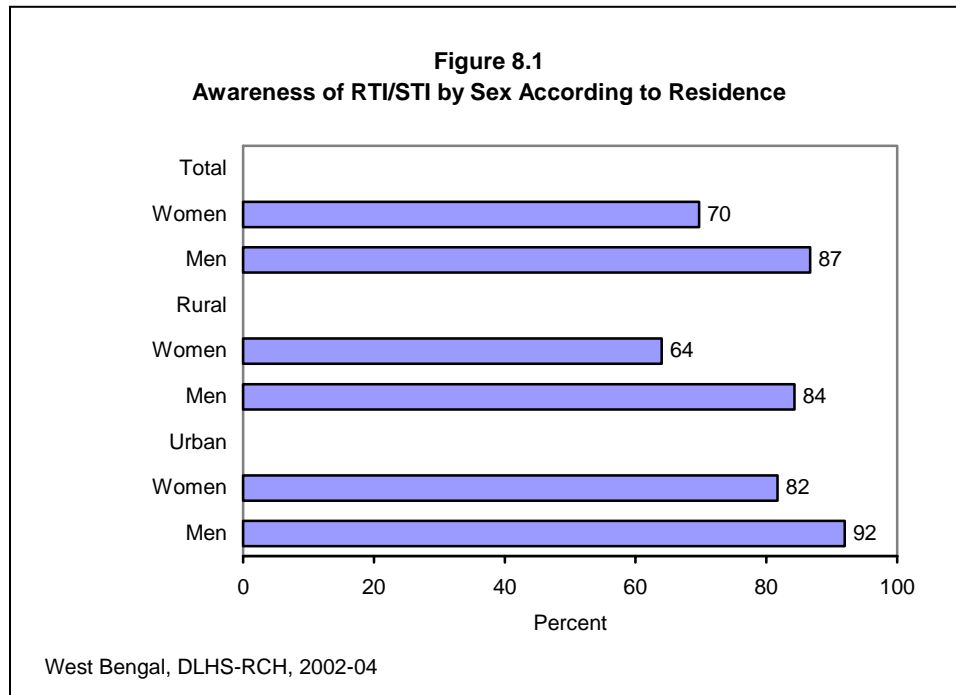
An attempt was made to assess whether couples were aware of RTI/STI. Currently married women and their husbands were asked about their awareness of RTI/STI, and if they were aware, they were further questioned about the source of information and mode of transmission of the disease.

Table 8.1 shows the percentage of women aware of RTI/STI by background characteristics. Seventy percent of the women in West Bengal were aware of RTI/STI. The proportion of women who were aware of RTI/STI is much higher in urban areas (82 percent) than in rural areas (65 percent) (Figure 8.1). Awareness of RTI/STI is much lower among younger women, illiterate women, women from 'other' religions, scheduled tribe women and women from households with a low standard of living. Awareness of RTI/STI increases from 60 percent among illiterate women to 88 percent among women who have completed 10 or more years of schooling. The standard of living index shows a positive relationship with awareness of RTI/STI, ranging from 62 percent among women with a low standard of living to 85 percent among women with a high standard of living.

Those women who had heard of RTI/STI were further asked about the source of information of RTI/STI, which is presented in Table 8.1. Almost three-quarters of the women reported that they received information of RTI/STI from friends or relatives. Other sources of information of RTI/STI as reported by women were television (13 percent), newspaper or books or magazines (10 percent), slogans or posters or pamphlets or wall hoardings (6 percent) and radio (6 percent). Only 4 percent of women received this information from doctors and 9 percent from health workers, and about 15 percent of the women reported that they had heard of RTI/STI from another source.

Table 8.2 shows the percentage of husbands of currently married women who heard of RTI/STI by specific source of information according to some selected background characteristics. In West Bengal, the percentage of men who heard of RTI/STI

is higher than that of women (Figure 8.1). Eighty-seven percent of the men heard of RTI/STI. Men from urban areas and older men were relatively more aware of RTI/STI. Men who belong to Christian religion and mainly from scheduled tribes are less likely to report awareness of RTI/STI. The awareness of RTI/STI is higher among men in West Bengal. The level of awareness of RTI/STI increases with an increase in education level and standard of living. Seventy-six percent of illiterate men were aware of RTI/STI as compared to 97 percent of men who had completed 10 or more years of schooling. Eighty-two percent of men from households with a low standard of living were aware of RTI/STI as compared to 97 percent of men with a high standard of living.



Relatives or friends are the most prominent source of RTI/STI for men in West Bengal. Sixty-nine percent of men who knew about RTI/STI received information from relatives or friends. Other important sources of information about RTI/STI are the television (27 percent) followed by newspaper or books or magazines (22 percent), slogans or posters or pamphlets or wall hoardings (21 percent), and radio (18 percent). Fifteen percent of the men received this information from a doctor, 7 percent from health workers, 2 percent from community meetings and 1 percent mentioned that they had received information about RTI/STI from school-teachers. About 9 percent of the men reported that they heard of RTI/STI from other sources. Relatives or friends are the most important source of information of RTI/STI in all the groups. Men from rural areas, illiterate men, Muslim men, Men from scheduled-tribes, men with a low standard of living and younger men are more prone to receive information from relatives or friends. Electronic media such as 'television' is also an important source of information of RTI/STI for men who are from urban areas and belong to Buddhist religion as well 'other' castes category. The differences in the knowledge of RTI/STI from television as a source of information by educational level and standard of living of household are quite visible. Only eight percent of illiterate men had heard of RTI/STI from television-which television, which increased to 51 percent for men who have completed 10 or more years of schooling.

Table 8.1 SOURCE OF KNOWLEDGE ABOUT RTI/STI AMONG WOMEN

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

Background Characteristic	Percentage who have heard about RTI/STI	Number of Women	Among those who have heard about RTI/STI, percentage who received information from:										Number of women who have heard about RTI/STI	
			Radio	Television	Newspaper/ Books/ Magazines	Slogan/ Pamphlets/ Posters/ Wall Hoardings	Doctor	Health worker	School teacher	Community Meeting	Relative/ Friends	Others		
Age group (years)														
15-19	58.8	1,792	4.7	6.7	5.0	4.2	3.1	7.1	0.3	1.7	76.0	14.8	1,053	
20-24	66.5	3,124	6.2	10.8	6.4	4.7	3.3	9.4	1.2	2.7	74.7	15.6	2,076	
25-29	70.5	3,237	6.9	14.5	11.2	7.1	4.0	9.5	0.9	2.0	71.8	15.2	2,283	
30-34	73.1	3,001	6.2	15.5	12.2	7.4	3.7	8.4	0.6	3.1	72.5	15.1	2,195	
35-39	73.2	2,463	5.6	12.9	10.6	5.7	5.0	7.1	0.3	3.7	72.1	14.1	1,804	
40-44	73.9	1,998	4.6	14.3	11.2	5.9	7.0	8.6	0.4	2.0	71.8	13.2	1,477	
Residence														
Rural	64.0	10,557	6.7	8.1	4.9	3.6	4.6	10.0	0.8	2.1	76.1	16.5	6,757	
Urban	81.7	5,057	4.5	20.9	17.8	10.1	3.8	6.1	0.4	3.4	67.8	11.8	4,131	
Education														
Non-literate	59.5	6,277	3.0	2.8	1.0	0.7	3.7	7.7	0.5	2.6	77.6	18.7	3,732	
0-9@ years	73.0	6,969	7.4	12.7	8.0	6.0	4.0	9.1	0.8	2.5	74.3	14.2	5,088	
10 and above	87.5	2,357	7.4	31.9	30.2	15.8	6.1	8.5	0.6	2.9	61.2	8.8	2,061	
Religion														
Hindu	71.2	11,872	6.0	14.9	11.4	6.9	4.7	8.2	0.7	2.7	71.8	13.7	8,458	
Muslim	65.0	3,506	5.5	5.9	3.9	2.6	3.1	9.9	0.5	2.3	76.7	18.9	2,279	
Christian	63.3	87	7.2	7.1	7.5	3.6	1.6	9.9	0.0	0.1	78.8	8.0	55	
Other	64.2	150	2.5	11.2	9.8	9.5	0.2	3.0	0.8	0.5	77.1	12.6	96	
Caste/tribe#														
Scheduled caste	66.9	4,306	4.6	9.2	5.8	4.2	3.9	9.2	0.7	2.3	77.3	14.6	2,879	
Scheduled tribe	57.8	898	3.8	2.9	2.2	1.5	3.8	5.3	0.5	2.6	69.8	20.0	519	
Other backward class	63.3	935	3.8	15.0	10.7	4.8	2.4	8.8	0.0	3.6	75.0	14.0	592	
Other	73.6	8,944	6.9	15.5	12.3	7.3	4.7	8.4	0.8	2.6	70.9	14.6	6,581	
Standard of living index														
Low	61.6	8,074	4.9	2.8	1.5	2.1	3.9	9.1	0.7	2.2	77.6	17.4	4,972	
Medium	75.0	4,895	6.8	15.2	10.3	6.7	4.4	9.4	0.8	3.2	72.7	13.8	3,672	
High	84.8	2,646	6.5	31.7	27.4	13.7	5.0	5.7	0.3	2.6	63.0	10.4	2,244	
Total	69.7	15,614	5.9	13.0	9.8	6.0	4.3	8.5	0.7	2.6	72.9	14.7	10,888	

Note: Total includes 11 cases of missing information on education are not shown separately. @ Literate women with no year of schooling are also included. #Total figure may not add to N due to do not know and missing cases.

Table 8.2 SOURCE OF KNOWLEDGE ABOUT RTI/STI AMONG MEN

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

Background characteristic	Percentage who have heard about RTI/STI	Number of men	Among those who have heard about RTI/STI, percentage who received information from:										Number of men who have heard about RTI/STI
			Radio	Television	Newspaper / Books/ Magazines	Slogan/ Pamphlets/ Posters/ Wall Hoardings	Doctor	Health worker	School teacher	Community Meeting	Relative/ Friends	Others	
Age group (years)													
< 25	81.8	858	16.3	17.6	8.6	14.5	15.8	7.4	0.9	1.0	76.5	11.2	702
25-34	86.8	3,588	19.2	24.7	18.5	19.0	14.3	7.0	1.0	1.9	70.0	9.7	3,114
35-44	87.1	4,007	17.9	27.9	23.0	18.7	13.6	7.9	1.0	2.0	66.8	9.1	3,490
45+	87.6	2,506	17.8	28.7	26.8	21.2	15.0	7.3	0.8	1.5	65.0	10.1	2,195
Residence													
Rural	84.3	7,580	20.2	18.1	14.3	16.0	15.8	9.1	1.1	1.9	70.4	11.4	6,392
Urban	92.0	3,378	14.0	43.1	35.9	25.4	11.3	4.0	0.5	1.6	63.4	6.1	3,109
Education													
Non-literate	75.8	3,190	13.2	8.0	1.4	4.0	10.9	4.5	0.6	1.8	79.0	11.8	2,418
0-9@ years	88.5	5,256	19.3	23.2	15.1	19.2	15.7	8.2	1.2	1.6	69.1	10.1	4,651
10 and above	96.8	2,505	21.0	50.5	53.2	33.8	15.0	8.8	0.9	2.1	55.4	6.8	2,424
Religion													
Hindu	87.7	8,456	17.7	28.5	24.1	20.9	13.4	7.6	0.9	1.7	67.2	9.5	7,417
Muslim	83.5	2,344	20.5	17.1	10.3	12.4	18.0	6.9	1.2	2.4	72.8	10.5	1,957
Christian	74.9	59	(5.7)	(28.3)	(26.4)	(11.3)	(9.4)	(5.7)	(0.0)	(0.0)	(64.2)	(3.8)	45
Other	83.4	99	7.8	39.2	32.3	13.6	8.8	5.8	0.9	0.0	43.4	7.1	83
Caste/tribe#													
Scheduled caste	83.6	3,135	17.3	18.1	14.8	17.7	12.0	8.0	0.7	1.8	72.3	11.2	2,622
Scheduled tribe	76.2	643	13.7	12.0	11.3	11.0	12.1	7.3	1.3	3.9	66.0	12.6	490
Other backward class	85.3	703	12.6	27.2	25.9	19.5	15.3	9.5	0.8	1.9	65.3	7.8	600
Other	90.0	6,129	19.6	31.7	25.3	20.7	15.6	7.0	1.0	1.6	66.4	9.1	5,518
Standard of living index													
Low	81.1	5,787	17.4	10.2	8.8	13.4	14.8	8.4	1.1	1.7	72.0	13.0	4,692
Medium	91.0	3,421	20.5	32.6	23.5	21.3	15.4	7.1	0.8	2.2	68.6	6.9	3,112
High	96.9	1,751	15.9	58.9	52.0	30.8	11.0	5.2	0.8	1.1	56.6	5.7	1,698
Total	86.7	10,958	18.2	26.3	21.3	19.1	14.3	7.4	0.9	1.8	68.1	9.7	9,501

Note: Table includes 8 cases of missing information on aware of RTI/STI. Total includes 8 cases with missing information on education are not shown separately. @ Literate men with no year of schooling are also included. # Total figure may not add to N due to do not know and missing cases. () Based on less than 50 unweighted cases.

8.1.1 Knowledge of Mode of Transmission of RTI/STI

Women who were aware of RTI/STI were asked about the mode of transmission. This is presented in Table 8.3. Among women who reported knowledge of RTI/STI, 47 percent of them did not know anything further about the mode of transmission of **this disease RTI/STI**. This proportion is relatively higher among rural women, young women, non-literate women, and women from other than Hindu and Muslim religions, women from scheduled tribes and women **coming** from households with low standard of living. Fifty-one percent of rural women do not know about the mode of transmission of RTI/STI compared to 42 percent of urban women. Heterosexual intercourse and lack of **personal** hygiene were mentioned by 25 percent of women as mode of transmission of RTI/STI. Only 3 percent of women reported homosexual intercourse and 20 percent reported other modes of transmission of RTI/STI.

Table 8.3 SOURCE OF KNOWLEDGE ABOUT MODE OF TRANSMISSION OF RTI/STI AMONG WOMEN						
Percentage of currently married women age 15-44 who have heard of RTI/STI, knowledge of mode of transmission by selected background characteristics, West Bengal, 2002-04						
Background characteristic	Percentage by knowledge of mode of transmission;					Number of women who have heard of RTI/STI
	Homosexual intercourse	Heterosexual intercourse	Lack of personnel hygiene	Other	Do not know	
Age						
15-19	1.8	19.6	21.4	12.1	56.3	1,053
20-24	2.5	22.9	26.3	17.0	49.3	2,076
25-29	1.8	25.2	23.7	20.0	47.1	2,283
30-34	2.8	23.8	23.8	22.7	46.4	2,195
35-39	3.5	26.3	28.3	22.0	43.3	1,804
40-44	2.7	26.7	23.8	20.8	45.5	1,477
Residence						
Rural	2.5	22.7	23.8	18.4	51.0	6,757
Urban	2.7	27.0	26.2	21.7	41.6	4,131
Education						
Non-literate	1.8	17.7	22.9	16.4	55.9	3,732
0-9@ years	2.2	24.6	25.0	19.3	47.4	5,088
10 years and above	4.6	35.7	27.4	26.4	32.3	2,061
Religion						
Hindu	2.6	25.3	23.1	20.4	46.8	8,458
Muslim	2.2	20.7	30.9	17.0	49.2	2,279
Christian	0.3	13.7	23.4	10.6	58.3	55
Other	6.0	29.1	20.6	20.5	52.4	96
Caste/tribe#						
Scheduled caste	2.0	24.2	24.0	17.0	49.7	2,879
Scheduled tribe	3.5	15.7	22.7	15.7	60.0	519
Other backward class	2.3	23.6	23.6	18.8	50.6	592
Other	2.7	25.5	25.7	21.3	44.4	6,581
Standard of living index						
Low	1.8	18.3	22.8	16.4	55.4	4,972
Medium	2.4	25.7	25.4	20.1	45.5	3,672
High	4.4	35.6	27.9	26.1	33.0	2,244
Total	2.5	24.3	24.8	19.6	47.4	10,888

Note: Total includes 6 cases of missing information on education are not shown separately. # Total figure may not add to N due to do not know and missing cases. @ Literate women with no year of schooling are also included.

Table 8.4 presents the knowledge of mode of transmission of RTI/STI among men. Among men who had heard of RTI/STI, 18 percent of them mentioned that they did not know any thing about the mode of transmission of ~~this disease~~ RTI/STI. The percentage of men who did not know about the mode of transmission is higher among younger men, illiterate men, Hindu men, men from scheduled tribes, and men from households with a low standard of living. Among the men who knew the modes of transmission of RTI/STI, 56 percent mentioned heterosexual intercourse, twelve percent reported lack of personnel hygiene, and only 3 percent mentioned homosexual intercourse, and 20 percent reported other modes of transmission.

Table 8.4 SOURCE OF KNOWLEDGE ABOUT MODE OF TRANSMISSION OF RTI/STI AMONG MEN						
Percentage of husbands of currently married women who have heard of RTI/STI , knowledge of mode of transmission by selected background characteristics, West Bengal, 2002-04						
Background characteristic	Percentage by knowledge of mode of transmission;					Number of men who have heard of RTI/STI
	Homosexual intercourse	Heterosexual intercourse	Lack of personnel hygiene	Other	Do not know	
Age						
<25	3.1	51.3	12.2	15.0	23.6	702
25-34	3.2	56.5	11.6	18.0	17.4	3,114
35-44	3.2	56.5	11.0	21.3	16.6	3,490
45+	2.5	54.6	10.7	22.0	17.8	2,195
Residence						
Rural	3.9	58.1	11.5	15.9	18.6	6,392
Urban	1.2	50.8	10.6	28.2	15.7	3,109
Education						
Non-literate	2.4	51.8	10.2	12.9	25.4	2,418
0-9@ years	3.1	53.6	11.4	19.7	17.8	4,651
10 years and above	3.5	63.6	11.8	27.3	9.7	2,424
Religion						
Hindu	2.4	55.3	10.4	20.1	18.3	7,417
Muslim	5.5	56.6	14.3	19.3	15.3	1,957
Christian	(3.8)	(50.9)	(11.3)	(28.3)	(18.9)	45
Other	0.0	75.9	3.0	13.2	10.6	83
Caste/tribe#						
Scheduled caste	2.8	54.4	11.2	19.0	18.6	2,622
Scheduled tribe	2.9	51.7	11.0	13.4	25.8	490
Other backward class	2.9	58.9	7.0	18.9	20.2	600
Other	3.2	56.6	11.7	21.2	16.0	5,518
Standard of living index						
Low	2.7	52.8	10.9	16.5	20.9	4,692
Medium	3.7	57.8	12.0	20.1	16.0	3,112
High	2.6	60.0	10.5	29.2	11.5	1,698
Total	3.0	55.7	11.2	19.9	17.6	9,501
Note: Total includes 8 cases with missing information on education are not shown separately. @ Literate men with no years of schooling are also included. # Total figure may not add to N due to do not know and missing cases. () Based on less than 50 unweighted cases.						

8.2 Prevalence of RTI/STI

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

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

Table 8.5 and Figure 8.2 show that more than one-third of currently married women (37 percent) reported at least one reproductive health problem. The problems reported by women were 'low backache' (15 percent), 'pain in lower abdomen' (12 percent), 'involuntary escape of urine while coughing or sneezing' (11 percent), and 'itching over vulva', 'painful sexual intercourse, and 'frequent / painful passage of urine' (9 percent each). Other symptoms of reproductive health reported by women were 'fever' (8 percent), 'boils/ ulcers/ warts around vulva' (5 percent), 'some mass coming out of vagina' (4 percent) and 'swelling / lump in breast' (3 percent). Very few women reported 'bleeding after sexual intercourse' and 'swelling in the groin'. The prevalence of reproductive health problems is common among rural and urban women.

Table 8.5 SYMPTOMS OF RTI/STI AMONG WOMEN			
Percentage of currently married women age 15-44 who reported any symptoms RTI/STI and specific symptoms during three months prior to survey, according to residence, West Bengal, 2002-04			
Symptoms	Total	Residence	
		Rural	Urban
Percentage of women reported any RTI/STI symptoms	36.4	39.5	30.0
Symptoms			
Itching over vulva	9.1	9.5	8.1
Boils/ ulcers/ warts around vulva	4.9	5.3	4.0
Pain in lower abdomen not related to menses	12.2	13.6	9.3
Low backache	14.8	16.4	11.4
Pain during sexual intercourse	8.9	10.3	6.1
Bleeding after sexual intercourse	1.4	1.7	0.7
Swelling in the groin	2.7	3.2	1.7
Frequent / painful passage of urine	9.2	10.5	6.6
Fever	8.1	9.4	5.5
Some mass coming out of vagina	4.0	4.9	2.2
Any involuntary escape of urine while coughing or sneezing	10.7	12.0	7.8
Swelling / lump in breast	3.1	3.6	2.0
Number of women	15,614	10,557	5,057

Figure 8.2
Symptoms of RTI/STI among Women

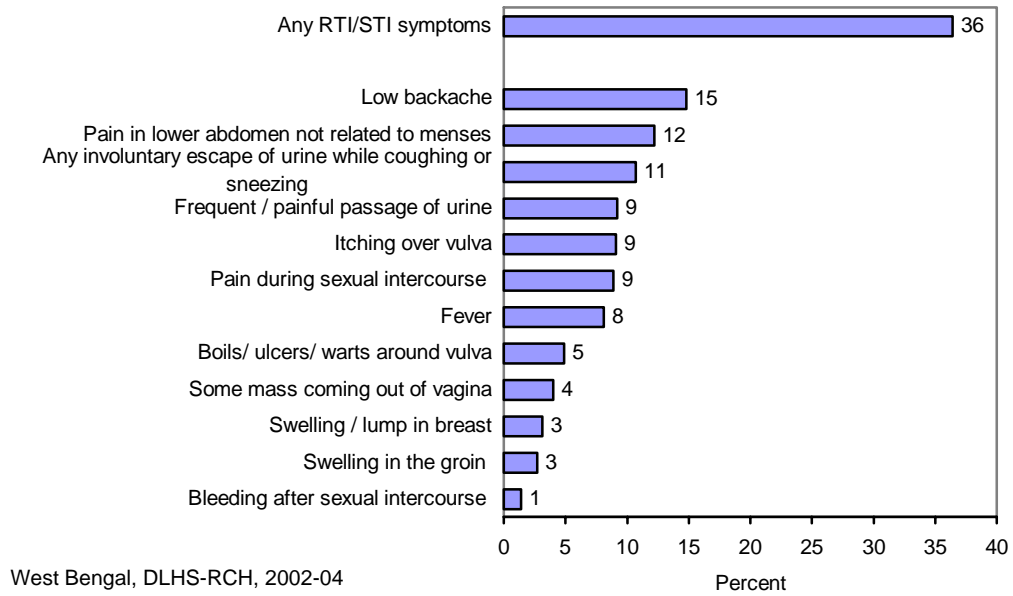


Figure 8.3
Symptoms of RTI/STI among Husbands

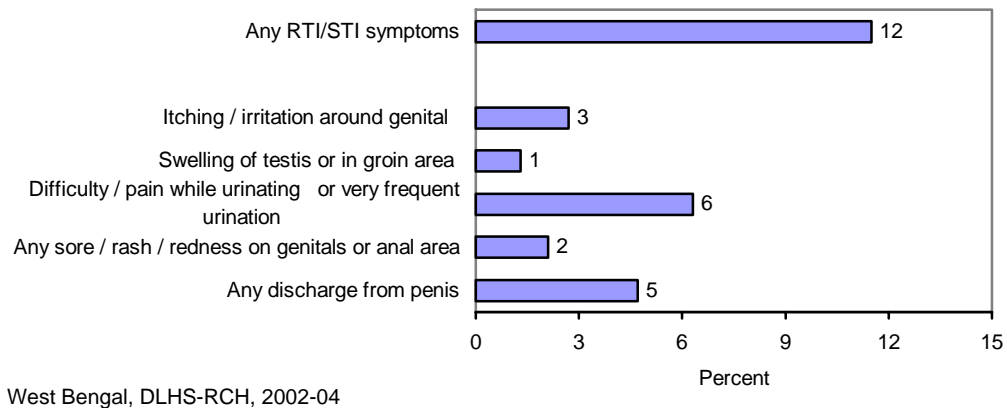


Table 8.6 and Figure 8.3 show the prevalence of reproductive health problems among husbands of currently married women. The prevalence of RTI/STI among men was judged by the reporting of symptoms. Twelve percent of men reported experiencing at least one symptom of reproductive health problem in the last three months preceding the survey. The prevalence of reproductive health problems is higher among rural men (15 percent) than among urban men (4 percent). The specific problem of reproductive health experienced by men is ‘difficulty / pain while urinating or very frequent urination’ (6 percent), ‘discharge from penis’ (5 percent), ‘itching / irritation around genital’ (3 percent), ‘sore / rash / redness on genitals or anal area’ (2 percent), and ‘swelling of testes or in groin area’ (1 percent).

Table 8.6 SYMPTOMS OF RTI/STI AMONG MEN			
Percentage of husbands of currently married women who reported any symptoms RTI/STI and specific symptoms during three months prior to survey and sought treatment for RTI/STI by source of treatment, according to residence, West Bengal, 2002-04			
Symptoms and treatment	Total	Residence	
		Rural	Urban
Percentage of men reported any RTI/STI symptoms	11.5	14.8	4.0
Symptoms			
Any discharge from penis	4.7	6.2	1.2
Any sore / rash / redness on genitals or anal area	2.1	2.7	0.8
Difficulty / pain while urinating or very frequent urination	6.3	8.3	2.0
Swelling of testis or in groin area	1.3	1.7	0.4
Itching / irritation around genital	2.7	3.4	1.0
Number of men	10,958	7,580	3,378
Percentage of men sought treatment for any RTI/STI	35.7	35.6	36.8
Number of men ¹	1,256	1,121	135
Percentage sought treatment at health facility ²			
Government health facility ³	16.9	16.0	24.8
Primary health centre	2.2	2.4	0.7
Sub centre	4.9	4.4	9.4
Private health facility ⁴	31.1	29.6	42.6
ISM ⁵ facility	25.9	27.1	16.6
Chemist/ medical shop	14.6	14.0	18.8
Other	22.1	23.0	14.6
Percentage obtained treatment from ²			
Doctor	46.9	45.0	62.6
Male health worker	7.3	7.3	7.5
Traditional healer	4.8	5.2	0.9
Relative/friends	9.1	9.0	10.2
ISM practitioner	4.0	3.8	5.3
Home remedy	6.5	5.8	11.7
Chemist medical shop	6.0	6.1	5.9
Other	27.4	29.3	12.0
Number of men ⁶	448	399	50
Note: ¹ Based on men with any symptoms of RTI/STI. ² Percentage may add to more than 100.0 due to multiple responses and based on who sought treatment. ³ Includes Government municipal hospital, dispensary, UHC/ UHP /UWFC, CHC/ rural hospital, Primary health centre, sub-centre. ⁴ Includes private hospital/ clinic, non-governmental / trust hospital/clinic. ⁵ Either government or private hospital/clinic of Indian system of medicine. ⁶ Based on who sought treatment for RTI/STI.			

Among men who reported reproductive health problems, 36 percent of them sought treatment. There is no rural-urban differential in seeking treatment for reproductive health problems. Among them, only 17 percent visited a government health facility, including a primary health centre (2 percent) and sub-centre (5 percent) and 31 percent visited a private health facility. A sizeable number of men were treated by the Indian system of medicine (26 percent), while 15 percent obtained treatment from a chemist or medical shop, and 22 percent of the men reported that they were treated at other sources. A relatively higher proportion of men from urban areas utilised the government health facility, private health facility and chemist or medical shop for treatment; utilisation of the Indian system of medicine is much higher among rural men (29 percent) than among urban men (15 percent). A large proportion of men saw a doctor (47 percent), 63 percent in urban areas and 45 percent in rural areas. Seven percent of men were seen by a male health worker, 5 percent by a traditional healer, 9 percent by relative or friends, and 4 percent by an ISM practitioner. Seven percent of the men used home remedies and 6 percent of the men went to a chemist. Another 31 percent of the men obtained treatment from other sources. The percentage of men who obtained treatment, except from doctors, chemists and home remedies, is somewhat higher in rural areas than in urban areas.

The DLHS-RCH also collected information from currently married women on symptoms of RTIs, that is, on abnormal vaginal discharge, texture, colour and odour of discharge in the three months immediately preceding the survey. The prevalence of reproductive health problems among currently married women is estimated from women's experiences. Table 8.7 shows the symptomatic prevalence of vaginal discharge related problems among currently married women in West Bengal during the three months preceding the survey according to residence. Sixteen percent of the women reported problems related to vaginal discharge. The prevalence of vaginal discharge problem is relatively higher among rural women (19 percent) than among urban women (10 percent).

Among the women who had reported symptoms of vaginal discharge, 39 percent went in for treatments, higher percentage (40 percent) from urban areas compared to their rural counterparts (39 percent). A considerable proportion (46 percent) visited private health facilities followed by ISM (40 percent). Only 14 percent went to a government health facility, including 3 percent to the Primary Health Centre and 1 percent to Sub Centre, seven percent took home remedies and 10 percent of the women visited other places for treatment. The proportion of women who visited a private health facility is higher in rural areas (49 percent) than in urban areas (38 percent), and the proportion of women who visited a facility rendering the Indian system of medicine, is much higher in urban areas (49 percent) than in rural areas (38 percent). A significantly higher proportion (74 percent) of women in the state of West Bengal obtained treatment from doctors for their problems. Around 5 percent women were treated by ANM/Nurse/Midwife /LHV and 4 percent by other health professionals.

Table 8.7 ABNORMAL VAGINAL DISCHARGE			
Percentage of currently married women age 15-44 who reported had any abnormal vaginal discharge during three months prior to survey and percentage who sought treatment and source of treatment according to residence, West Bengal, 2002-04			
Symptoms and treatment	Total	Residence	
		Rural	Urban
Percentage of women reported abnormal vaginal discharge	15.7	18.6	9.6
Number of women	15,614	10,557	5,057
Percentage of women sought treatment for vaginal discharge	38.9	38.6	39.8
Number of women ¹	2,444	1,961	483
Percentage sought treatment at health facility²			
Government health facility ³	13.9	13.0	17.4
Primary health centre	3.4	3.1	4.4
Sub centre	0.7	0.8	0.6
Private health facility ⁴	46.4	48.6	38.2
ISM ⁵ facility	39.9	37.6	49.1
Home remedy	6.7	7.7	2.8
Other	10.2	10.1	10.2
Percent distribution of women who obtained treatment from²			
Doctor	75.2	72.2	86.9
ANM/nurse/midwife/LHV	5.3	6.0	2.6
Other health professionals ⁶	3.3	3.4	3.0
Other	16.1	18.3	7.5
Total percent	100.0	100.0	100.0
Number of women	950	758	192
Note: ¹ Based on women who reported having vaginal discharge. ² Based on women who sought treatment for vaginal discharge. ³ Includes Government municipal hospital, dispensary, UHC/ UHP /UWFC, CHC/ rural hospital, Primary health centre, sub-centre and out reach/ MCP clinic in village. ⁴ Includes private hospital/ clinic, non-governmental / trust hospital/clinic, chemist/ medical shop. ⁵ Either government or private hospital/clinic of Indian system of medicine, ⁶ Includes <i>dai</i> (trained or untrained), relative or friends and chemist/ medical shop.			

8.3 Menstruation Related Problems

Table 8.8 shows the percentage of women who had menstruation problems and who sought treatment during the three months preceding the survey. The Table shows that around 28 percent women in West Bengal had menstruation problems, and the figures are 29 percent and 24 percent in the rural and urban areas respectively.

Among the women who had reported menstrual problems in West Bengal, 44, 38, and 17 percent reported continuous bleeding, painful periods, and delayed periods as symptoms respectively. The magnitude of these symptoms ~~are~~ is more or less the same

among urban as well as rural women. Continuous bleeding and painful periods are the main menstrual problems prevalent in West Bengal. Among the women who had menstrual problems, forty-one percent sought treatment ~~in the state~~, and the figures for urban and rural areas ~~are is~~ 47 percent and 38 percent respectively. The private health facility and ISM facility are the main sources of treatment for menstrual problems. Around 43 percent of women sought treatment at a private facility and 37 percent sought treatment at an ISM facility. Fifteen percent of the women were treated at a government health facility, which holds true for both urban and rural areas. Most of the women went to a doctor for treatment (83 percent). The figures for urban and rural areas ~~are is~~ 87 percent and 80 percent respectively.

Table 8.8 MENSTRUATION RELATED PROBLEMS			
Percentage of currently married women age 15-44 who had any menstruation related problem during three months prior to survey and percentage who sought treatment and source of treatment according to residence, West Bengal, 2002-04			
Symptoms and treatment	Total	Residence	
		Rural	Urban
Percentage of women with any menstruation related problem	27.6	29.2	24.4
Symptoms			
No period	6.7	6.5	7.2
Painful period	38.3	40.5	33.2
Frequent or short period	10.7	12.3	7.1
Delayed period	16.9	14.9	21.5
Prolonged bleeding	3.9	4.6	2.3
Excessive bleeding	10.4	11.1	8.9
Continuous bleeding	2.5	2.7	1.9
Scanty bleeding	44.4	43.5	46.3
Inter-menstrual bleeding	13.5	13.4	13.8
Number of women ¹	12,663	8,332	4,331
Percentage of women sought treatment who had any menstruation related problems	40.6	37.7	47.3
Number of women	3,491	2,432	1,059
Percentage sought treatment at health facility ⁶			
Government health facility ²	15.2	14.6	16.3
Primary health centre	2.4	3.5	0.3
Sub centre	1.9	2.2	1.5
Private health facility ³	43.7	46.5	38.5
ISM ⁴ facility	36.5	33.6	41.6
Other	8.5	9.9	6.0
Percentage of women obtained treatment from⁶			
Doctor	82.5	80.1	86.9
ANM/nurse/midwife/LHV	4.5	2.3	8.5
Other health professionals ⁵	5.9	5.4	6.8
Other	10.1	14.6	2.0
Number of women	1,416	916	500
Note: ¹ Based on women who reported any menstruated related problems.			
² Includes Government municipal hospital, dispensary, UHC/ UHP /UWFC, CHC/ rural hospital, Primary health centre, sub-centre and out reach/ MCP clinic in village. ³ Includes private hospital/ clinic, non-governmental / trust hospital/clinic, chemist/ medical shop. ⁴ Either government or private hospital/clinic of Indian system of medicine, ⁵ Includes dai (trained or untrained), relative or friends and chemist/ medical shop. ⁶ Multiple responses.			

8.4 Prevalence of RTIs/STIs by District

Table 8.9 presents the prevalence of RTIs/STIs among currently married women and their husbands by districts. The proportion who reported symptoms of RTIs/STIs among women is lowest in Puruliya and Kolkata (25 percent each) and highest in Medinipur (46 percent). The problems related to abnormal vaginal discharge ranges from 6 percent in Puruliya to 29 percent in Maldah. In comparison to women, fewer men from all districts of West Bengal reported symptoms of RTIs/STIs. Men from Kolkata, Haora, Hugli, Bardhaman and Jalpaiguri (2- 5 percent) reported the lowest prevalence of symptoms of RTIs/STIs and men from Noida (27 percent) reported the highest prevalence. Except Nadia and Dakshin Dinajpur, data does not show association between the prevalence of RTIs/STIs among women and men in any other districts.

The percentage of women who have sought treatment for RTIs (abnormal vaginal discharge) ranges from 13 percent in Uttar Dinajpur to 60 percent in Bankura, and for men who have sought treatment, it ranges from 28 percent in Birbhum to 69 percent in Jalpaiguri.

Table 8.9 REPRODUCTIVE HEALTH CARE INDICATORS BY DISTRICT					
Percentage of currently married women and their husbands who reported reproductive health problems and percentage who sought treatment for the problems by district, West Bengal, 2002-04					
District	Percentage of women			Percentage of men	
	With any symptoms of RTI/STI	Reported any abnormal vaginal discharge	Sought treatment for abnormal vaginal discharge	With any symptoms of RTI/STI	Sought treatment for RTI/STI problems
Bankura	41.9	7.3	60.0	11.8	34.3
Bardhaman	39.4	12.4	38.4	4.3	(28.3)
Birbhum	27.9	9.3	40.9	9.9	28.4
Dakshin Dinajpur	35.8	16.1	37.8	24.1	39.5
Darjiling	36.2	16.1	28.0	11.6	32.2
Haora	26.7	9.3	41.7	3.8	(42.2)
Hugli	38.4	11.9	49.5	5.1	39.5
Jalpaiguri	29.9	22.2	13.4	4.8	69.3
Koch Bihar	44.8	17.4	41.2	14.4	28.8
Kolkata	25.2	12.2	37.6	2.4	(58.6)
Maldah	40.9	28.8	36.7	6.6	54.0
Medinipur	45.6	18.3	58.3	14.9	40.8
Murshidabad	44.7	15.3	32.3	15.1	31.6
Nadia	32.5	16.8	43.9	26.8	32.1
North 24 Parganas	35.3	14.4	46.0	8.6	29.8
Puruliya	24.6	6.4	47.9	11.9	44.1
South 24 Parganas	33.9	21.7	31.3	18.9	33.6
Uttar Dinajpur	38.3	27.6	13.3	13.8	32.9
West Bengal	36.4	15.7	38.9	11.5	35.7

Note: () Based on less number of cases

8.5 HIV/AIDS

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

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

8.5.1 Knowledge of HIV/AIDS

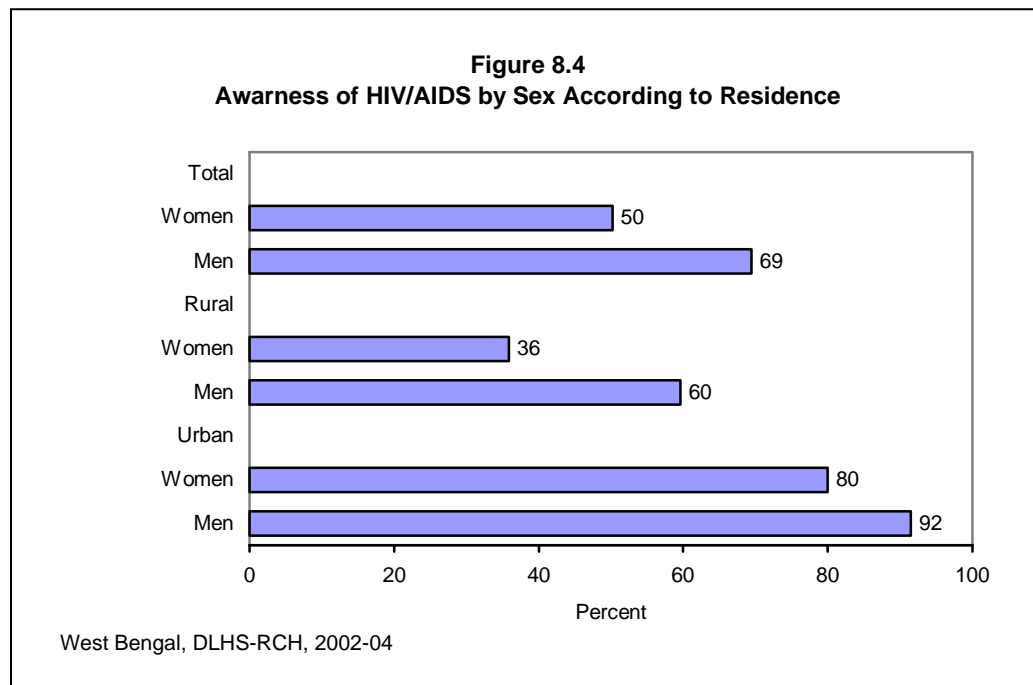
Table 8.10 shows the percentage of women who had heard about HIV/AIDS by some selected background characteristics. Fifty-one percent of currently married women in West Bengal have heard of HIV/AIDS, which is higher than RCH Round – I. In Round-I only 31 percent of currently married women were aware of HIV/AIDS.

Knowledge of HIV/AIDS is much lower among rural women, illiterate women, Muslim women, women from scheduled tribes, women from households with a low standard of living, and younger women. Eighty percent of urban women had heard about HIV/AIDS compared to only 36 percent of rural women. Knowledge of HIV/AIDS steadily increased with increase in educational level and household standard of living. Less than one-fourth of illiterate women (23 percent) had heard of HIV/AIDS against 96 percent of women who had completed 10 or more years of schooling. Similarly, a little more than one-quarter of the women (26 percent) with a low standard of living had heard of HIV/AIDS against 93 percent of women with a high standard of living. Except younger women (below the age of 20), more than 50 percent of the women from other age groups have knowledge of HIV/AIDS. Muslim women (36 percent) were less aware of HIV/AIDS compared to women from Hindu (54 percent), Christian (61 percent) and 'other' religions (65 percent). Women from 'other castes' category were more knowledgeable about HIV/AIDS (59 percent) than women belonging to other backward classes (46 percent), scheduled-caste (40 percent) and scheduled tribe women (28 percent).

The government has been using mass media, such as television, radio, and newspaper extensively to increase awareness among the general public about HIV/AIDS and its prevention. Table 8.10 shows the percentage of currently married women who were aware of HIV/AIDS from different sources. The most prominent source of information about HIV/AIDS is television. About 65 percent of women reported that television was their source of information about HIV/AIDS, followed by relatives or friends (47 percent), newspapers,

books or magazines (21 percent), radio (19 percent) and slogans or pamphlets, posters or wall hoardings (13 percent). Twelve percent of the women reported that a health worker had informed them about HIV/AIDS and 5 percent of the women received information of HIV/AIDS from a doctor. A comparatively high proportion of rural women received information about HIV/AIDS from the radio, doctor, health worker, and relatives or friends.

Table 8.11 shows the percentage of husbands of currently married women who had heard about HIV/AIDS. In West Bengal, the proportion of men who had heard about HIV/AIDS is much higher than that of women. Sixty-nine percent of men had heard of HIV/AIDS as compared to 50 percent of women (Figure 8.4).



About ninety-two percent of urban men had heard about HIV/AIDS as compared to only 60 percent of rural men. Knowledge of HIV/AIDS varies by men's age, and it is higher for the age group of 25-34 years. Awareness of HIV/AIDS is much lower among illiterate men, Muslim men, men from scheduled tribes, and men who belong to households with a low standard of living. A similar trend is observed in the case of women. About two-fifths of illiterate men had heard of HIV/AIDS, and it increased up to 75 percent for literate men and up to 97 percent in case of men who had completed 10 or more years of schooling. Thus, it is positively related to standard of living educational attainment of men and women.

Table 8.11 also shows the percentage of husbands of currently married women who were aware of HIV/AIDS by different sources. As reported by the men of West Bengal, the most prominent source of information of HIV/AIDS ~~were~~ was relatives or friends (59 percent) followed by television (56 percent). Other important sources of HIV/AIDS are the radio (34 percent) newspapers, books or magazines (34 percent), and slogans or pamphlets, posters or wall hoardings (28 percent). Thirteen percent of men reported that a doctor had informed them about HIV/AIDS and 8 percent men had received information of HIV/AIDS from a health worker.

Table 8.10 SOURCE OF KNOWLEDGE ABOUT HIV/AIDS AMONG WOMEN

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

Background characteristic	Percentage who have heard about HIV/AIDS	Number of Women	Among those who have heard about HIV/AIDS, percentage who received information from:										Number of women who have heard about HIV/AIDS
			Radio	Television	Newspaper / Books/ Magazines	Slogan/ Pamphlets/ Posters/ Wall Hoardings	Doctor	Health worker	School teacher	Community Meeting	Relative/ Friends	Others	
Age group (years)													
15-19	37.7	1,792	23.4	50.5	9.2	10.1	3.6	11.7	2.1	2.0	55.3	8.9	676
20-24	50.5	3,124	21.3	59.5	17.0	12.1	5.5	12.1	1.6	2.1	50.7	6.0	1,577
25-29	52.9	3,237	18.5	64.5	22.7	15.3	4.7	12.2	1.0	2.5	46.6	6.8	1,713
30-34	53.1	3,001	17.2	68.5	22.4	14.9	6.2	13.3	0.7	1.3	44.9	7.0	1,593
35-39	52.3	2,463	17.2	69.8	24.9	11.3	4.4	10.3	0.1	1.4	45.0	5.2	1,287
40-44	49.8	1,998	14.2	68.6	26.3	14.1	5.8	11.9	1.2	3.1	45.0	5.6	994
Residence													
Rural	35.9	10,557	26.2	45.8	11.3	10.8	5.9	16.0	1.2	2.1	53.6	7.8	3,795
Urban	80.0	5,057	11.2	82.0	30.4	15.7	4.5	8.2	0.9	2.0	41.5	5.2	4,045
Education													
Non-literate	22.5	6,277	18.4	37.2	2.6	3.8	5.0	13.4	1.1	1.9	53.6	8.5	1,415
0-9@ years	59.8	6,969	19.6	61.4	12.3	10.9	4.1	12.3	0.6	2.3	50.4	6.5	4,168
10 and above	95.5	2,357	16.3	87.4	49.1	23.9	7.2	10.5	1.8	1.7	37.9	5.1	2,252
Religion													
Hindu	54.4	11,872	17.7	67.2	23.3	14.1	5.4	11.9	1.0	1.8	48.2	6.6	6,453
Muslim	35.3	3,506	23.9	48.5	9.8	9.7	4.3	12.5	0.9	3.5	44.9	6.1	1,237
Christian	61.3	87	11.0	77.0	25.2	6.3	1.5	15.3	1.7	0.0	42.4	4.1	53
Other	65.3	150	3.4	78.8	22.7	14.0	4.5	9.4	7.3	0.7	27.0	3.2	98
Caste/tribe#													
Scheduled caste	40.2	4,306	19.5	52.8	12.4	9.9	5.2	16.5	0.8	2.0	51.1	7.2	1,733
Scheduled tribe	28.1	898	18.2	49.0	14.5	8.5	5.5	12.9	3.8	6.1	45.7	6.8	252
Other backward class	46.4	935	16.3	71.2	28.5	14.2	4.9	11.6	0.6	1.5	50.1	6.0	434
Other	58.5	8,944	18.6	68.9	24.1	14.6	5.1	10.4	1.0	1.9	45.8	6.3	5,235
Standard of living index													
Low	26.3	8,074	28.1	26.7	5.8	8.5	5.9	17.1	0.9	2.5	55.0	9.2	2,123
Medium	66.6	4,895	16.1	68.9	14.2	11.0	4.0	12.4	1.1	1.9	47.7	6.4	3,259
High	92.9	2,646	13.3	91.3	43.6	20.6	6.0	7.1	1.0	1.7	40.3	4.2	2,457
Total	50.2	15,614	18.5	64.5	21.1	13.3	5.2	12.0	1.0	2.0	47.4	6.5	7,840

Note: Total includes 11 cases of missing information on education are not shown separately. @ Literate women with no year of schooling are also included. # Total figure may not add to N due to do not know and missing cases.

Table 8.11 SOURCE OF KNOWLEDGE ABOUT HIV/AIDS AMONG MEN

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

Background Characteristic	Percentage who have heard about HIV/AIDS	Number of men	Among those who have heard about HIV/AIDS, percentage who received information from;										Number of men who have heard about HIV/AIDS	
			Radio	Television	Newspaper / Books/ Magazines	Slogan/ Pamphlets/ Posters/ Wall Hoardings	Doctor	Health worker	School teacher	Community Meeting	Relative/ Friends	Others		
Age group (years)														
< 25	67.6	858	36.4	48.1	17.0	17.2	14.0	6.4	0.5	3.6	66.4	9.8	580	
25-34	72.7	3,588	34.7	52.9	29.4	26.8	12.9	7.4	1.0	2.9	62.4	7.9	2,610	
35-44	68.7	4,007	34.6	58.3	34.8	29.5	12.8	9.5	1.0	3.6	56.4	6.7	2,752	
45+	66.4	2,506	32.9	60.7	43.7	32.1	14.8	7.7	0.8	3.0	54.0	5.7	1,664	
Residence														
Rural	59.6	7,580	42.7	43.2	24.2	25.1	15.1	10.6	1.3	3.3	60.1	8.5	4,521	
Urban	91.3	3,378	22.3	75.2	47.3	32.7	10.9	4.5	0.4	3.1	56.6	5.1	3,085	
Education														
Non-literate	38.4	3,190	31.6	31.2	3.6	7.2	9.3	4.0	0.5	2.4	70.1	8.7	1,225	
0-9@ years	75.1	5,256	34.7	49.5	23.1	24.6	13.0	8.2	0.7	2.9	60.4	6.7	3,948	
10 and above	97.0	2,505	35.4	79.8	65.8	44.5	16.0	10.2	1.5	4.2	50.0	7.0	2,429	
Religion														
Hindu	72.1	8,456	33.7	58.2	36.5	29.9	12.7	8.3	0.9	3.1	58.5	7.1	6,097	
Muslim	59.5	2,344	39.2	46.0	20.0	21.0	16.1	7.9	1.0	4.1	60.7	7.7	1,393	
Christian	70.8	59	(25.5)	(59.6)	(29.8)	(29.8)	(19.1)	(14.9)	(2.1)	(2.1)	(51.1)	(4.3)	42	
Other	73.8	99	16.2	77.5	43.1	18.1	18.3	2.4	0.0	0.0	37.0	4.7	73	
Caste/tribe														
Scheduled caste	60.9	3,135	34.4	45.4	23.3	23.5	12.4	7.0	0.8	2.9	62.6	8.0	1,908	
Scheduled tribe	46.7	643	37.0	38.9	17.1	17.3	12.7	9.8	0.8	3.3	54.4	12.5	300	
Other backward class	69.4	703	32.7	62.4	42.2	33.7	13.1	10.5	1.6	3.4	57.4	5.0	488	
Other	76.4	6,129	34.7	61.6	38.7	30.8	13.9	8.3	0.9	3.4	57.4	6.7	4,680	
Standard of living index														
Low	51.6	5,787	40.6	29.1	15.7	21.6	13.9	9.8	1.2	3.0	62.2	9.3	2,987	
Medium	85.3	3,421	33.1	65.9	32.9	27.1	12.5	7.7	0.9	3.6	59.2	5.5	2,918	
High	97.2	1,751	25.8	87.1	66.1	41.5	13.8	6.0	0.6	3.0	51.6	6.1	1,701	
Total	69.4	10,958	34.4	56.2	33.6	28.2	13.4	8.1	0.9	3.2	58.7	7.2	7,606	

Note: Total includes 8 cases of missing information on education are not shown separately. @ Literate men with no year of schooling are also included. # Total figure may not add to N due to don't and missing cases. () Based on less than 50 unweighted cases.

About 3 percent reported that they were informed through community meetings and one percent received such information from a school teacher. Comparatively, a higher proportion of rural men received information about HIV/AIDS from the radio, doctor, health worker, schoolteacher and relative or friends than urban men. The information on awareness of HIV/AIDS through mass media, such as television and newspapers, and books or magazines, was received more by older men (aged 45 and above), urban men, and men from other religions and 'other castes' category, with at least 10 years of schooling, and men from households with a high standard of living. On the other hand, relative or friends were the main source of information for rural men, younger men below age 25, illiterate men, Muslim men, men from a scheduled castes men and men from households with a low standard of living.

8.5.2 Knowledge of Mode of Transmission about HIV/AIDS

Women who were aware of HIV/AIDS were asked about the mode of transmission and this is presented in Table 8.12. Among women who reported awareness of HIV/AIDS, 25 percent of them did not know about the mode of transmission.

Table 8.12 SOURCE OF KNOWLEDGE ABOUT MODE OF TRANSMISSION OF HIV/AIDS AMONG WOMEN								
Percentage currently married women age 15-44 who have heard of HIV/AIDS, knowledge of mode of transmission by selected background characteristics, West Bengal, 2002-04								
Background characteristic	Percentage by knowledge of mode of transmission						Do not know	Number of women who have heard of HIV/AIDS
	Homo sexual intercourse	Hetero sexual intercourse	Needles/ blade/ skin puncture	Mother to child	Transfusion of infected blood	Other		
Age								
15-19	2.9	50.3	19.3	7.0	10.9	14.9	32.0	676
20-24	3.9	51.8	26.8	6.1	18.2	19.1	26.9	1,577
25-29	3.7	50.4	31.5	8.4	25.1	23.5	22.5	1,713
30-34	4.1	51.7	30.7	8.3	22.2	21.3	24.3	1,593
35-39	6.1	52.4	32.7	10.3	24.9	25.1	22.7	1,287
40-44	5.3	50.4	35.2	7.6	25.2	22.9	23.1	994
Residence								
Rural	4.4	51.7	20.6	5.8	13.4	16.2	30.0	3,795
Urban	4.3	50.9	38.8	10.0	29.8	26.7	19.7	4,045
Education								
Non-literate	3.1	41.6	11.4	4.4	8.0	14.5	41.7	1,415
0-9@ years	3.7	50.3	23.6	6.1	16.3	20.3	26.9	4,168
10 years and above	6.3	59.2	53.7	13.8	41.0	28.5	9.9	2,252
Religion								
Hindu	4.3	52.2	31.5	7.9	22.8	22.4	23.6	6,453
Muslim	4.6	46.3	21.4	7.5	16.0	18.3	30.5	1,237
Christian	0.3	42.6	54.8	28.3	28.5	20.1	24.3	53
Other	3.9	57.9	28.1	12.4	34.1	12.6	20.3	98
Caste/tribe#								
Scheduled caste	4.1	48.1	20.9	5.6	15.6	17.3	33.2	1,733
Scheduled tribe	3.6	41.2	20.9	9.0	17.0	25.1	27.8	252
Other backward class	4.0	56.1	30.1	6.3	21.8	23.5	20.8	434
Other	4.5	52.8	33.9	9.0	24.4	23.0	21.5	5,235
Standard of living index								
Low	3.2	44.6	11.4	3.8	8.5	14.7	37.6	2,123
Medium	3.6	51.1	27.8	6.8	18.6	21.4	25.9	3,259
High	6.3	57.3	49.0	13.3	37.8	27.9	11.9	2,457
Total	4.3	51.3	30.0	8.0	21.9	21.6	24.7	7,840

Note: Total includes 6 cases of missing information on education are not shown separately. @ Literate women with no year of schooling are also included. # Total figure may not add to N due to do not know and missing cases.

This proportion is relatively higher among rural women, younger women, non-literate women, Muslim women, women from scheduled castes and women with a low standard of living. Thirty percent of the rural women do not know about the mode of transmission of HIV/AIDS compared to 20 percent of urban women.

Among women who reported different ways of transmission of HIV/AIDS, a large proportion (51 percent) mentioned heterosexual intercourse as a mode of transmission. All the socio-economic groups reported that heterosexual intercourse was the main mode of transmission of HIV/AIDS. Other modes reported by women were transmission through needle or blade or skin puncture (30 percent), transfusion of infected blood (22 percent), mother to child, if pregnancy occurs during a stage of HIV (8 percent); only 4 percent of the women mentioned that homosexual intercourse could also be a mode of transmission. Twenty-two percent stated that there were other ways of transmission of HIV/AIDS.

Table 8.13 SOURCE OF KNOWLEDGE ABOUT MODE OF TRANSMISSION OF HIV/AIDS AMONG MEN								
Percentage of husbands of currently married women who have heard of HIV/AIDS, knowledge of mode of transmission by selected background characteristics, West Bengal, 2002-04								
Background characteristic	Percentage by knowledge of mode of transmission						Do not know	Number of men who have heard of HIV/AIDS
	Homosexual intercourse	Heterosexual intercourse	Needles/ blade/ skin puncture	Mother to child	Transfusion of infected blood	Other		
Age								
<25	5.7	68.7	17.2	2.3	13.2	16.1	11.3	580
25-34	4.7	67.7	29.3	5.2	19.2	19.6	9.2	2,610
35-44	4.7	65.2	30.4	4.1	22.6	22.6	10.0	2,752
45+	2.6	64.8	32.1	4.7	27.5	22.2	10.3	1,664
Residence								
Rural	5.9	71.8	21.6	3.3	15.1	14.7	10.9	4,521
Urban	2.0	58.1	40.8	6.2	31.6	30.2	8.3	3,085
Education								
Non-literate	3.6	66.6	9.8	0.9	7.7	15.4	15.4	1,225
0-9@ years	4.0	63.8	22.2	3.2	14.7	20.4	12.0	3,948
10 years and above	5.1	69.9	51.0	8.4	40.5	24.8	3.6	2,429
Religion								
Hindu	3.5	67.2	30.3	4.6	23.5	21.4	9.7	6,097
Muslim	8.0	61.8	24.7	3.5	14.1	18.8	10.9	1,393
Christian	(4.3)	(53.2)	(34.0)	(4.3)	(17.0)	(29.8)	(12.8)	42
Other	1.6	78.8	32.9	4.2	32.9	17.2	9.1	73
Caste/tribe#								
Scheduled caste	3.3	66.5	22.4	3.3	16.9	21.1	11.9	1,908
Scheduled tribe	6.4	68.0	22.6	5.6	10.8	13.5	9.3	300
Other backward class	4.1	69.9	34.2	5.1	21.8	17.5	8.7	488
Other	4.7	66.0	32.8	4.9	24.9	21.7	9.1	4,680
Standard of living index								
Low	3.8	67.5	14.1	1.5	9.9	16.3	13.3	2,987
Medium	5.0	65.1	30.0	5.5	21.6	21.7	9.2	2,918
High	4.0	65.9	55.2	8.0	42.9	28.0	4.9	1,701
Total	4.3	66.2	29.4	4.5	21.8	21.0	9.9	7,606

Note: Total includes 4 cases of missing information on education are not shown separately. @ Literate men with no year of schooling are also included. #Total figure may not add to N due to do not know and missing cases. () Based on less than 50 unweighted cases.

Table 8.13 presents the knowledge about mode of transmission of HIV/AIDS among men had. Ten percent of the men who had heard about HIV/AIDS mentioned that they do not know the mode of transmission. The percentage of men not knowing the mode of transmission is higher among younger men, rural men, illiterate men, Muslim men, scheduled-castes, and men from households with a low standard of living. Among who reported ways of transmission of HIV/AIDS, 66 percent of them mentioned heterosexual intercourse as a mode of transmission. All the groups reported that heterosexual intercourse was the main mode of transmission of HIV/AIDS. Other modes reported by men are transmission through needle or blade or skin puncture (29 percent), transfusion of infected blood (22 percent), mother to child, if pregnancy occurs during a stage of HIV (5 percent), and only 4 percent of the women mentioned that homosexual intercourse could also be a mode of transmission of HIV/AIDS. Twenty-one percent stated that there were other ways of transmission of HIV/AIDS.

8.5.3 How to avoid HIV/AIDS

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

Among women who reported about awareness of HIV/AIDS, more than one-quarter of them did not know how to avoid becoming infected by HIV/AIDS. This percentage is higher among rural women than among urban women. The percentage of women who did not know of any way to avoid infection decreases with increasing levels of education and household standard of living. Forty-four percent of illiterate women reported that they did not know of any way to avoid infection as compared to 12 percent of women who had completed ten or more years of schooling. Similarly, 37 percent of women with low a standard of living stated that they did not know of any way to avoid infection as compared to 14 percent of women with a high standard of living. The percentage of women who did not know ways to avoid infection is also high among Muslim women, scheduled-caste women and younger women.

Among women who mentioned ways to avoid HIV/AIDS, a higher proportion of women (58 percent) said that “sex with only one partner is the way to avoid it”. Other ways to prevent HIV/AIDS mentioned by women were ‘using a condom correctly during each sexual intercourse’ and ‘sterilizing needles and syringe before injecting’ (26 percent each), ‘checking blood prior to transfusion’ (21 percent), and 5 percent of the women reported that the pregnancy should be avoided if couples were infected by HIV/AIDS. All the specific ways to avoid becoming infected by HIV/AIDS reported by women are proportionally higher in urban areas, among Christian women, women who belong to ‘other castes’ category, women with a high level of education and women with a high standard of living.

Table 8.15 shows the percentage of men who reported that HIV/AIDS could be avoided by some selected background characteristics. Among men who are aware of

HIV/AIDS, 10 percent of them did not know of any method to avoid infection, compared to 27 percent women in the state.

Table 8.14 KNOWLEDGE ABOUT AVOIDANCE OF HIV/AIDS AMONG WOMEN

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

Background Characteristic	Percentage reported HIV/AIDS can be avoided by:							Number of women
	Sex With Only one partner	Using condoms correctly during each sexual intercourse	Checking blood prior to transfusion	Sterilizing needles and syringes for injection	Avoiding pregnancy when having HIV/AIDS	Other	Do not know to avoid HIV/AIDS	
Age								
15-19	52.3	20.8	11.0	17.2	3.4	16.4	31.9	676
20-24	57.4	26.9	18.6	22.7	3.7	14.6	29.5	1,577
25-29	57.6	28.6	22.4	27.7	5.8	14.6	24.7	1,713
30-34	56.3	27.3	22.5	27.0	5.1	17.6	25.6	1,593
35-39	61.9	24.8	24.2	29.4	5.5	16.0	24.4	1,287
40-44	59.3	22.8	24.3	27.5	4.0	19.2	25.6	994
Residence								
Rural	52.4	20.6	13.7	18.4	3.6	19.1	30.6	3,795
Urban	62.8	31.0	28.3	32.9	5.8	13.4	22.7	4,045
Education								
Non-literate	42.3	10.9	7.1	9.4	3.1	15.3	44.1	1,415
0-9@ years	56.4	21.1	16.4	19.6	3.6	16.8	28.6	4,168
10 years and above	70.0	44.3	39.0	47.9	7.8	15.6	11.7	2,252
Religion								
Hindu	58.7	26.8	22.3	27.2	4.9	16.4	25.5	6,453
Muslim	53.1	21.7	14.5	17.8	3.9	15.5	32.7	1,237
Christian	56.1	32.5	32.9	45.1	8.1	18.6	25.7	53
Other	55.6	24.1	27.3	33.7	3.0	8.6	18.9	98
Caste/tribe#								
Scheduled caste	49.9	19.1	15.2	19.4	3.5	16.9	33.8	1,733
Scheduled tribe	56.1	14.4	13.7	16.3	3.2	14.8	27.8	252
Other backward class	62.2	31.2	21.5	28.3	2.3	15.9	22.5	434
Other	60.4	28.6	23.8	28.7	5.5	16.2	24.0	5,235
Standard of living index								
Low	46.1	14.6	8.1	11.0	2.2	17.5	37.1	2,123
Medium	56.2	23.2	18.3	23.3	4.2	16.7	28.8	3,259
High	70.0	39.4	36.5	42.3	7.7	14.3	14.4	2,457
Total	57.8	26.0	21.2	25.9	4.7	16.2	26.5	7,840

Note: Total includes 6 cases of missing information on education are not shown separately. @ Literate women with no year of schooling are also included. #Total figure may not add to N due to do not know and missing cases.

In West Bengal, a higher proportion of women reported that 'sex with only one partner' is the way to avoid HIV/AIDS, a majority of men (74 percent) also reported the same, and this was the most commonly reported way to avoid HIV/AIDS in all the groups. Other ways to prevent ~~by~~ HIV/AIDS mentioned by men are 'sterilizing needles and syringe before injecting' (25 percent), 'using a condom correctly during each sexual intercourse' (23 percent) and 'checking blood prior to transfusion' (22 percent). All the specific ways to avoid becoming infected by HIV/AIDS reported by men are proportionally higher in urban areas than in rural areas, and among men who belong to 'other caste' category, men with a high level of education and men with a high standard

of living. Hindu men were more likely to report using a condom correctly during each sexual intercourse.

Table 8.15 KNOWLEDGE ABOUT AVOIDANCE OF HIV/AIDS AMONG MEN

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

Background characteristic	Percentage reported HIV/AIDS can be avoided by ;							Number of men
	Sex with only one partner	Using condoms correctly during each sexual intercourse	Checking blood prior to transfusion	Sterilizing needles and syringes for injection	Avoiding pregnancy when having HIV/AIDS	Other	Do not know to avoid HIV/AIDS	
Age								
<25	73.2	23.4	8.9	13.3	2.3	15.6	13.0	580
25-34	73.0	23.8	19.1	23.2	3.5	20.4	9.2	2,610
35-44	73.8	22.0	23.9	26.8	2.4	20.2	10.7	2,752
45+	73.9	22.2	27.7	30.0	3.0	20.1	10.6	1,664
Residence								
Rural	73.5	21.9	15.5	17.9	2.3	19.7	11.0	4,521
Urban	73.5	24.1	31.3	36.0	3.8	20.2	9.3	3,085
Education								
Non-literate	69.9	13.0	7.1	7.6	0.9	20.8	14.8	1,225
0-9@ years	70.9	18.6	15.2	18.8	2.4	19.4	13.0	3,948
10 years and above	79.6	34.6	40.3	44.8	4.8	20.3	3.7	2,429
Religion								
Hindu	73.0	24.2	23.2	26.3	2.7	20.2	10.4	6,097
Muslim	75.7	17.2	16.3	20.6	3.9	18.8	9.8	1,393
Christian	(55.3)	(27.7)	(21.3)	(23.4)	(0.0)	(17.0)	(10.6)	42
Other	78.4	14.7	18.5	20.1	4.4	17.4	16.7	73
Caste/tribe#								
Scheduled caste	69.4	17.9	16.5	17.5	1.8	21.5	12.7	1,908
Scheduled tribe	74.8	20.4	13.3	14.7	0.8	18.4	6.8	300
Other backward class	72.8	23.7	19.1	26.4	2.7	19.6	9.1	488
Other	75.9	25.3	25.7	29.8	3.6	19.0	9.5	4,680
Standard of living index								
Low	69.7	17.6	9.6	11.5	1.1	20.7	12.6	2,987
Medium	74.7	22.5	21.1	25.7	3.5	19.9	11.1	2,918
High	78.1	32.3	45.0	48.7	5.1	18.5	5.1	1,701
Total	73.5	22.8	21.9	25.3	2.9	19.9	10.3	7,606

Note: Total includes 4 cases of missing information on education are not shown separately. @ Literate men with no year of schooling are also included. #Total figure may not add to N due to do not know and missing cases. () Based on less than 50 unweighted cases.

8.5.4 Misconception about HIV/AIDS

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

Table 8.16 shows the percentage of women with misconceptions about spreading HIV/AIDS through specific ways by selected background characteristics. Being bitten by mosquitoes, fleas or bedbugs is commonly reported as the way of getting HIV/AIDS infection by women in all the groups, and this percentage is higher among rural areas (48 percent) than in urban areas (39 percent). Literate women who have completed nine years of schooling, women from households with a low standard of living, Christian women, and women from scheduled tribes mentioned this method of transmission more often.

Table 8.16 MISCONCEPTION ABOUT TRANSMISSION OF HIV/AIDS AMONG WOMEN								
Among currently married women age 15-44 who have heard about HIV/AIDS, the percentage of women having misconception about the transmission of HIV/AIDS by selected background characteristics, West Bengal, 2002-04								
Background characteristic	Percentage having misconception about the transmission of HIV/AIDS ;							Number of women
	Shaking hands	Hugging	Kissing	Sharing clothes	Sharing eating utensils	Stepping on Urine / stool	Mosquito, flea, or bedbugs biting	
Residence								
Rural	12.6	15.6	21.1	25.2	29.5	31.7	47.8	3,795
Urban	5.8	8.1	15.7	15.7	19.1	21.4	39.0	4,045
Education								
Non-literate	12.4	15.8	21.1	27.9	30.5	31.6	41.2	1,415
0-9@ years	10.2	12.2	18.9	21.6	25.5	28.3	44.7	4,168
10 years and above	4.9	8.2	15.5	13.1	17.7	19.6	41.8	2,252
Religion								
Hindu	9.2	11.6	18.1	20.0	24.1	26.4	43.2	6,453
Muslim	9.0	13.2	20.2	23.4	26.1	27.9	44.6	1,237
Christian	0.7	5.2	12.7	8.0	9.1	18.9	42.3	53
Other	6.5	7.3	14.1	10.1	9.5	13.5	26.9	98
Caste/tribe#								
Scheduled caste	10.8	13.8	20.9	25.0	30.4	32.1	45.5	1,733
Scheduled tribe	12.0	13.4	18.8	23.8	24.8	29.9	43.0	252
Other backward class	5.7	8.3	15.2	12.9	18.2	23.4	43.5	434
Other	8.8	11.3	17.8	19.1	22.5	24.6	42.8	5,235
Standard of living index								
Low	14.1	17.2	21.6	27.7	31.1	33.3	45.7	2,123
Medium	8.1	10.4	17.7	20.6	24.2	27.6	43.1	3,259
High	6.1	8.7	16.5	13.5	18.1	18.8	41.3	2,457
Total	9.1	11.7	18.4	20.3	24.1	26.4	43.2	7,840

Note: Total includes 6 cases of missing information on education are not shown separately. @ Literate women with no year of schooling are also included. #Total figure may not add to N due to do not know and missing cases.

Other misconceptions about the spreading of HIV/AIDS were ‘stepping on urine/stool’ (26 percent), ‘sharing eating utensils’ (24 percent), ‘sharing clothes’ (20 percent), ‘kissing’ (18 percent), ‘hugging’ (12 percent), and ‘shaking hands’ (9 percent). The percentage of all these misconceptions is also higher among women who belong to scheduled tribes, scheduled castes, among Muslim women, illiterate women and women with a low standard of living.

Table 8.17 presents the percentage of men with misconceptions about the spreading of HIV/AIDS through specific ways by selected background characteristics.

Again, just like the women, men in all the groups reported that HIV/AIDS is transmitted through insect bites, mosquitoes, through flea or bedbugs. Fifty-five percent of the men in India felt so. The percentage who reported that HIV/AIDS could be transmitted through the biting by mosquitoes or fleas or bedbugs was much higher among rural men (60 percent) than among urban men (47 percent). Literate men who have completed nine years of schooling, men from households with a low standard of living, Muslim men, and scheduled caste men are of the impression that HIV/AIDS spreads when one is bitten by mosquitoes, fleas or bedbugs. Other misconceptions about the spread of HIV/AIDS are 'sharing eating utensils' (35 percent), 'kissing' (34 percent), 'stepping on urine/stool' (33 percent), 'sharing clothes' (31 percent), 'hugging' (22 percent), and 'shaking hands' (20 percent).

All the misconceptions reported by men are relatively higher than those reported by women. The percentage of all these misconceptions is also higher among men who belong to scheduled-tribe or caste, Muslim men, illiterate men and men with a low standard of living.

Table 8.17 MISCONCEPTION ABOUT TRANSMISSION OF HIV/AIDS AMONG MEN								
Among husbands currently married women who have heard about HIV/AIDS, the percentage of men having misconception about the transmission of HIV/AIDS by selected background characteristics, West Bengal, 2002-04								
Background characteristic	Percentage having misconception about the transmission of HIV/AIDS							Number of men
	Shaking hands	Hugging	Kissing	Sharing clothes	Sharing eating utensils	Stepping on Urine / stool	Mosquito, flea, or bedbugs biting	
Residence								
Rural	25.5	28.2	38.3	39.0	42.7	42.1	59.6	4,521
Urban	11.1	12.9	28.1	20.3	23.8	20.8	47.3	3,085
Education								
Non-literate	30.9	32.6	40.9	45.0	47.7	44.4	56.1	1,225
0-9@ years	21.1	24.4	35.3	34.4	38.0	36.4	56.2	3,948
10 years and above	11.7	12.8	28.9	19.6	23.8	23.0	51.4	2,429
Religion								
Hindu	18.1	20.2	32.7	29.4	33.2	31.7	54.6	6,097
Muslim	26.5	30.5	40.7	41.0	43.3	42.4	55.9	1,393
Christian	(14.9)	(14.9)	(31.9)	(25.5)	(25.5)	(12.8)	(42.6)	42
Other	19.1	14.3	40.8	21.6	36.0	21.4	44.6	73
Caste/tribe#								
Scheduled caste	21.4	25.2	37.8	37.6	40.8	39.5	58.6	1,908
Scheduled tribe	29.3	25.2	33.6	34.6	40.1	35.4	54.8	300
Other backward class	15.9	21.6	32.4	28.6	35.7	29.8	55.8	488
Other	18.6	20.1	32.7	28.7	32.0	31.1	52.8	4,680
Standard of living index								
Low	28.7	31.6	40.6	42.6	45.9	44.3	58.8	2,987
Medium	17.0	19.6	32.3	29.8	33.8	32.1	54.8	2,918
High	8.1	9.3	26.2	14.3	17.9	16.6	47.0	1,701
Total	19.6	22.0	34.2	31.4	35.0	33.4	54.6	7,606

Total includes 4 cases of missing information on education are not shown separately. @ Literate men with no year of schooling are also included. #Total figure may not add to N due to do not know and missing cases. () Based on less than 50 unweighted cases.

8.5.5 Knowledge of Curability of HIV/AIDS

Table 8.18 shows the percentage distribution of currently married women and their husbands who have heard about HIV/AIDS by knowledge of curability of the same, according to some selected background characteristics. Around 40 percent women and 43 percent men have the notion that HIV/AIDS is curable, whereas 38 percent women and 41 percent men replied that the disease is not curable. Twenty-two percent women and 16 percent men do not have any idea regarding the curability of the disease. It ~~can be~~ safely asserted is clear -from the figures that both men and women of urban area having high level of education, belonging to Hindu and Christian religion and other backward classes and from households of high standard of living are showing better performance as far as the knowledge of curability of HIV/AIDS is concerned.

Background characteristic	Percent distribution of women			Number of women	Percent distribution of men			Number of men
	Yes	No	Do not know		Yes	No	Do not know	
Residence								
Rural	43.5	31.2	25.3	3,795	49.1	35.0	15.9	4,521
Urban	36.5	43.8	19.7	4,045	34.5	49.7	15.9	3,085
Education								
Non-literate	37.7	28.3	34.0	1,415	48.3	30.7	20.9	1,225
0-9@ years	43.8	32.5	23.7	4,168	47.0	35.6	17.4	3,948
10 years and above	34.1	53.1	12.8	2,252	34.4	54.8	10.8	2,429
Religion								
Hindu	40.6	38.0	21.4	6,453	43.1	41.6	15.4	6,097
Muslim	37.1	34.8	28.1	1,237	44.2	37.5	18.4	1,393
Christian	24.1	47.9	28.1	53	(38.3)	(44.7)	(17.0)	42
Other	36.2	47.2	16.5	98	34.8	58.4	6.8	73
Caste/tribe#								
Scheduled caste	41.5	32.7	25.9	1,733	46.6	35.0	18.3	1,908
Scheduled tribe	46.7	36.4	16.9	252	57.2	31.4	11.4	300
Other backward class	40.8	40.4	18.8	434	40.6	44.2	15.2	488
Other	39.1	39.0	21.9	5,235	41.4	43.5	15.0	4,680
Standard of living index								
Low	43.6	27.2	29.2	2,123	49.4	32.6	18.0	2,987
Medium	41.2	35.7	23.1	3,259	43.7	41.2	15.1	2,918
High	35.0	49.3	15.6	2,457	31.5	55.1	13.5	1,701
Total	39.9	37.7	22.4	7,840	43.2	40.9	15.9	7,606

Note: Total includes 6 cases of missing information on education of women and 4 men and 186 and 230 Cases about do not know in caste category are not shown separately of women and men respectively. @ Literate persons with no year of schooling are also included. #Total figure may not add to N due to do not know and missing cases. () Based on less than 50 unweighted cases.

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

Table 8.19 shows the percentage distribution of currently married women and their husbands who are aware of RTI/STI and HIV/AIDS by districts. According to DLHS, 70 percent and 50 percent of women were aware of RTI/STI and HIV/AIDS respectively and the corresponding figures for husbands of eligible women are 87 and 69 percent respectively. The awareness of RTI/STI and HIV/AIDS among men is higher than that among women by 17 and 19 percentage points.

In general, in all of the districts men are more aware of RTI/STI and HIV/AIDS than women. The highest level of awareness about RTI/STI among women was reported in Kolkata (85 percent), followed by Nadia and Medinipur (81 percent each) to the lowest in Puruliya (42 percent). Among men, the highest level of awareness of RTI/STI was reported in Nadia (97 percent), followed by Hugli (95 percent) and Maldah (94 percent) and ~~to~~ the lowest was recorded in Murshidabad (69 percent).

The proportion of husbands' of eligible women for currently married women age 15-44 who are aware of HIV/AIDS in the districts ~~of state of state~~ West Bengal ~~are is~~ also presented in Table 8.19. Among women, ~~the~~ awareness about HIV/AIDS ranges from the highest of 88 percent in Kolkata to the lowest of 23 percent in Puruliya. With the exception of Puruliya, Maldah, Birbhum, Uttar Dinajpur, Murshidabad and Bankura in every district, a minimum of two-fifth of women reported awareness of HIV/AIDS. A high level of awareness of HIV/AIDS among men exceeding 75 percent was reported in Medinipur, Darjiling, Hugli, North 24 Parganas, Haora and Kolkata.

Table 8.19 AWARENESS OF RTI/STI AND HIV/AIDS BY DISTRICT				
Percentage of currently married women and their husbands aware of RTI/STI and HIV/AIDS by district, West Bengal, 2002-04				
District	Percentage of women		Percentage of men	
	Aware of RTI/STI	Aware of HIV/AIDS	Aware of RTI/STI	Aware of HIV/AIDS
Bankura	58.1	34.4	80.3	65.1
Bardhaman	68.3	45.2	83.0	64.1
Birbhum	56.1	31.8	81.1	57.6
Dakshin Dinajpur	79.4	46.3	88.1	65.7
Darjiling	52.5	66.2	80.4	77.0
Haora	79.1	71.9	88.9	87.3
Hugli	70.3	61.7	94.9	82.5
Jalpaiguri	71.0	46.5	87.8	65.0
Koch Bihar	63.2	40.1	75.1	56.5
Kolkata	84.7	87.5	92.8	95.8
Maldah	70.0	27.9	94.0	49.3
Medinipur	80.7	49.3	89.2	75.8
Murshidabad	50.4	33.0	68.5	46.7
Nadia	80.9	62.2	97.2	74.4
North 24 Parganas	78.3	67.7	86.2	82.8
Puruliya	42.3	22.5	83.3	46.6
South 24 Parganas	70.2	52.8	93.3	73.3
Uttar Dinajpur	72.9	32.0	91.3	54.2
West Bengal	69.7	50.2	86.7	69.4

APPENDIX – A

SAMPLING ERROR ESTIMATION

Sampling Error Estimation

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

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

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

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

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

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

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

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

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

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

Sampling errors, West Bengal, 2002-04								
Variables	Estimate (R)	Sampling error (SE)	Number of cases		Design Effect	Relative Error (%)	95% Conf. Interval	
			Unweighted	Weighted			R-1.96 SE	R+1.96 SE
Contraceptive Prevalence Rate (Currently Married Women age 15-44)								
Total	0.741	0.005	15,613	15,614	1.693	0.7	0.732	0.750
Rural	0.714	0.005	10,556	10,556	1.326	0.7	0.704	0.723
Urban	0.798	0.009	5,057	5,058	2.643	1.1	0.780	0.816
Unmet Need (Currently Married Women age 15-44)								
Total	0.110	0.003	15,613	15,613	1.622	2.7	0.104	0.116
Rural	0.126	0.004	10,556	10,556	1.318	3.2	0.119	0.133
Urban	0.078	0.006	5,057	5,057	2.577	7.7	0.066	0.089
Received Any Antenatal Check up (last live/still birth of past 3 years)								
Total	0.907	0.005	5,024	4,965	1.640	0.6	0.897	0.917
Rural	0.889	0.006	3,724	3,660	1.340	0.7	0.878	0.901
Urban	0.957	0.011	1,300	1,305	3.635	1.1	0.936	0.978
Received 3+ Antenatal Check up (last live/still birth of past 3 years)								
Total	0.646	0.009	5,024	4,963	1.624	1.4	0.629	0.663
Rural	0.575	0.009	3,724	3,659	1.350	1.6	0.556	0.593
Urban	0.845	0.016	1,300	1,304	2.453	1.9	0.814	0.876
Institutional Delivery (last live/still birth of past 3 years)								
Total	0.463	0.010	5,024	4,964	1.837	2.2	0.444	0.481
Rural	0.347	0.009	3,724	3,659	1.386	2.6	0.329	0.365
Urban	0.788	0.019	1,300	1,305	2.760	2.4	0.751	0.825
Safe Delivery (last live/still birth of past 3 years)								
Total	0.541	0.009	5,024	4,965	1.733	1.7	0.523	0.559
Rural	0.443	0.010	3,724	3,660	1.385	2.3	0.424	0.462
Urban	0.815	0.017	1,300	1,305	2.672	2.1	0.781	0.849
Received BCG Vaccination (last and last but one living children, age 12-23 months)								
Total	0.870	0.011	1,621	1,572	1.622	1.2	0.850	0.891
Rural	0.855	0.011	1,206	1,168	1.268	1.3	0.832	0.877
Urban	0.916	0.025	415	404	3.321	2.7	0.867	0.965
Received Measles (last and last but one living children, age 12-23 months)								
Total	0.650	0.015	1,621	1,572	1.659	2.3	0.620	0.680
Rural	0.644	0.016	1,206	1,168	1.292	2.4	0.614	0.675
Urban	0.666	0.038	415	404	2.752	5.8	0.590	0.742
Birth order 3+ (birth in last three years)								
Total	0.310	0.008	5,294	5,195	1.614	2.6	0.294	0.325
Rural	0.341	0.009	3,978	3,873	1.292	2.6	0.324	0.358
Urban	0.218	0.019	1,316	1,322	2.764	8.7	0.201	0.460

Sampling errors, West Bengal, 2002-04							
District	Estimate (R)	Sampling error (SE)	Number of cases		Relative Errors (%)	95% Conf. Interval	
			Unweighted	Weighted		R-1.96 SE	R+1.96 SE
Contraceptive Prevalence Rate (Currently Married Women age 15-44)							
Bankura	0.760	0.015	976	976	2.0	0.731	0.789
Barddhaman	0.824	0.016	844	844	1.9	0.793	0.855
Birbhum	0.723	0.015	954	954	2.1	0.694	0.753
Dakshin Dinajpur	0.747	0.016	847	847	2.1	0.717	0.778
Darjiling	0.748	0.019	739	739	2.5	0.710	0.786
Haora	0.776	0.018	814	814	2.3	0.742	0.811
Hugli	0.808	0.014	891	931	1.7	0.781	0.834
Jalpaiguri	0.709	0.016	897	897	2.3	0.677	0.741
Koch Bihar	0.733	0.016	928	928	2.2	0.700	0.765
Kolkata	0.796	0.022	602	602	2.8	0.753	0.839
Maldah	0.598	0.017	938	938	2.8	0.566	0.631
Medinipur	0.756	0.016	1,008	1,008	2.1	0.725	0.787
Murshidabad	0.683	0.018	872	872	2.6	0.648	0.718
Nadia	0.822	0.014	863	863	1.7	0.795	0.849
North 24 Parganas	0.759	0.017	736	736	2.2	0.725	0.793
Puruliya	0.613	0.017	912	912	2.8	0.580	0.645
South 24 Parganas	0.734	0.015	925	925	2.0	0.705	0.763
Uttar Dinajpur	0.572	0.017	867	867	3.0	0.538	0.606

Sampling errors, West Bengal, 2002-04							
District	Estimate (R)	Sampling error (SE)	Number of cases		Relative Errors (%)	95% Conf. Interval	
			Unweighted	Weighted		R-1.96 SE	R+1.96 SE
Unmet Need (Currently Married Women age 15-44)							
Bankura	0.085	0.009	976	976	10.6	0.067	0.104
Barddhaman	0.061	0.009	844	844	14.8	0.043	0.079
Birbhum	0.131	0.011	954	954	8.4	0.109	0.154
Dakshin Dinajpur	0.105	0.011	847	847	10.5	0.084	0.127
Darjiling	0.124	0.015	739	739	12.1	0.093	0.154
Haora	0.087	0.012	814	814	13.8	0.063	0.111
Hugli	0.076	0.009	891	931	11.8	0.058	0.095
Jalpaiguri	0.116	0.011	897	897	9.5	0.094	0.137
Koch Bihar	0.115	0.012	928	928	10.4	0.093	0.138
Kolkata	0.077	0.016	602	602	20.8	0.045	0.108
Maldah	0.213	0.014	938	938	6.6	0.186	0.241
Medinipur	0.110	0.011	1,008	1,008	10.0	0.088	0.132
Murshidabad	0.116	0.012	872	872	10.3	0.092	0.139
Nadia	0.081	0.010	863	863	12.3	0.062	0.100
North 24 Parganas	0.094	0.012	736	736	12.8	0.071	0.117
Puruliya	0.161	0.013	912	912	8.1	0.136	0.187
South 24 Parganas	0.119	0.011	925	925	9.2	0.098	0.140
Uttar Dinajpur	0.203	0.014	867	867	6.9	0.176	0.231

Sampling errors, West Bengal, 2002-04							
District	Estimate (R)	Sampling error (SE)	Number of cases		Relative Errors (%)	95% Conf. Interval	
			Unweighted	Weighted		R-1.96 SE	R+1.96 SE
Received Any Antenatal Check up (Last live/still birth of past 3 years)							
Bankura	0.962	0.011	283	280	1.1	0.940	0.984
Barddhaman	0.931	0.018	238	245	1.9	0.896	0.965
Birbhum	0.912	0.017	317	316	1.9	0.879	0.946
Dakshin Dinajpur	0.915	0.018	258	253	2.0	0.879	0.951
Darjiling	0.853	0.028	238	262	3.3	0.799	0.907
Haora	0.914	0.026	243	258	2.8	0.864	0.965
Hugli	0.935	0.020	198	210	2.1	0.896	0.974
Jalpaiguri	0.950	0.013	304	302	1.4	0.924	0.975
Koch Bihar	0.920	0.017	320	315	1.8	0.887	0.952
Kolkata	0.962	0.037	141	152	3.8	0.889	1.000
Maldah	0.951	0.011	362	359	1.2	0.929	0.973
Medinipur	0.939	0.015	321	317	1.6	0.909	0.969
Murshidabad	0.740	0.027	334	327	3.6	0.686	0.794
Nadia	0.973	0.013	218	216	1.3	0.948	0.997
North 24 Parganas	0.884	0.022	238	231	2.5	0.841	0.928
Puruliya	0.865	0.020	302	309	2.3	0.825	0.905
South 24 Parganas	0.943	0.014	311	312	1.5	0.916	0.969
Uttar Dinajpur	0.814	0.020	398	392	2.5	0.776	0.853

Sampling errors, West Bengal, 2002-04							
District	Estimate (R)	Sampling error (SE)	Number of cases		Relative Errors (%)	95% Conf. Interval	
			Unweighted	Weighted		R-1.96 SE	R+1.96 SE
Received 3+ Antenatal Check up (last live/still birth of past 3 years)							
Bankura	0.748	0.027	283	280	3.6	0.695	0.801
Barddhaman	0.636	0.036	238	245	5.7	0.566	0.705
Birbhum	0.630	0.028	317	316	4.4	0.575	0.685
Dakshin Dinajpur	0.682	0.030	258	253	4.4	0.623	0.740
Darjiling	0.513	0.039	238	262	7.6	0.437	0.589
Haora	0.779	0.032	243	258	4.1	0.716	0.842
Hugli	0.781	0.030	198	210	3.8	0.722	0.840
Jalpaiguri	0.616	0.029	304	302	4.7	0.558	0.673
Koch Bihar	0.470	0.032	320	315	6.8	0.406	0.533
Kolkata	0.916	0.040	141	152	4.4	0.838	0.994
Maldah	0.622	0.026	362	359	4.2	0.570	0.674
Medinipur	0.739	0.028	321	317	3.8	0.683	0.794
Murshidabad	0.394	0.032	334	327	8.1	0.331	0.458
Nadia	0.676	0.034	218	216	5.0	0.610	0.741
North 24 Parganas	0.645	0.033	238	231	5.1	0.579	0.710
Puruliya	0.698	0.027	302	309	3.9	0.645	0.752
South 24 Parganas	0.654	0.027	311	312	4.1	0.600	0.708
Uttar Dinajpur	0.427	0.026	398	392	6.1	0.377	0.477

Sampling errors, West Bengal, 2002-04							
District	Estimate (R)	Sampling error (SE)	Number of cases		Relative Errors (%)	95% Conf. Interval	
			Unweighted	Weighted		R-1.96 SE	R+1.96 SE
Institutional Delivery (last live/still birth of past 3 years)							
Bankura	0.623	0.031	283	281	5.0	0.563	0.684
Bardhaman	0.589	0.037	238	245	6.3	0.517	0.661
Birbhum	0.481	0.029	317	315	6.0	0.424	0.538
Dakshin Dinajpur	0.449	0.032	258	254	7.1	0.386	0.513
Darjiling	0.429	0.038	238	261	8.9	0.356	0.503
Haora	0.567	0.039	243	258	6.9	0.490	0.644
Hugli	0.752	0.031	198	209	4.1	0.691	0.812
Jalpaiguri	0.402	0.030	304	301	7.5	0.343	0.460
Koch Bihar	0.369	0.033	320	316	8.9	0.304	0.433
Kolkata	0.821	0.054	141	152	6.6	0.714	0.927
Maldah	0.274	0.024	362	358	8.8	0.227	0.322
Medinipur	0.437	0.032	321	316	7.3	0.374	0.500
Murshidabad	0.332	0.031	334	326	9.3	0.270	0.394
Nadia	0.651	0.034	218	217	5.2	0.585	0.717
North 24 Parganas	0.502	0.036	238	230	7.2	0.431	0.573
Puruliya	0.489	0.030	302	308	6.1	0.431	0.547
South 24 Parganas	0.305	0.027	311	312	8.9	0.253	0.357
Uttar Dinajpur	0.206	0.021	398	392	10.2	0.165	0.248

Sampling errors, West Bengal, 2002-04							
District	Estimate (R)	Sampling error (SE)	Number of cases		Relative Errors (%)	95% Conf. Interval	
			Unweighted	Weighted		R-1.96 SE	R+1.96 SE
Safe Delivery (last live/still birth of past 3 years)							
Bankura	0.664	0.030	283	280	4.5	0.605	0.723
Bardhaman	0.620	0.036	238	245	5.8	0.550	0.691
Birbhum	0.528	0.029	317	314	5.5	0.471	0.585
Dakshin Dinajpur	0.500	0.032	258	254	6.4	0.437	0.564
Darjiling	0.475	0.038	238	261	8.0	0.400	0.550
Haora	0.657	0.038	243	257	5.8	0.582	0.732
Hugli	0.803	0.028	198	210	3.5	0.748	0.858
Jalpaiguri	0.444	0.030	304	302	6.8	0.385	0.503
Koch Bihar	0.401	0.033	320	315	8.2	0.337	0.465
Kolkata	0.869	0.045	141	152	5.2	0.781	0.957
Maldah	0.317	0.025	362	358	7.9	0.267	0.367
Medinipur	0.625	0.031	321	316	5.0	0.564	0.685
Murshidabad	0.392	0.032	334	328	8.2	0.330	0.455
Nadia	0.762	0.029	218	217	3.8	0.705	0.820
North 24 Parganas	0.551	0.036	238	231	6.5	0.481	0.620
Puruliya	0.600	0.029	302	308	4.8	0.543	0.657
South 24 Parganas	0.390	0.028	311	312	7.2	0.334	0.445
Uttar Dinajpur	0.269	0.023	398	392	8.6	0.224	0.315

Sampling errors, West Bengal, 2002-04							
District	Estimate (R)	Sampling error (SE)	Number of cases		Relative Errors (%)	95% Conf. Interval	
			Unweighted	Weighted		R-1.96 SE	R+1.96 SE
Received BCG Vaccination (last and last but one living children, age 12-23 months)							
Bankura	0.967	0.019	80	83	2.0	0.929	1.004
Bardhaman	0.918	0.030	85	84	3.3	0.859	0.977
Birbhum	0.804	0.042	91	87	5.2	0.722	0.886
Dakshin Dinajpur	0.948	0.023	77	76	2.4	0.903	0.993
Darjiling	0.958	0.019	78	87	2.0	0.921	0.995
Haora	0.771	0.075	66	65	9.8	0.623	0.919
Hugli	0.938	0.030	61	65	3.2	0.878	0.998
Jalpaiguri	0.932	0.027	83	82	2.9	0.880	0.985
Koch Bihar	0.878	0.034	106	104	3.9	0.811	0.944
Kolkata	0.981	0.019	37	33	2.0	0.943	1.018
Maldah	0.843	0.036	103	102	4.3	0.772	0.914
Medinipur	0.860	0.038	85	83	4.4	0.785	0.935
Murshidabad	0.794	0.046	100	97	5.7	0.705	0.884
Nadia	0.972	0.021	68	67	2.2	0.930	1.014
North 24 Parganas	0.915	0.033	79	73	3.6	0.851	0.979
Puruliya	0.862	0.039	77	78	4.5	0.785	0.939
South 24 Parganas	0.881	0.033	92	94	3.7	0.817	0.946
Uttar Dinajpur	0.567	0.042	144	139	7.3	0.485	0.649

Sampling errors, West Bengal, 2002-04							
District	Estimate (R)	Sampling error (SE)	Number of cases		Relative Errors (%)	95% Conf. Interval	
			Unweighted	Weighted		R-1.96 SE	R+1.96 SE
Received Measles (last and last but one living children, age 12-23 months)							
Bankura	0.754	0.049	80	83	6.6	0.657	0.851
Bardhaman	0.690	0.056	85	84	8.1	0.580	0.800
Birbhum	0.500	0.052	91	87	10.5	0.397	0.603
Dakshin Dinajpur	0.640	0.053	77	76	8.3	0.536	0.745
Darjiling	0.668	0.065	78	87	9.7	0.541	0.795
Haora	0.600	0.075	66	65	12.5	0.454	0.747
Hugli	0.740	0.057	61	65	7.7	0.627	0.852
Jalpaiguri	0.699	0.051	83	82	7.2	0.600	0.798
Koch Bihar	0.677	0.053	106	104	7.8	0.573	0.780
Kolkata	0.787	0.073	37	33	9.3	0.644	0.930
Maldah	0.555	0.049	103	102	8.8	0.459	0.651
Medinipur	0.705	0.055	85	83	7.7	0.598	0.812
Murshidabad	0.627	0.053	100	97	8.5	0.523	0.731
Nadia	0.720	0.056	68	67	7.7	0.611	0.829
North 24 Parganas	0.766	0.048	79	73	6.3	0.671	0.861
Puruliya	0.641	0.055	77	78	8.5	0.534	0.749
South 24 Parganas	0.634	0.049	92	94	7.7	0.538	0.730
Uttar Dinajpur	0.302	0.039	144	139	13.0	0.224	0.379

Sampling errors, West Bengal, 2002-04							
District	Estimate (R)	Sampling error (SE)	Number of cases		Relative Errors (%)	95% Conf. Interval	
			Unweighted	Weighted		R-1.96 SE	R+1.96 SE
Birth order 3+ (birth in last three years)							
Bankura	0.240	0.026	296	296	10.8	0.189	0.292
Bardhaman	0.271	0.032	239	243	11.8	0.208	0.335
Birbhum	0.343	0.027	328	324	7.9	0.290	0.396
Dakshin Dinajpur	0.305	0.029	272	269	9.5	0.248	0.361
Darjiling	0.321	0.035	247	265	10.9	0.253	0.390
Haora	0.255	0.034	241	262	13.3	0.189	0.322
Hugli	0.236	0.030	207	218	12.7	0.177	0.295
Jalpaiguri	0.355	0.028	322	320	7.9	0.300	0.409
Koch Bihar	0.329	0.028	338	330	8.5	0.274	0.385
Kolkata	0.247	0.052	133	146	21.1	0.146	0.348
Maldah	0.453	0.026	400	398	5.7	0.403	0.504
Medinipur	0.235	0.026	324	319	11.1	0.184	0.286
Murshidabad	0.381	0.029	374	362	7.6	0.324	0.437
Nadia	0.187	0.028	218	214	15.0	0.132	0.242
North 24 Parganas	0.238	0.029	248	236	12.2	0.181	0.294
Puruliya	0.349	0.027	327	336	7.7	0.295	0.403
South 24 Parganas	0.306	0.025	334	336	8.2	0.256	0.356
Uttar Dinajpur	0.548	0.024	446	440	4.4	0.501	0.595

Sampling errors, West Bengal, 2002-04							
District	Estimate (R)	Sampling error (SE)	Number of cases		Relative Errors (%)	95% Conf. Interval	
			Unweighted	Weighted		R-1.96 SE	R+1.96 SE
Contraceptive Prevalence Rate (Currently Married Women age 15-44)							
Bankura	0.760	0.015	976	976	2.0	0.731	0.789
Bardhaman	0.824	0.016	844	844	1.9	0.793	0.855
Birbhum	0.723	0.015	954	954	2.1	0.694	0.753
Dakshin Dinajpur	0.747	0.016	847	847	2.1	0.717	0.778
Darjiling	0.748	0.019	739	739	2.5	0.710	0.786
Haora	0.776	0.018	814	814	2.3	0.742	0.811
Hugli	0.808	0.014	891	931	1.7	0.781	0.834
Jalpaiguri	0.709	0.016	897	897	2.3	0.677	0.741
Koch Bihar	0.733	0.016	928	928	2.2	0.700	0.765
Kolkata	0.796	0.022	602	602	2.8	0.753	0.839
Maldah	0.598	0.017	938	938	2.8	0.566	0.631
Medinipur	0.756	0.016	1,008	1,008	2.1	0.725	0.787
Murshidabad	0.683	0.018	872	872	2.6	0.648	0.718
Nadia	0.822	0.014	863	863	1.7	0.795	0.849
North 24 Parganas	0.759	0.017	736	736	2.2	0.725	0.793
Puruliya	0.613	0.017	912	912	2.8	0.580	0.645
South 24 Parganas	0.734	0.015	925	925	2.0	0.705	0.763
Uttar Dinajpur	0.572	0.017	867	867	3.0	0.538	0.606

Sampling errors, West Bengal, 2002-04							
District	Estimate (R)	Sampling error (SE)	Number of cases		Relative Errors (%)	95% Conf. Interval	
			Unweighted	Weighted		R-1.96 SE	R+1.96 SE
Unmet Need (Currently Married Women age 15-44)							
Bankura	0.085	0.009	976	976	10.6	0.067	0.104
Bardhaman	0.061	0.009	844	844	14.8	0.043	0.079
Birbhum	0.131	0.011	954	954	8.4	0.109	0.154
Dakshin Dinajpur	0.105	0.011	847	847	10.5	0.084	0.127
Darjiling	0.124	0.015	739	739	12.1	0.093	0.154
Haora	0.087	0.012	814	814	13.8	0.063	0.111
Hugli	0.076	0.009	891	931	11.8	0.058	0.095
Jalpaiguri	0.116	0.011	897	897	9.5	0.094	0.137
Koch Bihar	0.115	0.012	928	928	10.4	0.093	0.138
Kolkata	0.077	0.016	602	602	20.8	0.045	0.108
Maldah	0.213	0.014	938	938	6.6	0.186	0.241
Medinipur	0.110	0.011	1,008	1,008	10.0	0.088	0.132
Murshidabad	0.116	0.012	872	872	10.3	0.092	0.139
Nadia	0.081	0.010	863	863	12.3	0.062	0.100
North 24 Parganas	0.094	0.012	736	736	12.8	0.071	0.117
Puruliya	0.161	0.013	912	912	8.1	0.136	0.187
South 24 Parganas	0.119	0.011	925	925	9.2	0.098	0.140
Uttar Dinajpur	0.203	0.014	867	867	6.9	0.176	0.231

Sampling errors, West Bengal, 2002-04							
District	Estimate (R)	Sampling error (SE)	Number of cases		Relative Errors (%)	95% Conf. Interval	
			Unweighted	Weighted		R-1.96 SE	R+1.96 SE
Received Any Antenatal Check up (last live/still birth in past 3 years)							
Bankura	0.962	0.011	283	280	1.1	0.940	0.984
Bardhaman	0.931	0.018	238	245	1.9	0.896	0.965
Birbhum	0.912	0.017	317	316	1.9	0.879	0.946
Dakshin Dinajpur	0.915	0.018	258	253	2.0	0.879	0.951
Darjiling	0.853	0.028	238	262	3.3	0.799	0.907
Haora	0.914	0.026	243	258	2.8	0.864	0.965
Hugli	0.935	0.020	198	210	2.1	0.896	0.974
Jalpaiguri	0.950	0.013	304	302	1.4	0.924	0.975
Koch Bihar	0.920	0.017	320	315	1.8	0.887	0.952
Kolkata	0.962	0.037	141	152	3.8	0.889	1.000
Maldah	0.951	0.011	362	359	1.2	0.929	0.973
Medinipur	0.939	0.015	321	317	1.6	0.909	0.969
Murshidabad	0.740	0.027	334	327	3.6	0.686	0.794
Nadia	0.973	0.013	218	216	1.3	0.948	0.997
North 24 Parganas	0.884	0.022	238	231	2.5	0.841	0.928
Puruliya	0.865	0.020	302	309	2.3	0.825	0.905
South 24 Parganas	0.943	0.014	311	312	1.5	0.916	0.969
Uttar Dinajpur	0.814	0.020	398	392	2.5	0.776	0.853

Sampling errors, West Bengal, 2002-04							
District	Estimate (R)	Sampling error (SE)	Number of cases		Relative Errors (%)	95% Conf. Interval	
			Unweighted	Weighted		R-1.96 SE	R+1.96 SE
Received 3+ Antenatal Check up (last live/still birth in past 3 years)							
Bankura	0.748	0.027	283	280	3.6	0.695	0.801
Bardhaman	0.636	0.036	238	245	5.7	0.566	0.705
Birbhum	0.630	0.028	317	316	4.4	0.575	0.685
Dakshin Dinajpur	0.682	0.030	258	253	4.4	0.623	0.740
Darjiling	0.513	0.039	238	262	7.6	0.437	0.589
Haora	0.779	0.032	243	258	4.1	0.716	0.842
Hugli	0.781	0.030	198	210	3.8	0.722	0.840
Jalpaiguri	0.616	0.029	304	302	4.7	0.558	0.673
Koch Bihar	0.470	0.032	320	315	6.8	0.406	0.533
Kolkata	0.916	0.040	141	152	4.4	0.838	0.994
Maldah	0.622	0.026	362	359	4.2	0.570	0.674
Medinipur	0.739	0.028	321	317	3.8	0.683	0.794
Murshidabad	0.394	0.032	334	327	8.1	0.331	0.458
Nadia	0.676	0.034	218	216	5.0	0.610	0.741
North 24 Parganas	0.645	0.033	238	231	5.1	0.579	0.710
Puruliya	0.698	0.027	302	309	3.9	0.645	0.752
South 24 Parganas	0.654	0.027	311	312	4.1	0.600	0.708
Uttar Dinajpur	0.427	0.026	398	392	6.1	0.377	0.477

Sampling errors, West Bengal, 2002-04

District	Estimate (R)	Sampling error (SE)	Number of cases	Relative Errors (%)
Bankura	0.618	0.0393	400002	Tc(0.458)-3()Ba

Sampling errors, West Bengal, 2002-04							
District	Estimate (R)	Sampling error (SE)	Number of cases		Relative Errors (%)	95% Conf. Interval	
			Unweighted	Weighted		R-1.96 SE	R+1.96 SE
Safe Delivery (last live/still birth in past 3 years)							
Bankura	0.664	0.030	283	280	4.5	0.605	0.723
Barddhaman	0.620	0.036	238	245	5.8	0.550	0.691
Birbhum	0.528	0.029	317	314	5.5	0.471	0.585
Dakshin Dinajpur	0.500	0.032	258	254	6.4	0.437	0.564
Darjiling	0.475	0.038	238	261	8.0	0.400	0.550
Haora	0.657	0.038	243	257	5.8	0.582	0.732
Hugli	0.803	0.028	198	210	3.5	0.748	0.858
Jalpaiguri	0.444	0.030	304	302	6.8	0.385	0.503
Koch Bihar	0.401	0.033	320	315	8.2	0.337	0.465
Kolkata	0.869	0.045	141	152	5.2	0.781	0.957
Maldah	0.317	0.025	362	358	7.9	0.267	0.367
Medinipur	0.625	0.031	321	316	5.0	0.564	0.685
Murshidabad	0.392	0.032	334	328	8.2	0.330	0.455
Nadia	0.762	0.029	218	217	3.8	0.705	0.820
North 24 Parganas	0.551	0.036	238	231	6.5	0.481	0.620
Puruliya	0.600	0.029	302	308	4.8	0.543	0.657
South 24 Parganas	0.390	0.028	311	312	7.2	0.334	0.445
Uttar Dinajpur	0.269	0.023	398	392	8.6	0.224	0.315

Sampling errors, West Bengal, 2002-04							
District	Estimate (R)	Sampling error (SE)	Number of cases		Relative Errors (%)	95% Conf. Interval	
			Unweighted	Weighted		R-1.96 SE	R+1.96 SE
Received BCG Vaccination (last and last but one living children (age 12-35 months))							
Bankura	0.942	0.018	189	189	1.9	0.908	0.976
Barddhaman	0.923	0.022	173	176	2.4	0.879	0.966
Birbhum	0.789	0.029	211	207	3.7	0.731	0.846
Dakshin Dinajpur	0.912	0.021	173	169	2.3	0.870	0.954
Darjiling	0.916	0.024	151	167	2.6	0.869	0.964
Haora	0.857	0.040	151	159	4.7	0.779	0.935
Hugli	0.962	0.015	144	154	1.6	0.932	0.992
Jalpaiguri	0.929	0.018	193	192	1.9	0.893	0.965
Koch Bihar	0.892	0.024	201	194	2.7	0.845	0.939
Kolkata	0.968	0.022	85	99	2.3	0.925	1.000
Maldah	0.817	0.026	237	236	3.2	0.766	0.868
Medinipur	0.817	0.029	210	189	3.5	0.760	0.874
Murshidabad	0.722	0.035	232	224	4.8	0.653	0.791
Nadia	0.983	0.011	153	150	1.1	0.961	1.000
North 24 Parganas	0.916	0.023	162	157	2.5	0.871	0.960
Puruliya	0.914	0.020	186	190	2.2	0.874	0.954
South 24 Parganas	0.838	0.025	223	225	3.0	0.789	0.887
Uttar Dinajpur	0.607	0.030	283	277	4.9	0.549	0.665

Sampling errors, West Bengal, 2002-04							
District	Estimate (R)	Sampling error (SE)	Number of cases		Relative Errors (%)	95% Conf. Interval	
			Unweighted	Weighted		R-1.96 SE	R+1.96 SE
Received Measles (last and last but one living children (age 12-35 months))							
Bankura	0.793	0.032	189	189	4.0	0.732	0.855
Bardhaman	0.742	0.037	173	176	5.0	0.669	0.816
Birbhum	0.514	0.036	211	208	7.0	0.444	0.584
Dakshin Dinajpur	0.663	0.037	173	170	5.6	0.590	0.736
Darjiling	0.647	0.048	151	167	7.4	0.552	0.742
Haora	0.663	0.047	151	161	7.1	0.570	0.755
Hugli	0.801	0.034	144	154	4.2	0.734	0.867
Jalpaiguri	0.725	0.033	193	192	4.6	0.661	0.790
Koch Bihar	0.681	0.038	201	194	5.6	0.606	0.756
Kolkata	0.842	0.045	85	100	5.3	0.754	0.931
Maldah	0.559	0.033	237	236	5.9	0.493	0.624
Medinipur	0.650	0.038	210	191	5.8	0.576	0.724
Murshidabad	0.564	0.038	232	223	6.7	0.489	0.639
Nadia	0.820	0.032	153	149	3.9	0.757	0.884
North 24 Parganas	0.798	0.034	162	157	4.3	0.731	0.864
Puruliya	0.702	0.034	186	189	4.8	0.635	0.769
South 24 Parganas	0.677	0.032	223	226	4.7	0.614	0.739
Uttar Dinajpur	0.346	0.029	283	278	8.4	0.288	0.403

Sampling errors, West Bengal, 2002-04							
District	Estimate (R)	Sampling error (SE)	Number of cases		Relative Errors (%)	95% Conf. Interval	
			Unweighted	Weighted		R-1.96 SE	R+1.96 SE
Birth order 3+ (birth in last three years)							
Bankura	0.240	0.026	296	296	10.8	0.189	0.292
Bardhaman	0.271	0.032	239	243	11.8	0.208	0.335
Birbhum	0.343	0.027	328	324	7.9	0.290	0.396
Dakshin Dinajpur	0.305	0.029	272	269	9.5	0.248	0.361
Darjiling	0.321	0.035	247	265	10.9	0.253	0.390
Haora	0.255	0.034	241	262	13.3	0.189	0.322
Hugli	0.236	0.030	207	218	12.7	0.177	0.295
Jalpaiguri	0.355	0.028	322	320	7.9	0.300	0.409
Koch Bihar	0.329	0.028	338	330	8.5	0.274	0.385
Kolkata	0.247	0.052	133	146	21.1	0.146	0.348
Maldah	0.453	0.026	400	398	5.7	0.403	0.504
Medinipur	0.235	0.026	324	319	11.1	0.184	0.286
Murshidabad	0.381	0.029	374	362	7.6	0.324	0.437
Nadia	0.187	0.028	218	214	15.0	0.132	0.242
North 24 Parganas	0.238	0.029	248	236	12.2	0.181	0.294
Puruliya	0.349	0.027	327	336	7.7	0.295	0.403
South 24 Parganas	0.306	0.025	334	336	8.2	0.256	0.356
Uttar Dinajpur	0.548	0.024	446	440	4.4	0.501	0.595

APPENDIX - B

DLHS-RCH STAFF, WEST BENGAL

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