

DLHS -2

GOA

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



Institute for Social and
Economic Change,
Bangalore – 560 072

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PREFACE AND ACKNOWLEDGEMENT

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 As a first step, family planning target was withdrawn and an effort now is being made to provide a package of reproductive services at different levels of health care centres.

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

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

It is believed that the data generated through this 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 the 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 are also grateful to UNICEF for their timely support and necessary inputs for the successful completion of the health component of the survey.

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In Phase I, survey in one district of Goa, *viz.*, North Goa was carried out in collaboration with the PRC of the Institute of Economic Research, Dharwad. And, the survey in another one district, *viz.*, South Goa was carried out by us. We are grateful to the Directors of PRC, Dharwad and their staff for cooperation at various stages of the survey. We are thankful to Dr. Arvind V. Saleker, Director and their staff, Health Department of Goa state for their cooperation at various stages of the survey.

All the faculty and technical staff of PRC at ISEC were involved in various stages of the survey under the overall coordination and guidance of Dr. K. N. M. Raju, former Professor and Head of the PRC at ISEC. Specifically, Dr. R. Mutharayappa shared the major burden of training field investigators. Mr. C. Yogananda and Mr. P. Prabhuswamy shared the responsibility of monitoring the fieldwork including house-listing operations, and, in the preparation of district as well as state reports. The major part of data analysis and preparation of Graphs in Phase I of Round II was carried out by Mr. P. Prabhuswamy. Not the least, Dr. K. S. James, Professor and Head of the PRC at ISEC guided the preparation of this report.

We would like to express our sincere thanks to Professors Gopal K. Kadekodi and M. Govinda Rao, present and former Directors of the Institute for their advice and constant support in carrying out the DLHS-RCH project. We acknowledge the cooperation received from Shri. Rameshappa and Shri H. N. Ranganathan, former Registrars, Mr. V. Ramappa, Accounts Officer, and other administrative staff of the Institute, especially of the Registrars Office, Accounts, Estate and Transport sections.

We are also thankful to the National Institute of Nutrition, Hyderabad, for providing training for our health investigators. Lastly, we thank the respondents who extended all cooperation in conducting the survey.

Population Research Centre
Institute for Social and Economic Change

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KEY INDICATORS, GOA

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

Sample size			
Households surveyed.....	2,092	Adequate Iron folic acid tablets/syrup ³	57.7
Currently married women age 15-44.....	1281	Full antenatal check-up ⁴	45.5
Husband's of eligible women.....	29	Delivery characteristics²	
Characteristics of households		Delivery at home.....	8.6
Percent rural.....	51.1	Delivery at government health institutions.....	40.0
Percent Hindu.....	61.3	Delivery at private health institutions.....	51.2
Percent Muslim.....	9.5	Delivery attendant by skilled persons ⁵	93.3
Percent other religion (Christian).....	28.9	Child health	
Percent scheduled caste.....	3.4	Percent of children whose mother squeezed out milk from her breast ⁶	32.8
Percent scheduled tribe.....	1.7	Percent of children ⁷ with diarrhoea ⁸ who received ORS.....	79.5
Percent with electricity.....	96.3	Percentage of woman whose child ⁷ with pneumonia ⁸ sought treatment.....	86.9
Percent with flush toilet.....	46.9	Percent of children who received vaccinations⁹	
Percent with no toilet facility.....	27.2	BCG.....	94.7
Percent living in <i>Kachcha</i> houses.....	8.1	DPT (3 injections).....	84.2
Percent living in <i>Pucca</i> houses.....	36.6	Polio (3 drops).....	84.1
Percent with low standard of living.....	12.1	Measles.....	89.2
Percent with high standard of living.....	56.2	All vaccinations ¹⁰	76.9
Percent with iodized salt (15+ppm).....	60.5	No vaccination at all.....	1.8
Characteristics of currently married women age 15-44 years		Percentage of women who had	
Percent below age 30.....	36.4	Pregnancy complication ²	39.2
Percent with age at first cohabitation below age 18.....	15.2	Delivery complication ²	36.4
Percent illiterate.....	19.6	Post delivery complication ²	21.2
Percent having 10 or more years of schooling.....	44.9	Symptoms of RTI/STI.....	23.5
Percent with illiterate husband.....	14.1	Problems of vaginal discharge.....	6.5
Percent with husband 10+ years of schooling.....	51.2	Menstruation related problem.....	11.5
Marriage		Awareness of RTI/STI and HIV/AIDS	
Mean age at marriage for boys.....	29.0	Percent of women who have heard of RTI/STI.....	23.2
Mean age marriage for girls.....	24.4	Percent of women who have heard of HIV/AIDS.....	81.5
Percent of boys married below age 21.....	2.3	Utilization of government health services	
Percent of girls married below age 18.....	3.6	Antenatal care.....	26.5
Fertility		Treatment for pregnancy complication.....	42.5
Mean children ever born women age 40-44 years... ..	2.7	Treatment for post-delivery complication.....	47.5
Percent of births of order 3 and above ¹	20.0	Treatment for vaginal discharge.....	9.5
Current use of family planning method		Treatment for children with diarrhoea.....	21.9
Any method.....	33.5	Treatment for children with pneumonia.....	27.6
Any modern method.....	29.8	Quality of family planning services	
Pill.....	1.9	Percent non-users ever advised to adopt the family planning method.....	7.1
IUD.....	2.1	Percent users told about side effects of method.....	24.8
Condom.....	5.2	Percent users who received follow-up services.....	7.1
Female sterilization.....	19.9	Characteristics of husband of eligible women	
Male sterilization.....	0.1	Percent of husband knowing NSV.....	25.4
Any traditional method.....	3.6	Percent of men who have heard of RTI/STI.....	39.6
Rhythm/safe period.....	2.3	Percent of men who have heard of HIV/AIDS.....	85.0
Withdrawal.....	1.1	Percentage who had any symptoms of RTI/STI.....	4.9
Unmet need for family planning		Sought treatment for RTI/STI.....	76.7
Percent with unmet need for spacing.....	14.6		
Percent with unmet need for limiting.....	28.5		
Percent with total unmet need.....	43.1		
Maternal care²			
Percent of women received antenatal check-ups.....	96.9		
Antenatal check-up at home.....	1.2		
Antenatal check-up in first trimester.....	77.8		
Three or more visit for ANC.....	84.2		
Two or more tetanus toxoid injections.....	76.2		

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 12-35 months) born during three years preceding the survey. ¹⁰ BCG, three injections of DPT, three drops of polio and measles.

SALIENT FINDINGS

Government of India had proposed to undertake district level household surveys through non-governmental agencies for the assessment of district level Reproductive and Child Health indicators on annual basis. The District Level Household Survey (DLHS) was the result of this initiative from the government. The Population Research Centre (PRC) of Institute for Social and Economic Change, Bangalore was entrusted with the work of carrying out the survey in Goa state. The survey for Phase-1 of the DLHS covering one district in the state *viz.*, North Goa was conducted from October 2002 to December 2002. The survey for Phase-2 covering remaining district of the state *viz.*, South Goa was carried in December 2004. The main focus of the survey has been on: i) Coverage of Ante Natal Care (ANC) and immunization services, ii) Extent of safe deliveries, iii) Contraceptive prevalence 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 below.

From both the phases together the data were collected for 2,092 households in Goa. A total of 1,281 eligible women (usual residents or visitors who had stayed in the sample household the night before the interview) who were currently married and aged 15-44 years (whose marriage was consummated) and 747 husbands of the eligible women were interviewed from these 2,092 households.

Of the total households interviewed in the state, a little less than half 48 percent were from the urban areas. A majority of 61 percent of the sample households belonged to Hindus, 29 percent to Christians and 10 percent to Muslims. A meagre 5 percent of the households belonged to either scheduled castes or scheduled tribes. More than half (or 55 percent), a little more than one-third (or about 37 percent) and a little less than one-tenth (or 8 percent) of the households in the state were living in semi *pucca*, *pucca* and *kachcha* houses, respectively. While a majority of 56 percent of the households belonged to the high standard of living index category, 32 and 12 percents of the households belonged to the medium and low standard of living index categories in the state.

Significantly, a very high 82 percent of the population aged seven and above was literate in the state as a whole. The proportion of literates among females was 76 percent, while it was 88 percent for males. The proportion of illiterates was much higher among the older cohort people than the younger ones. Around one-fifth of the eligible women in the state were illiterates, and almost same proportion of women had completed 11 or more years of schooling. Comparatively, literacy levels of the husbands of eligible women in Goa were much better than their spouses. Regarding the distribution of illiterate women, a higher proportion of younger women below 25 years of age and women above 44 years of age were illiterates compare to women in the age group 25-29. However, the percentage of illiterate husbands across age groups was somewhat similar except for husbands in age group above 45 years which was relatively higher.

The mean age at marriage among boys and girls in the state was 29 years and 24.4 years respectively as reported for the marriages that took place in the households during the three years prior to the survey. The data indicate that meagre 2 percent of the boys and 4 percent of the girls in the state got married before attaining the minimum legal age at marriage of 21 and 18 years,

respectively. The proportion of marriages below the minimum legal age at marriage among boys or girls (varying from 1 percent to 5 percent) was almost between the two districts viz., South and North Goa.

A majority of 61 percent of the households in the state were using cooking salt that was iodized at the recommended level of minimum 15 parts per million or higher level of iodine content. A little less than one-third of 30 percent of the households in the state used salt that was not iodized at all. The proportion of households using adequately iodized salt was much higher in South Goa than in North Goa at 69 and 54 percents in the two districts, respectively. Of course, the proportion of households using non-iodized salt was a much lower in South Goa (25 percent) than in North Goa (35 percent).

On an average, women on the verge of completion of reproductive period have given birth to 2.7 children. The completed fertility in the district of North Goa is 2.8 and that of South Goa is 2.6.

The share of births of order 3 and above in the total births that occurred three years prior to survey is 20 percent. The proportion of women with higher order births were 22 percent in North Goa and 17 percent in South Goa.

The data collected on the utilization of ANC services for the women who had their last live/ still birth during three years prior to survey shows that the ANC coverage in the state is high as 97 per cent of the women received at least one ante-natal care during pregnancy. About one per cent of the women during their pregnancy were visited by health worker at their residence for providing ANC. Forty-three per cent of the women visited private health facilities and 27 per cent received ANC from government health facilities. The per cent of women who got some kind of ANC during pregnancy range between 96 per cent in North Goa to 87 per cent in South Goa.

Though 97 per cent of the women in Goa received ANC, about 91, 96 and 94 per cent of women had check-up of weight, blood pressure and abdomen respectively. Fifty-one per cent of women received Iron and Folic Acid (IFA) tablets and 76 per cent 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 46 per cent of women.

Minimum three ANC and timing of first check up is crucial for maternal and child care. In Goa nearly 78 per cent of women got ANC in the first trimester and 76 per cent had minimum three antenatal check-ups. An extent of ANC in first trimester varies from minimum of 70 per cent in North Goa to the maximum of 90 per cent in South Goa. In North Goa, about 77 per cent of women had minimum three ANC, whereas in South Goa about 91 per cent women had got minimum three ANC.

About 91 per cent of the total deliveries in Goa were conducted in the health institutions; 3 percentages point down from RCH Round I. The majority of the institutional deliveries were conducted in private institutions (51 per cent of total deliveries) as against in government institution 40 per cent of total deliveries. Nine per cent of the total deliveries, that took place at home. The extent of institutional deliveries is same features for both in North Goa and South

Goa (91 per cent each). 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 per cent 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 Goa, 39, 36 and 21 per cent of the women experienced pregnancy, delivery and post delivery complications respectively. About 61 per cent of the women sought treatment for the pregnancy and 59 per cent for the post-delivery complications. The pregnancy complication varies from lowest of 37 per cent in South Goa to slightly highest of 41 per cent in North Goa. 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 were also high.

In Goa state as a whole, the practice of breast-feeding is almost universal. The practice of initiation of breastfeeding within two hours of birth of the child is common. In Goa, 58 percent women started breastfeeding the child within two hours of birth and one-fourth women started after one day of birth. There is great deal of variation in the pattern of breastfeeding across the state. In North Goa district only 45 percent of the women breastfed the child within two hours of birth. In South Goa district, this percentage is highest (80.3 percent).

In Goa 76.9 percent of the children received the BCG vaccine, three doses of DPT, Polio and measles vaccine. There is about 5 percentage points drop from BCG to measles. It means that some children that have contact with services providers are missed out of subsequent services. The complete schedule of immunization including BCG, three doses of DPT and Polio each and measles was received by over three-fourth of the children, whereas only 1.8 percent of the children did not receive a single vaccination under routine programme. About 41 percent of the children received supplementation of at least one dose of vitamin A and only 18.7 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 South Goa (67.9 percent) and highest in North Goa (79.9 percent).

In Goa, more than 50 percent of the women were aware of diarrhoea management and 31.7 percent were aware of Oral Rehydration Salt (ORS). During the two-week period prior to survey, children of 9.2 percent of the women suffered from diarrhoea. And 79.5 percent women treated diarrhoea among children by giving ORS. In comparison to awareness about diarrhoea management, the awareness about danger signs of pneumonia is quite low. Only 11.9 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 86.9 percent sought treatment.

The knowledge of family planning methods is high in North Goa district in the state of Goa. The knowledge of any modern spacing method is also high (88 percent) in Northern Goa compared to South Goa (65 percent). The knowledge of any modern methods is high (95 percent) in North Goa, compared to all modern methods (43 percent). The proportion knowing all modern methods (males and females' sterilization, IUD, oral pills and condom) varies from 61 to 91 percent in North Goa and 26 to 61 percent in South Goa.

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 8 percent in South Goa to 39 percent in North Goa.

The contraceptive prevalence rate (any methods) in the state is 33 percent, comprising of prevalence of about 30 percent of modern methods and 3.6 percent of traditional methods. Twenty percent of the couples adopted sterilization. The user of the two male methods namely sterilization and condom is only 5.3 percent. There is no association between contraceptive use and female education, economic development and availability of health facility. The highest contraceptive prevalence is in North Goa (39 percent) followed by South Goa (27 percent).

In Goa a total of 43 percent women are found to have unmet need for family planning, with 14 percent for spacing and 28 percent for limiting. The total unmet need varies from 36 percent in North Goa to 51 percent in South Goa ranging from 15 to 21 percent in North Goa and 13 to 37 percent for spacing and limiting.

Only 2.3 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. In South Goa health workers visited less than 2 per cent of the women at home. There are 13 pregnant women or women with children born during the reference period, and other women includes 7 current users and 11 current non-users, who were visited by health workers at home. The higher (74 per cent) proportion of current non-users discussed about treatment of health problems and other health related problems (13 per cent) than pregnant women with children after reference period during visit to health facility in three months prior to survey.

Forty seven per cent of currently married women in North Goa and 10.4 per cent in South Goa needed to visit a health facility, but they did not visit. Percentage of women who visited to private health facility was higher in South Goa district as compared to North Goa district. More than half of the women in both the district visited to private health facility in three months preceding the survey.

It has been observed that 27 per cent of the currently married women reported time is not suited for not visiting the government health centre for their health problems. About 20 per cent of the women were reported that due to poor quality of services for not visited the government health facility. Seven per cent of currently non-users said that they had advices or discussion on method of family planning with ANM or family planning health worker. Only 9 per cent of condom or 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.

Around 50.6 per cent of sterilized women received information about alternative methods that they could use by the government health facility.

It is found that ANM or health workers in Goa, are not providing sufficient information to couples who need to make an informed choice about contraceptive methods. In south Goa about thirty six per cent of users of other modern method reported that the possible side effects. This proportion was 21 per cent in North Goa. About 21.6 per cent of the women with last live/still births during three years preceding the survey reported that they were advised by doctor or health worker to have delivery in health facility. Almost same percentage of women in both the districts in Goa were advised for deliver their child in health facility.

In Goa 23 and 82 percent of women are aware of RTI/STI and HIV/AIDS respectively. The corresponding level of awareness among husbands of eligible women is 40 and 85 percent. The percent of women who are aware of RTI/STI and HIV/AIDS is low in North Goa (11 and 79 percent) compared to South Goa (38 and 86 percent respectively). Similarly awareness level of husbands of eligible women of RTI/STI and HIV/AIDS are low in North Goa (21 and 83 percent) compared to South Goa (63 and 88 percent respectively).

About 24 percent of women and 5 percent of husbands of eligible women in the state reported having at least one symptoms of RTI/STI. In South Goa the reported prevalence of RTI/STI among women and their husbands was low. About 7 percent of women reported vaginal discharge and 5 percent of men reported symptoms of RTI/STI. Thirty percent of women sought treatment for vaginal discharge problem and 77 percent of husbands sought treatment with at least one symptoms of RTI/STI. It may be noted that in both the districts of Goa higher proportion of husbands compared to women sought treatment for their reproductive health problems.

CHAPTER I

INTRODUCTION

1.1 Background and Objectives of the Survey

The Reproductive and Child Health (RCH) programme launched by Government of India (GoI) in 1996-97 is expected to achieve multiple objectives by providing quality services. It ushers a positive paradigm i.e., a shift from the earlier method-oriented and target-based activities to providing client-centred and demand-driven quality services. Efforts are also made to reorient provider's attitude at grass-root levels and strengthen the outreach services.

The new approach requires decentralized planning, monitoring and evaluation of the services. District being the nucleus of decentralised planning and implementation of the RCH programme, Government of India is interested in generating district level data other than those based on service statistics on the utilization of services provided by the government health facilities. It is also important to assess people's perceptions on the quality of services. Keeping this in view, District Level Household Survey (DLHS) was undertaken in the country under the RCH programme.

The Round I of the RCH survey (known as the RHS-RCH) was conducted during the years 1998-99 in 504 districts in two phases. The Round II, specifically known as the DLHS-RCH was conducted during the years 2002-04 in 593 districts as per 2001 Census, also in two phases. Each phase covered half the districts of all the states/union territories. The Round II used a slightly modified questionnaire for collection of information on RCH and incorporated some new dimensions into it. In particular, aspects such as testing cooking salt to assess the consumption of salt fortified with iodine, collection of blood sample from children, adolescents and pregnant women to assess the level of anaemia, and measurement of weight among children to assess the nutritional status were included in the Round II.

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

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

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

1.2 Survey Design

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

The National Sample Survey Organization (NSSO) provided the Urban Frame Size (UFS) blocks in the district for selection of urban sample. The UFS blocks were made available separately for each district. The maps of the selected blocks were obtained from the NSSO field offices of the states/union-territories.

In two districts of every state, the PSUs that were surveyed in Round I (RHS-RCH) were selected for the survey in Round II (DLHS-RCH). This was done in order to measure the changes more accurately. One district with highest proportion of safe deliveries and another with the lowest proportion of safe deliveries among those surveyed during the Round I of the survey were selected for this purpose. In other districts, new sample of PSUs were selected.

1.3 House Listing and Sample Selection

The house listing operation was carried out in the selected PSUs (or PSU segments) prior to the data collection, which provided the necessary frame for selecting households. The house listing operation involved preparation of location map, layout sketch map of all the structures in the selected PSUs and recording the details of the households in the structures. Under the overall guidance and monitoring by the coordinators of the regional agencies conducting the survey independent house listing teams carried out this exercise. Each team consisted of one lister, one mapper and a supervisor.

A complete listing of households was carried out in villages having 300 households. For villages having more than 300 households but below 600 households, two segments with somewhat equal number of households were formed and one segment was selected at random from this for listing the households. In the case of villages having more than 600 households, segments consisting of about 150 households each were formed and two segments were selected from this for household listing using the systematic random sampling method.

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

urban PSUs didn't require segmentation since the UFS blocks were of almost equal size and contained less than 300 households.

Households were not replaced if the selected households were absent during data collection. However, if a PSU was inaccessible, it was replaced by a PSU with similar characteristics. The PSU to be replaced was selected by the IIPS and provided to the regional agency for survey.

1.4 Questionnaire

The DLHS-RCH collected information on various indicators of RCH which are important for policymakers and programme managers in formulating and implementing the set goals of RCH programmes. The IIPS in consultation with Ministry of Health and Family Welfare (MoHFW) and World Bank made necessary modifications in the two Questionnaires i.e., Household and Women's Questionnaires and added three more Questionnaires i.e., Husband's, Village and Health Questionnaires in the DLHS-RCH. These Questionnaires were discussed and finalized in the training programme cum workshop organized at IIPS during the first week of November 2001.

These modified questionnaires were canvassed in the Round II of the survey (DLHS-RCH) taking into consideration the views of all the regional agencies. The house listing teams, the interviewers and the supervisors for the main survey were given rigorous training based on the manuals developed for the purpose by the IIPS.

All the questionnaires were bilingual i.e., both in regional and English language.

The questionnaires briefly included the following information:

Household Questionnaire: The household questionnaire listed all the usual residents in the sample household including visitors who stayed in the household the night before the interview. For all the listed members in the household, the survey collected basic information such as age, sex, and marital status, relationship to the head of household, education and 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 the head of household and ownership of durable goods in the household. In addition, a test was conducted to assess whether the household used cooking salt fortified with iodine. Besides, details of marriages and deaths occurred to usual residents within reference period were collected. Efforts were also made to get information about maternal deaths occurred in the household.

Women's Questionnaire: Women's questionnaire was designed to collect information from currently married women age 15 – 44 years who were usual residents of the sample household or visitors who stayed in the sample household the night before the interview. It contained the following specific sections:

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

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

Section III: Immunization and childcare: Information about feeding practices, the length of breastfeeding, immunization coverage and recent occurrence of diarrhoea, and pneumonia among young children (below age 3 years) was collected in this section.

Section IV: Contraception: This section collected information on knowledge and use of specific family planning methods. Specifically, the questions included reasons for non-use and intentions of using family method in future, desire for additional child, sex preference of the next child etc.

Section V: Assessment of quality of Government health services and client satisfaction. This section focussed on the assessment of quality of family planning and health services provided by the Government health facilities. Information on respondents' views on the ratings of Government health facilities and about staff, and reasons for not visiting government health facilities were also collected in this section.

Section VI: Awareness about RTI/STI and HIV/AIDS: This section collected information from women on RTI/STI and HIV/AIDS. The questions canvassed knowledge, source of knowledge, awareness of mode of transmission, curability, symptoms and treatment seeking behaviour of RTI/STI. Similarly, questions about knowledge, source of knowledge, awareness of mode of transmission and prevention of HIV/AIDS etc were canvassed.

Husband Questionnaire: The husband questionnaire collected information from the husbands of eligible women about their age, educational status, knowledge and source of knowledge of RTI/STI and HIV/AIDS, reported symptoms of RTI/STI and male participation. Apart from this, information on desire for children, reasons for not using FP method, intention to use FP methods future and knowledge about no-scalpel vasectomy (NSV) were also collected.

Health Questionnaire: The health questionnaire collected information on the weight of children age 0–71 months and the blood samples of pregnant women, adolescents girls age 10–19 years and children age 0–71 months to assess their haemoglobin levels. This information is useful for assessing the nutrition levels prevailing in the population and prevalence of anaemia among women, adolescent girls and children.

Village Questionnaire: The village questionnaire collected information on the availability and accessibility of various facilities in the village, especially, on the accessibility of educational and health facilities.

1.5 Fieldwork and Sample Coverage

As mentioned earlier, the fieldwork for the Round II of DLHS-RCH was done in two phases. During the Phase I, one district of Goa state viz., North Goa district was covered from October 2002 to December 2002 and the remaining district viz., South Goa was covered during the Phase II in December 2004.

A total of 2,092 households were covered in Round II of the survey. From the 2,092 households, 1,281 currently married women (aged 15-44 years) and 747 husbands of eligible women were interviewed.

1.6 Data processing

All the five types of completed questionnaires after the fieldwork in Goa state were brought to the headquarters of the regional agency i.e., PRC, Bangalore and the data were processed using microcomputers. The data processing consisted of office editing of the completed questionnaires, data entry, data cleaning and tabulation. Data cleaning procedure included validation, range and consistency checks. The IIPS developed the software package for both data entry and tabulation. The district as well as state level reports for Karnataka were prepared by the PRC, Bangalore while the country report was prepared by the IIPS.

1.7 Sample Weights

Sample weights for households, women, husbands and children have been used in generating state level demographic indicators. These weights for a particular district are based on three sections i.e., probabilities of f_1^i , f_2^i and f_3^i pertaining to i^{th} PSU of the district. The probabilities are defined as follows:

$$\begin{aligned} f_1^i &= \text{Probability of selection of } i^{\text{th}} \text{ PSU in a district} \\ &= \frac{(n_r * H_i)}{H} \end{aligned}$$

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

$$\begin{aligned} f_2^i &= \text{Probability of selecting segment (s) from segmented PSU (in case the } i^{\text{th}} \text{ selected PSU is} \\ &\quad \text{segmented)} \\ &= \text{(Number of segments selected after segmentation of a PSU) / (Number of segments created in a} \\ &\quad \text{PSU)} \end{aligned}$$

The value of f_2^i is equal to 1 for un-segmented PSU.

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

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

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

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

The probability of selecting a household from a district is worked out as;

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

The non-normalized household weight for the i^{th} PSU of a district is:

$$w^i = \frac{1}{f^i}$$

The normalized weight used in the generation of district indicators is:

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

where n_i is the number of households interviewed in the i^{th} PSU. Similarly, the weight for women and husbands are computed after multiplication of expression of f^i by considering the corresponding response rates. State weights for households, women and husbands are further derived from the district weights i.e., n_i^d for the i^{th} psu in d^{th} district using external control so that 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 number of households in the sample and census of the state, then state level household weights are:

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

state, N_i^d is the census population in i^{th} district and N_{sc} is the census population in the state. These household weights are controlled for rural and urban areas separately.

The state level women and husband weights are obtained for the estimation of state level indicators by considering the sample and proportion of currently married women age 15-44 years and married males age above 15 years in the districts and by rural-urban residence.

1.8 Sample Implementation

Table 1.1 shows the period of fieldwork, number of households interviewed and household response rates in Goa state. A total of 2,092 households were interviewed of which a little more than were from rural areas. The overall household response rate in the state i.e., the number of households interviewed per 100 households was 98 percent. The household response rate in both the district was above 97 percent.

Table 1.1: NUMBER OF HOUSEHOLDS INTERVIEWED						
Month and year of fieldwork and number of households interviewed by district, Goa, 2002-04						
State/District	Month and year of field work		Number of households interviewed			Response rate
	From	To	Total	Rural	Urban	
State	-	-	2,092	1,069	1,023	98.4
State-phase I	10/2002	12/2002	-	-	-	-
State-phase II	12/2004	12/2004	-	-	-	-
North Goa	10/2002	12/2002	1,041	578	463	99.0
South Goa	12/2004	12/2004	1,051	491	560	97.7

Note: Table based on unweighted cases.

From the interviewed households, 1,281 currently married women and 747 husbands of eligible women who were usual residents or stayed in the household night before the household interview were interviewed (Table 1.2). The number of interviews completed per 100 identified eligible women and husbands from the households interviewed were 85 and 52 percent in the state as a whole, respectively. In terms of variation in the women response rates by districts, it was highest in North Goa with 87 percent and lower in South Goa 84 percent. Similarly, the response rate for husbands was higher in North Goa district at 76 percent and lower in South Goa district at 44 percent.

Table 1.2: NUMBER OF WOMEN AND HUSBANDS INTERVIEWED								
Number of women and husbands interviewed by district, Goa, 2002-04								
State/District	Number of women interviewed			Response rate	Number of husbands interviewed			Response rate
	Total	Rural	Urban		Total	Rural	Urban	
State	1,281	632	649	85.4	747	378	369	52.2
North Goa	621	320	301	86.5	421	222	199	60.8
South Goa	660	312	348	84.4	326	156	170	44.1

Note: Table based on unweighted cases.

1.9 Basic Demographic Profile of the State

Before presenting the survey results, it is important to provide the basic demographic features of Goa state and its districts (as per 2001 census). Goa with a little more than one million population in 2001 was the 26th largest and smallest state in terms of population size and geographical area in the country, respectively. Goa, a tiny state located on the western coast of India was part of Union territory of Goa, Daman & Diu till 1987 when it was carved out to form a separate State

Goa state covers an area of 3702 square kilometers and is bounded in the north by Terekhol river which separates it from Maharashtra, in the east and south by Karnataka state and in the west by Arabian Sea. Goa is about 600 Kms away from Mumbai city.

Goa has two districts *viz.*, North and South Goa with headquarters at Panaji and Margao, respectively. The state consists of 11 sub-districts (or talukas) and 12 community development blocks comprising 383 villages. The urban areas of the state consist of 44 towns

An important feature of Goa is the harmonious relationship among people belonging to various religious groups, who have lived together peacefully for generations. Though a late entrant to the planning process, Goa has emerged as one of the most developed states in India and has been ranked as one of the best states in India with regard to investment, environment and infrastructure.

The population of Goa was 1.3 millions as per the census in 2001, out of which about 7 lacs were males and 6 lacs were females. The rural and urban breakup of the population shows that around percent of the population was enumerated in rural areas and the other remaining 50 percent percent in urban areas. Keeping pace with the national trend, Goa recorded a sharp decline in the decadal growth rate of its population from around 16.1 percent in 1981-91 to about 14.9 percent during 1991-2001. By districts, South Goa with a population growth rate of 16.2 percent had higher decadal population growth rate during 1991-2001 than North Goa which had a population growth rate around 14 percent.

The composition of schedule castes and scheduled tribes in the population of the state were 1.8 percent and almost nil in 2001, respectively. It may be noted that the state showed a subtle decrease in the population of scheduled castes between 1991 and 2001, their composition in the population being about 2.1 percent in 1991. By districts, North Goa district has slightly higher composition of SC Population than in North Goa district. In 2001, while South Goa district had 1.1 percent of scheduled castes population, North Goa recorded 1.1 percent of scheduled castes population. The scheduled tribes are almost nonexistent in both the districts their number being very meager (a few hundreds) in both the districts. With a population density of 363 per square km in 2001, Goa ranked 14th among the states and union territories in India and this was much higher than the population density of 325 persons per square km for the country as a whole. With 436 persons per square km North Goa had much higher population density than South Goa which recorded 298 persons per square km in 2001.

The sex ratio i.e., number of females per 1000 males in Goa as a whole slightly declined from 967 in 1991 to 960 in 2001. South Goa recorded a much higher sex ratio (972) than in North Goa district (950) in the state.

The literacy rate in the state improved from 75 percent in 1991 to 82 percent in 2001 and it was higher than the national average of around 65 percent. The literacy rate in urban areas (84 percent) was higher than in rural areas (around 80 percent) of the state. South Goa had higher literacy rate than North Goa, which were 84 percent and 80 percent for the two districts, respectively. While the male literacy rate for the state was 88 percent, the female literacy rate was 75 percent. Both the rates have increased in 2001 from 1991.

Table 1.3: BASIC DEMOGRAPHIC INDICATORS							
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	1027015	27.8	22.7	933	75.8	54.2	65.4
State	1343998	49.8	14.9	960	88.4	75.4	82.0
South Goa	586591	56.0	16.2	972	90.6	77.3	84.1
North Goa	757407	44.9	13.9	951	86.6	73.2	80.0

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

CHAPTER II

BACKGROUND CHARACTERISTICS OF HOUSEHOLDS

This chapter provides a socio-economic and demographic profile of the interviewed households in the survey. Also, the data on facilities and services such as Health, Education and Communication available in the sampled village are also presented. The *de facto* enumeration of persons is adopted in order to include every individual staying in the sampled PSU the night before the survey whether it is a village or an urban area. 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 household population classified by residence is presented in Table 2.1. The percent distribution is based on *de facto* population of 9,822 persons of whom 52 percent lived in the rural areas of Goa. The state portrays somewhat young and growing population with about 25 percent below the age of 15 years (Figure 2.1). The composition of children below 15 years in the state is slightly lower in rural areas (around 24 percent) than in urban areas (26 percent). The overall sex ratio was 10 males per 100 females and it is comparatively higher in rural areas than for urban areas.

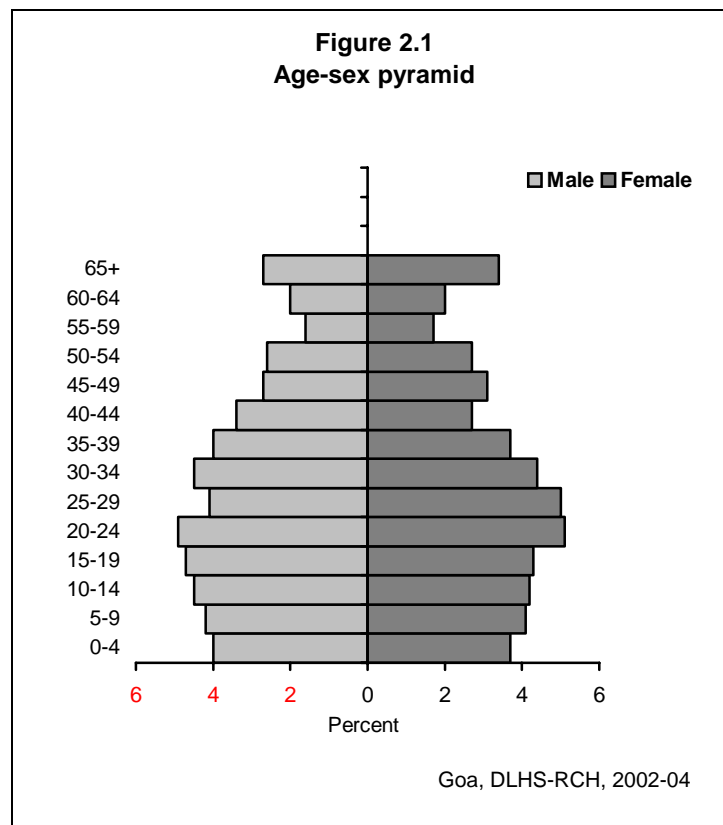


Table 2.1: HOUSEHOLD POPULATION BY AGE AND SEX

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

Age	Total			Rural			Urban		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
< 1	1.1	1.3	0.8	0.7	0.8	0.6	1.5	1.9	1.1
1-4	6.5	6.6	6.5	6.0	6.0	5.9	7.2	7.3	7.1
5-9	8.4	8.5	8.2	8.2	8.5	7.9	8.6	8.5	8.7
10-14	8.8	9.1	8.4	8.9	9.1	8.7	8.7	9.2	8.2
15-19	8.9	9.3	8.5	8.7	8.9	8.5	9.2	9.8	8.5
20-24	10.0	9.8	10.2	10.1	10.3	9.9	10.0	9.3	10.6
25-29	9.1	8.2	9.9	9.0	8.1	9.9	9.1	8.3	9.9
30-34	8.9	9.0	8.7	8.5	8.8	8.2	9.3	9.2	9.3
35-39	7.7	8.0	7.4	7.5	7.4	7.5	8.0	8.7	7.4
40-44	6.1	6.8	5.4	6.3	7.1	5.5	6.0	6.5	5.4
45-49	5.8	5.5	6.1	6.0	5.5	6.5	5.6	5.4	5.7
50-54	5.4	5.3	5.5	5.2	5.1	5.3	5.5	5.4	5.6
55-59	3.3	3.2	3.4	3.7	3.6	3.8	2.8	2.7	2.9
60-64	4.0	4.0	4.0	4.4	4.7	4.2	3.5	3.2	3.8
65-69	2.6	2.5	2.7	2.9	2.6	3.2	2.3	2.3	2.3
70-74	1.8	1.6	2.0	1.9	1.7	2.1	1.7	1.5	2.0
75-79	0.7	0.5	0.9	1.0	0.7	1.2	0.4	0.3	0.4
80+	1.0	0.7	1.2	1.2	1.0	1.3	0.7	0.4	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	9822	4899	4923	5141	2534	2607	4681	2365	2316
Sex ratio ¹	100	NA	NA	97	NA	NA	102	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 households by selected characteristics of the head of the household and the number of usual household members i.e., based on *de jure* population for the state are given in Table 2.2. A majority of 80 percent of the household heads were males irrespective of the place of residence while only 20 of the household heads were females. A little less than two-thirds or 65 percent of the household heads belonged to 30-59 years age group. The median age of household heads was 50 years for the state as a whole, which were 52 years and 48 years in rural and urban areas, respectively. Only 4 percent of the household heads were in age younger than 30 years and 30 percent were 60 years or older. A majority of the household heads belonged to Hindu (61 percent), around 29 percent to Christian, about 10 percent Muslim and meagre less than 1 percent to other religions. Hindus constituted a higher proportion of rural population (68 percent) than urban population (54 percent). The proportion of Christians in rural and urban areas of the state was similar with 29 percent. While only about 2 percent of the households in rural areas belonged Muslim, 17 percent of the households belonged to Muslim in urban areas.

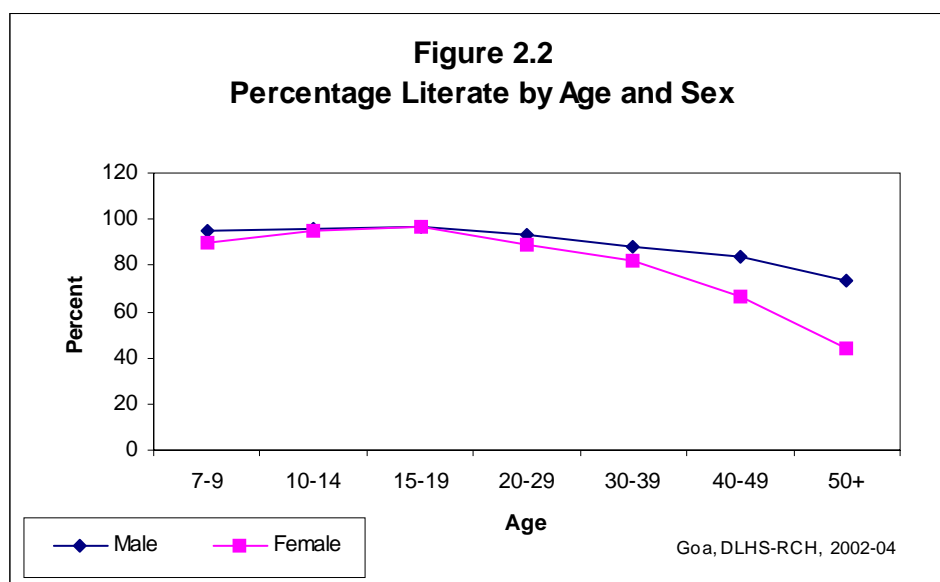
Table 2.2: HOUSEHOLD CHARACTERISTICS			
Percent distribution of the household head by selected characteristics of the household head and household size, according to residence, Goa, 2002-04			
Characteristic	Total	Residence	
		Rural	Urban
Sex of the household head			
Male	80.0	79.7	80.3
Female	20.0	20.3	19.7
Age of the household head			
< 30	4.3	2.9	5.9
30-44	30.4	27.2	33.8
45-59	34.9	35.4	34.4
60+	30.3	34.6	25.9
Median age of the household head	50.4	52.2	48.4
Religion of the household head			
Hindu	61.3	68.3	54.0
Muslim	9.5	2.4	16.9
Christian	28.9	29.0	28.8
Sikh	0.2	0.3	0.1
Buddhist	0.0	0.0	0.1
Jain	0.1	0.0	0.1
Caste/tribe of the household head			
Scheduled caste	3.4	2.2	4.6
Scheduled tribe	1.7	2.3	1.1
Other backward class	27.8	34.9	20.3
Other #	60.5	54.2	67.0
Don't know	6.6	6.3	7.0
Number of usual members			
1	3.0	2.8	3.2
2	8.5	8.3	8.8
3	15.6	14.6	16.7
4	22.9	21.1	24.9
5	21.6	22.4	20.8
6	13.6	14.5	12.7
7	6.2	7.2	5.1
8	3.1	2.6	3.6
9+	5.4	6.5	4.3
Mean household size	4.7	4.8	4.5
Total percentage	100.0	100.0	100.0
Number of households	2092	1069	1023
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)			

Only 3 percent of the households in Goa belonged to the scheduled castes, about 2 percent to the scheduled tribes and 28 percent to other backward classes while around 61 percent of the households belonged to other castes. Around 6 percent of the households belonged to scheduled castes or tribes in urban areas, which was meagre 2 percent of the households in rural

areas. The overall average household size in the state was 4.7 persons. The average household size in rural and urban areas was almost similar at 4.8 persons and 4.5 persons, respectively.

2.3 Educational Level

The educational background of the household members is presented in Table 2.3 based on *de jure* household population. The levels of literacy and years of schooling according to age, sex and residence are given in the Table. The data indicate that about 18 percent of the population aged seven and above was illiterate. The proportion of illiterates was 24 percent for females as against 12 percent for males. The proportion of illiterates was much higher among the older cohorts than among the younger ones. This trend was true irrespective of males and females, the level of literacy being higher in the younger age groups than in the older age groups including the youngest age group of 7-9 years (Figure 2.2).



A little more 90 percent i.e., 95 percent of males and 88 percent of females in the age group 7-9 years had 1-5 years of schooling. Over all, 20 percent of males had schooling of 1-5 years. Females were also not far behind in comparison to their male counterparts with corresponding figure of 18 percent among them. Comparatively, a lower proportion of females were having 9-10 years i.e., 22 percent and 11 or more years of schooling i.e., 8 percent than males with corresponding figures of 27 percent and 23 percent for them, respectively. A meagre less than 1 percent of the surveyed population as well as less than 1 percent of males and 1 percent of females were literate without any formal schooling.

Table 2.3: EDUCATIONAL LEVEL OF THE HOUSEHOLD POPULATION

Percent distribution of household population age 7 and above by literacy level and years of schooling, according to age , residence and sex, Goa, 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	3.6	0.3	94.5	0.3	0.0	0.0	1.2	100.0	255
10-14	3.0	0.6	35.9	52.0	8.2	0.0	0.2	100.0	447
15-19	3.5	0.0	4.5	19.7	40.4	31.8	0.0	100.0	458
20-29	6.7	0.2	6.7	16.3	33.1	37.0	0.0	100.0	882
30-39	11.9	0.6	8.5	13.8	34.8	30.4	0.0	100.0	836
40-49	16.8	0.5	18.7	12.9	29.3	21.8	0.0	100.0	601
50+	26.5	1.7	23.4	10.7	23.8	14.0	0.0	100.0	870
Total	12.2	0.6	20.0	17.3	27.3	22.5	0.1	100.0	4,348
Female									
7-9	6.5	0.9	87.7	0.9	0.0	0.0	4.0	100.0	238
10-14	4.9	0.9	31.6	51.6	10.6	0.0	0.4	100.0	415
15-19	3.1	0.2	7.1	19.7	36.6	33.3	0.0	100.0	418
20-29	10.9	0.9	6.1	14.6	28.5	39.1	0.0	100.0	991
30-39	18.0	0.7	13.5	14.9	32.6	20.3	0.0	100.0	794
40-49	33.5	1.0	16.3	13.1	24.2	11.9	0.0	100.0	569
50+	56.0	2.4	17.2	7.8	11.0	5.6	0.0	100.0	970
Total	23.5	1.2	18.1	16.2	22.3	18.4	0.3	100.0	4,396
Total									
7-9	5.0	0.6	91.3	0.6	0.0	0.0	2.6	100.0	493
10-14	3.9	0.8	33.8	51.8	9.3	0.0	0.3	100.0	862
15-19	3.3	0.1	5.8	19.7	38.6	32.5	0.0	100.0	875
20-29	8.9	0.6	6.3	15.4	30.7	38.1	0.0	100.0	1,874
30-39	14.8	0.6	10.9	14.3	33.8	25.5	0.0	100.0	1,630
40-49	24.9	0.7	17.5	13.0	26.8	17.0	0.0	100.0	1,170
50+	42.0	2.1	20.1	9.2	17.0	9.6	0.0	100.0	1,840
Total	17.9	0.9	19.0	16.8	24.8	20.5	0.2	100.0	8,745
Note: The table is based on <i>de facto</i> population									

Contd.

An examination of literacy levels by place of residence reveals subtle differences in the urban-rural divide in the educational attainment. In urban areas, while about 17 percent of the population was illiterate in comparison to 19 percent in the rural areas. The proportion of illiterate females living in rural areas of Goa was 25 percent against only 12 percent illiterates among rural males. Somewhat similarly, the proportions of illiterates in urban areas were 21 percent and 12 percent for females and males, respectively. A contrasting feature of rural-urban difference in educational levels is that in rural areas while the proportion of those who had 1-5 years schooling (21 percent) was higher than 11 or more years schooling (17 percent), in urban areas a higher proportion had 11 or more years schooling (24 percent) than 1-5 years schooling (17 percent).

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, Goa, 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	4.2	0.0	94.1	0.6	0.0	0.0	1.2	100.0	127
10-14	1.9	0.4	38.4	50.7	8.2	0.0	0.4	100.0	230
15-19	3.1	0.0	4.8	19.3	44.5	28.2	0.0	100.0	226
20-29	5.5	0.0	6.2	15.5	35.2	37.6	0.0	100.0	465
30-39	10.0	0.4	10.9	15.5	37.4	25.8	0.0	100.0	411
40-49	16.1	0.0	23.9	14.8	28.1	17.0	0.0	100.0	319
50+	29.4	1.6	27.7	9.7	23.1	8.4	0.0	100.0	496
Total	12.3	0.5	22.2	17.3	28.2	19.4	0.1	100.0	2,272
Female									
7-9	3.4	0.8	91.2	0.0	0.0	0.0	4.7	100.0	121
10-14	3.3	0.0	34.8	51.6	9.7	0.0	0.7	100.0	226
15-19	2.3	0.0	6.3	20.4	40.1	30.9	0.0	100.0	220
20-29	7.5	0.7	6.3	17.0	30.0	38.6	0.0	100.0	516
30-39	16.8	0.1	19.1	15.9	33.9	14.0	0.0	100.0	409
40-49	41.1	0.7	15.4	14.4	21.8	6.7	0.0	100.0	312
50+	63.1	1.7	15.7	7.4	9.7	2.4	0.0	100.0	549
Total	25.4	0.7	19.0	17.0	22.3	15.2	0.3	100.0	2,354
Total									
7-9	3.8	0.4	92.7	0.3	0.0	0.0	2.9	100.0	248
10-14	2.6	0.2	36.6	51.1	8.9	0.0	0.5	100.0	456
15-19	2.7	0.0	5.5	19.9	42.3	29.5	0.0	100.0	446
20-29	6.5	0.3	6.2	16.3	32.5	38.1	0.0	100.0	981
30-39	13.4	0.3	15.0	15.7	35.7	19.9	0.0	100.0	820
40-49	28.5	0.3	19.7	14.6	25.0	11.9	0.0	100.0	631
50+	47.1	1.6	21.4	8.5	16.0	5.3	0.0	100.0	1,045
Total	19.0	0.6	20.6	17.1	25.2	17.3	0.2	100.0	4,626

Contd.

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, Goa, 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	3.0	0.7	95.0	0.0	0.0	0.0	1.3	100.0	128
10-14	4.2	0.9	33.3	53.5	8.1	0.0	0.0	100.0	217
15-19	3.8	0.0	4.3	20.1	36.4	35.3	0.0	100.0	232
20-29	8.1	0.4	7.2	17.1	30.8	36.4	0.0	100.0	417
30-39	13.7	0.8	6.1	12.2	32.3	34.9	0.0	100.0	425
40-49	17.6	1.0	12.9	10.7	30.5	27.3	0.0	100.0	282
50+	22.6	1.8	17.8	11.9	24.7	21.3	0.0	100.0	375
Total	11.9	0.8	17.5	17.4	26.3	26.0	0.1	100.0	2,076
Female									
7-9	9.7	1.1	84.1	1.7	0.0	0.0	3.3	100.0	117
10-14	6.9	2.1	27.8	51.6	11.6	0.0	0.0	100.0	190
15-19	4.0	0.5	7.9	19.0	32.6	35.9	0.0	100.0	197
20-29	14.6	1.2	5.8	12.0	26.8	39.6	0.0	100.0	476
30-39	19.2	1.3	7.5	13.7	31.3	27.1	0.0	100.0	385
40-49	24.3	1.5	17.3	11.5	27.2	18.2	0.0	100.0	257
50+	46.7	3.3	19.2	8.4	12.6	9.8	0.0	100.0	421
Total	21.3	1.7	17.1	15.3	22.4	22.1	0.2	100.0	2,042
Total									
7-9	6.2	0.9	89.8	0.8	0.0	0.0	2.3	100.0	245
10-14	5.5	1.5	30.7	52.6	9.8	0.0	0.0	100.0	406
15-19	3.9	0.2	6.0	19.6	34.7	35.6	0.0	100.0	429
20-29	11.6	0.8	6.4	14.4	28.7	38.1	0.0	100.0	893
30-39	16.3	1.0	6.8	12.9	31.8	31.2	0.0	100.0	810
40-49	20.8	1.2	15.0	11.1	29.0	22.9	0.0	100.0	539
50+	35.3	2.6	18.5	10.0	18.3	15.2	0.0	100.0	795
Total	16.6	1.3	17.3	16.3	24.4	24.0	0.1	100.0	4,118

2.4 Marital Status of the Household Population

The DLHS, collected information on the marital status of all household members who were aged 10 years and above. Table 2.4 provides the percentage marital status distribution of *de facto* population by age and sex. About 7 percent of females in the age group 15-19 years, followed by 33 percent in the age group 20-24 years, 68 percent in the age group 25-29 years and 87 percent in the age group 30-44 years were currently married. The proportion of never married as a whole was about 40 percent in the state, and it was higher for males (46 percent) than for females (34 percent). The proportion of never married among males declined with increasing age and was negligible in the age group 45-59 years and above. A similar pattern is observed in the case of females, as only 7 percent in the age group 30-40 years and a negligible proportion in the age 45 years and above was never married among them. The proportion of divorced, separated and widowed were a meagre 8 percent and mostly observed in the older ages. Two-thirds or 66 percent of the women aged 60 years and above were widowed, divorced or separated. Overall, the proportion of currently married (for those aged 10 years and above) was 52 percent among both males and females.

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, Goa, 2002-04						
Age	Marital status				Total Percent	Number of persons
	Never married	Currently married	Married, <i>gaunna</i> not performed	Widowed/divorced/Separated		
Male						
10-14	96.1	2.8	0.5	0.6	100.0	447
15-19	100.0	0.0	0.0	0.0	100.0	458
20-24	92.4	7.6	0.0	0.0	100.0	481
25-29	71.9	27.9	0.0	0.2	100.0	402
30-44	18.8	80.7	0.0	0.5	100.0	1169
45-59	3.3	93.9	0.0	2.9	100.0	681
60+	1.5	86.5	0.0	12.0	100.0	456
Total	45.7	52.2	0.1	2.0	100.0	4093
Female						
10-14	97.6	2.4	0.0	0.0	100.0	415
15-19	93.2	6.6	0.2	0.0	100.0	418
20-24	66.4	32.7	0.2	0.8	100.0	503
25-29	30.9	67.5	0.0	1.6	100.0	489
30-44	7.4	87.1	0.1	5.5	100.0	1062
45-59	1.9	75.8	0.0	22.3	100.0	736
60+	3.6	30.6	0.2	65.7	100.0	534
Total	33.5	52.4	0.1	14.1	100.0	4158
Total						
10-14	96.8	2.6	0.3	0.3	100.0	862
15-19	96.8	3.1	0.1	0.0	100.0	875
20-24	79.1	20.4	0.1	0.4	100.0	983
25-29	49.4	49.6	0.0	1.0	100.0	890
30-44	13.4	83.7	0.0	2.9	100.0	2232
45-59	2.5	84.5	0.0	13.0	100.0	1418
60+	2.6	56.3	0.1	40.9	100.0	991
Total	39.5	52.3	0.1	8.1	100.0	8251
Note: Table is based on <i>de facto</i> population						

2.5 Marriages

Marriage in the household is an important event that reflects the socio-cultural practices of a community. This section outlines the marriages that took place in the sample households during the three years period prior to the survey. The mean age at marriage by sex, and percentage of marriages below legal age at marriage of 21 years for boys and 18 years for girls by residence and districts are given in Table 2.5. The mean age at marriage for boys and girls in urban areas of Goa were 28.5 years and 24 years, respectively. The corresponding figures in rural areas were 29.5 years and 24.7 years.

Table 2.5: MARRIAGE				
Mean age at marriage and percentage of marriages below legal age at marriage by sex and by districts, Goa, 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	29.0	24.4	2.3	3.6
State – Rural	29.5	24.7	2.5	1.7
State – Urban	28.5	24.0	2.2	5.6
District				
North Goa	28.8	24.5	2.8	2.9
South Goa	29.5	24.0	1.4	4.9

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.

On the whole, both boys and girls in Goa seemed to fulfil the minimum legal marriage age prescribed for them, the average age at marriage being 29 years for boys and 24.4 years for girls. However, a meagre 2 percent of boys and 4 percent among girls got married below the corresponding legal age at marriage specified for them. This proportion did not vary much between rural and urban areas of the state. Regarding district level variations, while the mean age at marriage in North Goa district was 28.8 years for boys and 24.5 years for girls, it was 29.5 years and 24 years for boys and girls respectively South Goa district.

It may be observed that the proportion of girls who got married below the prescribed minimum legal age at marriage was a little higher in South Goa district than in North Goa district. While about 5 percent of the girls got married before the minimum legal age at marriage in South Goa district, it was around 3 percent in North Goa district (see Map-1). For boys, the proportion of marriages below the minimum legal age at marriage was a little higher in North Goa district (3 percent) than in South Goa district (1 percent).

2.6 Morbidity Rates

The DLHS-RCH collected information on the morbidity status of *de jure* members of the household with respect to blindness, tuberculosis and malaria. The data on prevalence rates of blindness, tuberculosis and malaria for the state are given in Table 2.6.

Partial, Complete and Night Blindness

The overall prevalence of partial blindness in the state was 1,721 cases per 100,000 persons and its prevalence was higher in rural areas (1,976 cases per 100,000) than in urban areas (1,438 cases per 100,000). Its prevalence was comparatively higher among females than males. The prevalence of complete blindness was 209 cases per 100,000 population with 375 cases and 26 cases per 100,000 persons in rural and urban areas, respectively. The prevalence of complete blindness among males was higher than among females. The prevalence of night blindness due to vitamin-A deficiency was 29 per 100,000 persons, which was 62 cases per 100,000 persons in urban areas against nil than in rural areas of the state.

Tuberculosis

The prevalence of tuberculosis was 194 cases per 100,000 persons in the state, with rural areas having a higher prevalence (278 cases per 100,000 persons) as compared to urban areas (102 cases per 100,000 persons). And, its prevalence was higher among males (336 cases per 100,000 persons) than for females (52 cases per 100,000 persons).

Malaria

The respondents were asked to state whether any member of their household suffered from malaria (characterized by recurrent fever with shivering) during the two weeks prior to the survey. Overall, 152 persons were reported to have suffered from malaria for every 100,000 population in Goa. The rural people had higher prevalence of malaria (157 cases per 100,000 population) than the urban people (146 cases per 100,000 population). And, a higher percentage of males than females had suffered from malaria.

Table 2.6: MORBIDITY RATES			
Prevalence of blindness, tuberculosis, and malaria, according to place of residence, Goa, 2002-04.			
Morbidity	Total	Residence	
		Rural	Urban
Prevalence rate of blindness			
Male			
Partial	1,608	2,163	1,011
Complete	277	534	0
Night blindness	59	0	121
Female			
Partial	1,834	1,794	1,880
Complete	142	220	53
Night blindness	0	0	0
Persons			
Partial	1,721	1,976	1,438
Complete	209	375	26
Night blindness	29	0	62
Prevalence rate of tuberculosis			
Male	336	489	172
Female	52	72	29
Person	194	278	102
Prevalence rate of malaria ¹			
Male	162	235	84
Female	141	81	210
Person	152	157	146

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.

2.7 Morbidity Rates by Districts

Table 2.7 gives morbidity rates by districts of Goa for prevalence of blindness, tuberculosis and malaria. The prevalence of partial blindness varied considerably between the two districts, with 2,693 cases per 100,000 persons in North Goa district against 474 cases per 100,000 persons in South Goa district. The prevalence of complete blindness was 312 cases per 100,000 persons in North Goa district as against 79 per 100,000 persons in South district.

The data also revealed variations between the districts in the prevalence rates of tuberculosis and malaria. The prevalence of tuberculosis was higher in North Goa (299 cases per 100,000 population) than in South Goa (58 per 100,000 population). Also, the prevalence of malaria was higher in North Goa district (165 cases per 100,000 population) than in South Goa district (133 cases per 100,000 population) as well.

Table 2.7: MORBIDITY RATES BY DISTRICTS				
Prevalence of blindness, tuberculosis, and malaria, by district, Goa, 2002-04				
District	Prevalence ¹ of morbidity			
	Partial blindness	Complete blindness	Tuberculosis	Malaria ²
North Goa	2,693	312	299	165
South Goa	474	79	58	133
Goa	1,721	209	194	152

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

2.8 Housing Characteristics

This section describes the availability of basic housing amenities in the state. Table 2.8 presents the percent distribution of households by selected housing characteristics. Almost universally i.e., 96 percent of the households in Goa had electricity connection. Interestingly, the proportion of households with electric connection was almost similar between urban (97 percent) and rural areas (96 percent).

As regards source of drinking water, while 77 percent of the households were getting tap water, less than 1 percent and 21 percent of the households respectively were getting hand pumped/bore-well and well water. Furthermore, 84 percent of the households in urban areas were receiving tap water for drinking as against 69 percent of the households in rural areas having such facility.

With respect sanitation facilities, while a little less than or 47 percent and 14 percent of the households each were using flush toilets and based toilets or latrines, 7 percent of the households were using shared toilets and 27 percent of the households did not have any toilet facility at all. The data substantiate the wide rural-urban difference in toilet facilities; 36 percent

of the households in rural areas had no toilet facility against 18 percent of the households in urban areas.

The data on type of fuel used in the households for cooking suggest that a majority i.e., 64 of the households were using liquid (petroleum) gas or electricity in Goa. Only 8 percent and 28 percent of the households respectively depended on kerosene and firewood for cooking. Expectedly, a much higher proportions of households were using liquid (petroleum) gas or electricity and kerosene for cooking in urban (74 and 12 percents) than in rural areas (54 and 5 percents of the households).

There was considerable variation in the quality of housing. Therefore, on the basis of materials used for floor, walls and roof for house construction the households were categorised into *kachcha*, *semi-pucca* and *pucca*. More than half (or 55 percent), a little more than one-third (or about 37 percent) and a little less than one-tenth (or 8 percent) of the households in the state were living in semi *pucca*, *pucca* and *kachcha* houses, respectively. In urban areas, about 46 percent of the households were living in *pucca* houses as compared to 28 percent of the households in rural areas.

Table 2.8: HOUSING CHARACTERISTICS

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

Housing characteristic	Total	Residence	
		Rural	Urban
Electricity			
Yes	96.3	96.0	96.7
No	3.7	4.0	3.3
Source of drinking water			
Tap inside	61.8	55.1	68.7
Tap shared public	15.2	13.7	16.7
Hand pump/ bore well	0.7	0.9	0.5
Well covered	7.7	9.9	5.5
Well uncovered	13.1	17.6	8.4
River	0.6	1.2	0.0
Pond	0.5	0.9	0.0
Spring	0.3	0.6	0.0
Other	0.1	0.1	0.2
Sanitation facility			
Own flush toilet	46.9	40.4	53.7
Own pit toilet / latrine	13.6	13.5	13.6
Shared toilet of any type	7.0	5.6	8.5
Public / community toilet	5.3	4.0	6.6
No toilet facility	27.2	36.4	17.6
Main type of fuel used for cooking			
Liquid petroleum gas/ electricity	63.6	54.1	73.5
Kerosene	8.0	4.5	11.7
Wood	28.2	41.4	14.5
Other	0.1	0.0	0.3
Type of house			
<i>Kachcha</i>	8.1	5.9	10.4
Semi - <i>pucca</i>	55.3	66.4	43.7
<i>Pucca</i>	36.6	27.7	45.9
Household assets			
Fan	86.5	81.7	91.6
Radio/transistor	58.7	55.1	62.5
Sewing machine	38.8	39.0	38.6
Television	75.3	71.1	79.7
Telephone	43.9	41.3	46.7
Bicycle	35.0	34.3	35.8
Motor cycle/ scooter	44.0	41.1	47.0
Car / Jeep	13.4	9.2	17.7
Tractor	0.6	1.0	0.2
Standard of living index			
Low	12.1	15.7	8.3
Medium	31.7	35.4	27.8
High	56.2	48.9	63.9
Number of households	2,092	1,069	1,023

The possession of consumer goods is an indication of socio-economic status of a household. Significantly, the data indicate that 87, 75, 59 and 44 percents of the households in the state owned fan, television, radio or transistor and motorcycle or scooter, respectively. The other durables possessed by a considerable proportion of households were telephone (44 percent)

sewing machine (39 percent) and (39 percent) bicycle 35 (percent). Only 13 percent of the households in the state owned a car or jeep. Of course, the ownership of consumer durable items was much higher among urban households than among rural households.

A composite measure *viz.*, standard of living index (SLI) was derived for classifying the households by considering the household amenities such as source of drinking water, type of house, source of lighting, fuel used for cooking, toilet facility available and ownership of durable goods. The standard of living index was calculated by adding the scores mentioned below.

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 might vary from the lowest of 0 to maximum of 40. On the basis of total score households were defined into three categories as;

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

As per the standard of living index measured above, a majority or 56 percent of the households belonged to the high standard of living category, 32 and 12 percents of the households belonged to the medium and low standard of living categories, respectively, in Goa as a whole.

The proportion of households with high standard of living index was much higher in urban areas (64 percent) than in rural areas (49 percent). And, the proportion of households with medium (35 percent) and low (16 percent) standard of living index were much higher in rural than in urban areas (28 and 8 percents, respectively) of the state.

2.9 Housing Characteristics by Districts

The development of basic amenities with respect to housing and possession of consumer durables was not uniform in the two districts of Goa. Table 2.9 presents inter-district comparison of housing characteristics in the state. The electricity facility was almost universal in both the districts with 95 percent of the households in North Goa and 98 percent of households in South Goa having electric connection. Almost universally or 96 percent of the households were getting piped or hand pumped water for drinking south Goa as against a little more than three-fourths or 77 percent of the households in North Goa having such a facility.

South Goa appeared to be better developed than North Goa with respect to sanitary facilities as 86 percent of the households in South Goa district were having toilet facilities in comparison 63 percent of the households in North Goa having toilet facilities.

The proportion of households using liquid (petroleum) gas or electricity for cooking was significantly higher in South Goa at 86 percent, which was a much lower in North Goa at 53 percent. The proportion of households living in *pucca* houses was significantly lower in North Goa which had 19 percent of *pucca* houses in comparison to 59 percent of *pucca* houses in South Goa.

Table 2.9: HOUSING CHARACTERISTICS BY DISTRICT					
Selected housing characteristics by district, Goa, 2002-04					
Districts	Percentage of households:				
	With electricity	With drinking water ¹	With toilet facility	Using Liquid petroleum gas/ electricity	Living in <i>pucca</i> house
North Goa	95.3	77.0	62.7	52.6	18.8
South Goa	97.6	96.2	85.6	77.5	59.3
Goa	96.3	85.4	72.8	63.6	36.6

Note: ¹ That is piped or from a hand pump/bore 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 recommended iodine content of edible salt is 30 parts per million (PPM) at the manufacturing level.

In the DLHS-RCH, 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 were classified by degree of ionization of salt and background characteristics of the households (Table 2.10). The data show that while a majority of 61 percent of the households in the state used the salt that contained recommended i.e., a minimum of 15 ppm or higher level of iodine content, 8 percent of the households used salt which was inadequately iodised and 30 percent of the households salt that was not iodized at all.

In urban areas a little less than three-fourths or 73 percent of the households used adequately iodized salt (i.e., with a minimum of 15 ppm or higher level of iodine) which was much lower in rural areas at 49 percent or a little less than half of the households. However, the proportion of households using inadequately iodized salt in rural and urban areas was somewhat similar at 8 and 7 percents, respectively. The proportion of households using iodised and, non-iodized or inadequately iodized salt was closely associated with the educational levels of the household heads. Notably, around 80 percent of the households headed by persons with more than 10 years of schooling reported using adequately iodized salt. The proportion of households using adequately iodized salt was comparatively lower at 58 percent among Hindu households as against 72 and 60 percents respectively among Muslim and Christian households. Consumption

of adequately iodised salt among other castes households was 66 percent, followed by 60 percent among scheduled castes, 50 percent among other backward classes households and 46 percent among scheduled tribe households.

Table 2.10: IODIZATION OF SALT						
Percent distribution of household heads by degree of iodization of salt, according to selected background characteristics, Goa, 2002-04						
Background characteristic	Not iodised	7ppm	15+ppm	Other ¹	Total percent	Number of households
Place of Residence						
Rural	41.6	8.4	48.8	1.2	100.0	1069
Urban	18.5	6.9	72.7	1.8	100.0	1023
Education of the household heads						
Non-literate	44.1	10.8	43.9	1.2	100.0	623
0-9 years@	35.2	6.7	56.7	1.5	100.0	771
10 and above	12.7	6.0	79.5	1.8	100.0	699
Religion of household head						
Hindu	30.8	9.1	58.8	1.3	100.0	1282
Muslim	21.0	5.4	72.3	1.2	100.0	198
Christian	32.4	5.5	60.1	2.0	100.0	605
Caste/tribe of the household head#						
Scheduled caste	28.5	9.9	60.0	1.6	100.0	71
Scheduled tribe	(48.6)	(5.7)	(45.7)	(0.0)	100.0	36
Other backward class	35.6	12.3	50.0	2.1	100.0	581
Other	27.8	5.2	65.6	1.4	100.0	1266
Standard of living index						
Low	51.1	11.3	36.1	1.5	100.0	253
Medium	39.6	10.5	48.0	1.9	100.0	662
High	20.6	5.3	72.8	1.3	100.0	1176
Total	30.3	7.7	60.5	1.5	100.0	2092
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. Total includes 6 other religion cases were not shown separately.						
() Based on less than 50 unweighted cases						

Differentials in the consumption of adequately iodized salt were more conspicuous when the data were analysed by standard of living index. The data suggest that households with low standard of living index were more likely to use non-iodized or inadequately iodized salt in comparison to households with medium or high standard of living index. Apparently, 51 percent of the households with low standard of living index were using non-iodized salt as against around 40 percent and 21 percent households among medium and high standard of living index categories, respectively. While a majority of 73 percent of the households with high standard of living index used adequately iodized salt, in comparison 48 percent and 36 percent of the households with medium and low standard of living index consumed salt that was adequately iodized.

2.11 Iodization of Salt by Districts

Table 2.11 shows the variations in the districts by levels of iodized salt used in the households. The proportion of households using non-iodized salt was a much lower in South Goa (25 percent) than in North Goa (35 percent). In other words the proportion of households using adequately iodized salt was much greater in South Goa than in North Goa at 69 and 54 percents in the two districts, respectively. Furthermore, the percentage of households using inadequately iodized salt was slightly lower in South Goa (5 percent) than in South Goa (9 percent).

District	Not idoized	7ppm	15+ppm	Other ¹
North Goa	35.1	9.2	54.1	1.6
South Goa	24.5	5.6	68.6	1.3
Goa	30.3	7.7	60.5	1.5

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

2.12 Availability of Facilities and Services in Rural Areas

The DLHS-RCH collected information from knowledgeable persons such as, the ‘*Sarpanch*’ or ‘*Pradhan*’ (village head), village officials and other persons including ‘teacher’ about health and educational facilities and other services available in the surveyed village. One important aspect was on the distance from the village to various types of education facilities, including primary school, middle school, secondary school, higher secondary school, college, *Gurujee* scheme and ‘*Madarsa*’, if not available within the village. Furthermore, information was also collected on distance from various types of health facilities 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), if not available within the village.

Table 2.12 gives data on the distance of surveyed villages from various education facilities. The unit of analysis, of course, is usual residents of rural population. The data show that almost universally (around 98 percent) the people (*de jure* population) in rural areas of the state were living in villages that had primary schools, a majority of around 86 percent were living in villages that had a middle school, around 79 percent were living in villages that had a secondary school. Higher secondary school was available for 26 percent of the population within the village. While *Gurujee* scheme and *Madarassas* facilities were available within the village for 6 percent and 12 percent of the rural population respectively, 6 percent of the rural people had access college facility within the village. As regards distances to educational facilities, it can be seen that around 9 percent, 11 percent, 28 percent, 46 percent and 45 percent of the rural population had access to middle, secondary and higher secondary school, *Gurujee* scheme and *Madarassas* facility within 5 kilometres distance from the village. For around 40 percent of the rural population college facility was available in 10 or more kilometres away from the village.

Table 2.12: DISTANCE FROM THE NEAREST EDUCATION FACILITY						
Percent distribution of rural household population by distance from the nearest education facility, Goa, 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	98.3	1.7	0.0	0.0	0.0	100.0
Middle School	85.5	8.7	5.8	0.0	0.0	100.0
Secondary School	78.7	10.6	8.1	2.6	0.0	100.0
Higher Secondary School	26.0	27.5	35.9	10.6	0.0	100.0
College	6.0	26.3	28.0	39.7	0.0	100.0
Gurujee Scheme	6.2	46.1	5.8	2.4	39.5	100.0
Madarsa	12.0	44.6	1.6	2.4	39.5	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, Goa, 2002-04					
Health facility	Within village	Distance from the village:			Total percent
		< 5 km	5-9 km	10+ km	
Rural household population					
Sub-centre	85.8	9.2	5.0	0.0	100.0
Primary health centre	38.8	16.7	27.4	17.0	100.0
Either sub-centre or PHC	87.7	7.4	5.0	0.0	100.0
Community health centre/Referral hospital	16.6	25.0	31.8	26.6	100.0
Government dispensary	47.8	10.7	19.4	22.1	100.0
Government hospital	6.3	21.2	35.5	37.0	100.0
Private clinic	49.4	22.1	20.5	8.0	100.0
Private hospital	5.0	21.8	39.5	33.7	100.0
ISM health facility	3.8	13.7	28.8	53.7	100.0

Note: Table based on rural *de jure* population

Table 2.13 gives the data on the availability of health facilities within the surveyed villages and provides information on the distance between the village and the nearest available health facility. About 86 percent of the rural population lived in villages that were having Sub-centre facility. And, around 39 percent of the rural population lived in villages which had a primary health centre. Of course, the proportion of population having either a Sub-centre or a primary health centre facility within the village was 88 percent. Furthermore, the proportion of rural population having access to other health facilities such as CHCs/RHs, Government dispensary, Government hospitals, private clinic, private hospital and Indian System of Medicine (ISM) within the village was 17, 48, 6, 49, 5 and 4 percents, respectively.

Table 2.14: AVAILABILITY OF SERVICES	
Percentage of rural residents living in villages that have selected services, Goa, 2002-04	
Services	Percentage of rural residents
Anganwadi centre	
Anganwadi worker	97.4
Private doctor	89.9
Visiting doctor	57.4
Homeopathic doctor	70.9
Village health guide	8.2
Trained birth attendant	17.0
Traditional healer	7.2
Dai	11.8
	7.3

Note: Table based on rural *de jure* population

The proportion of population living in villages located within a distance of 5 kilometres from health facilities was 9 percent for sub-centres, 17 percent for primary health centres, 25 percent for CHCs/RHs, 11 percent for Government dispensary, 21 percent for Government hospital, 22 percent for private clinic, 22 percent for private hospitals and 14 percent for ISM facilities. The distance of health facilities beyond 10 kilometres from the surveyed villages was 37 percent of the population in the case of Government hospitals and 33 percent of the population for private hospitals.

Table 2.14 shows the proportions of population of the state various health services available within the village. Almost universal or 97 percent of population lived in villages that had an *anganwadi* (a nursery school for children age 3-6 years). At the same time, 90 percent of the population lived in villages having *anganwadi* workers (*Anganwadi* workers provide integrated child development services) within the village.

A majority of 57 percent of the population lived in villages that had a private doctor, 71 percent lived in villages that had a visiting doctor, 8 percent lived in villages that had a homeopathy doctor, 17 percent lived in villages that had a health guide, 7 percent lived in villages that had trained birth attendant and around 12 percent lived in villages that had traditional healer. However, only 7 percent of the population lived in villages that had a *Dai* (*Dai* provides the services for the delivery).

2.13 Availability of Education Facility and Health Services by District

Table 2.15 has provided the data on the availability of education and health facilities within the surveyed villages by the districts in Goa *viz.*, North Goa and South Goa. The rural population of the state lived almost universally in villages having a primary or middle school available within the village. The primary school facility was universally available within the village for the rural population of North Goa district and for 96 percent of the rural population in South Goa district. While sub-centre was available within village for 86 percent of the rural population in the state as a whole Goa, the facility was available within the village for 87 and 85 percents of the population in South Goa and North Goa districts, respectively. In other words, this suggested that

primary or middle school and sub-centre facilities were somewhat uniformly available within village in North and South Goa.

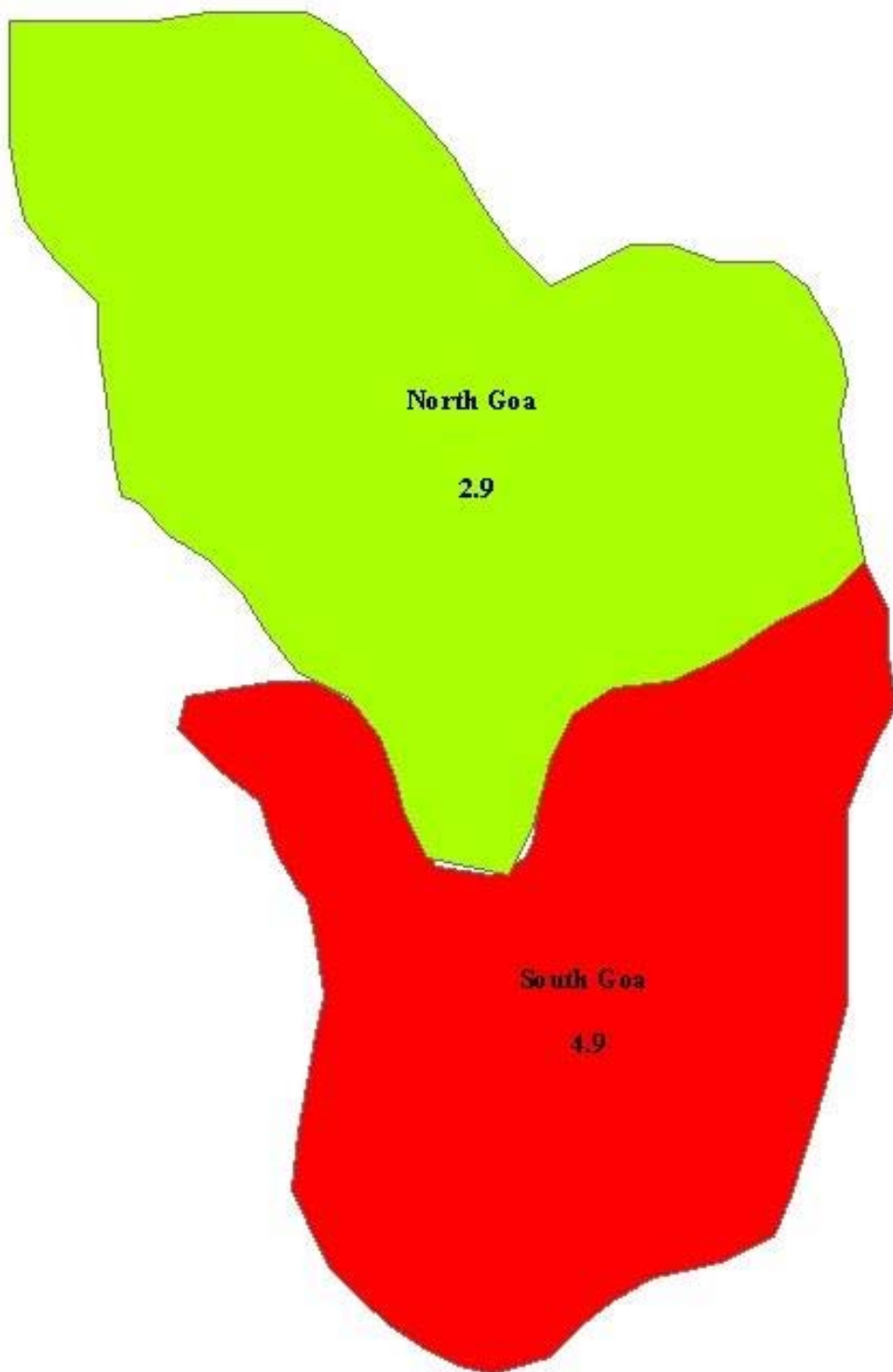
Half or 50 percent of the rural population in South Goa and a little less than one-third or 31 percent of the rural population in North Goa had access to PHC facility available within the village. That is South Goa is better developed with respect to availability of PHC facility within the village. Very high proportions of 88 and 87 percents of the population in rural areas of North and South Goa respectively had access to at least any one of the government health facilities including sub-centre, primary health centre, community health centre or referral hospital, government hospital and government dispensary within the village. This was indicative of uniform development of the both districts in terms of accessibility to a certain minimum health facility within the village.

Furthermore, there was no significant difference between the two districts in terms of access to a doctor within the village as very high i.e., 86 and 82 percents of the rural population were visited either by a private or any visiting doctor in the surveyed villages of South and North Goa, respectively. Also, the availability of trained birth attendants within the village for the rural population was somewhat similar between South and North Goa at 9 and 6 percents. The *anganwadi* worker was visited by 96 percent of the rural population i.e., almost universally within the village in South Goa as against 86 percent of the rural population in North Goa.

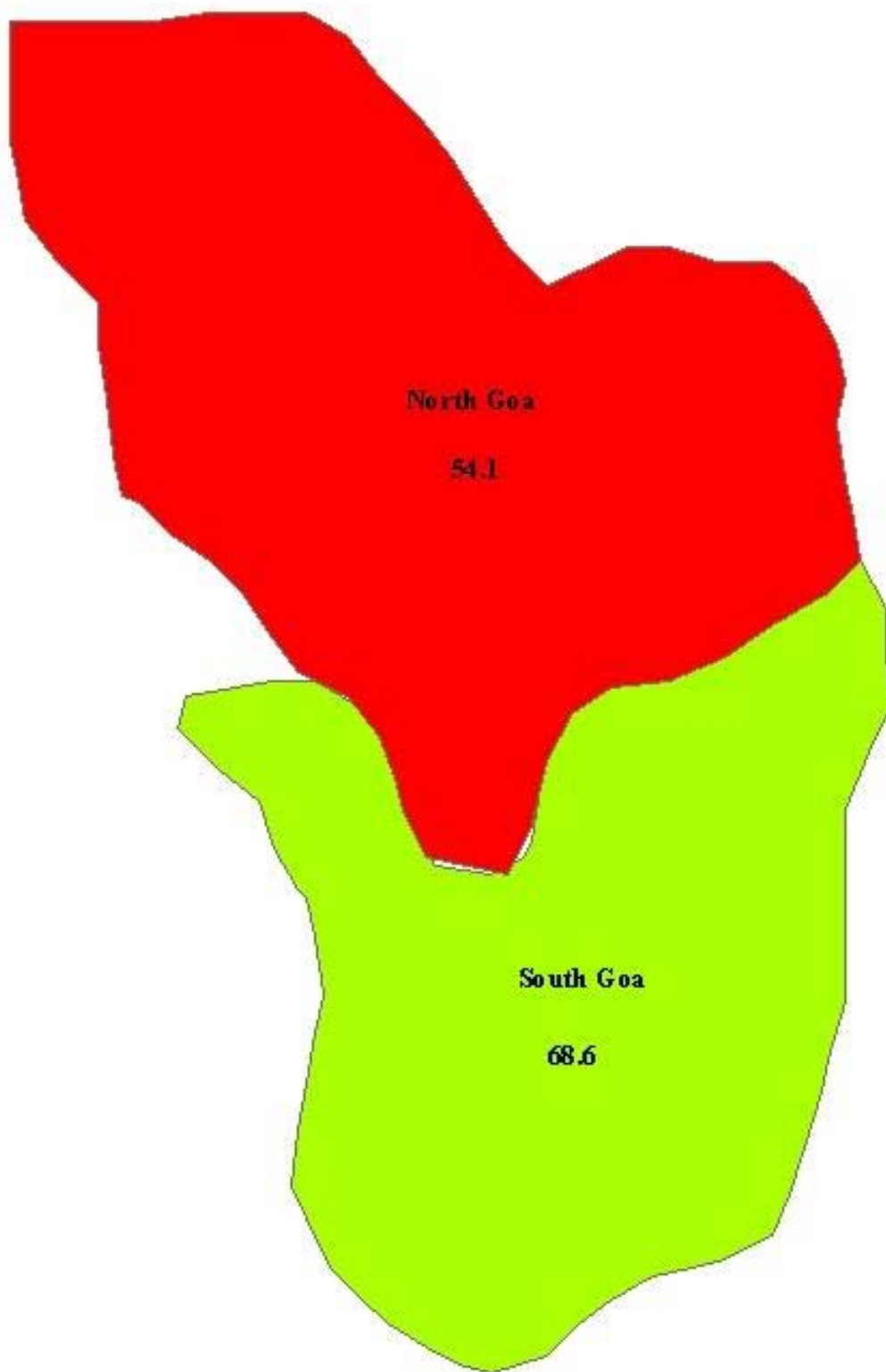
Table 2.15: AVAILABILITY OF FACILITY AND SERVICES BY DISTRICT							
Selected facility and services of rural household population within village by district, Goa, 2002-04							
Districts	Percentage of rural household population with:						
	Primary or middle school	Sub-centre	PHCs	Any government health facility ¹	Doctor ²	TBA ³	<i>Anganwadi</i> worker
North Goa	100.0	84.8	31.4	87.8	82.2	6.3	86.2
South Goa	95.6	87.4	50.2	87.4	85.8	8.6	95.6
Goa	98.3	85.8	38.8	87.7	83.6	7.2	89.9

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

Map-1
Percent Girl 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 section of the population, particularly, women and children. The utilization of RCH services provided across the country depends to a large extent on the characteristics of women, their husbands and episodes of pregnancies, miscarriages, abortions, number of children born to them and survival status of children. Age of women, marital duration, educational attainment, social background and living standard are important factors, which influence reproductive and child health. With this in view, the DLHS-RCH data were collected on demographic characteristics, such as current age, age at consummation of marriage and number of pregnancies, live births and surviving children from eligible women respondents of selected representative households. Information regarding household background characteristics was collected using a separate household questionnaire that covered religion and caste of head of household, type of house, source of drinking water and possession of consumer durables. Fertility preference of women in terms of timing and desire for additional children in comparison to the number of living children provides information on the need for reproductive and child health services.

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

3.1 Background Characteristics of Women

The percent distribution of currently married women in the reproductive age group 15-44 years by residence, religion and caste of head of household, economic standard of household and other demographic characteristics are shown in Table 3.1. A sample of 1,281 eligible women represents the state of Goa in DLHS-RCH and a little more than half of these women are drawn from urban 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 shows that majority of the women (85 percent) in Goa cohabited after 18 years of age and 15 percent of the women cohabited below age 18 years. The percentage of women who cohabited before the age 18 years is higher in urban areas (19 percent) than in rural areas (11 percent). Looking at the distribution of marital duration it is noted that about 28 percent of the women across the state are married for more than 15 years.

Among the sample 1,281 representative women in Goa, Hindus, Christians and Muslims constitute 67, 22 and 11 percent respectively. More, Hindu women are found in rural areas (74 percent) than in urban areas (59 percent). The presence of women belonging to other religious groups is insignificant in proportional and absolute terms. Majority of the sample women (60 percent) belong to other caste groups and 30 percent of the women belong to other backward class. The proportion of scheduled caste (3 percent) and scheduled tribes (2 percent) women are relatively less. In rural areas, there are more women belonging to other backward classes than in urban areas, while more women from other castes are found in urban areas.

Table 3.1: BACKGROUND CHARACTERISTICS OF ELIGIBLE WOMEN

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

Background characteristic	Total	Residence	
		Rural	Urban
Age group			
15-19	1.5	0.5	2.5
20-24	11.9	9.2	14.5
25-29	23.0	24.1	21.8
30-34	25.3	25.5	25.0
35-39	21.9	23.3	20.5
40-44	16.5	17.4	15.7
Age at consummation of marriage			
Below 18 years	15.2	10.9	19.4
18 years & above	84.8	89.1	80.6
Marital duration			
0-4	23.7	22.7	24.7
5-9	23.7	22.0	25.3
10-14	24.5	25.6	23.4
15+	28.1	29.7	26.6
Religion			
Hindu	66.5	74.1	59.2
Muslim	10.9	2.2	19.4
Christian	22.1	23.3	20.9
Sikh	0.3	0.4	0.2
Buddhist	0.1	0.0	0.1
Jain	0.1	0.1	0.1
Caste/tribe			
Scheduled caste	2.8	1.2	4.4
Scheduled tribe	1.9	2.4	1.4
Other backward class	30.1	38.1	22.2
Other #	59.5	53.6	65.2
Don't know	5.7	4.7	6.7
Education (Years of schooling)			
Non-literate	19.6	18.2	21.0
0-9 years@	35.4	39.5	31.5
10 years & above	44.9	42.3	47.5
Husband's education (Years of schooling)			
Non-literate	14.1	13.8	14.4
0-9 years@	34.1	39.5	28.9
10 years & above	51.2	46.4	55.8
Don't know	0.6	0.3	0.9
Standard of living index			
Low	10.0	13.2	7.0
Medium	32.5	36.2	28.8
High	57.5	50.6	64.2
Number of women	1,281	632	649

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

For the state of Goa, around 20 percent of the women are non literate, 35 percent of have completed 0-9 years of schooling and 45 percent of the women have completed more than 10 years of schooling. Men are slightly more literate than their spouses. In Goa, 14 percent of the husbands of eligible women are non-literate. No significant rural urban differentials are observed in terms of educational attainment. The DLHS-RCH, includes data on materials used for floor, walls and roofs of the housing structure along with status of possession of a list of durables and these are utilized to construct a composite index of household standard of living.

Households are further classified as those with low, medium and high standard of living. Ten percent of women in the state live in low standard of living households and this is 13 percent in rural areas and 7 percent in urban areas. Majority of women across the state live in households categorised as high standard of living. In urban areas, 64 percent of women belong to high standard of living households and the corresponding figure is 51 percent in rural areas.

3.2 Educational Level of Women

Table 3.2 provides details of educational level of eligible women in terms of classification by years of schooling, and selected background characteristics, such as, place of residence, religion, and caste and husbands' education. As regards distribution of non-literate women, it is observed that a higher proportion of younger women below 25 years of age and older women above 40 years of age are non-literate compared to women in the age group 25-40 years. Distinct age wise variation was not observed with regard to years of schooling. For the women less than 25 years of age 6 percent and 26 percent of them had 1-5 years and 6-8 years of schooling, while 22 percent had 11 or more years of schooling. Among the senior women in the age group 40-44 years, distribution by year of schooling shows that 21 percent, 10 percent, 28 percent and 15 percent of them having attended school for 1-5, 6-8, 9-10 and 11 or more years of schooling. There is no significant rural-urban differential in the level of education of women in Goa.

More Muslim women (36 percent) are non-literate compared to Hindu women (20 percent), Christian women (12 percent). For literate eligible women from all religious communities, maximum of them have either 9-10 or 11 or more years of schooling. The proportion of Hindu women with 1-5 years of schooling is 14 percent and the same is 10 percent for Muslim women, and 8 percent for Christian women. Among the literate Muslim women hardly 9 percent of them have 11 or more years of schooling, while 30 percent of literate Christian women have attained this level of education.

The uneven level of educational attainment by caste can be noted from the recorded proportion of non-literate women among scheduled caste (60 percent), other backward class (19 percent) and other caste (17 percent). The husband's education is an important characteristic, which has strong association with the education of eligible women. As many as 70 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.

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, Goa, 2002-04

Background characteristic	Non-literate	Literate but no schooling	Years of schooling				Total percent	Number of women
			1-5 years	6-8 years	9-10 years	11 or more years		
Age group								
Below 25	23.2	0.5	5.6	26.0	22.7	22.0	100.0	171
25-30	18.8	0.0	6.9	16.9	29.6	27.8	100.0	294
30-34	17.8	0.0	12.7	14.5	32.0	23.0	100.0	324
35-39	16.2	0.0	16.7	15.7	35.3	16.1	100.0	280
40-44	25.2	0.4	20.8	10.1	28.3	15.2	100.0	212
Place of residence								
Rural	18.2	0.0	16.2	16.3	30.7	18.7	100.0	632
Urban	21.0	0.3	9.2	16.0	29.9	23.6	100.0	649
Religion								
Hindu	19.7	0.2	14.4	17.9	27.6	20.2	100.0	853
Muslim	35.5	0.0	9.7	16.8	28.5	9.4	100.0	140
Christian	12.0	0.0	8.2	10.6	39.3	30.0	100.0	283
Caste/tribe #								
Scheduled caste	(60.0)	(2.9)	(5.7)	(11.4)	(14.3)	(5.7)	100.0	36
Other backward class	19.0	0.0	14.7	20.3	26.7	19.3	100.0	385
Other	16.6	0.0	12.1	14.2	33.0	24.2	100.0	762
Husband's education								
Non-literate	69.7	0.0	11.6	10.3	6.1	2.3	100.0	180
1-5 years	31.0	0.0	28.0	18.4	20.9	1.6	100.0	183
6-8 years	19.2	0.0	27.9	26.7	20.7	5.6	100.0	172
9-10 years	6.6	0.4	7.2	17.4	50.9	17.4	100.0	422
11 or more years	2.1	0.0	3.1	9.7	27.3	57.8	100.0	313
Total	19.6	0.1	12.6	16.1	30.3	21.2	100.0	1,281

Note: Table includes 8 do not know cases on husband's education who were not shown separately. # Total number may not add up to N due to don't know and missing cases. Total includes 6, 24 and 2 cases for other religion, scheduled tribe and husband literate but no schooling were not shown separately. () Based on less than 50 unweighted cases.

3.3 Background Characteristics of Husbands of Eligible Women

In DLHS-RCH husbands of eligible women were also interviewed. The response rate for husbands is relatively low compared to that of eligible women. Selected background characteristics of husbands are shown in Table 3.3. Across the state of Goa, husbands are mostly in the age group 35-44 years. Fewer husbands are 25 years or younger. In Goa, 68 percent of the husbands are Hindus, 21 percent are Christians, 11 percent are Muslims and presence of other religious groups is insignificant. Majority of the husbands (58 percent) belong to other caste groups and 32 percent of the husbands belong to other backward class. The proportion of scheduled caste (3 percent) and scheduled tribes (2 percent) husbands are relatively less. In urban areas husbands from other castes constitute 66 percent, while it is 50 percent rural areas. As regards educational characteristics of the husbands of surveyed eligible women, 18 percent of the husbands are non-literate, 58 percent of them have completed 0-9 years of schooling and 24 percent completed 11 years and above. The rural urban differentials in educational attainment of husbands are negligible.

Table 3.3: BACKGROUND CHARACTERISTICS OF MEN			
Percent distribution of husbands of eligible women by selected background characteristics, according to residence, Goa, 2002-04			
Background characteristic	Total	Residence	
		Rural	Urban
Age group			
< 25	1.9	1.3	2.5
25-34	27.0	25.5	28.6
35-44	48.4	48.9	47.8
45 +	22.7	24.3	21.1
Religion			
Hindu	67.8	76.2	59.1
Muslim	10.6	2.4	19.0
Christian	21.2	21.3	21.1
Sikh	0.2	0.0	0.4
Buddhist	0.2	0.0	0.3
Jain	0.1	0.1	0.0
Caste/tribe			
Scheduled caste	3.0	2.3	3.7
Scheduled tribe	2.1	2.4	1.9
Other backward class	32.0	41.2	22.6
Other #	58.2	50.1	66.4
Don't know	4.7	4.1	5.4
Education (Years of schooling)			
Non-literate	18.1	18.4	17.8
0-9 years @	57.6	56.9	58.3
10 years & above	24.3	24.7	23.9
Standard of living index			
Low	12.2	15.4	9.0
Medium	30.4	35.2	25.5
High	57.4	49.4	65.5
Number of living children			
0	14.4	15.6	13.3
1	23.1	19.2	27.1
2	34.9	34.1	35.7
3	18.5	22.1	14.8
4+	9.1	9.0	9.2
Number of Men	747	378	369

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

The proportion of husbands living in households classified as low, medium and high standard of living index are 12 percent, 30 percent and 57 percent respectively. In urban areas, 9 percent of the husbands live in low standard of living households compared to 15 percent in rural areas. This is complementary in the case of husbands living in high standard of living households, 66 percent in urban and 49 percent in rural. Around 35 percent of husbands across the state reported to have two living children. More husbands in urban areas (27 percent) reported to have one living child, while more husbands in rural areas (22 percent) have three living children. Around 9 percent each of the husbands of rural and urban eligible women have more than four living children.

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 shows that there more non literate husbands in the older ages (23 percent) than younger ages (13 percent). Among the literate husbands, irrespective of their age at the time of survey most of them have 1-5 years of schooling, 45 percent of those in 25-34 years of age and 44 percent of those above 45 years of age. Proportion of husbands with 11 or more years of schooling was highest in 25-34 age group (14 percent) followed by husbands of age 45 and above (11 percent). As in the case of eligible women, 38 percent of Muslim husbands are non-literate while the corresponding non-literate husbands of Hindu and Christian are 16 percent and 15 percent respectively. The proportions of husbands of Hindu, Muslim and Christian who have 11 or more years of schooling constitute 13 percent, 6 percent and 8 percent respectively. Most of the literate Christian husbands (58 percent) have completed 1-5 years of schooling and the corresponding numbers are 41 percent and 40 percent respectively for Hindu and Muslim husbands. Educational attainment of husbands of eligible women varies according to the caste they belong. There are more non-literate husbands belonging to other caste groups (18 percent) followed by other backward caste husbands (15 percent).. Among the husbands belonging to other backward classes, 17 percent of them have 11 or more years of schooling where as this figure is 9 percent for husbands of other caste groups.

Table 3.4: LEVEL OF EDUCATION OF MEN							
Percent distribution of husbands of eligible women by years of schooling, according to selected background characteristics, Goa, 2002-04							
Background characteristics	Non-literate	Years of schooling				Total percent	Number of men
		1-5 years	6-8 years	9-10 years	11 or more years		
Age group							
25-34	13.1	44.6	10.4	17.5	14.3	100.0	202
35-44	17.7	45.7	8.7	18.4	9.4	100.0	361
45+	23.3	44.4	8.6	13.0	10.6	100.0	170
Place of residence							
Rural	18.4	41.7	11.9	18.7	9.3	100.0	378
Urban	17.8	48.0	7.1	14.4	12.6	100.0	369
Religion							
Hindu	16.1	41.1	11.3	18.8	12.8	100.0	506
Muslim	37.8	39.9	7.8	8.8	5.8	100.0	79
Christian	15.1	58.2	5.0	13.7	8.0	100.0	159
Caste/tribe #							
Other backward class	15.0	25.1	17.1	26.1	16.7	100.0	239
Other	18.4	55.0	5.6	12.0	9.0	100.0	434
Total	18.1	44.8	9.5	16.6	11.0	100.0	747
Note: # Total number may not add upto N due to don't know and missing cases.							
Total includes 14, 3, 22 and 16 cases for <25 age group, other religion, scheduled caste and scheduled tribe were not shown separately.							

3.5 Children Ever Born and Surviving

In DLHS-RCH, currently married women in the age group of 15-44 years were asked about the children ever born alive and the number of children surviving. Table 3.5 shows mean children ever born and mean surviving children by selected background characteristics and sex of children. A look at the mean children ever born by age of the women reveals that older women had experience more average live births than younger women. Completed fertility, that is, mean children ever born to women in the age group 40-44 years is 2.7 for the state of Goa and it comprises an average of 1.3 male children and 1.4 female children. Out of the 2.7 mean children ever born to women in the 40-44 year age group an average of 2.6 children survived. By sex of children, out of 1.3 mean numbers of males, all of them survived on the average and the corresponding mean number of females surviving was 1.3 out of 1.4.

Women with longer marital duration have higher mean children ever born. On the average, women who are married for 15 or more years have 3 children ever born and on the average 2.8 of them are surviving. There is no substantial rural-urban differentials in terms of mean children ever born with 1.9 children in rural areas and 2.0 children in urban areas. The mean children ever born to women who are Hindu, Muslim and Christian are 2, 2.2 and 1.8 respectively. The corresponding mean surviving children are respectively 1.9, 2.2 and 1.8. The average children ever born also vary by caste/tribe of the eligible women. For women belonging to scheduled caste, the mean children ever born are 2.5, other backward classes are 2 and other castes are 1.9. The mean number of surviving children for scheduled caste, other backward caste and other caste groups are 2.3, 1.9 and 1.8 respectively.

The mean children ever born is higher for non-literate women (2.8) than women who have completed 0-9 years of schooling (2.1) and 10 or more years of schooling (1.5). The mean number of surviving children for women corresponding to these educational levels is 2.6, 2.0 and 1.5 respectively. Further the mean children ever born for women classified into low, medium and high standard of living by SLI are 2.4, 2.1 and 1.8 respectively. For the state of Goa, the DLHS-RCH shows inverse association between mean children ever born and educational attainment of women and also the level of household economic comfort.

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, Goa, 2002-04

Background characteristic	Mean children ever born			Mean children surviving			Number of women
	Total	Male	Female	Total	Male	Female	
Age group (years)							
Below 25	1.0	0.5	0.5	0.9	0.5	0.5	171
25-30	1.5	0.8	0.8	1.5	0.7	0.8	294
30-34	2.0	1.1	1.0	1.9	1.0	0.9	324
35-39	2.4	1.2	1.2	2.3	1.2	1.1	280
40-44	2.7	1.3	1.4	2.6	1.3	1.3	212
Marital duration							
0-4	0.7	0.4	0.3	0.7	0.4	0.3	304
5-9	1.7	0.9	0.8	1.6	0.8	0.8	303
10-14	2.2	1.2	1.1	2.2	1.1	1.0	314
15+	3.0	1.5	1.5	2.8	1.4	1.4	360
Residence							
Rural	1.9	1.0	1.0	1.9	0.9	0.9	632
Urban	2.0	1.0	1.0	1.9	1.0	0.9	649
Religion							
Hindu	2.0	1.0	1.0	1.9	0.9	0.9	853
Muslim	2.2	1.1	1.1	2.2	1.1	1.1	140
Christian	1.8	1.0	0.8	1.8	1.0	0.8	283
Caste/tribe #							
Scheduled caste	(2.5)	(1.2)	(1.3)	(2.3)	(1.1)	(1.2)	36
Other backward class	2.0	1.0	1.0	1.9	0.9	1.0	385
Other	1.9	1.0	0.9	1.8	1.0	0.9	762
Education							
Non-literate	2.8	1.4	1.4	2.6	1.3	1.3	251
0-9 years@	2.1	1.0	1.0	2.0	1.0	1.0	454
10 years & above	1.5	0.8	0.7	1.5	0.8	0.7	576
Standard of living index							
Low	2.4	1.2	1.2	2.1	1.1	1.1	129
Medium	2.1	1.0	1.1	2.1	1.0	1.0	416
High	1.8	0.9	0.8	1.7	0.9	0.8	737
All women	2.0	1.0	1.0	1.9	1.0	0.9	1,281

Note: Table includes 6 and 24 cases for other religion and scheduled tribe were not shown separately. # Total number may not add up to N due to don't know and missing cases. @ Literate women with no year of schooling are included. () Based on less than 50 unweighted cases.

3.6 Completed Fertility by District

The level of completed fertility as measured by mean children, ever born to women of 40-44 years by districts in Goa together with mean number of surviving children are shown in Table 3.6. On the average, women on the verge of completing reproductive period have given birth to 2 children in their reproductive life of which 1.9 children are surviving on the average. Completed fertility in North Goa is 2.8 where as for South Goa it is 2.6. The mean number of surviving children for North Goa is 2.7 and for south Goa it is 2.6.

Table 3.6: COMPLETED FERTILITY BY DISTRICT

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

District	Mean children ever born			Mean children surviving		
	Total	Male	Female	Total	Male	Female
North Goa	2.8	1.4	1.4	2.7	1.3	1.4
South Goa	2.6	1.3	1.4	2.6	1.3	1.3
Goa	2.0	1.0	1.0	1.9	1.0	0.9

3.7 Birth Order

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

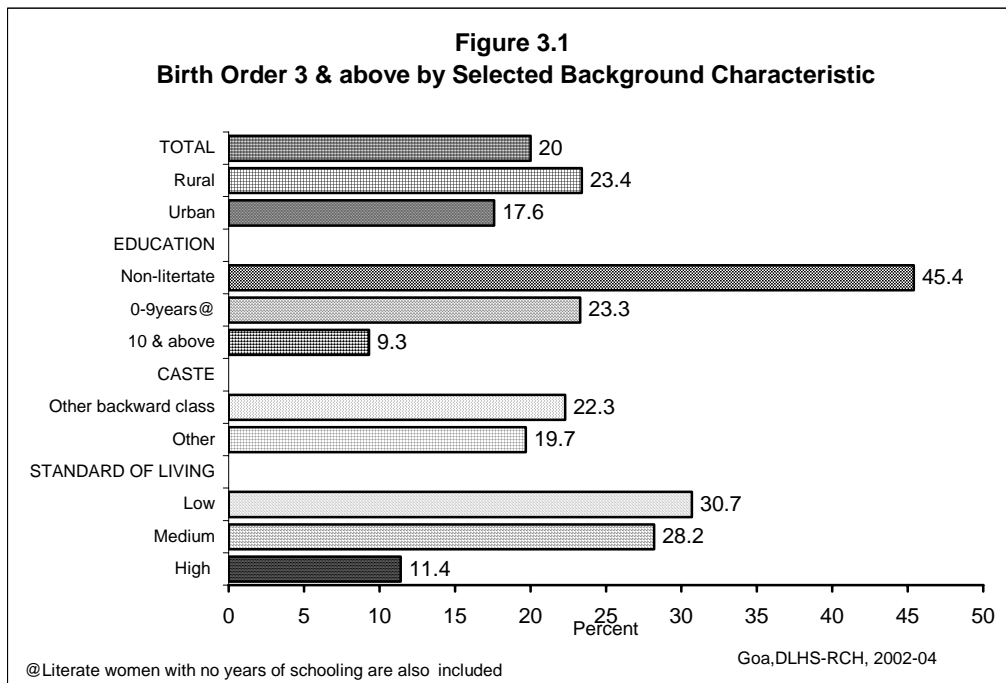
Table 3.7: BIRTH ORDER

Percent distribution of births during three years preceding the survey by birth order by selected background characteristics, Goa, 2002-04

Background characteristic	Birth order				Total percent	Number of births
	1	2	3	4+		
Age of women						
Below 25	65.2	25.6	9.2	0.0	100.0	118
25-29	46.4	29.8	14.7	9.1	100.0	143
30 and Above	25.6	48.6	18.2	7.6	100.0	129
Place of residence						
Rural	38.3	38.3	18.8	4.6	100.0	161
Urban	50.2	32.2	10.9	6.7	100.0	229
Education (Years of schooling)						
Non-literate	26.9	27.7	27.9	17.5	100.0	65
0-9 years@	40.0	36.6	16.8	6.5	100.0	131
10 years & above	54.9	35.8	7.8	1.5	100.0	194
Religion						
Hindu	42.3	36.6	15.3	5.8	100.0	236
Muslim	45.5	31.0	16.3	7.2	100.0	69
Christian	52.5	33.7	8.8	5.0	100.0	83
Caste/tribe #						
Other backward class	39.0	38.7	17.4	4.9	100.0	117
Other	48.5	31.7	12.9	6.8	100.0	232
Standard of living index						
Low	(35.9)	(33.3)	(17.9)	(12.8)	100.0	40
Medium	37.7	34.1	20.8	7.4	100.0	155
High	53.2	35.3	7.9	3.5	100.0	196
Total	45.3	34.7	14.2	5.8	100.0	390

Note: Total includes 3, 11 and 5 cases for other religion, scheduled caste and scheduled tribe were not shown separately.
 @ Literate women with no year of schooling are included.# Total number of births may not add upto N due to don't know and missing cases. () Based on less than 50 unweighted cases.

For the state of Goa, 45 percent of the births born in the three years period preceding the survey were of first order, 35 percent of second order and the remaining 20 percent were of order 3 and higher order births. By current age of eligible women, 65 percent of births to women below 25 years of age are first order births and this proportion is only 26 percent for women above 30 years of age. Nine percent of births to women in the age group 25-29 years and 8 percent of births to women in the age group 30 years and above are 4 and higher order births. In the case of eligible women in urban areas 18 percent of the births are of 3 and higher whereas this order births constitute 23 percent for rural women indicating that higher order births are more concentrated in rural areas. Of the total births born to non-literate women, 45 percent are 3 and higher order births, followed by 23 percent for women with 0-9 years of schooling and 9 percent for women who had 10 or more years of schooling. In short, births born to non-literate women are of higher order whereas much lower order births occurred to women who completed 10 or more years of schooling. Looking at the religion differential in birth order distribution, it is observed that Christians had much lesser proportion of higher order births (13.8 percent) compared to Hindus (21.1 percent) and Muslims (23.5 percent). The occurrence of births of order 3 and above is slightly more among other backward classes (22 percent) than other castes (20 percent) women. Incidence of births of order 3 and above for women classified by household standard of living index are 11 percent for high, 28 percent for medium and 31 percent for low living standard households women.



3.8 Birth Order by Districts

Table 3.8 and Figure 3.2 shows the births order distribution by districts in Goa. The proportion of births of order 3 and above ranges from 17 percent in South Goa to 22 percent in North Goa.

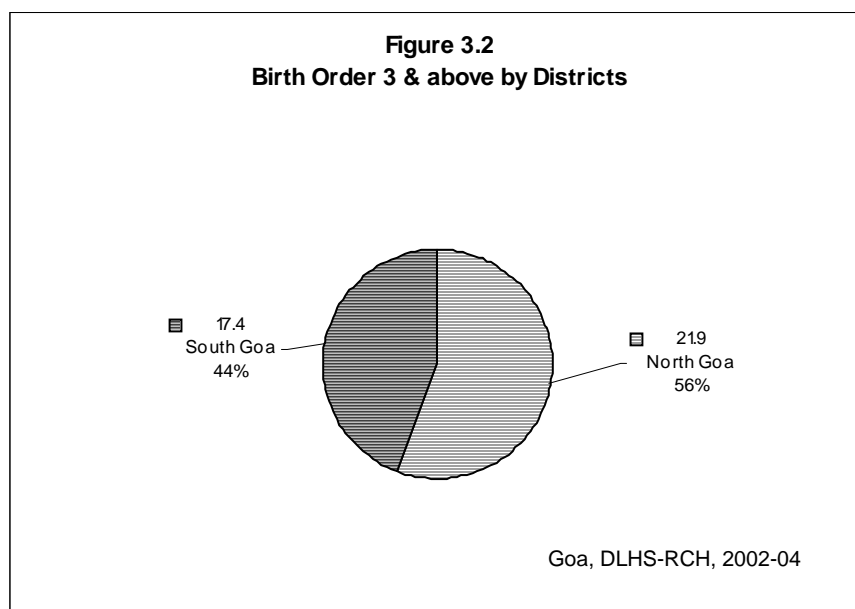


Table 3.8: BIRTH ORDER BY DISTRICT				
Percent distribution of births during three years preceding the survey by birth order, according to district, Goa, 2002-04				
District	Birth order			
	1	2	3	4+
North Goa	42.5	35.6	15.2	6.7
South Goa	50.0	32.6	12.9	4.5
Goa	45.3	34.7	14.2	5.8

3.9 Fertility Preferences

The distribution of currently married women desiring additional children and preferred sex of additional children by number of living children of the women is shown vividly in Table 3.9 and Figure 3.3. Out of the 171 women with no living child, 28 percent are currently pregnant and 5 percent are using spacing methods, while 54 percent want to have children within two years, 6 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 21 percent of the women having one living

child are using spacing methods, 22 percent of them want additional children within two years, 6 percent after two years, 13 percent are undecided about the timing of the next child, 18 percent of them want no more additional children and around one 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 Goa, out of the 376 surveyed representative women, 16 percent desired to have additional children within two years, 2 percent after two years, 29 percent want no more children, 7 percent are currently pregnant and 33 percent are using either terminal or temporary contraceptive methods. Out of 171 women who have no living children and desire for additional children, 17 percent want a boy as the first child, 2 percent desired for girl, for 67 percent, the sex of the child is immaterial and 15 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.

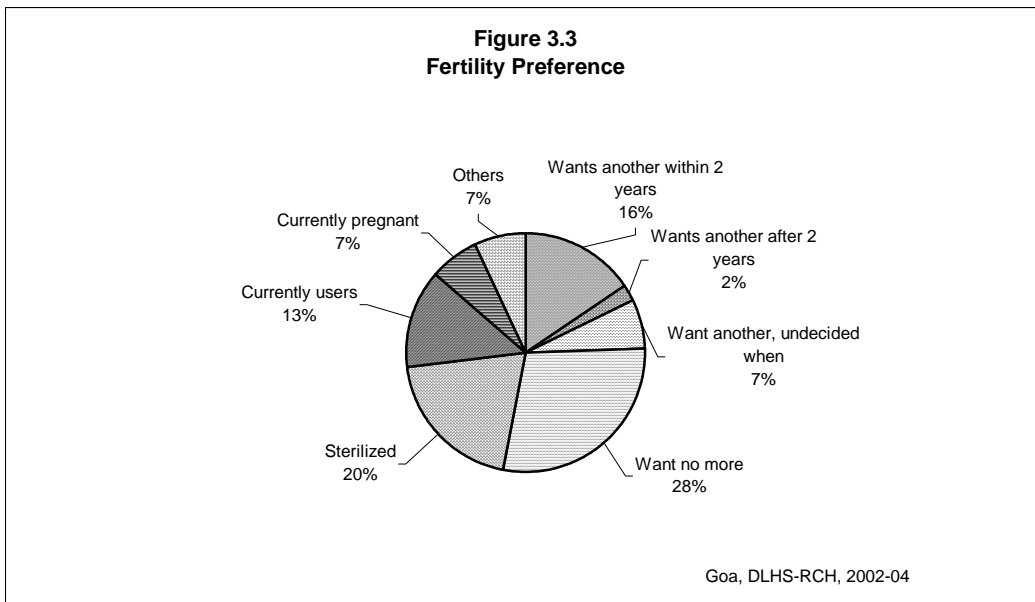


Table 3.9: FERTILITY PREFERENCE						
Percent distribution of currently married women by desire for children, according to number of living children, Goa , 2002-04						
Desire for children	Number of living children					Total
	0	1	2	3	4+	
Desire for additional child						
Wants another soon ¹	53.7	21.9	7.2	3.3	1.9	15.5
Wants another later ²	0.0	5.7	1.3	0.8	2.1	2.2
Want another, undecided when	6.2	13.3	5.6	2.8	2.7	6.7
Undecided	0.9	7.5	3.4	1.3	2.5	3.5
Up to God	3.2	1.5	1.5	0.0	1.8	1.5
Want no more	1.7	18.0	41.4	36.8	30.7	28.5
Sterilized	0.0	0.9	20.1	44.1	42.9	20.0
Currently users ³	4.9	21.0	14.2	9.0	11.8	13.3
Currently pregnant	27.7	8.1	2.5	1.6	0.0	6.7
Declared infecund	1.2	1.9	2.8	0.3	3.6	2.0
Missing	0.5	0.1	0.0	0.0	0.0	0.1
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	171	301	425	232	152	1281
Preferred sex of additional children						
Boy	16.6	24.3	47.2	*	*	29.5
Girl	2.0	17.3	18.1	*	*	12.2
Doesn't matter	66.7	50.7	24.5	*	*	47.8
Upto God	14.7	7.6	10.2	*	*	10.5
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	109	150	81	19	17	376
Note: ¹ Wants next births within 2 years. ² Wants to delay next birth for 2 or more years. ³ Other than sterilization.						
Total includes 3 missing information on preferred sex of the child were not shown separately.						
* Percentage not shown: Based on few cases.						

3.10 Pregnancy Outcomes

Table 3.10 shows distribution of pregnancy outcomes including live birth, stillbirth, induced abortion and spontaneous abortion by districts in Goa. For the state as a whole, 95 percent of pregnancy ends in live births, 3 percent in induced abortions, 1 percent in spontaneous abortion and another 1 percent in stillbirth. Outcome of pregnancy did not vary much with respect to the residential status. The proportion of pregnancies ending in live births ranges from 93 percent in North Goa to 98 percent in South Goa. The incidence of stillbirth, induced abortion and spontaneous abortion is higher in North Goa than South Goa.

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, Goa , 2002-04

Districts	Live birth	Stillbirth	Induced abortion	Spontaneous abortion	Total percent
State-Rural	94.1	1.9	2.9	1.1	100.0
State-Urban	95.0	0.3	3.2	1.5	100.0
State-Total	94.6	1.0	3.1	1.3	100.0
North Goa	92.5	1.2	4.3	2.0	100.0
South Goa	97.8	0.6	1.3	0.3	100.0

CHAPTER IV

MATERNAL HEALTH CARE

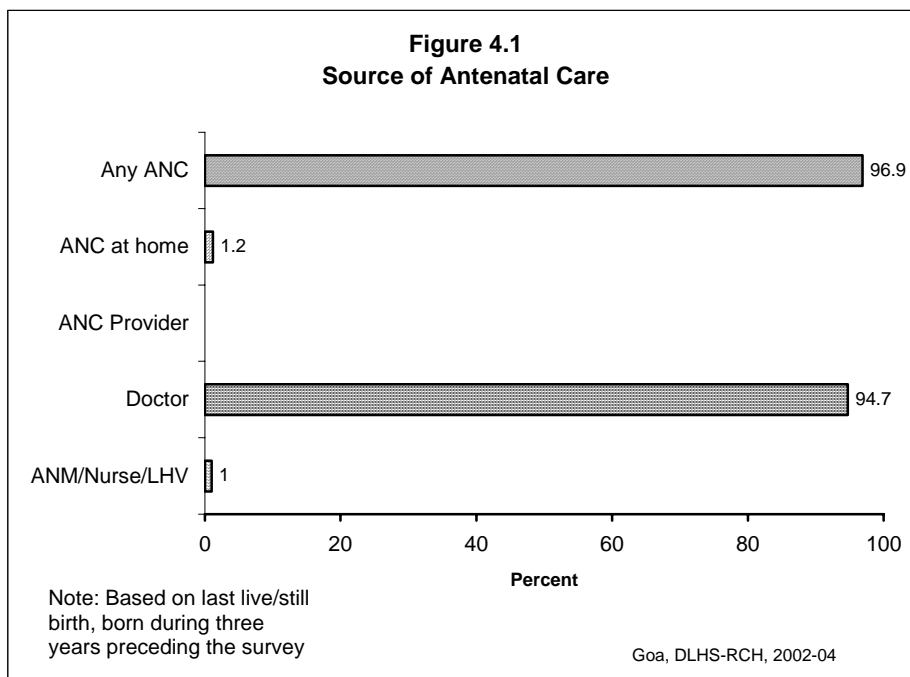
Provisions of maternal health care services to ensure safe motherhood is one of the major components of the Reproductive and Child Health (RCH) programme. The RCH programme services for antenatal care, includes at least three antenatal care visits, iron prophylaxis for pregnant and lactating women, at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

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

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

4.1 Antenatal Check-Ups

Women who had given a birth during the three years preceding the survey were asked whether they had gone for antenatal check-ups outside the home, and if they had, what type of service provider had given them the check-ups. They were also asked whether any health worker had visited them at home to provide antenatal check-ups. Table 4.1 and Figure 4.1 present the percentage of women who had given birth during the three years preceding the survey, and information regarding the antenatal check-ups they had by source of antenatal check-ups according to some selected background characteristics. Results show that nine out of every ten women received antenatal check-ups during the three years preceding the survey, slightly more than RCH Round I (84 percent). Ninety-five percent of women received antenatal check-ups from doctors, one percent from ANM/Nurse/LHV and a little more than 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 30 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 slightly higher in urban areas (97 percent) than in rural areas (96 percent), but the percentage of women who received antenatal check-ups from doctors is slightly lower in urban areas (94 percent) than in rural areas (95 percent), and on the other hand only two percent of rural women received antenatal check-ups from auxiliary nurse midwife, nurse or LHVs. Eighty-seven percent of non-literate women received antenatal check-ups, nearly all women (99 percent) who had completed high school received antenatal check-ups for their last pregnancy that terminated into births (either live or still birth) during the three years preceding the survey.

Table 4.1: ANTENATAL CHECK-UP					
Percentage of women* who received any antenatal check-up (ANC) during pregnancy by source of antenatal provider, according to selected background characteristics, Goa , 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	
Age group					
Less than 30 years	97.6	1.6	94.4	1.6	266
30 years & above	95.9	0.6	95.3	0.0	169
Children ever born					
1	100.0	0.0	98.9	1.1	177
2	96.4	0.4	96.0	0.0	154
3+	93.1	4.5	86.1	2.4	101
Residence					
Rural	96.3	0.9	95.4	0.0	191
Urban	97.4	1.4	94.2	1.8	243
Education					
Non-literate	87.2	5.7	78.1	3.3	73
0-9 years@	98.5	0.7	97.1	0.8	142
10 years & above	99.1	0.0	98.7	0.4	221
Religion					
Hindu	96.4	1.3	94.3	0.7	277
Muslim	98.1	2.4	91.9	3.8	60
Christian	98.2	0.0	98.2	0.0	95
Caste/tribe#					
Other backward class	94.3	0.8	93.5	0.0	124
Other	98.8	1.2	96.0	1.6	263
Standard of living index					
Low	(82.9)	(7.3)	(70.7)	(4.9)	41
Medium	97.0	0.7	95.6	0.7	158
High	99.1	0.4	98.4	0.3	236
Total	96.9	1.2	94.7	1.0	435
Note: * Women who had their last live/still birth since 1-1-1999/1-1-2001. Total includes 4 women with zero parity, 3 other religion, 12 scheduled caste and 6 scheduled tribe cases 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 includes trained and untrained <i>dai</i> . # 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. (): Based on less than 50 unweighted cases.					

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. Seventy-eight percent non-literate women as compared to 99 percent having education of more than 10 years received ANC from doctors. Similarly, 71 percent women belonging to households with a low standard of living against 98 percent of that from a high standard of living fall in this category. The proportion of Christian women who received antenatal check-ups from doctors (98 percent) was much higher than that of Hindu women (94 percent), and Muslim women (92 percent). About 96 percent of women from the 'other castes' category received antenatal check-ups from doctors, as compared to 94 percent for other backward classes. Only two percent of women from the 'other' castes category received antenatal check-ups from ANMs.

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, Goa, 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	SC	ISM ⁴ facility			
					Govt.	Private	Other	
Age group								
Less than 30 years	1.6	30.4	41.4	0.2	1.0	10.6	0.0	266
30 years & above	0.6	20.5	44.6	0.0	1.1	14.3	1.7	169
Children ever born								
1	0.0	23.6	54.3	0.0	0.9	13.5	0.0	177
2	0.4	24.5	46.5	0.4	1.8	9.1	1.9	154
3+	4.5	35.7	17.9	0.0	0.0	14.4	0.0	101
Residence								
Rural	0.9	26.1	37.3	0.3	2.4	14.6	1.5	191
Urban	1.4	26.9	46.9	0.0	0.0	10.1	0.0	243
Education								
Non-literate	5.7	44.6	22.4	0.0	0.0	5.8	0.0	73
0-9 @ years	0.7	34.1	28.1	0.0	0.0	13.3	0.0	142
10 years & above	0.0	15.7	58.7	0.3	2.0	13.0	1.3	221
Religion								
Hindu	1.3	27.0	35.3	0.2	1.6	13.3	1.1	277
Muslim	2.4	41.7	37.9	0.0	0.0	6.0	0.0	60
Christian	0.0	15.2	67.3	0.0	0.0	12.5	0.0	95
Caste/tribe#								
Other backward class	0.8	25.2	27.8	0.0	2.9	18.2	0.0	124
Other	1.2	25.0	50.2	0.0	0.4	10.9	1.1	263
Standard of living index								
Low	(7.3)	(31.7)	(26.8)	(0.0)	(0.0)	(6.5)	(0.0)	41
Medium	0.7	43.0	24.0	0.4	0.4	10.1	0.0	158
High	0.4	15.0	58.5	0.0	1.6	13.7	1.2	236
Total	1.2	26.5	42.7	0.1	1.0	12.1	0.7	435
Note: * Women who had their last live/still birth since 1-1-1999/1-1-2001. Total includes 4 women with zero parity, 3 other religion cases, 12 scheduled caste and 6 scheduled tribe cases 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 () Based on less than 50 unweighted cases.								

Table 4.2 shows the percentage of women who had received antenatal check-ups during pregnancy by place. During pregnancy, women received antenatal check-ups from multiple sources such as, health workers providing ANC at home, Government health facility, private health facility, and at Indian System of medicine etc. Women who received antenatal

check-ups both at home and outside the home are categorised as having received care outside the home. Around 27 percent of women received antenatal check-ups at Government health facility, and 43 percent at a private health facility. Other than this, 1 percent of women reported that they had received antenatal check-ups at the Government Indian system of medicine, and 12 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.

Less than 30 years women were more likely to receive antenatal-check-ups at government health facilities (30 percent) than 30 years and above women (21 percent). There is hardly one percent difference between rural-urban areas availed government health facilities for antenatal check-ups, and a high proportion of women (47 percent) from urban areas availed private health facilities for antenatal check-ups than women from rural areas (37 percent). A comparatively high proportion of women who received antenatal check-ups at Government health facilities are non-literate, Muslim, living in households with a medium standard of living.

4.3 Antenatal Check-Ups by District

Table 4.3 indicates the antenatal coverage in Goa that ranges from the highest of 98 percent in South Goa to the slightly lowest of 96 percent in North Goa. All districts, more than 95 percent of women got some kind of antenatal check-ups for their last births during the three years preceding the survey. Antenatal check-ups received from doctor was slightly low in North Goa (94 percent) when compared to South Goa (96 percent). Similarly, More than one percent of women from North Goa and less than one percent of women from South Goa received antenatal check-ups by ANM/Nurse/LHV.

The extent of utilisation of government health facilities for antenatal check-ups was lower than that of private health facilities. The range of antenatal check-ups coverage through government facilities was highest in South Goa (32 percent) to the lowest of 24 percent in North Goa, and private facilities was highest in South Goa (59 percent) to the lowest of 32 percent in North Goa. In Goa, 17 percent pregnant women in North Goa and 5 percent of South Goa availed the Indian system of medicine (either government or private) for an antenatal check-up.

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, Goa, 2002-04

District	Any ¹ antenatal check-up	Antenatal check-up only at home by ANM	Health personnel providing ANC		Place of antenatal check-ups		
			Doctor	ANM/ Nurse	Govern- ment ² health facility	Private ³ health facility	ISM ⁴ facility
North Goa	96.3	1.4	93.7	1.3	23.5	31.6	16.9
South Goa	97.7	0.9	96.1	0.6	32.0	59.3	5.2
Goa	96.9	1.2	94.7	1.0	26.5	42.7	12.5

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 Components of Antenatal Check-ups

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

Ninety-six percent of women had their blood pressure checked, 95 percent of women had their both blood and urine tested, 94 percent women had an abdominal examination and 91 percent of women were weighted as the part of the antenatal check-ups. Other common components of antenatal check-ups were internal examination (76 percent), and breast examination (75 percent). About 59 percent of women had a sonogram or ultrasound, 25 percent had an X-ray and only eight percent of women reported that they had amniocentesis test. All of these measurements or producers were performed more often during antenatal check-ups in rural and urban 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 4.4. Advice on breastfeeding was given to 60 percent of rural women as compared to 58 percent of urban women and 59 percent in general. Fifty-three percent of the women received advice on newborn care. Women were less likely to receive advice on diet (44 percent), and on danger signs of pregnancy (29 percent). Advice on family planning was given to 28 percent of urban women and 25 percent of rural women.

Table 4.4: COMPONENTS OF ANTENATAL CHECK-UPS			
Percentage of women* who received an antenatal check-up by specific components of antenatal check-up, according to residence, Goa, 2002-04			
Components of antenatal check-ups	Total	Rural	Urban
Antenatal measurements/tests			
Weight measured	91.0	94.6	93.0
Height measured	31.8	29.3	30.4
Blood pressure checked	95.9	94.9	95.3
Blood tested	94.9	97.5	96.4
Urine tested	94.5	95.1	94.8
Abdomen examined	94.0	93.2	93.6
Internal examined	76.1	68.6	71.9
Breast examined	75.2	74.7	75.0
X-ray	25.2	19.3	21.9
Sonography /ultrasound	58.8	68.7	64.4
Amniocentesis	8.3	11.3	10.0
Antenatal advice			
Diet	44.4	41.0	42.5
Danger signs of pregnancy	29.1	30.3	29.8
Delivery care	49.8	40.3	44.5
Breast feeding	59.2	60.1	59.7
New born care	53.4	41.1	46.5
Family planning	32.3	24.5	27.9
Number of women who received any antenatal check-up	184	237	421
Note: * Women who had their last live/still birth since 1-1-1999/1-1-2001			

4.5 Antenatal Care Services

In India, the Reproductive and Child Health Programme includes all pregnant women should be registered in the first 12-16 weeks (Ministry of Health and Family Welfare, 1997). Accordingly the first antenatal check-ups should take place at latest during the first trimester of the pregnancy. It also includes the provision of at least three antenatal care visits, of at least one tetanus toxoid injection, and supplementary iron in the form of IFA tablets daily for 100 days. To assess whether the women had received all the care during pregnancy, information was collected regarding number of antenatal visits, timing of the first visit, received tetanus toxoid injection and supplement iron folic acid tablets. The results are presented in Table 4.5. In Goa, 97 percent of the women received at least three antenatal check-ups and 82 percent had four or more check-ups. At least three antenatal check-ups were received by 97 percent of women in urban areas compared with 96 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. 87 percent of non-literate and 99 percent each of literate women (educated below high school and 10 or more years of schooling) visited for minimum three antenatal care. Parity of women is negatively associated with antenatal check-ups. About 100 percent of women with parity one received three antenatal check-ups compared to 96 percent of women with parity two and 93 percent of women with parity 3 and above. Both Muslim and Christian women (98 percent each) were more likely to have at least three visits for antenatal check-ups than Hindu women (96 percent). Coverage is slightly lower for women from other backward class (94 percent) than to women of 'other caste category' (99 percent). Having three or more antenatal visits also increased with the standard of living-83 percent for women with a low standard of living, 97 percent for women with a medium standard of living and 99 percent for women with a high standard of living.

Table 4.5: ANTENATAL CARE									
Percent distribution of women who had live/still births during three years preceding the survey by number of antenatal check-ups, the stage of pregnancy at the time of first check-up, the number of tetanus toxoid injections received and were given iron folic acid (IFA) tablets/syrup during pregnancy, and percentage who received full antenatal check-ups by some selected background characteristics, Goa, 2002-04									
Antenatal care indicators	Total	Residence		Education			Children ever born		
		Rural	Urban	Non-literate	0-9 years@	10 years & above	1	2	3+
Number of ANC visits									
No visit	3.1	3.7	2.6	12.8	1.5	0.9	0.0	3.6	6.9
1-3	14.5	15.2	13.9	9.7	12.7	17.2	15.9	12.4	15.9
4+	82.4	81.1	83.4	77.4	85.8	81.8	84.1	84.0	77.1
Stage of pregnancy at the time of the first antenatal check-up									
No antenatal check-up	3.1	3.7	2.6	12.8	1.5	0.9	0.0	3.6	6.9
First trimester	77.8	79.6	76.4	51.6	73.7	89.1	92.3	78.7	53.9
Second trimester	17.9	16.0	19.3	32.8	23.8	9.1	7.7	16.3	35.8
Third trimester	1.2	0.8	1.6	2.7	1.0	0.9	0.0	1.3	3.4
Women who received TT									
No TT	8.0	6.1	9.5	19.7	6.8	4.9	6.4	7.6	10.7
1	12.1	14.7	10.0	16.1	14.3	9.4	11.3	10.7	16.0
2+	76.2	74.8	77.3	61.3	75.2	81.7	77.3	78.1	71.3
Do not remember/missing	3.7	4.4	3.2	2.9	3.7	3.9	4.9	3.5	1.9
Women who received IFA tablets/syrup									
No IFA/syrup	12.3	11.6	12.8	29.2	12.2	6.8	5.5	12.4	23.6
Received but not consumed	2.4	2.2	2.5	3.5	4.0	1.0	1.3	2.4	4.5
Consumed one IFA per day	48.8	52.9	45.5	30.6	51.8	52.8	58.2	47.1	36.7
Received 100+ IFA tablets/syrup	57.7	67.2	50.2	49.1	56.3	61.4	62.3	56.5	50.8
Percentage of women who received full ¹ antenatal check-ups	45.5	51.3	40.8	39.2	48.2	45.7	46.8	44.2	43.9
Number of women	435	191	243	73	142	221	177	154	101
<p>Note: Total included 4 women with zero parity who were not shown separately. @ Literate women with no years of schooling were 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.</p>									
Continued...									

Data on timing of first antenatal check-ups shows that about 78 percent of the women received their first antenatal check-up in the first trimester of pregnancy, and another 18 percent received their first check-up in the second trimester, and only one percent of women received their first check-up in the third trimester. A relatively higher proportion of women in the rural areas (80 percent) as compared to those in urban areas (76 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. Fifty-two percent of non-literate women had undergone their first antenatal check-up in the first trimester, and 89 percent of women who had completed at least 10 or more years of schooling received their first antenatal check-up in the first trimester. More than 92 percent of the women with parity-1, 79 percent of woman with parity- 2 were visited in first trimester and only 54 percent of women with parity- three 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 Christian and Hindu women, and about 82 percent of 'other' caste category women were visited in first trimester for first antenatal check-ups compared with 74 percent to other backward class women. Forty-six percent women with low standard of living, 70 percent with medium standard of living, and 90 percent of women with high standard of living respectively had undergone their first antenatal check-up in the first trimester of their pregnancy period

Nutritional deficiencies in women are often exacerbated during pregnancy because of the additional nutrient requirements of foetal growth; therefore a pregnant woman needs six times more iron than a non-pregnant woman. The information on receiving iron folic acid tablets/syrup during pregnancy is also collected. Table 4.5 shows that women in Goa received IFA supplements for about 51 percent of the last birth during three years preceding the survey. The coverage of IFA tablets is relatively higher in rural areas (55 percent) than in urban areas (48 percent). IFA coverage is much below for non-literate women, 'other' caste category women, women with low standard of living, and women of higher parity. IFA coverage is also lower among Muslim women (42 percent) than Hindu (50 percent) and Christian women (61 percent). Again, during pregnancy in the last three years preceding the survey, about 58 percent of women received 100 or more IFA, 67 percent in rural areas and 50 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.

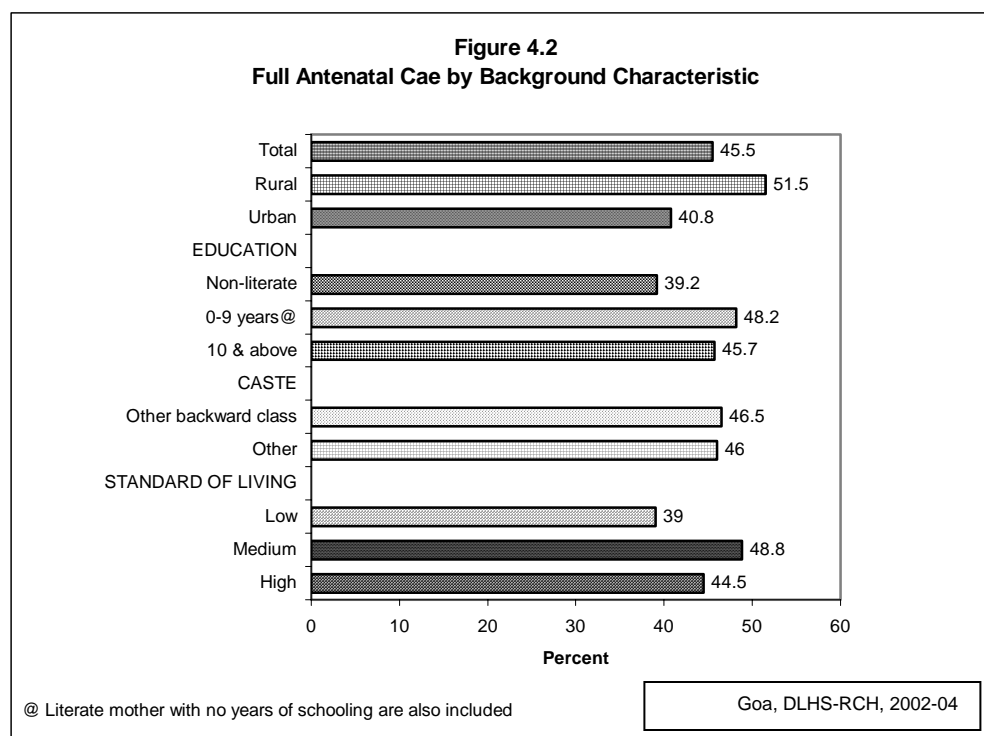
Table 4.5: ANTENATAL CARE (contd)

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

Antenatal care indicators	Religion			Caste#		Standard of living index		
	Hindu	Muslim	Christian	Other backward class	Other	Low	Medium	High
Number of ANC visits								
No visit	3.6	1.9	1.8	5.7	1.2	(17.1)	3.0	0.9
1-3	14.4	14.1	14.5	19.0	13.1	(14.6)	13.6	14.4
4+	82.0	84.0	83.7	75.3	85.7	(68.3)	83.5	84.8
Stage of pregnancy at the time of the first antenatal check-up								
No antenatal check-up	3.6	1.9	1.8	5.7	1.2	(17.1)	3.0	0.9
First trimester	74.3	71.9	92.8	73.5	81.6	(46.3)	69.9	89.6
Second trimester	20.9	22.9	5.4	20.0	16.0	(31.7)	25.3	9.5
Third trimester	1.2	3.4	0.0	0.8	1.2	(4.9)	1.9	0.0
Women who received TT								
No TT	7.9	8.3	8.2	8.7	7.9	(19.5)	11.7	3.3
1	15.1	9.5	5.4	15.6	9.5	(14.6)	15.2	9.5
2+	74.1	78.4	80.3	73.9	78.7	(63.4)	70.8	82.1
Do not remember/missing	2.9	3.8	6.0	1.9	3.9	(2.4)	2.2	5.0
Women who received IFA tablets/syrup								
No IFA/syrup	12.2	12.9	11.7	12.2	10.7	(31.7)	13.0	8.5
Received but not consumed	2.8	4.0	0.5	2.0	2.0	(2.4)	4.2	1.1
Consumed one IFA per day	47.3	37.6	60.5	54.0	50.1	(26.8)	48.1	54.1
Received 100+ IFA tablets/syrup	59.2	48.2	58.8	64.3	57.0	(41.5)	61.9	57.4
Percentage of women who received full ¹ antenatal check-ups	47.0	44.3	41.9	46.5	46.0	(39.0)	48.8	44.5
Number of women	277	60	95	124	263	41	158	236

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. Total includes 3 other religion, 12 scheduled caste and 6 scheduled tribe cases were not shown separately. (.) Based on less than 50 unweighted cases.

For the last live birth or stillbirth during the three years preceding the survey, women were asked whether they were given tetanus toxoid injection to prevent them and their baby from getting tetanus. Table 4.5 shows that seventy-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 (77 percent) than that in rural areas (75 percent). The coverage of at least one tetanus toxoid injection for Hindu women (89 percent) is more than that for Muslim women (88 percent) and Christian women (86 percent). Coverage of at least one tetanus toxoid injection is almost similar for other backward class (90 percent), and for 'other' caste category (88 percent). Non-literate women received at least one tetanus toxoid injection for 74 percent of their last birth, whereas literate women with 9 years of schooling received at least one tetanus toxoid injection for 90 percent, and women who had completed 10 years or more of schooling received at least one tetanus toxoid injection for 91 percent of their last birth. Ninety-two percent of women with a high standard of living received at least one tetanus toxoid injection, 86 percent women with medium standard of living received at least one tetanus toxoid injection and 78 percent women with low 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 89 percent each women of Parity-1-2 compared with 87 percent of Parity 3 and above.



The percentage of women who received full antenatal care (that is, at least three antenatal check-ups, and at least one tetanus toxoid injection and supplementary iron in the form of IFA tablets daily for 100 days as recommended by the RCH programme,) has been presented in Figure 4.2. Forty-six percent of women in Goa received full antenatal care. Coverage of full antenatal care is low for non-literate women, and women with a low standard of living, Full antenatal coverage was also lower in urban areas (41 percent) than in urban rural areas (52 percent).

4.6 Antenatal Care Indicator by Districts

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

Table 4.6: ANTENATAL CARE INDICATORS BY DISTRICT					
Percentage of women* who received different type of antenatal care by district, Goa, 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
North Goa	70.0	76.6	85.1	63.6	46.7
South Goa	89.5	91.1	92.4	48.7	43.8
Goa	77.8	84.2	88.3	57.7	45.5

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. About 90 percent of the women from South Goa received their first antenatal check-up in the first trimester of pregnancy as compared to North Goa (70 percent). The percentage of women who received at least three visits for antenatal check-ups ranges from 77 percent in North Goa to 91 percent in South Goa. As you can see from Map –3, the coverage of at least three visits of ANC were little less in North Goa (79 percent) than in South Goa (92 percent). There has been good coverage of tetanus toxoid injection in the all districts, ranging from 85 to 92 percent, but on the other hand, performance regarding receipt of 100 or more IFA is poor. In all the districts, the value ranges from 44 to 47 percent. The percentage of women who received full antenatal care ranges from 44 percent in South Goa to 47 percent in North Goa.

4.7 Pregnancy Complications and Treatment

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

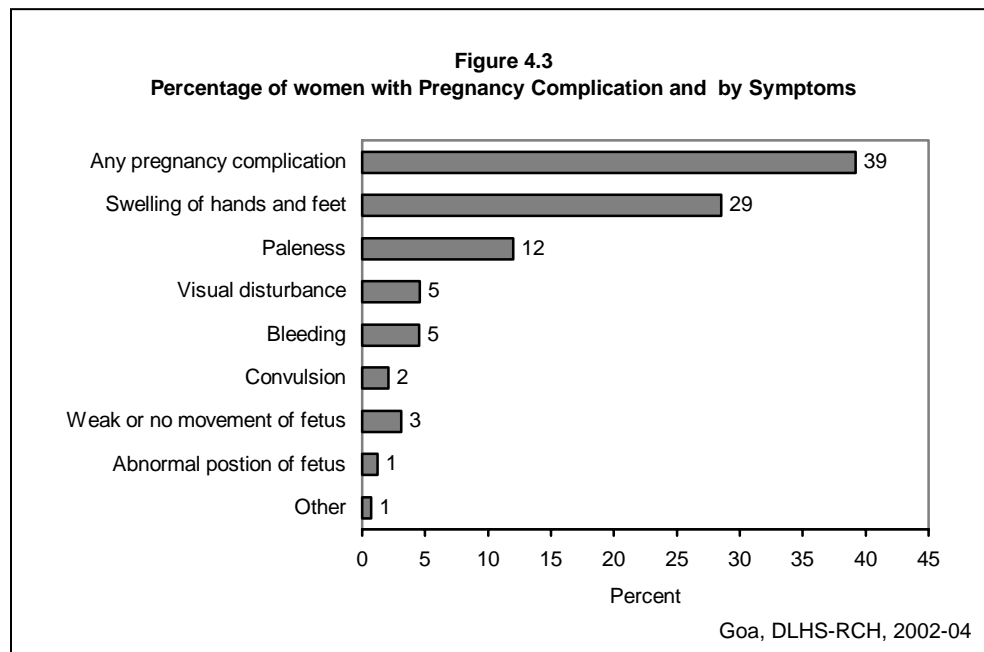


Table 4.7: PREGNANCY COMPLICATIONS

Percentage of women who had live/still births during three years preceding the survey by pregnancy complication and type of complication during pregnancy by some selected background characteristics, Goa, 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)										
Below 25	31.1	21.5	7.3	6.9	3.6	1.1	3.9	1.0	0.0	102
25-29	41.4	29.9	15.0	3.4	5.2	2.0	2.0	0.8	0.4	164
30-34	46.0	34.1	13.4	4.2	4.4	3.0	3.4	2.5	2.1	120
35 & above	(30.8)	(25.0)	(5.8)	(3.8)	(3.8)	(1.9)	(3.8)	(0.0)	(0.0)	49
Children ever born										
1	40.9	33.1	8.7	3.3	2.5	0.5	3.0	0.6	0.0	177
2	39.3	25.4	15.8	5.3	4.7	2.5	4.4	1.0	0.5	154
3+	36.6	25.5	12.4	5.9	8.0	4.4	1.1	2.7	2.4	101
Residence										
Rural	35.3	25.8	8.4	3.4	4.5	0.8	3.0	1.3	1.0	191
Urban	42.3	30.7	14.9	5.4	4.6	3.0	3.1	1.1	0.5	243
Standard of living index										
Low	(36.6)	(31.7)	(9.8)	(2.4)	(9.8)	(0.0)	(0.0)	(0.0)	(2.4)	41
Medium	34.8	20.7	15.8	4.5	4.0	4.2	2.1	0.0	1.1	158
High	42.7	33.4	9.8	4.9	3.6	1.0	4.3	2.2	0.3	236
Received any ANC										
Yes	39.5	28.8	11.9	4.4	4.7	1.9	2.6	1.3	0.7	421
Total	39.2	28.5	12.0	4.6	4.5	2.1	3.1	1.2	0.7	435

Note: Total includes 4 women with zero parity were not received any ANC were not shown separately. () Based on less than 50 unweighted cases.

About 39 percent of the women experienced at least one pregnancy related problem. The proportion was higher among urban women (42 percent) than among rural women (35 percent). Women aged 30-34 years, and women with lower parity face at least one pregnancy related problem more than younger women and women with higher parity do. This proportion is relatively high among women who had received some kind of antenatal care during the pregnancy. Forty percent of women who had an antenatal check-up reported that they had experienced at least one problem during their pregnancy. The major problems reported were 'swelling of hand and feet' (29 percent), 'paleness' (12 percent), and 'visual disturbance' (4 percent). Only 5 percent reported 'vaginal bleeding', 3 percent 'weak or no movement of foetus' 2 percent 'convulsion', and 1 percent abnormal position of foetus. Other problems related to pregnancy were reported by 1 percent of women. Swelling of hands and feet is more common among women aged 25-34 years, women with parity-1, and women with high a standard of living. The percentage of women who were more anaemic belonging to the age group 25-29 years, and 30-34 years, women from urban areas, women with medium standard of living. Anaemia, visual disturbance, vaginal bleeding, convulsion, abnormal position of foetus, and other problem increased steadily with increase of parity, whereas women with parity-1-2 reported weak or no movement of foetus more. The younger women (below 29 years of age) were more likely to report visual disturbance, vaginal bleeding and weak or no movement 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 4.8 shows the percentage of women who had pregnancy complications who obtained advice or had sought treatment by source of treatment according to residence and availability of health facility in the village. Sixty-one percent of women reported that they had obtained advice or consulted someone for their problem. There was no rural-urban difference while getting advice or consulted someone for their problem as such.

Among women who sought treatment for pregnancy complications, 43 percent visited a government health facility. Slightly less than half of them visited a private health facility, and 9 percent had gone to a facility with the Indian system of medicine. The proportion of women who visited a private health facility is higher in urban areas (54 percent) than in rural areas (48 percent). Among women who sought treatment, 93 percent went to a doctor and 7 percent to an auxiliary nurse midwife or nurse or LHV. Hundred percent of these women in urban areas, and 86 percent in rural areas were examined by a doctor.

TABLE 4.8: TREATMENT FOR PREGNANCY COMPLICATIONS			
Percentage of women* who had any pregnancy complication, sought treatment and source of treatment according to residence, Goa, 2002-04			
Treatment and source	Total	Residence	
		Rural	Urban
Percentage of women sought treatment who had any pregnancy complication	61.4	61.5	61.4
Number of women	170	68	103
Percentage sought treatment at health facility			
Government health facility ¹	42.5	(42.9)	40.3
Private health facility ²	48.7	(47.6)	53.9
ISM ³ facility	9.3	(11.9)	5.8
Percent distribution of women who obtained treatment from			
Doctor	93.2	(85.7)	100.0
ANM/nurse/midwife/LHV	6.8	(14.3)	0.0
Total percent	100.0	(100.0)	100.0
Number of women	105	42	63
Note: * Women who had their last live/still birth since 1-1-1999/1-1-2001. 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 Includes 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 professionals and ISM practitioner. () Based on less than 50 unweighted cases.			

4.8 Delivery Care

4.8.1 Place of Delivery

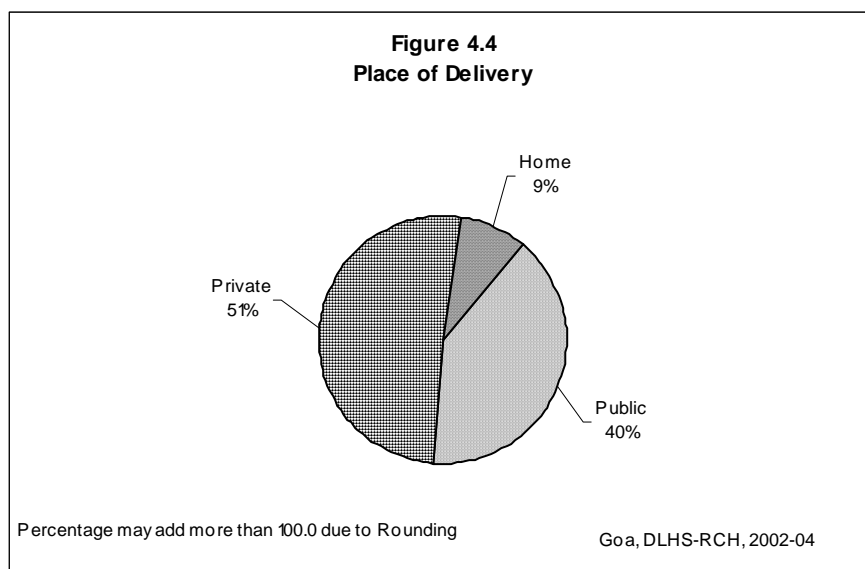
One of the important thrusts of the Reproductive and Child Health Programme is to encourage deliveries under proper hygienic conditions under the supervision of trained health professionals. The provision of delivery services in the government health institutions is one of the components of the RCH programme. For each live/still birth during three years preceding the survey, DLHS-RCH asked the women 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 4.9 and Figure 4.4 present the place of delivery. Forty percent of the birth took place in government health institutions, 51 percent in private health institutions, and a small proportion of births (9 percent) took place at home. About 96 percent of the deliveries in rural areas and 87 percent of the deliveries in urban areas took place in health institutions. Deliveries in health facilities in Goa come down from 94 percent in Round-I to 91 percent in Round-II.

Table 4.9: PLACE OF DELIVERY						
Percent distribution of women who had given live/still births during three years preceding the survey, by place of delivery, according to selected background characteristics, Goa, 2002-04						
Background characteristics	Health institutions				Total percent	Number of women
	Public	Private	Home	Missing		
Age group (in years)						
Below 30	41.6	47.0	11.1	0.3	100.0	266
30 and above	37.4	57.9	4.7	0.0	100.0	169
Children ever born						
1	32.4	61.4	5.7	0.4	100.0	177
2	36.7	58.2	5.2	0.0	100.0	154
3+	57.1	24.6	18.3	0.0	100.0	101
Residence						
Rural	47.4	49.0	3.6	0.0	100.0	191
Urban	34.2	53.0	12.6	0.3	100.0	243
Education						
Non-literate	49.5	20.2	30.4	0.0	100.0	73
0-9 years@	56.9	35.5	7.5	0.0	100.0	142
10 years & above	26.0	71.5	2.2	0.3	100.0	221
Religion						
Hindu	46.3	46.3	7.4	0.0	100.0	277
Muslim	37.4	35.4	27.2	0.0	100.0	60
Christian	23.4	75.9	0.0	0.8	100.0	95
Caste#						
Other backward class	52.2	43.7	4.0	0.0	100.0	124
Other	34.8	56.7	8.2	0.3	100.0	263
Standard of living index						
Low	(53.7)	(22.0)	(24.4)	(0.0)	100.0	41
Medium	56.8	29.3	13.9	0.0	100.0	158
High	25.6	71.6	2.5	0.3	100.0	236
Number of antenatal check-ups						
1-3	25.1	60.5	14.5	0.0	100.0	63
4+	42.6	51.1	6.1	0.2	100.0	358
Delivery characteristics						
Normal	41.1	48.3	10.6	0.0	100.0	333
Caesarean	36.3	63.7	0.0	0.0	100.0	94
Total	40.0	51.2	8.6	0.2	100.0	435

Note: Total includes 4 women with zero parity 3 other religion cases, 12 scheduled caste, 6 scheduled tribe, 13 cases for no ANC check up and 6 on assisted delivery characteristics 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. () Based on less than 50 unweighted cases

The proportion of births occurring in health institutions is higher for women aged 30 years and above (37-58 percent) than for women aged below 30 years (42-47 percent). Institutional deliveries, particularly in private health facilities, increase sharply with education and the standard of living. About 70 percent of the births to non-literate women and 98 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 (94 percent) to parity three and above (82 percent). Institutional delivery is lower for Muslim women (73 percent) than for Hindus (93 percent) and Christian women (99 percent). About 92 percent births of women from 'other' caste category are institutional deliveries as compared to 96 percent of births to women from other backward classes. Institutional deliveries are more common among women who had four or more antenatal check-ups (94 percent) than among

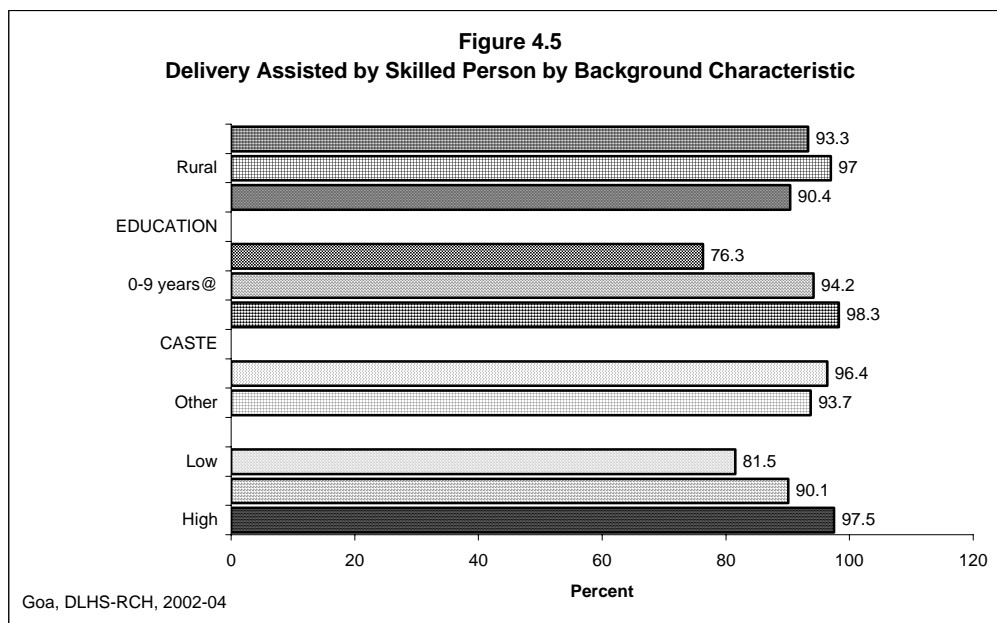
who had 1-3 antenatal check-ups (86 percent). As expected, a large proportion of births occurred through caesarean section (100 percent), and 89 percent of deliveries are normal deliveries.



4.8.2 Delivery Assisted by Skilled Persons

The extent of safe deliveries varied substantially by background characteristics of women (Table 4.10 and Figure 4.5). More than 93 percent of the births were safe in Goa. Ninety-seven percent of deliveries were safe in rural areas, as compared to 90 percent in urban areas. About 96 percent of the deliveries were safe for women aged 30 years and above than to women aged below 30 years (92 percent). The proportion of safe deliveries was lower among Christian women (76 percent) than among Hindu (95 percent) and Muslim women (78 percent). About 96 percent of births to women from other backward classes, were safe deliveries, compared to 94 percent to women from 'other castes' category. Proportion of safe deliveries decreases as parity rises from 1 (97 percent) to 3 and above (84 percent). Safe deliveries were most prevalent among women who had three or more antenatal check-ups (97 percent), as compared to women who had 1-3 antenatal check-ups (89 percent). The proportion of safe deliveries increased sizeably with women's education and standard of living. Only seventy-six percent of non-literate women had safe deliveries whereas its prevalence is 98 percent among women who had completed at least high school. Women with a high standard of living had 98 percent safe deliveries compared to 90 percent of women with a medium standard of living and 82 percent with a low standard of living. As compared to women who had assisted deliveries (82 percent), about 92 percent of women with normal deliveries are safe deliveries.

Table 4.10: DELIVERY ATTENDED BY SKILLED PERSON		
Percentage of safe delivery, according to selected background characteristics, Goa, 2002-04		
Background characteristics	Percentage of safe ² delivery	Number of women
Age group (in years)		
Below 30	91.7	266
30 and above	95.9	169
Children ever born		
1	96.5	177
2	96.2	154
3+	83.9	101
Residence		
Rural	97.0	191
Urban	90.4	243
Education		
Non-literate	76.3	73
0-9 years@	94.2	142
10 years & above	98.3	221
Religion		
Hindu	94.7	277
Muslim	78.2	60
Christian	76.4	95
Caste#		
Other backward class	96.4	124
Other	93.7	263
Standard of living index		
Low	(81.5)	41
Medium	90.1	158
High	97.5	236
Number of antenatal check-ups		
1-3	89.1	63
4+	95.6	358
Delivery characteristics		
Normal	91.9	333
Assisted	81.5	94
Total	93.3	435
<p>Note: Total includes 4 women with zero parity, 13 cases on no antenatal check up were not shown separately. Total includes 3 women in other religion, 12 scheduled caste, 6 scheduled tribe and 6 women Assisted on delivery characteristics 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. () Based on less than 50 unweighted cases.</p>		



4.9 Delivery Characteristics by District

Table 4.11 shows the delivery characteristics by district; institutional delivery (delivery in government or private health institutions), home delivery and attendant assistance during home delivery for last live/still births to women during the three years preceding the survey. The proportion of institutional delivery is an almost similar feature in both South Goa and North Goa (91 percent each).

Compared to delivery at home, deliveries in health institutions are more common in all the districts of Goa. About 91 percent of births are institutional delivery in the state, but in both districts, less than 10 percent of the births took place at home. The extents of safe deliveries are also an almost same feature in both South Goa and North Goa (93 percent each) (see Map-4).

Districts	Percentage of women who had institutional delivery	Percentage of women who had delivery at home	Percentage of safe ² delivery
North Goa	90.9	9.1	93.1
South Goa	91.4	8.2	93.4
Goa	91.2	8.6	93.3

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.

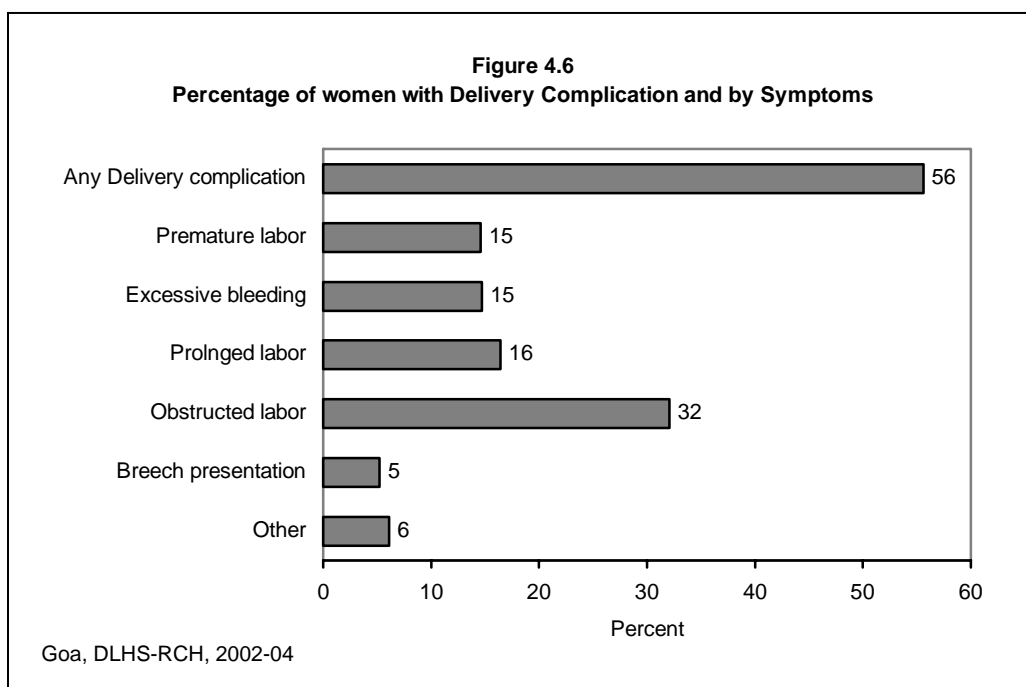
4.10 Complications During Delivery

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 one-third of the women experienced at least one problem during delivery (Table 4.12 and Figure 4.6). The proportion of delivery complications is slightly higher among urban women (38 percent) than among rural women (35 percent). Women below the age of 30 years, and women with low parity 1 reported more at least one delivery related problem than older women aged 30 years and above and women with higher parity. This proportion is relatively high among women who had received some kind of antenatal care during their pregnancy. Sixty-one percent of women who had 1-2 antenatal check-up reported that they experienced at least one problem during their pregnancy when compared to 32 percent of women who had received 4 or more antenatal check-up. Among women who had caesarean delivery, 70 percent reported experiencing such problems, and 26 percent women with normal deliveries also cited complications during delivery. A relatively higher proportion of women who delivered in health institutions (36-39 percent) faced at least one delivery complication compared to those who delivered at home (27 percent).

Table 4.12: 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, Goa, 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 30	36.8	10.7	12.7	14.4	5.7	5.2	0.7	266
30 and above	35.8	9.7	11.6	14.7	6.6	6.1	0.8	169
Children ever born								
1	37.9	9.6	11.9	16.7	7.3	5.9	1.7	177
2	34.7	11.4	10.3	15.2	4.4	5.5	0.0	154
3+	34.2	10.4	15.6	7.2	6.8	5.3	0.5	101
Residence								
Rural	34.9	6.3	9.4	14.2	6.6	6.5	0.8	191
Urban	37.6	13.5	14.6	14.7	5.7	4.8	0.8	243
Number of antenatal check-ups								
1-3	61.0	21.5	19.2	30.7	17.7	14.5	0.0	63
4+	32.3	8.4	10.7	11.8	3.9	4.2	0.9	358
Delivery characteristics								
Normal	26.3	8.8	12.0	11.6	4.5	1.0	0.0	333
Caesarean	70.4	16.5	13.9	23.0	10.7	22.2	3.6	94
Place of delivery								
Government sector	39.3	8.8	19.0	16.5	5.5	5.9	0.6	174
Private sector	35.6	10.6	7.7	14.2	6.5	6.2	1.0	223
Home	(27.0)	(13.5)	(8.1)	(8.1)	(5.4)	(0.0)	(0.0)	37
Total	36.4	10.3	12.3	14.5	6.1	5.5	0.8	435

Note: Table include 4 women with zero parity, 13 no ANC visit and 6 assisted deliveries were not shown separately.
() Based on less than 50 unweighted cases.

The major problems reported were ‘prolonged labour’ (15 percent), ‘excessive bleeding (12 percent), ‘premature labour’ (10 percent), and ‘obstructed labour and breech presentation’ (6 percent each). Only 1 percent reported ‘other’ problems related to delivery. Excessive bleeding, premature labour, and prolonged labour are more common among women below 30 years, and women with high parity. Urban women were more likely to report delivery complications such as prolonged labour, excessive bleeding, and premature labour premature labour, whereas obstructed labour obstructed labour and breech presentations are more prevalent among rural women. Prolonged labour, breech presentation, premature labour, excessive bleeding, obstructed labour and other health problems related to delivery were more among women whose last delivery was caesarean 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 excessive bleeding, prolonged labour, premature labour, breech presentation and obstructed labour compared with place of delivery other than medical institutions.



4.11 Post Delivery Complications and Treatment

Table 4.13 and Figure 4.7 present information about women who faced complications after delivery according to some selected background characteristics. The incidence of post delivery complications judged by any of the following during the first six-weeks of delivery- ‘high fever’, ‘lower abdominal pain’, ‘foul smelling vaginal discharge’, ‘excessive bleeding’, ‘convulsion’, ‘severe headache’, and ‘other’ problems. Twenty-one 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 urban areas (22 percent) than in rural areas (20 percent). There is absolutely no difference between

women aged below 30 years and 30 years and above, while reporting at least one post delivery related problem. Women with parity 2 and higher parity 3 and over, had their deliveries with normal, and those whose deliveries took place at government institutions are more prone to report at least one post delivery related problem.

Table 4.13: POST DELIVERY COMPLICATIONS

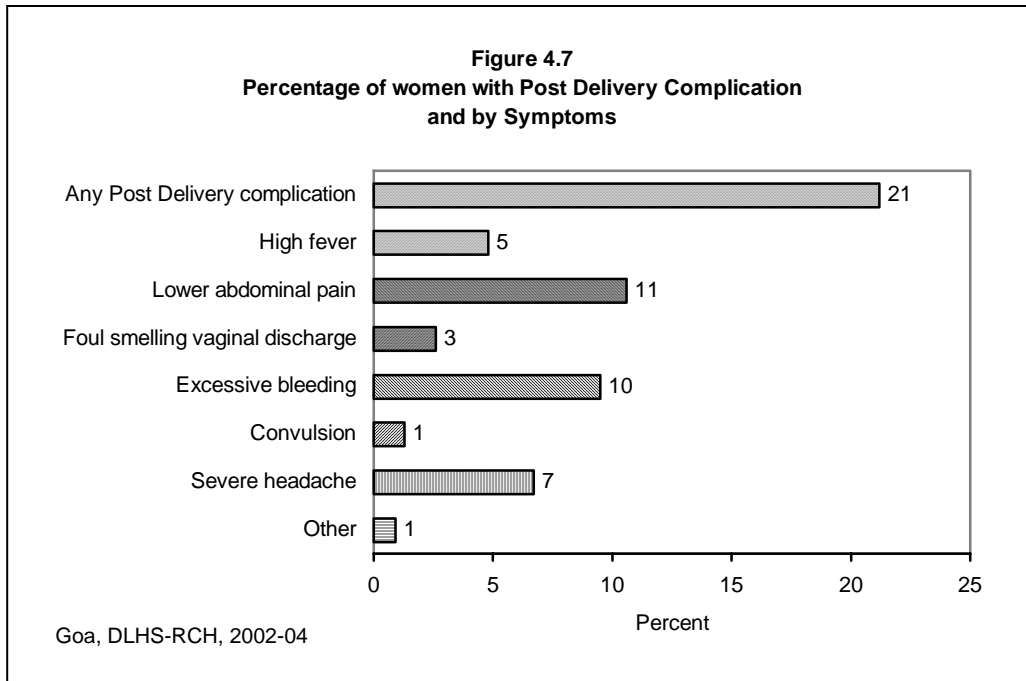
Percentage of women who had given last live/still births during three years preceding the survey by post delivery complication, according to selected background characteristics, Goa, 2002-04

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 30	21.1	4.9	9.9	2.9	8.8	1.5	6.2	0.8	266
30 and above	21.3	4.7	11.8	2.3	10.4	1.1	7.4	1.1	169
Children ever born									
1	17.5	4.6	8.0	0.0	8.9	0.0	3.6	0.9	177
2	24.8	4.9	11.1	5.7	11.1	1.1	7.4	0.7	154
3+	22.9	5.3	14.9	2.7	8.3	4.1	11.3	1.2	101
Residence									
Rural	19.8	4.0	8.0	1.8	8.0	1.2	5.1	1.5	191
Urban	22.2	5.5	12.6	3.3	10.6	1.4	8.0	0.4	243
Delivery characteristics									
Normal	21.4	4.1	10.2	3.4	9.2	1.4	6.9	1.0	333
Caesarean	20.4	7.8	11.5	0.0	9.4	1.3	5.1	0.7	94
Place of delivery									
Government sector	25.7	6.1	14.1	4.7	11.2	0.7	7.6	0.0	174
Private sector	17.6	2.5	8.6	0.9	8.6	0.5	4.6	1.7	223
Home	(18.9)	(10.8)	(5.4)	(2.7)	(5.4)	(8.1)	(13.5)	(0.0)	37
Total	21.2	4.8	10.6	2.6	9.5	1.3	6.7	0.9	435

Note: Table include 4 women with zero parity and 6 assisted delivery cases were not shown separately.

() Based on less than 50 unweighted cases.

Women reported lower abdominal pain (11 percent), excessive vaginal bleeding (10 percent), severe headache (7 percent), high fever (5 percent), foul smelling vaginal discharge (3 percent), and convulsion (1 percent). Less 1 percent of women reported other problems. Rural-urban differences in all symptoms of postpartum complication are not that much large. The postpartum complications like lower abdominal pain, excessive vaginal bleeding and severe headache, are more prevalent among older women aged 30 years and above than among women below 30 years. The symptoms of postpartum complications were increasing steadily with increased parity. There are minimal differences in the likelihood of having different symptoms in the postpartum period by place of delivery. Symptoms like high fever, lower abdominal pain, excessive bleeding, severe headache and foul smelling vaginal discharge, are more common for women who delivered at government institutions than private institutions and deliveries took place at home.



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 4.14 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. Fifty-nine percent of women reported that they had obtained advice or had consulted someone for their problems. The proportion was slightly higher among rural women (61 percent) than among urban women (60 percent).

Among women who sought treatment for complications in the postpartum period, only 48 percent woman visited government health facility and the same proportion (48 percent) of woman visited for private health facility, where as 5 percent of women visited for Indian system of medicine (either government or private).

Table 4.14: 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, Goa, 2002-04			
Treatment and source	Total	Residence	
		Rural	Urban
Percentage of women sought treatment who had any post delivery complication	58.6	(60.6)	59.6
Number of women	92	38	54
Percentage sought treatment at health facility			
Government health facility ¹	47.5	*	(46.4)
Private health facility ²	47.5	*	(50.0)
ISM ³ facility	5.0	*	(3.6)
Percent distribution of women who obtained treatment from			
Doctor	100.0	*	(100.0)
Total percent	100.0	100.0	100.0
Number of women	54	22	32
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 Includes 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 professionals and ISM practitioner. () Based on less than 50 unweighted cases.			

4.12 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 4.15 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, 39 percent, 36 percent and 21 percent of the women experienced pregnancy, delivery and post delivery complications respectively. About 61 percent of the women sought treatment for pregnancy complications and 59 percent for post delivery complications. In both the districts, more than one-third of the women experienced at least one of the symptoms of pregnancy complications.

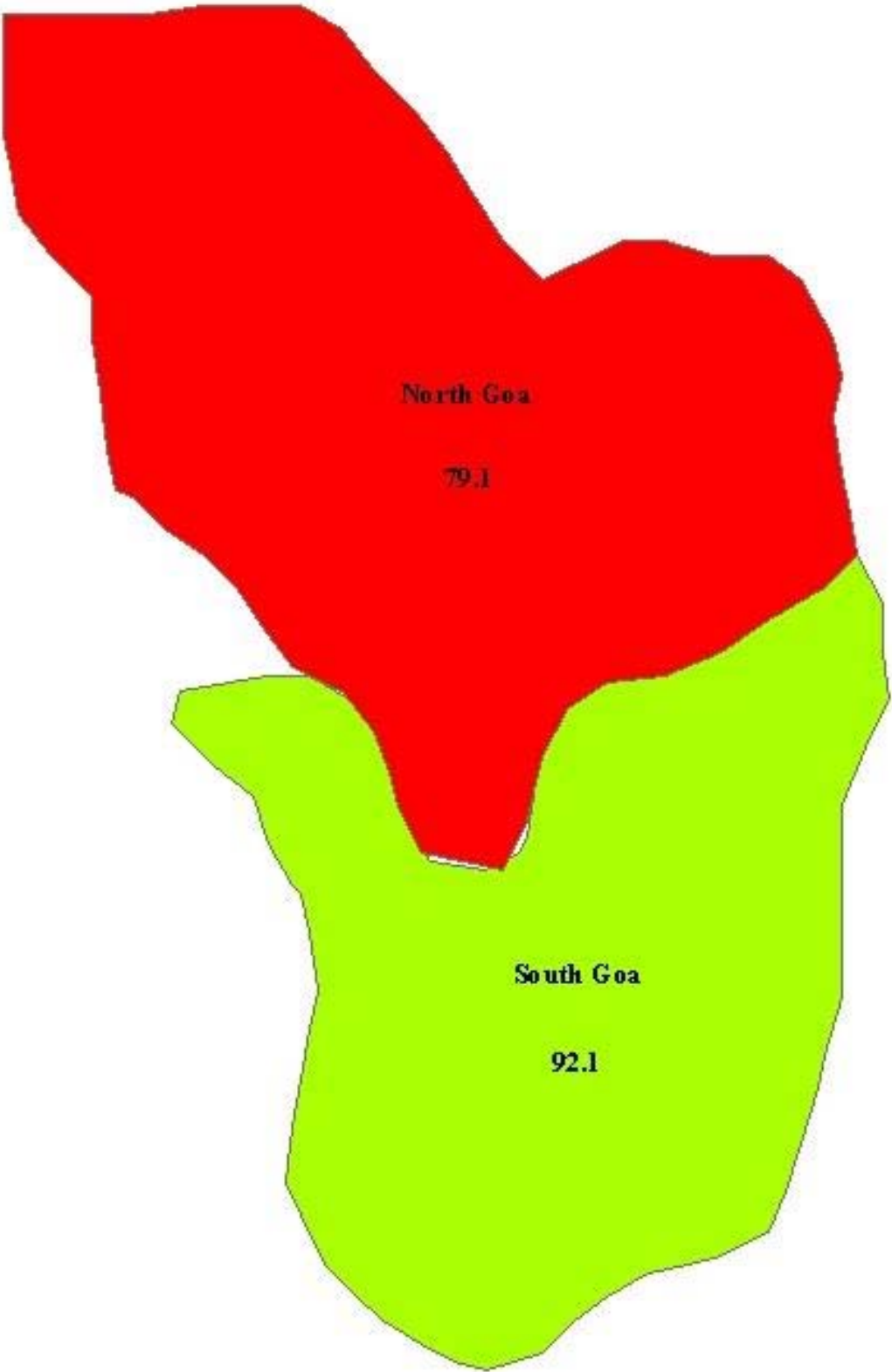
Table 4.15: PREGNANCY, DELIVERY AND POST DELIVERY COMPLICATIONS					
Extent of pregnancy, delivery and post delivery complications and treatment seeking behaviour by districts, Goa, 2002-04					
District	Percentage of women ¹				
	Who had complication during pregnancy	Sought treatment for pregnancy complication ²	Who had delivery complication	Who had post delivery complication	Sought treatment for post delivery complication ³
North Goa	40.7	73.9	47.2	30.5	57.5
South Goa	37.1	41.6	20.5	7.5	68.0
Goa	39.2	61.4	36.4	21.2	58.6

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.

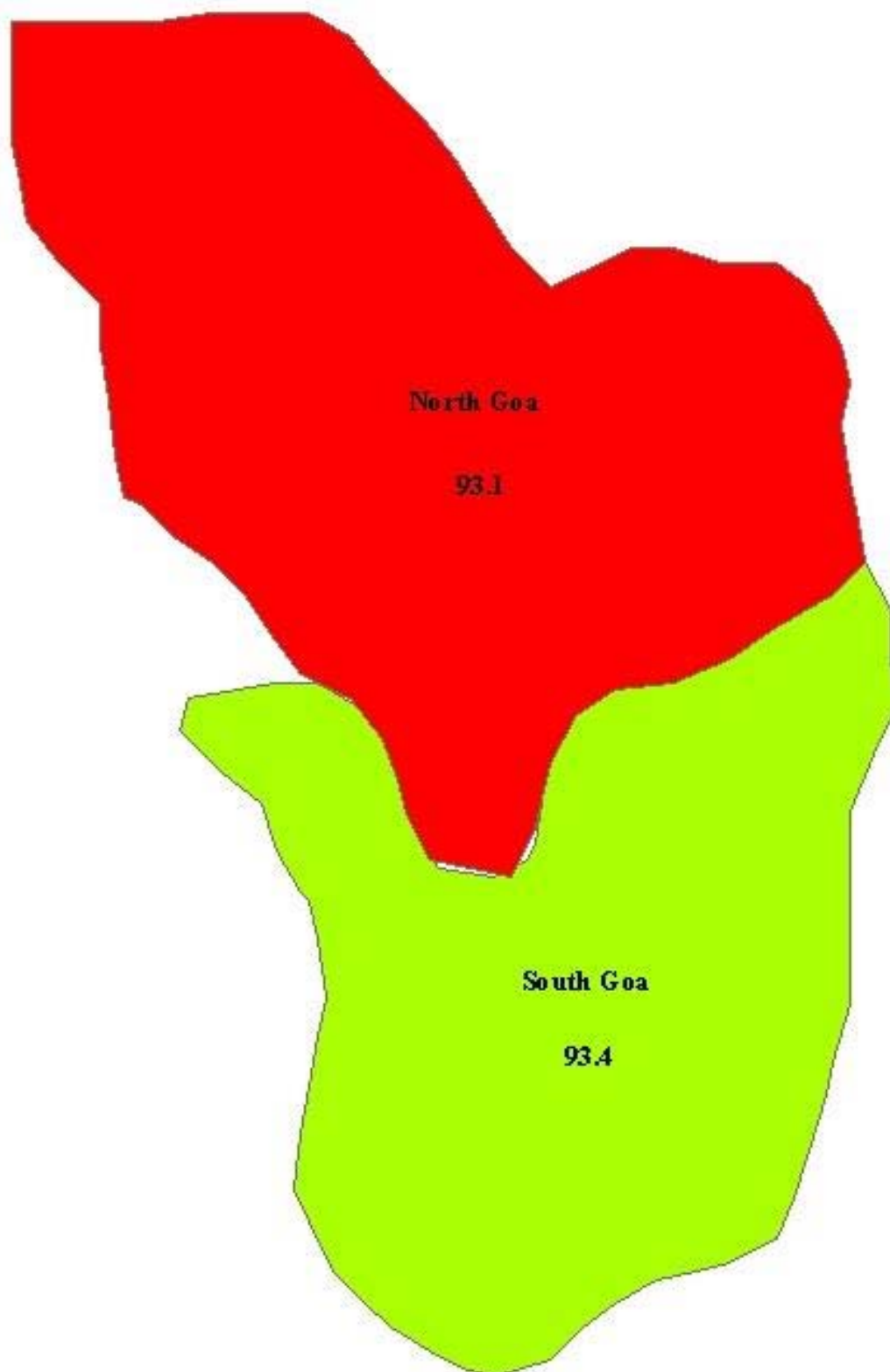
In North Goa district (41 percent), the incidence of pregnancy complications is comparatively higher than South Goa district (37 percent). The incidence of delivery complication is higher than that of pregnancy and post delivery complications. The percentage of women who experienced at least one type of delivery complication ranges from 21 percent in South Goa to 47 percent in North Goa, and incidence of post delivery complication varies from 8 percent in North Goa to 31 percent in South Goa. The incidence of all three types of complications seems to be linked with each other in varying proportions.

In spite of a large proportion of women having contact with a doctor or any other health workers during the antenatal period, in North Goa district about 74 percent and in South Goa district about 42 percent of the women sought treatment for pregnancy complication. Similarly, among women who experienced at least one symptoms of postpartum complication, the proportion seeking treatment also varies across the districts, ranging from 58 percent in North Goa to 68 percent in South Goa.

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 influences of breastfeeding on the period of postpartum infertility, and hence on fertility levels and the length of birth intervals. These effects vary according to the duration and intensity of breastfeeding. Proper infant feeding, starting from the time of birth, is important for the physical and mental development of the child. Breastfeeding improves the nutritional status of young children and reduces morbidity and mortality. Breast milk not only provides important nutrients, but also protects the child against infection. The timing and type of supplementary foods introduced in an infant's diet have significant effects on the child's nutritional status.

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

Table 5.1 shows the breastfeeding practices among children born during the three years preceding the survey in Goa State. Although, the practice of breastfeeding is common in Goa State, the initiation of breastfeeding within two hours of the birth of the child is not always followed. Fifty eight percent of the children were breastfed within two hours of birth, and 74.2 percent were breastfed within one day of birth (including those who were breastfed within two hours of birth), while 24.9 percent of children were breastfed after one day of birth. As shown in Figure 5.1, about 16 percent of the children were breastfed within one day of birth but after two hours of birth, 20 percent were breastfed after the first day of birth but before 3 days, and 4 percent children were put to the breast after three days. One percent of the children were never breastfed. About one third of women who gave birth to children during the three years preceding

the survey squeezed the first milk from the breast before they began breastfeeding. Forty six percent of children from other backward class were breastfed within two hours of birth, and 64.2 percent of children were breastfed within one day of birth. Women who reside in urban areas, women who have had high school education and above and women who live in households with a high standard of living are more likely to start breastfeeding their children early. About one fourth of children from urban areas (23.1 percent), Muslim children (26.5 percent), children from other castes (18.7 percent), children of educated mothers (23.1 percent), and children from households with a high standard of living (21.3 percent) 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 births, within one day of birth, and after one day of birth and percentage whose mother squeezed the first milk from her breast before breastfeeding by selected background characteristics, Goa , 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	52.1	70.6	27.3	33.1	146
Urban	63.0	76.9	23.1	32.5	200
Mother's education					
Non-literate	64.7	75.9	24.1	44.5	55
0-9 years @	53.6	70.8	28.0	35.7	113
10 and above	59.5	75.9	23.1	27.2	177
Religion					
Hindu	56.5	70.2	29.1	35.4	210
Muslim	48.6	73.5	26.5	16.8	56
Christian	70.0	85.7	12.0	36.8	78
Caste/tribe#					
Other backward class	46.4	64.2	35.8	33.5	101
Other	62.5	79.8	18.7	31.2	209
Standard of living index					
Low	(56.7)	(70.0)	(30.0)	(46.7)	31
Medium	58.3	72.3	27.1	33.1	134
High	59.4	77.4	21.3	29.2	181
Total	58.4	74.2	24.9	32.8	346
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. @ Literate mother with no years of schooling are included. #Total figure may not add to N due to do not know and missing cases.					
() Based on less than 50 unweighted cases. Total includes 3 other religion, 10 scheduled caste and 5 scheduled tribe cases were not shown separately.					

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 Backward classes 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.

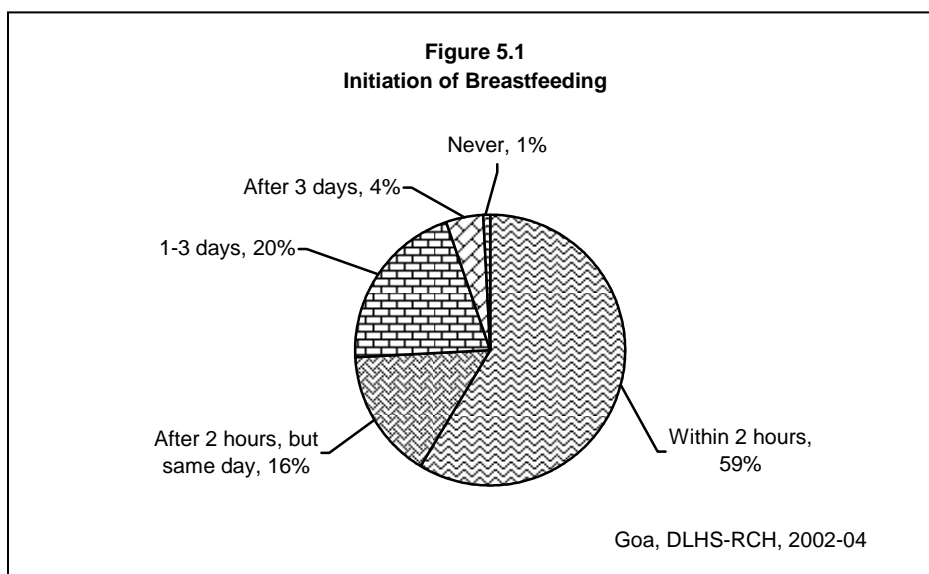


Table 5.2: EXCLUSIVE BREASTFEEDING BY CHILD'S AGE
Percentage of children under age 3 years by exclusive breastfeeding and child's age in month, Goa, 2002-04

Age in months	Status of exclusive breastfeeding			Number of children
	Exclusive breastfeeding	At least 4 months	At least 6 months	
<6	(48.5)	(72.7)	-	27
6-11	(26.2)	(81.0)	(38.0)	40
12-17	13.8	52.3	37.7	93
18-23	9.4	64.6	47.4	74
24-29	(2.1)	(80.9)	(63.8)	48
30-35	(0.0)	(52.3)	(40.9)	44

Note: Table based on youngest living child born during the three years preceding the survey.
() Based on less than 50 unweighted cases.

In Goa State, about 49 percent of children under six months of age are exclusively breastfed. The percentage of infants exclusively breastfed drops steadily from 49 percent for children under 6 months of age to 14 percent for children who are 12-17 months old. About 81 percent of children in the age group 6-11 months were exclusively breastfed up to 4 months and 38 percent of children in the age group 12-17 months are exclusively breastfed upto 6 months.

5.1.1 Breastfeeding by Districts

Table 5.3 shows that 45.1 percent of the children in North Goa district and 80.3 percent of children in South Goa district were put to the breast within two hours of birth. About two third of the children in North Goa district were breastfed within one day of birth. Almost 89 percent of children were put to the breast after one day of birth in south Goa district. About one fourth of

mothers in south Goa district and 38.7 percent of mothers in North Goa district 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, Goa, 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		
North Goa	45.1	65.4	33.9	38.7	34.4
South Goa	80.3	88.9	9.9	23.0	61.8
Goa	58.4	74.0	24.8	32.8	45.3

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 south Goa district (61.8 percent) and lowest in North Goa (34.4 percent) district.

5.2 Immunization of Children

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

The Universal Immunization Programme (UIP) was introduced in 1985-86 with the objective of covering at least 85 percent of all infants against the six vaccine preventable diseases by 1990. This scheme has been introduced in every district of the country. The standard immunization schedule developed for the child immunization programme specifies the age at which each vaccine should be 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 (pertusis), tetanus (DPT) and measles, and for the second phase, the reference period was from January 1, 2001. For Polio and DPT, further information on polio at birth and number of doses was asked. Children who received BCG, three doses of DPT and polio (excluding polio 0) and measles are considered to be fully

vaccinated. Information on the source of immunization for last dose and in case where immunization was not given, the reason for not giving immunization was also compiled.

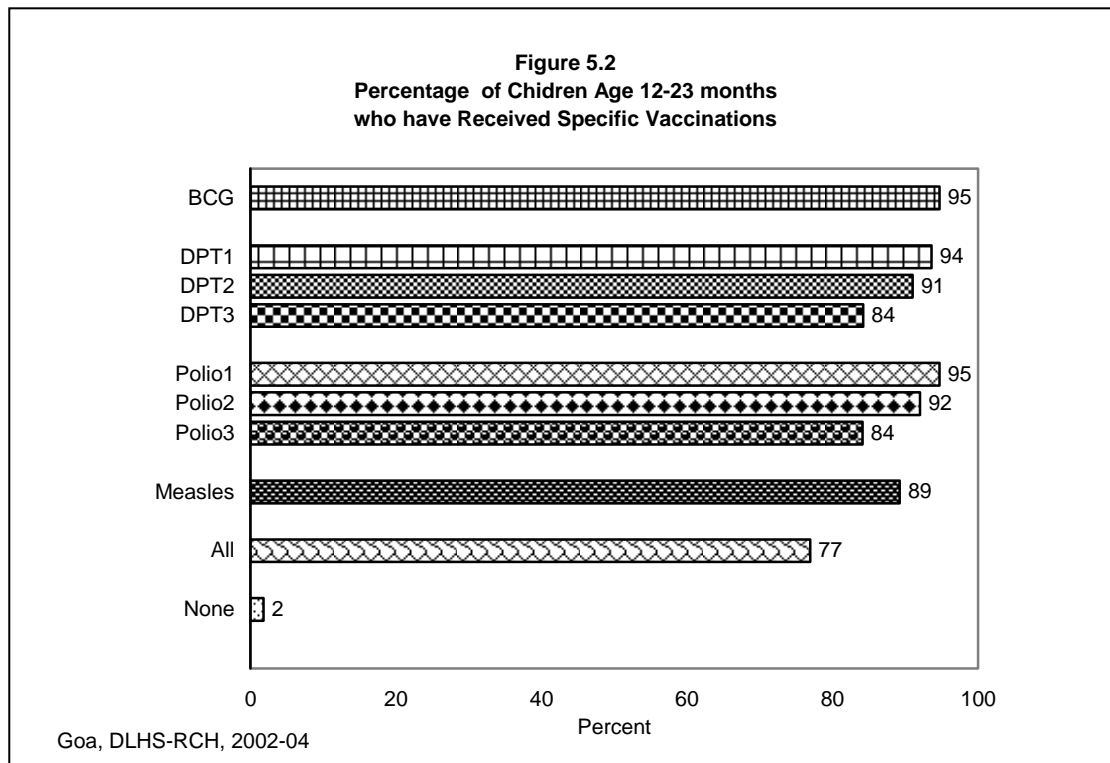
Table 5.4, Figures 5.2 and 5.3 presents vaccination coverage rates for children in the age group 12-23 months. More than three-fourth of the children are fully vaccinated, and only around 2 percent have not received any routine vaccination. Coverage of each vaccination except Polio 0 is much higher than the percentage fully vaccinated. BCG, the first and second dose of DPT and Polio vaccine has each been given to more than 90 percent of children (Figure 5.3). Eighty four percent of the children have received three doses of DPT, 3 drops of Polio, and 89 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 one to three points both for DPT and for polio.

There has been some improvement in full vaccination coverage in Goa State 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 Goa, 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, Goa, 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	93.4	100.0	98.3	96.5	92.7	95.7	95.7	91.9	97.1	90.7	0.0	53
Urban	88.4	92.5	91.6	88.8	80.7	94.2	90.4	80.9	86.0	71.2	2.6	126
Sex of the child												
Male	89.4	95.0	93.8	90.2	83.8	94.0	90.2	82.8	87.6	75.6	1.0	94
Female	90.3	94.5	93.4	92.0	84.7	95.4	94.0	85.6	91.0	78.4	2.7	85
Birth order												
1	93.4	94.4	96.1	92.7	83.5	96.1	92.7	83.5	88.4	73.4	0.0	72
2	97.0	100.0	95.6	95.6	87.4	98.1	96.3	85.5	91.8	83.3	0.0	68
3	(72.2)	(86.1)	(86.1)	(80.6)	(80.6)	(86.1)	(83.3)	(83.3)	(86.1)	(72.2)	(8.3)	39
Mother's education												
Non-literate	(77.1)	(85.7)	(82.9)	(71.4)	(62.9)	(82.9)	(74.3)	(65.7)	(74.3)	(54.3)	(8.6)	36
0-9 years @	90.8	98.3	94.4	94.4	92.7	97.3	95.3	92.0	93.5	88.0	0.0	59
10 years and above	95.8	97.2	98.1	98.1	88.3	98.1	98.1	87.3	92.8	80.4	0.0	84
Religion												
Hindu	92.5	94.3	92.3	92.3	84.5	94.4	93.2	83.6	90.2	76.5	2.0	103
Other	86.2	95.3	95.3	89.3	83.8	95.1	90.3	84.8	87.9	77.5	1.6	76
Caste/tribe#												
Other backward class	(90.5)	(97.6)	(92.9)	(92.9)	(85.7)	(95.2)	(92.9)	(83.3)	(88.1)	(78.6)	(2.4)	45
Other	92.0	96.0	95.1	92.0	86.5	94.9	92.8	87.2	91.5	79.9	2.1	112
Standard of living index												
Medium	84.8	91.0	90.8	87.4	83.4	93.8	88.7	83.4	88.2	73.9	1.7	71
High	96.4	100.0	99.1	98.1	89.0	97.6	97.6	87.5	95.0	84.2	0.0	90
Total	89.8	94.7	93.6	91.0	84.2	94.7	92.0	84.1	89.2	76.9	1.8	179

Note: Table includes only last and last but one living child born since 1.1.1999/1.1.2001. @ Literate mothers with no years of schooling are included. # Total figure may not add to N due to do not and missing cases. 1 BCG, three injection of DPT, three doses of Polio (excluding Polio 0) and measles () Based on less than 50 unweighted cases. Total includes 7, 3 and 18 cases for scheduled caste, scheduled tribe and low sli were not shown separately.

The data indicates that the coverage of each type of vaccine is more in rural areas than in urban areas. More than 90 percent of the children in rural areas had received all the recommended vaccinations by the time of the survey, compared with 71.2 percent in urban areas. Differentials in rural-urban against polio 0 may be observed from the table.



Female children (78.4 percent) are more likely than male children (75.6 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 54.3 percent children of non-literate mothers are fully vaccinated compared to 88.0 percent of children with mothers' education below high school and 80.4 percent of mothers who have at least completed high school. Other religion children are much more likely than Hindu children to have received each of the recommended vaccinations. Children from other Castes are more likely to have BCG, DPT-1, DPT-2, Polio-1, Polio-3 and measles vaccinations, and children from other Backward Classes are more likely to have Polio-1 and Polio-2. The standard of living index of the household has a strong positive relationship with vaccination coverage. Eighty four percent of children from households with a high standard of living are fully vaccinated, whereas 73.9 percent of children are from households with medium standard of living.

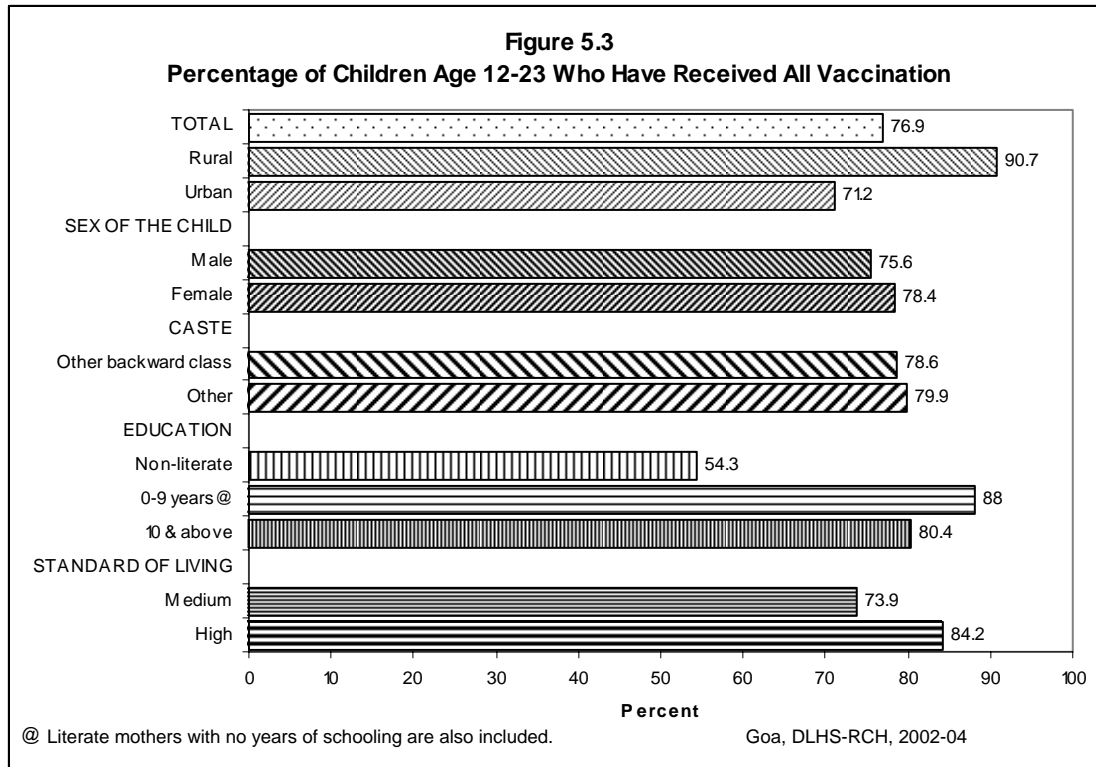


Table 5.5 shows the percentage of children in the age group 12-23 months and 24-35 months with a vaccination card, and the percentage who received various vaccinations during the first year of life by current age of children and place of residence. The interviewer was shown this vaccination card.

The proportion of children fully vaccinated by age 12 months increased slightly from 76.9 percent for children in the age group 12-23 months to 87.3 percent for children in the age group 24-35 months. A rural-urban differential for the coverage of full vaccination is also observed. There is not much difference between children in the age group 12-23 months and children in the age group 24-35 months regarding full vaccination in rural areas, and this gap is much wider in urban areas (Figure 5.4). Around three fourth of children in the age group 12-23 months have received all vaccinations in urban areas compared to 84.1 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.

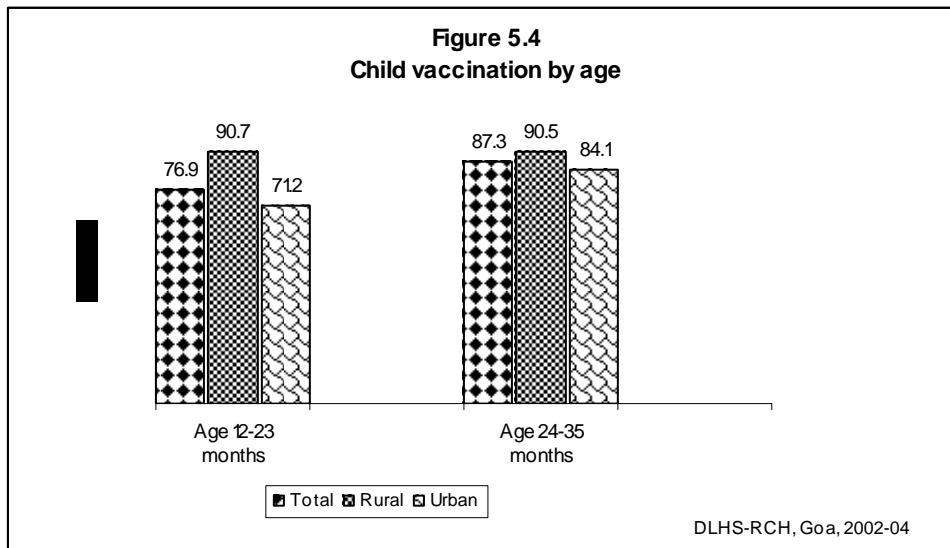
Table 5.5: CHILDHOOD VACCINATION RECEIVED BY 12 MONTHS OF AGE

Percentage of children age 12-23 months and 24-35 months with a vaccination card that was shown to the interviewer and percentage who received specific vaccinations by 12 months of age according to residence, Goa , 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	69.8	61.1	73.8	61.9	68.1	60.3
Percentage vaccinated by 12 months of age						
Polio 0	89.8	96.0	93.4	97.7	88.4	94.4
BCG	94.7	99.1	100.0	100.0	92.5	98.3
DPT injection						
No DPT	3.0	0.0	1.7	0.0	3.6	0.0
1	2.5	2.1	1.8	2.5	2.9	1.7
2	6.8	5.7	3.8	3.3	8.1	8.1
3	84.2	92.2	92.7	94.1	80.7	90.2
Don't remember/missing	3.4	0.0	0.0	0.0	4.8	0.0
Polio doses						
No Polio	2.4	0.0	1.7	0.0	2.6	0.0
1	2.7	1.4	0.0	0.0	3.8	2.9
2	7.9	5.3	3.8	3.3	9.6	7.2
3	84.1	93.3	91.9	96.7	80.9	89.9
Don't remember/missing	3.0	0.0	2.5	0.0	3.1	0.0
Measles	89.2	98.0	97.1	97.3	86.0	98.6
Full ¹ vaccination	76.9	87.3	90.7	90.5	71.2	84.1
No vaccination at all	1.8	0.0	0.0	0.0	2.6	0.0
Number of children	179	138	53	69	126	69

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. Government hospital is the primary provider of childhood vaccinations in Goa State. Most of the children (65 percent) were immunized at the government health facilities and 35 percent at private health facilities. Further, among the children immunized, 12.5 percent of them had received vaccination from the sub-centre, 45.4 percent from municipal hospital, and 7.1 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 (23.2 percent) than in urban areas (28.4 percent). Even in urban areas, however, 62.2 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, Goa, 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	45.4	40.1	49.1	*	41.8
Community/primary health centre	7.1	7.4	7.0	*	7.6
Sub-centre	12.5	21.4	6.1	*	19.2
Private health sector					
Private hospital	12.0	9.8	13.5	*	9.2
Private doctor	14.3	13.4	14.9	*	13.8
ISM ² health facility	5.3	4.5	5.9	*	4.6
Other	0.7	0.0	1.3	*	0.0
Do not remember	2.7	3.4	2.1	*	3.8
Total percent	100.0	100.0	100.0	*	100.0
Number of children	381	158	223	16	142
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. * Percentage not shown : Based on few cases.					

5.4 Vitamin A and IFA Supplements

Vitamin A deficiency is one of the most common nutritional deficiency disorders in the world, affecting more than 250 million children worldwide (Bolem et. al., 1997). The child survival programme also includes administration of five doses of Vitamin A for prevention of night blindness and distribution of IFA for iron supplement. In Round II, mothers of children born during the three years before the survey were asked whether their children had received a dose of Vitamin A and IFA tablets/syrup. Those who said that their children had received a dose of Vitamin A and IFA tablets/syrup were further asked how many doses were given. Table 5.7

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 Goa as a whole, 41.4 percent of the children received at least one dose of Vitamin A, and only 18.7 percent received IFA tablets/syrup. This indicates that a large number of children in Goa did not receive Vitamin A supplements and very few children received IFA tablets/syrup supplementation.

Table 5.7: VITAMIN A AND IFA SUPPLEMENTATION FOR CHILDREN			
Percentage of children age 12-35 months who have received at least one dose of Vitamin A and iron folic acid tablets/syrup, according to selected background characteristics, Goa, 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	36.3	16.3	179
24-35 months	48.0	21.8	138
Sex of the child			
Male	38.3	21.0	158
Female	44.2	16.5	159
Birth order			
1	47.2	21.3	142
2	36.8	18.8	113
3	36.8	12.6	63
Residence			
Rural	45.6	20.0	122
Urban	38.8	17.9	195
Mother's education			
Non-literate	33.4	11.8	58
0-9 years@	42.7	13.1	112
10 years and above	43.6	25.6	147
Religion			
Hindu	40.9	19.0	194
Other	42.3	18.2	123
Caste/tribe #			
Other backward class	45.0	23.6	99
Other	44.0	16.7	186
Standard of living index			
Low	(45.7)	(17.1)	37
Medium	43.9	16.4	126
High	39.3	22.3	155
Availability of health facility in the village¹			
Yes	44.8	21.0	111
Total	41.4	18.7	317
<p>Note: Table includes last and last but one living children born in the three years preceding the survey. @ Literate mother with no years of schooling are also included here. # Total figure may not add to N due to do not know and missing cases. ¹ Includes sub-centre, primary health centre, Community health centre or referral hospital, government hospital, and government dispensary within the village. Total includes 10,4 and 11 cases for scheduled caste, scheduled tribe and no health facility available in the village were not shown separately. () Based on less than 50 unweighted cases.</p>			

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 3 or above are much less likely than children of birth order 1 or 2 to receive any dose of vitamin A and IFA tablets/syrup. Similarly, children from other communities are less likely to receive at least one dose of Vitamin A and a dose of IFA tablets/syrup than backward class category.

5.5 Immunization Coverage by District

The coverage of vaccination rates for all vaccines for children in the age group 12-23 months in each district is presented in Table 5.8. 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. Since Goa State has only two districts the percentage of children who are fully vaccinated ranges from 68 percent in South Goa to 80 percent in North Goa. Only 2.6 percent of children in North Goa district has not been vaccinated and Goa state as a whole only 1.8 percent of children not vaccinated at all. In south Goa district both Polio-0 and BCG vaccine covered 100 percent. Whereas DPT-3 and Polio-3 covered 76.3 percent and 73.5 percent respectively. Measles coverage in North Goa district 87.7 percent and in South Goa district it is about 93 percent.

Table 5.8: CHILDHOOD VACCINATION BY DISTRICT								
Percentage of children who received specific vaccinations and Vitamin A supplementation by district, Goa, 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	
North Goa	86.0	92.6	87.0	87.9	87.7	79.9	2.6	45.0
South Goa	100.0	100.0	76.3	73.5	92.8	67.9	0.0	32.1
Goa	89.8	94.7	84.2	84.1	89.2	76.9	1.8	41.4

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

District wise variations in the percentage of children who received at least one dose of Vitamin A are also shown in Table 5.8. The percentage of children in the age group 12-35 months who received at least one dose of Vitamin 'A' supplements ranges from 32.1 percent in South Goa district to 45.0 percent in North Goa district. Children received at least one dose of Vitamin A was 41.4 percent in Goa state as a whole.

5.6 Child Morbidity and Treatment

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

5.6.1 Awareness of Diarrhoea

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

In Goa State, 50.6 percent of the mothers with births three years preceding the survey were aware of what to do when a child had diarrhoea, and 31.7 percent were aware of ORS. Around 15 percent of the women were aware of salt and sugar solution. Some of the women also reported that they would continue normal food (2.6 percent), continue breastfeeding (1.3 percent), and give plenty of fluids (2.4 percent), and about 50 percent of women did not know what to give a child who had diarrhoea. As expected, knowledge of ORS is higher among urban women (32.7 percent) than rural women (30.4 percent), and among high school and above educated women (44.0 percent) as compared to non-literate women (14.0 percent). Women belonging to other backward classes (40.6 percent) are more likely to know about ORS than women belonging to other caste groups (30.0 percent). Thirty eight percent of women with children having a high standard of living know about ORS and it declines to 28.1 percent for women with a medium standard of living and 7.3 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 5.9: AWARENESS OF DIARRHOEA

Percentage of women who are aware of diarrhoea management, type of practice followed if child gets diarrhoea, and percentage of women whose child suffered¹ from diarrhoea by selected background characteristics, Goa, 2002-04

Background characteristic	Knowledge of diarrhoea management	Type of practices to be followed if child gets diarrhoea*					Do not know	Number of women
		Give ORS	Salt and sugar solution	Continue normal food	Continue breastfeeding	Give plenty of fluids		
Age								
15-24	48.2	28.2	15.1	2.7	1.5	2.0	51.8	104
25-34	52.4	35.3	15.3	3.1	1.1	2.6	47.8	281
35-44	(45.1)	(21.6)	(9.8)	(0.0)	(2.0)	(2.0)	(54.9)	48
Residence								
Rural	48.5	30.4	12.6	1.7	1.3	1.2	51.8	189
Urban	52.1	32.7	16.2	3.4	1.3	3.4	47.9	245
Mother's education								
Non-literate	33.3	14.0	13.0	2.4	3.2	1.6	67.8	73
0-9 years@	42.5	21.0	11.3	1.6	0.0	0.7	57.5	137
10 and above	61.2	44.0	17.2	3.3	1.5	3.7	38.8	223
Religion								
Hindu	55.1	34.1	16.6	3.5	1.3	1.9	44.9	276
Other	42.7	27.6	11.3	1.1	1.3	3.3	57.7	158
Caste/tribe#								
Other backward class	65.1	40.6	13.8	0.9	0.9	0.9	34.9	125
Other	46.1	30.0	15.2	3.7	1.1	2.9	54.2	258
Standard of living index								
Low	(31.7)	(7.3)	(17.1)	(0.0)	(2.4)	(2.4)	(68.3)	41
Medium	43.6	28.1	10.4	1.2	1.2	1.9	56.4	154
High	57.0	37.9	16.6	4.0	1.4	2.8	43.2	239
Availability of health facility² in the village								
Yes	49.1	29.6	13.6	1.9	1.5	0.8	51.3	168
Total	50.6	31.7	14.7	2.6	1.3	2.4	49.6	434

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. () Based on less than 50 unweighted cases. Total includes 13,7 and 21 cases for scheduled caste, scheduled tribe and no health facility available in village were not shown separately.

5.6.2 Treatment of Diarrhoea

During the two weeks before the survey, 9.2 percent of the women reported that their children suffered from diarrhoea (Table 5.10). Women, whose children had diarrhoea, were further asked about treatment with ORS, any other medical treatment and source of treatment. About 80 percent of the women mentioned that they gave ORS therapy, and 93.8 percent of the women said that their child had been treated at health facility. Use of ORS for the treatment of childhood diarrhoea in Goa state is relatively high among urban women than among rural women.

Table 5.10: TREATMENT OF DIARRHOEA			
Percentage of women who sought treatment whose child suffered from diarrhoea and by source of treatment, according to place of residence and availability of health facility in the village, Goa, 2002-04			
Sought treatment/ source of treatment	Total	Residence	
		Rural	Urban
Percentage of women whose child suffered ¹ from diarrhoea	9.2	7.5	10.5
Number of women	434	189	245
Percentage of women whose child suffered ¹ from diarrhoea treated with ORS	(79.5)	*	(76.0)
Percentage of women whose child suffered ¹ from diarrhoea sought treatment	(82.1)	*	(80.0)
Number of women	40	14	26
Source of treatment			
Government health facility			
Hospital/dispensary	(21.9)	*	*
Private health facility			
Private hospital clinic	(71.9)	*	*
ISM ³ facility	(21.9)	*	*
Home remedy	(6.3)	*	*
Percent distribution of women who seek treatment by			
Doctor	(90.6)	*	*
ANM/Nurse/LHV	(6.3)	*	*
Relative/friends	(3.1)	*	*
Total percent	100.0	100.0	100.0
Number of women	32	12	20
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 * Percentage not shown: Based on few cases. () 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, 71.9 percent of women visited private hospitals/clinics and 21.9 percent of women treated their children through the Indian System of Medicine.

5.6.3 Awareness of Pneumonia

Another major killer disease among infants and children is Acute Respiratory Infections (ARI) including pneumonia. Early diagnosis and treatment with antibiotics can prevent a large proportion of ARI/pneumonia deaths. An attempt was made to understand the awareness level of pneumonia, and the proportion of children who had suffered from pneumonia during the last two weeks before the survey and their health seeking behaviour. This is presented in Table 5.11. It was found that a low proportion (11.9 percent) of women with births three years preceding the survey in Goa state were aware of danger signs of pneumonia. A relatively high proportion of women in urban areas (12.9 percent) were aware of the danger signs of pneumonia as compared to women from rural areas (10.7 percent). Knowledge of danger signs of pneumonia is higher among 25-34 age group women (14.3 percent), women from other religion (13.6 percent), highly educated women (44 percent), women living in high standard of living household (15.6 percent), and women living in those villages with health facilities (12.0 percent).

Women, who were aware of the danger signs of pneumonia, were further asked about different types of signs of pneumonia. Most of the women mentioned about 'difficulty in breathing' (83.6 percent), 'pain in chest and productive cough' (11.2 percent), 'wheezing / whistling' (18.7 percent), 'chest in drawing' (14.7 percent), 'not able to drink or take a feed' (12.4 percent), 'rapid breathing' (16.8 percent), 'condition get worse than before' (10.8 percent) and 'excessive drowsy and difficulty in keeping awake' (4.5 percent).

5.6.4 Treatment of Pneumonia

About 16 percent of women reported that their child had suffered from pneumonia during two weeks before the survey, the corresponding figures were 11.7 percent in rural areas and 19.4 percent in urban areas (Table 5.12). The incidence of pneumonia varies little with availability of health facilities in the villages.

Table 5.12 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-seven percent of women received some advice or treatment whose children were ill with ARI. Among those who got advice for children ill with ARI, 72.4 percent of women visited private hospital/clinic, and 27.6 percent went to government hospital/dispensary.

Table 5.11: AWARENESS OF PNEUMONIA											
Percentage of women who are aware of danger signs of pneumonia by signs by selected background characteristics and availability of health facility in the village, Goa , 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	6.4	104	*	*	*	*	*	*	*	*	7
25-34	14.3	281	(83.7)	(20.9)	(11.6)	(2.3)	(14.0)	(11.6)	(16.3)	(18.6)	40
35-44	(9.8)	48	*	*	*	*	*	*	*	*	5
Residence											
Rural	10.7	189	*	*	*	*	*	*	*	*	20
Urban	12.9	245	(79.4)	(17.6)	(11.8)	(2.9)	(17.6)	(2.9)	(17.6)	(17.6)	32
Mother's education											
Non-literate	10.5	73	*	*	*	*	*	*	*	*	8
0-9 years@	5.1	137	*	*	*	*	*	*	*	*	7
10 and above	16.5	223	(75.0)	(16.7)	(8.3)	(5.6)	(13.9)	(13.9)	(19.4)	(19.4)	37
Religion											
Hindu	11.0	276	(90.0)	(16.7)	(10.0)	(0.0)	(10.0)	(6.7)	(16.7)	(13.3)	30
Other	13.6	158	*	*	*	*	*	*	*	*	21
Caste/tribe#											
Other backward class	12.4	125	*	*	*	*	*	*	*	*	15
Other	12.3	258	(72.2)	(25.0)	(11.1)	(2.8)	(19.4)	(5.6)	(16.7)	(19.4)	32
Standard of living index											
Low	(4.9)	41	*	*	*	*	*	*	*	*	2
Medium	7.7	154	*	*	*	*	*	*	*	*	12
High	15.6	239	(76.3)	(21.1)	(7.9)	(5.3)	(15.8)	(13.2)	(15.8)	(15.8)	37
Availability of health facility² in the village											
Yes	12.0	168	*	*	*	*	*	*	*	*	20
Total	11.9	434	83.6	14.7	12.4	4.5	11.2	10.8	18.7	16.8	52

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. Table includes 20 missing information on awareness of pneumonia. @ Literate mother with no years of schooling are included. # Total figure may not add to N due to do not know and missing cases. ² Includes sub-centre, primary health centre, Community health centre or referral hospital, government hospital, and government dispensary within the village * Percentage not shown: Based on few cases. () Based on less than 50 unweighted cases. Total includes 13,7 and 21 cases for scheduled caste, scheduled tribe and no health facility available in the village were not shown separately.

Table 5.12: TREATMENT OF PNEUMONIA			
Percentage of women who sought treatment whose child suffered ¹ from cough and cold and source of treatment, according to place of residence and availability of health facility in the village, Goa, 2002-04			
Sought treatment/ source of treatment	Total	Residence	
		Rural	Urban
Percentage of women whose child suffered from cough, cold and difficulty in breathing	16.0	11.7	19.4
Number of women	434	189	245
Percentage of women sought treatment whose child suffered from cough and cold	86.9	*	(90.2)
Number of women	70	22	48
Source of treatment			
Government health facility Hospital/dispensary	27.6	*	(26.1)
Private health facility			
Private hospital clinic	72.4	*	(73.9)
Home remedy	1.5	*	(2.2)
Percent distribution of women who seek treatment by			
Doctor	100.0	*	(100.0)
Total percent	100.0	100.0	100.0
Number of women	60	18	42
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 * Percentage not shown: based on few cases. () based on less than 50 unweighted cases			

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

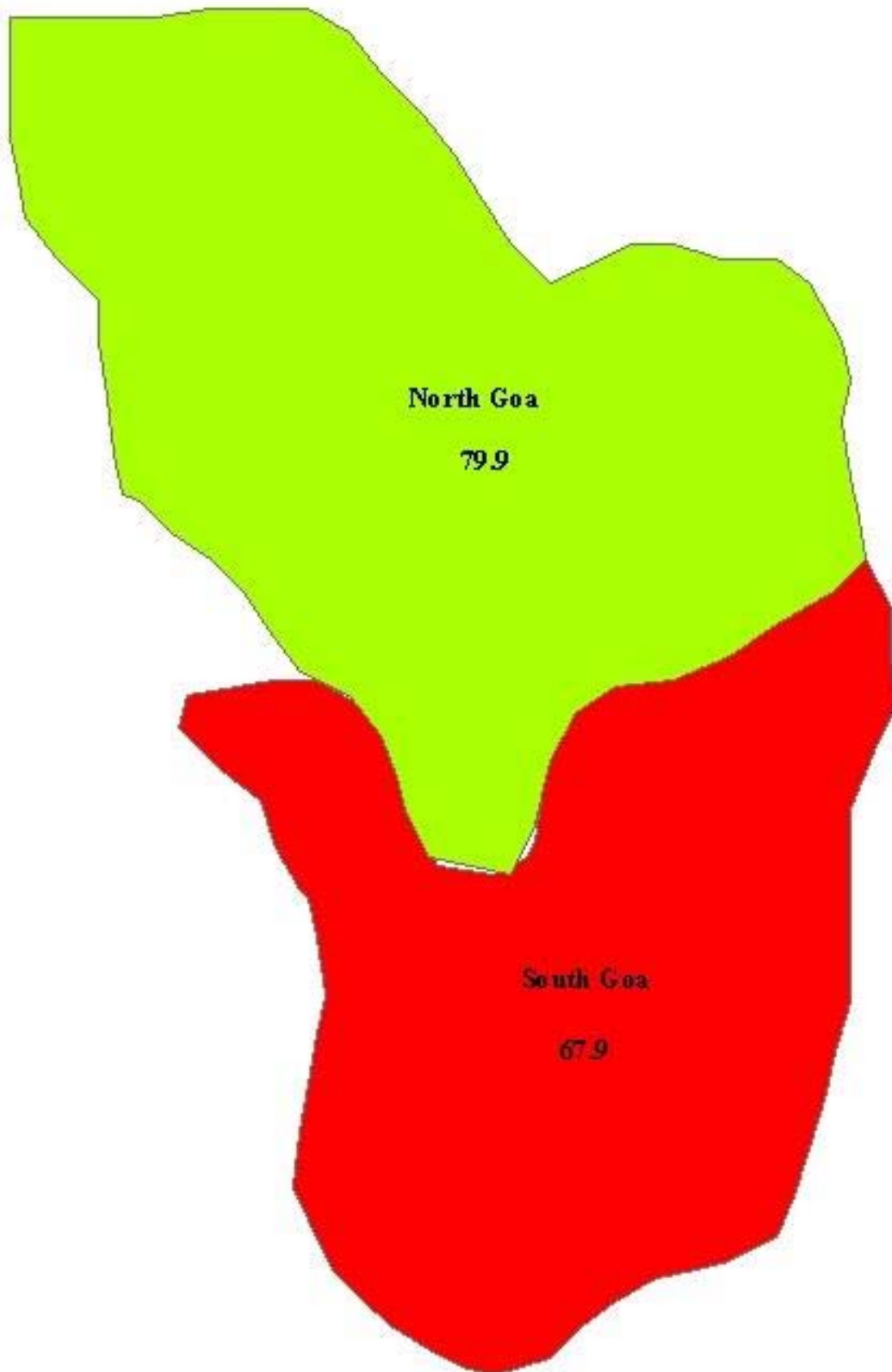
Table 5.13 presents the knowledge of diarrhoea management, knowledge of ORS, and incidence of diarrhoea by district. Although knowledge of diarrhoea management is high two districts but knowledge about ORS is low. Knowledge of ORS in North Goa district was 27.2 percent and in South Goa it was 37.5 percent. The incidence of diarrhoea is 9.2 percent in the state as a whole and it varies from 8.1 percent in South Goa to 10 percent in North Goa. Table 5.13 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 high. It is 12.8 percent in North Goa district and 10.1 percent in South Goa district. Percentage of women whose child suffered from pneumonia was 10.0 percent in north Goa district and 25.7 percent in South Goa district.

Table 5.13: KNOWLEDGE OF DIARRHOEA MANAGEMENT AND PNEUMONIA BY DISTRICT					
Percentage of women by awareness of diarrhoea management, ORS, danger signs of pneumonia and whose child had suffered from diarrhoea and pneumonia during last two weeks prior to survey by district, Goa, 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			
North Goa	49.2	27.2	10.0	12.8	10.0
South Goa	51.7	37.5	8.1	10.1	25.7
Goa	50.6	(79.5)	9.2	11.9	16.0

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. () Based on less than 50 unweighted cases.

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

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



CHAPTER VI

FAMILY PLANNING

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

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

6.1 Knowledge of Family Planning Methods

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

The extent of knowledge of contraceptive methods among currently married women for specific methods and selected background characteristics are shown in Table 6.1 and Figure 6.1. Knowledge of any method including any modern contraceptive method is almost universal in the state of Goa. The knowledge of any method and any modern method vary by residence. The knowledge of modern spacing method among currently married women is around 78 percent, and slightly higher among the women with an rural residence. There are slight differentials in knowledge of all modern methods with respect to the aforesaid background characteristics. For instance, 27 percent of women from rural areas are aware about all modern methods compared to 30 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, Goa, 2002-04					
Contraceptive methods	Total	Residence		Availability of health facility in the village ³	
		Rural	Urban	No	Yes
Any method	88.5	93.0	84.0	98.3	92.2
Any modern method	88.0	92.9	83.2	98.3	92.1
Any modern spacing method ¹	78.3	81.5	75.3	76.1	82.3
All modern methods ²	28.7	30.3	27.2	37.2	29.2
Female sterilization	77.7	85.4	70.2	94.9	84.0
Tubectomy	67.6	74.4	61.0	80.1	73.6
Laparoscopy	55.1	62.4	48.1	57.0	63.2
Male sterilization	48.0	55.5	40.6	59.6	54.9
Vasectomy	36.9	42.6	31.4	42.2	42.7
No-scalpel vasectomy	30.1	34.4	25.8	26.1	35.6
IUD/Loop	51.6	56.5	46.7	49.4	57.5
Pills	75.0	79.0	71.1	72.3	80.0
Daily	63.4	70.0	56.9	66.8	70.5
Weekly	61.7	68.3	55.3	63.0	69.1
Condom/Nirodh	60.5	61.0	60.1	60.5	61.1
Sponge (today)	15.0	15.8	14.3	9.0	16.7
Injectables	14.4	13.8	15.0	8.6	14.6
Norplant	6.4	5.9	6.9	0.7	6.6
Contraceptive herbs	12.7	14.5	11.0	18.5	14.0
Any traditional method	22.2	23.4	21.0	22.9	23.5
Any other Indian system of medicinal contraceptives	1.1	1.0	1.2	0.0	1.1
Number of women	1,281	632	649	80	552

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 Goa followed by Pills. Overall, 78 percent of currently married women are aware of female sterilization and 48 percent knew about male sterilization. There is rural - urban difference in knowledge of female sterilization and male sterilization. A sizable number of rural women (55 percent) know about male sterilization as compared to 41 percent of urban women. There are differentials in spacing methods such as IUD/Loop, and pill users with respect to the background characteristics. The best-known spacing methods are Pills (75 percent) and condoms (60 percent) respectively. Only 51 percent of women know about the IUD/Loop. There are no differentials in knowledge of spacing methods by residence with regard to condom. The modern spacing methods, Pill and IUD are known by 79 and 56 percent of rural women respectively while the corresponding figures in urban areas are 71 and 47 percent respectively of eligible women respondents. The knowledge of these spacing methods remains low as compared to knowledge of sterilization.

In Goa, only 22 percent of the women are aware of a traditional method and only one percent of women are aware of other contraceptives of the Indian System of Medicine. It is also observed that women from villages with a health facility are slightly more aware about modern spacing methods.

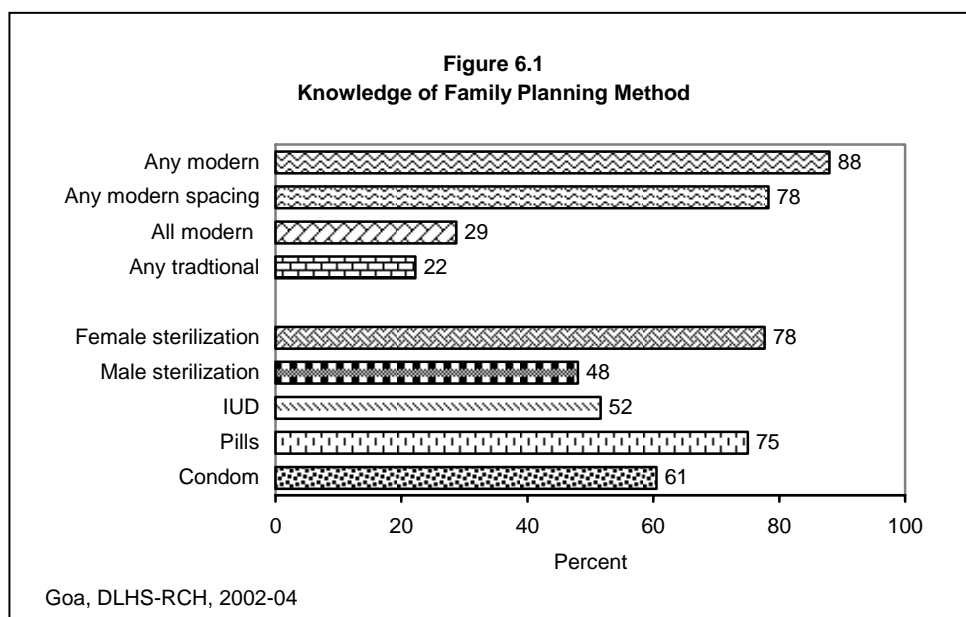


Table 6.2: KNOWLEDGE OF CONTRACEPTIVE METHODS BY DISTRICT
Percentage of currently married women age 15-44 years who know any contraceptive method by specific method and district, Goa, 2002-04

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
North Goa	96.0	95.6	88.4	43.3	61.4	90.7	71.0	86.2	69.7	34.7
South Goa	79.3	78.7	65.5	10.4	31.4	61.6	26.6	60.8	48.9	6.5
Goa	88.5	88.0	78.3	28.7	48.0	77.7	51.6	75.0	60.5	22.2

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

6.1.1 Knowledge of Family Planning Methods by Districts

Table 6.2 shows the knowledge of contraceptive methods by districts in Goa. In all districts around 88 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 10 percent women in south Goa to 43 percent in North Goa district. There is variation in the knowledge of female sterilization, which is the low in South Goa (62 percent) and high, in North Goa district (91 percent). Knowledge about IUD/Loop and condom are 71 and 70 percent respectively in North Goa, whereas the same is around 26 and 49 percent for South Goa district. As for as any traditional method, awareness is 35 percent in North Goa and only 6 percent in South Goa.

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 Goa is shown in Table 6.3. Only one-fourth (25 percent) of the husbands know about the no-scalpel vasectomy. In rural areas, 27 percent of husbands know about NSV compared to 23 percent in urban areas. For women residing in villages with a health facility, 27 percent of their husbands are aware of No-scalpel vasectomy and it is 33 percent for those living in villages without health facilities. Among the husbands who know about NSV, 71 percent reported that NSV is simpler than a conventional family planning method, 88 percent feel that reported as NSV does not lead to any complication and 66 percent reported that NSV does not affect a man's sexual performance. Seventy two percent of the husbands in villages with a health facility reported that, NSV does not affect sexual performance.

Table 6.3: KNOWLEDGE OF NO-SCALPEL VASECTOMY (NSV)					
Husbands knowledge of NSV by residence and availability of health facility in the village, Goa, 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	25.4	27.6	23.2	(32.6)	26.9
Number of husbands	747	378	369	47	331
Who know that NSV is simpler than conventional vasectomy	71.0	78.4	62.0	*	84.6
Who feel that NSV does not lead to any complication	88.4	91.6	84.6	*	91.9
Who feel that NSV does not affect man's sexual performance	65.7	69.9	60.6	*	71.9
Number of husbands	190	104	86	15	89

Note: ¹ 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. * Percentage not shown; based on few cases.

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

No-scalpel vasectomy awareness by districts in Goa are provided in Table 6.4. Thirty nine percent of husbands know about NSV in North Goa compared to 8 percent in South Goa. Seventy six percent of the husbands in North Goa reported NSV is simpler than conventional method. That NSV does not lead to any complications was reported by 94 percent of the husbands in North Goa compared to 49 percent in South Goa. The husbands who reported that the NSV does not affect a man's sexual performance was high in North Goa (67 percent) compared to South Goa(53 percent).

TABLE 6.4: NO-SCALPEL VASECTOMY BY DISTRICT				
Husband's knowledge of NSV by district, Goa, 2002-04				
Districts	Knowledge about NSV	NSV is simpler than conventional method	Who reported NSV does not lead to any complication	Who reported NSV does not affect man's sexual performance
North Goa	38.7	76.2	94.4	67.5
South Goa	7.7	33.1	49.4	53.1
Goa	25.4	71.0	88.4	65.7

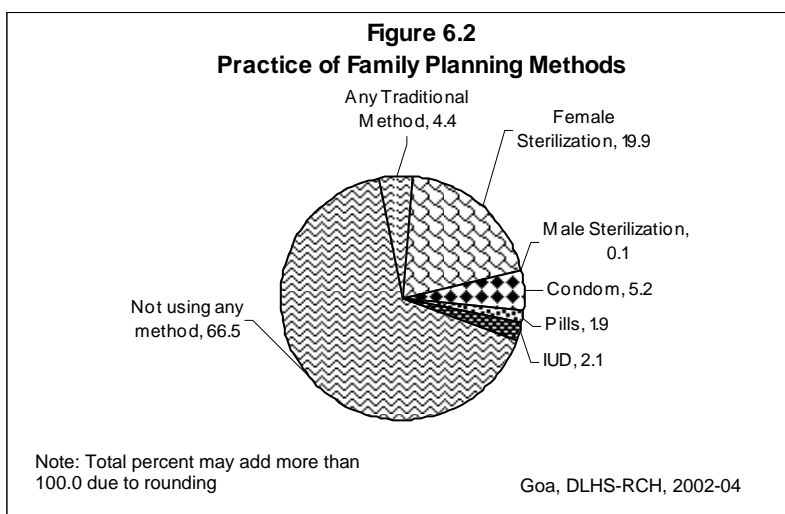
6.2 Current use of Family Planning Methods

Table 6.5 and Figure 6.2 provide the information on current use of family planning methods for currently married women in Goa. At the time of DLHS-RCH, 33 percent of currently married women were using some method of contraception. Current contraceptive use is slightly higher in rural areas (35 percent) than in urban areas (31 percent). Use of modern method is reported by 30 percent of the women, the breakdown of which is 20 percent for permanent methods and 9 percent for spacing methods. Among the users of sterilization methods most prefer female sterilization, which invalidates the use of male sterilization (0.1 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, Goa, 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	35.5	32.3	8.3	23.7	0.0	23.7	1.6	2.0	4.7	3.2	2.0	1.1	632
Urban	31.5	27.4	9.9	16.3	0.1	16.2	2.5	1.7	5.7	4.1	2.5	1.2	649
Education													
Non-literate	44.2	42.3	3.2	36.8	0.0	36.8	1.0	0.5	1.7	1.9	1.0	0.9	251
0-9 years @	31.9	29.0	5.3	23.5	0.0	23.5	1.2	1.3	2.8	2.9	2.3	0.5	454
10 years & above	30.0	25.1	14.7	9.9	0.1	9.7	3.2	2.9	8.6	4.9	2.8	1.8	576
Religion													
Hindu	36.9	34.0	9.6	23.4	0.1	23.3	2.3	1.5	5.8	2.9	1.7	1.1	853
Muslim	33.8	30.0	9.5	19.3	0.0	19.3	0.9	2.4	6.2	3.8	2.3	1.4	140
Christian	23.0	17.4	7.1	10.3	0.0	10.3	1.8	2.7	2.5	5.7	4.1	1.0	283
Caste/tribe#													
Scheduled caste	(37.1)	(37.1)	(5.7)	(25.7)	(2.9)	(22.9)	(0.0)	(2.9)	(2.9)	(0.0)	(0.0)	(0.0)	36
Scheduled tribe	(39.1)	(39.1)	(13.0)	(26.1)	(0.0)	(26.1)	(4.3)	(0.0)	(8.7)	(0.0)	(0.0)	(0.0)	24
Other backward class	35.9	33.8	8.1	25.3	0.0	25.3	1.8	1.2	5.0	2.1	1.5	0.6	385
Other	33.3	28.3	9.9	17.6	0.0	17.6	2.3	2.2	5.4	5.0	3.1	1.6	762
Standard of living index													
Low	39.1	37.3	2.8	33.6	0.0	33.6	0.0	0.0	2.8	1.8	0.9	0.9	129
Medium	34.5	32.5	5.9	24.9	0.0	24.9	0.9	1.3	3.7	2.1	1.8	0.2	416
High	31.9	27.1	12.0	14.8	0.1	14.7	3.0	2.5	6.5	4.8	2.8	1.7	737
Availability of health facility in the village⁴													
No	36.5	31.8	3.9	27.9	0.0	27.9	0.0	0.0	3.9	4.7	3.4	1.4	80
Yes	35.3	32.4	9.0	23.1	0.0	23.1	1.9	2.3	4.8	2.9	1.8	1.0	552
Total	33.5	29.8	9.1	20.0	0.1	19.9	2.1	1.9	5.2	3.6	2.3	1.1	1,281

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. @ Literate women with no years of schooling are also included. #Total figure may not add to N due to don't know and missing cases. ⁴ Includes sub-centre, primary health centre, community health centre or referral hospital, government hospital, and government dispensary within the village. Total includes 6 other religion cases were not shown separately. () Based on less than 50 unweighted cases.

The use of traditional methods is reported by 4 percent of the women of which 1 percent is using withdrawal and 2.3 percent follow the rhythm or periodic abstinence practice. The rural-urban differential exists in the case of traditional methods, where 4 percent of the urban women are using this means of contraception compared to 3 percent of the rural women.



Current use of contraception is high among women of scheduled tribe and Scheduled caste (39 and 37 percent each) than among backward class women (36 percent). The current use is also high among the women who are non- literate (44 percent) than who have 10 or more years of schooling (30 percent) and also among than the women who have less than 10 years of schooling (32 percent). Similarly, current contraceptive use varies negatively with respect to the standard of living of the women, decreasing the prevalence rate from 39 percent to 32 percent for women from the lowest to the highest standard of living households. The availability of the health facility in the village is not an important factor in motivating eligible women to use contraceptives. Thirty five percent of the women living in villages with a health facility are currently under contraception and thirty six percent of the women from villages deprived of a health facility. The current use of the traditional method is high among women with a higher education level and with a high standard of living than their counterparts.

6.2.1 Current Use of Family Planning Methods by Districts

Table 6.6 presents a picture of current contraceptive use in the districts of Goa. The contraceptive use is that a couple concepts as family planning methods can be used either by women or by their husbands. In the districts of Goa, the current use of contraception is only 39 and 27 percent. (See Map-6). The state figure of current spacing methods use is only 9 percent. 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 DISTRICT									
Percentage of currently married women age 15-44 years currently using any contraceptive method by district, Goa, 2002-04									
Districts	Any method	Any modern ¹ method	Any modern spacing ² method	Male sterilization	Female sterilization	IUD	Pill	Condom / Nirodh	Any traditional ³ method
North Goa	39.1	34.6	9.1	0.1	25.4	1.6	1.6	5.9	4.5
South Goa	26.6	23.9	9.0	0.0	13.2	2.6	2.2	4.2	2.6
Goa	33.5	29.8	9.1	0.1	19.9	2.1	1.9	5.2	3.6

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 Goa is different from the general existing pattern in India. The contraceptive prevalence rate of 4 percent for traditional methods in the state is much lower than some other states in the country. The use of oral Pills ranges between 1.6 and 2.6 in the districts of Goa. The use of condom is 5.2 percent in the state and ranges from 4.2 to 5.9 percent in the districts.

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

Table 6.7 provides information on current contraceptive use and ever used of contraception by age and number of surviving children, living sons and daughters. The current use of any method of contraception among currently married women in the 20-24 years age group is 16 percent and this attains a peak of 40 percent in the age group 40-44 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 4.8 percent for the women aged 35-39 years and 4.2 percent for the women aged 40-44 years and it is less than one percent for the women in age group 25-29 years. The use of modern methods ranges from 14 percent for women in the age group 20-24 years to 35.5 percent for women in the age group 40-44 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, Goa, 2002-04

Demographic Characteristic	Percentage of women/husbands using				Percentage of women/husbands by contraceptive status		Number of women
	Any modern method ¹	Any traditional method ²	Any method	Not using any method	Ever used	Never used	
Age-group							
20-24	13.9	2.0	15.9	84.1	18.7	81.3	152
25-29	30.1	0.9	31.0	69.0	34.8	65.2	294
30-34	31.2	5.6	36.9	63.1	43.2	56.8	324
35-39	34.0	4.8	38.9	61.1	40.9	59.1	280
40-44	35.5	4.2	39.8	60.2	45.0	55.0	212
Surviving children							
0	4.9	0.0	4.9	95.1	7.6	92.4	171
1	17.8	4.1	22.0	78.0	27.7	72.3	316
2	30.3	5.3	35.6	64.4	39.9	60.1	443
3 or more	52.3	2.8	55.1	44.9	58.3	41.7	350
Surviving sons							
0	16.0	2.0	18.0	82.0	22.2	77.8	436
1	28.7	3.6	32.2	67.8	36.8	63.2	531
2 or more	51.1	6.0	57.0	43.0	60.2	39.8	314
Surviving daughters							
0	19.8	4.1	23.9	76.1	27.7	72.3	512
1	36.1	3.8	39.9	60.1	44.7	55.3	469
2 or more	37.2	2.5	39.7	60.3	43.4	56.6	300
All women	29.8	3.6	33.5	66.5	37.6	62.4	1,281

Note: ¹ Include Female sterilization, Male sterilization, IUD, Pills and Condom. ² Include Rhythm/Periodic abstinence, Withdrawal and Other traditional method. Total includes 19 cases for 15-19 age group were not shown separately.

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 Goa. The use of any method of contraception is 57 percent for the women who have two or more sons and is marginally higher than the women who have two or more daughters (40 percent). The same trend can be observed in the case of use of any modern method which is 51 percent for the women who have two or more surviving sons and it is higher than the women who have two or more daughters (37 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 Goa 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 35 years) of currently married women is 25 percent and it gradually picks up with the age of husband, to a peak of 43 percent in the age group, 45 and above years. Similar age patterns of contraceptive use are observed both in the case of modern methods. And traditional methods. Among the husbands in the age group, 45 years and above the use of traditional methods is 4 percent and it is least 2 percent among the husbands in the younger age group of below 25 to 34 years. The use of modern methods ranges from 23 percent for husbands 25 years of age to 34 years and 34 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, Goa, 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					
25-34	23.1	2.0	25.1	74.9	202
35-44	34.0	3.1	37.3	62.7	361
45+	39.1	4.0	43.1	56.9	170
Surviving children					
0	7.9	5.5	13.4	86.6	108
1	21.8	1.5	23.3	76.7	172
2	34.7	3.1	37.9	62.1	261
3 or more	49.5	2.6	52.4	47.6	206
Surviving sons					
0	17.8	3.2	21.0	79.0	259
1	31.6	1.7	32.9	67.1	305
2 or more	52.4	4.6	58.1	41.9	184
Surviving daughters					
0	25.1	5.1	30.7	69.3	301
1	36.9	0.9	37.6	62.4	272
2 or more	36.0	2.2	38.2	61.8	174
All men	31.9	2.9	35.0	65.0	747
Note: ¹ Include Female sterilization, Male sterilization, IUD, Pills and Condom.					
² Include Rhythm/Periodic abstinence, Withdrawal and Other traditional method.					
Total includes 14 cases for less than 25 age group were not shown separately.					

6.3 Reasons for Not Using Male Methods

The DLHS-RCH asked husbands of currently married women about the contraceptive methods that he or his wife was using currently. The husbands who were not using male methods were further asked the reasons for it. Table 6.9 provides information about reasons for not using male contraceptive methods in Goa. Among all the husbands interviewed, 65 percent reported about female methods. Reporting of female methods is higher in rural areas (70 percent) than in urban areas (59 percent). The reasons cited for not preferring the male methods are greater popularity of female methods (69 percent), fear of weakness (14 percent), fear of impotency (9 percent), lack of sexual pleasure (7 percent) and other reasons (4 percent). Only two percent reported fear of operation 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. The expression for fear of weakness is higher in rural areas (16 percent) than in urban areas (10 percent). Popularity of female methods as a reason for not using male methods of contraception is almost same in both rural and urban areas (69 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, Goa, 2002-04			
Female method users and reason for not accepting male methods	Total	Residence	
		Rural	Urban
Percentage of husband who have reported female methods	65.4	70.4	59.5
Number of men	261	142	119
Reasons for not accepting male methods*			
Fear of impotency	8.6	6.9	10.9
Lack of sexual pleasure	7.3	8.2	6.1
Fear of operation	1.6	0.9	2.6
Fear of weakness	13.8	16.4	10.1
Female methods are more popular	69.1	69.0	69.2
Other	3.7	1.4	7.1
Number of men	171	100	71
Note: * Percentages may add to more than 100.0 because multiple responses could be recorded.			

6.4 Source of Contraceptive Methods

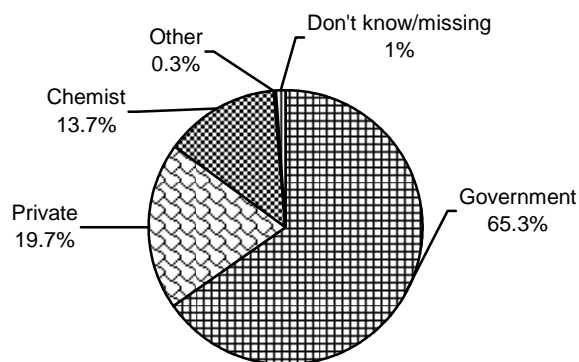
To assess the various sources of contraceptive methods, DLHS-RCH collected information on source of obtaining methods. Table 6.10 and Figure 6.3 show the percent distribution of current users of modern contraceptives by source of contraceptives. Family planning methods and services in Goa are provided 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 (79 percent) followed by Private Hospital (20 percent). Among the IUD users, 39 percent reported the source as government/municipal hospital and 26 percent as private hospital. It is found that the chemist is the main source for the condom (51 percent).

TABLE 6.10: SOURCE OF MODERN CONTRACEPTIVE METHODS

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

Source	Contraceptive method					All modern methods ¹
	Female sterilization	Male sterilization	IUD/ Loop	Pills	Condom / Nirodh	
Government medical centre	79.7	*	(48.4)	*	33.6	65.3
Government/Municipal hospital	78.9	*	(38.7)	*	27.8	62.4
CHC/PHC	0.8	*	(3.2)	*	2.5	1.4
Sub-centre	0.0	*	(0.0)	*	3.3	0.6
Government doctor	0.0	*	(3.2)	*	0.0	0.6
Family planning/RCH camp	0.0	*	(3.2)	*	0.0	0.3
Private medical centre	19.8	*	(41.9)	*	11.0	19.7
Private hospital	17.1	*	(25.8)	*	7.4	16.2
Private doctor	2.7	*	(16.1)	*	3.6	3.5
Chemist	NA	NA	NA	*	51.0	13.3
Other	0.5	*	(0.0)	*	1.8	0.7
Do not know	0.0	*	(9.7)	*	2.5	1.0
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of users	255	1	26	24	67	373

Note: ¹ Includes female sterilization, male sterilization, IUD, Pills or condom. CHC: Community health centre, PHC: Primary health centre. NA: Not applicable. * Percentage not shown; based on few cases.
() Based on less than 50 unweighted cases.

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

Goa, 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 8 percent of the sterilized women have problem with the contraceptive methods in use.

Table 6.11: HEALTH PROBLEMS WITH CURRENT USE OF CONTRACEPTION			
Percentage of women informed about side effects, had side effects with the method by use of method, Goa, 2002-04			
Health problems/side effect	Type of method		
	Female sterilizations	IUD/loop	Pill
Women who were informed about all the available methods	49.2	NA	NA
Women who were informed about the side effects before adoption of the method	23.3	(41.9)	*
Women who had side effect/health problem due to use of contraceptive method	8.3	(22.6)	*
Number of current users	255	26	24
Type of health problems/side effects¹			
Weakness/inability to work	*	*	*
Body ache/ backache	*	*	*
Dizziness	*	*	*
Nausea/vomiting	*	*	*
Irregular periods	*	*	*
Excessive bleeding	*	*	*
Spotting	*	*	*
Number of users with side effects	21	7	3
Note: ¹ Percentages may add to more than 100.0 because multiple problems could be recorded. * Percentage not shown based on few cases. () Based on less than 50 unweighted cases. NA: Not applicable.			

6.6 Treatment for Health Problems with Current Use of Contraception

Regarding the satisfaction about the method, 95 percent of the sterilized women reported satisfaction with sterilization. In the case of spacing methods 97 percent of women using IUD were satisfied with the respective methods.

Table 6.12: FOLLOW-UP VISIT AND SOUGHT TREATMENT FOR HEALTH PROBLEMS WITH CURRENT USE OF CONTRACEPTION			
Percentage of women who had follow-up visit, satisfied with current method and sought treatment with side effects, with the method by use of method, Goa, 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	7.7	(6.5)	*
Women who are satisfied with method of current use	95.2	(96.9)	*
Number of current users	255	26	24
Women who sought treatment for the health problem	*	*	*
Number of women with side effects	21	7	3
Source of treatments			
Government health facility			
Government hospital/dispensary	*	*	*
Private health facility			
Private hospital/clinic	*	*	*
ISM health facility ¹	*	*	*
Number of women with side effects	15	3	0

Note: ¹ Either government or Private. * Percentage not shown based on few cases.
() Based on less than 50 unweighted cases.

6.7 Advice to Non-Users to Use Contraception

Information about non-users who were advised by the ANM/health worker to adopt contraceptives and their future intention to use by preferred method according to their background characteristics are presented in Table 6.13. In DLHS-RCH currently married women who were not using any method of contraception, were asked about advice given by ANM/health worker for adoption of any contraceptive method. It is evident that 7 percent of the women were advised by ANM/health worker to adopt any family planning method in Goa. Among rural women, 9 percent were advised by ANM/health worker to adopt any method and it is higher than the urban women (5 percent) who were advised so.

TABLE 6.13: ADVICE ON CONTRACEPTIVE USE					
Percentage of current non-users ¹ 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, Goa, 2002-04					
Advise/future intension to use	Total	Residence		Availability of health facility in the village ²	
		Rural	Urban	No	Yes
Percentage of current non-users advised by ANM/health worker to use of contraceptive method	7.1	9.0	5.4	2.4	10.0
Number of non-users	827	392	435	50	342
Percent distribution of women who were advised by method					
Female sterilization	30.9	(29.7)	*	*	(31.4)
Male sterilization	1.2	(2.7)	*	*	(0.0)
IUD/loop	22.0	(24.3)	*	*	(25.7)
Pill	19.3	(16.2)	*	*	(17.1)
Condom/Nirodh	26.7	(27.0)	*	*	(25.7)
Total percent	100.0	100.0	100.0	100.0	100.0
Number of non-users	59	35	23	1	34
Note: ¹ Exclude women in menopause or those who have undergone hysterectomy.					
² 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. * Percentage not shown; based on few cases.					

The recommended contraceptive methods by ANM/health worker is dominated by female sterilization (31 percent). Only 22 percent were advised either to adopt IUD/loop, 26 percent Condom/Nirodh and 19 percent pill as spacing methods. Male sterilization has been advised to 1 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, 10 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 urban (11.7 percent) than in rural areas (7.4 percent).

Among the women who intended to use permanent methods of contraception, 73 percent preferred female sterilization whereas women's preferring male sterilization was nil. In case of temporary methods, the preferred methods by women are oral Pills (14 percent), condoms (10.6 percent), withdrawal (1 percent), and other methods (1.2 percent) respectively. Eleven percent of the husbands intended to use contraception in the future, among them 10 percent belong to rural areas and 12 from urban areas. Method wise choice in intention to use contraception is dominated female sterilization being reported by 62 percent, followed by withdrawal (26 percent), and male sterilization (10 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, Goa, 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	9.7	7.4	11.7	11.1	10.3	11.9
Number of non-users	827	392	435	481	231	250
Percent distribution of non-user who were preferred to use family methods by preferred method						
Female sterilization	73.1	(75.0)	(69.4)	62.2	*	(70.4)
Male sterilization	0.0	(0.0)	(0.0)	9.9	*	(3.7)
Oral pills	14.1	(8.3)	(18.4)	1.6	*	(0.0)
Condom/Nirodh	10.6	(16.7)	(8.2)	0.0	*	(0.0)
Withdrawal	1.0	(0.0)	(2.0)	26.0	*	(22.2)
Other	1.2	(0.0)	(2.0)	0.4	*	(3.7)
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of non-users	80	29	51	53	23	30

Note: † Exclude women who are in menopause or those who have undergone hysterectomy.
* Percentage not shown: Based on few cases. () Based on less than 50 unweighted cases

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 Goa. Among the current non-users, around 3 percent of the women intended to use contraception within the next twelve months. Only 1 percent of women wanted to use within one to two years whereas 5 percent reported their intention to use contraceptives after two years. About 21 percent are not sure of their intention to use, whereas 69 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 35 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, Goa, 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	0.1	2.7	4.7	1.6	6.9	3.0
One to two years	0.7	2.1	0.9	0.2	2.2	1.2
More than two years	11.0	5.4	3.5	2.5	3.8	5.4
Does not intend to use	53.6	65.2	73.4	87.9	76.0	69.0
Not yet decided	34.6	24.6	17.4	7.7	11.1	21.3
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	161	241	274	97	54	827
Rural						
Intends to use in next 12 months	0.0	2.5	3.7	(2.6)	(0.0)	2.0
One to two years	0.0	1.0	0.0	(0.0)	(0.0)	0.3
More than two years	10.4	2.3	3.4	(2.6)	(4.2)	5.1
Does not intend to use	50.7	64.8	70.1	(87.2)	(79.2)	66.4
Not yet decided	38.9	29.4	22.8	(7.7)	(16.7)	26.2
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	97	98	127	42	27	392
Urban						
Intends to use in next 12 months	0.3	2.9	5.6	1.5	(13.3)	3.9
One to two years	1.6	2.9	1.7	0.4	(3.3)	2.1
More than two years	11.9	7.5	3.6	2.2	(0.0)	5.7
Does not intend to use	58.2	65.4	76.3	86.4	(76.7)	71.4
Not yet decided	28.0	21.3	12.7	9.5	(6.7)	16.8
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	63	143	147	55	27	435

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 35 percent of the women mentioned that they discontinued the use because they had wanted child, method failed/became pregnant (6 percent), weakness/inability to work (15 percent), irregular periods (2 percent), method was inconvenient and dizziness (3 percent), Excessive bleeding(8 percent), lack of pleasure(7 percent) and other reasons (15 percent). For urban women 10 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.

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, Goa, 2002-04			
Reasons	Total	Place of residence	
		Rural	Urban
Reason for discontinuation			
Wanted child	35.1	*	(23.3)
Method failed/became pregnant	6.4	*	(10.0)
Difficult to get method	2.2	*	(3.3)
Weakness/inability to work	14.9	*	(16.7)
Body ache/ Backache	5.2	*	(3.3)
Dizziness	1.5	*	(3.3)
Irregular periods	1.6	*	(3.3)
Excessive bleeding	7.8	*	(6.7)
Lack of pleasure	7.3	*	(3.3)
Method was inconvenient	3.0	*	(3.3)
Other	14.9	*	(23.3)
Total percent	100.0	100.0	(100.0)
Number of past users	54	24	30

Note: * Percentage not shown: Based on few cases. () Based on less than 50 unweighted cases.

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, lack of knowledge about family planning methods (26 percent), opposed to family planning (15 percent) worry about side effects (14 percent), difficult to become pregnant (4 percent), and inconvenient to use method (3.8 percent).. About 15 percent of the women reported other reasons for not using contraception. As far as rural-urban differentials are concerned, a little variation is observed in the reasons for not using any contraceptive.

TABLE 6.17: REASON FOR NOT USING CONTRACEPTIVE METHOD						
Percentage of current non-users who were currently not using contraceptive method by reason according to place of residence, Goa, 2002-04						
Reason	Women			Husband*		
	Total	Rural	Urban	Total	Rural	Urban
Lack of Knowledge about FP method	26.3	27.0	25.7	12.8	14.5	11.2
Against the Religion	2.8	1.3	3.9	17.6	12.1	22.8
Opposed to family planning	15.3	17.9	13.3	7.4	6.7	8.1
Not like existing method	9.7	9.8	9.7	9.2	11.1	7.5
Afraid of sterilization	1.6	2.6	0.8	2.5	0.0	4.9
Can not work after sterilization	0.8	1.1	0.5	0.4	0.0	0.8
Worry about side effects	13.7	8.5	17.7	9.3	6.6	11.9
Costs too much	0.8	0.3	1.3	1.3	0.0	2.6
Health does not permit	6.0	8.5	4.0	10.0	11.5	8.6
Hard/inconvenient to get method	0.5	0.8	0.4	0.4	0.4	0.4
Inconvenient to use method	3.8	5.5	2.5	3.5	6.8	0.4
Difficult to become pregnant	3.7	3.4	3.9	19.9	21.1	18.7
Wife is pregnant ¹	-	-	-	1.6	2.2	1.0
Other	14.5	13.2	15.6	2.9	4.8	1.0
Missing	0.5	0.3	0.6	1.1	2.2	0.0
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of current non-users	553	241	312	254	125	130

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

6.9 Unmet Need for Family Planning Services

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

The unmet need is high for women below 25 years, mainly for spacing rather than for limiting. Unmet need is also relatively high for women aged 25-29 years (35 percent) for both spacing and limiting. Among the women age 30 years and above, unmet need is mostly for limiting. The urban women have high unmet need (48 percent) than the rural women (38 percent). The unmet need for family planning is higher among the literate women with 0-9 years of schooling (45 percent) and 10 or more years of schooling (45 percent) women. Hindu and muslim women have lesser unmet need for family planning (39 percent) compared to the Christian women (55 percent). Unmet need for family planning is comparatively less (38 percent) for other backward class compared to scheduled caste (40 percent) and other caste groups (45 percent).

Women in low standard of living have lesser unmet need (30 percent) than the women of medium (43 percent) and high standard of living (45 percent). Unmet need is much higher for the women with one living child (49 percent) than women with either no children (12 percent) or two or more children (41 to 50 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.

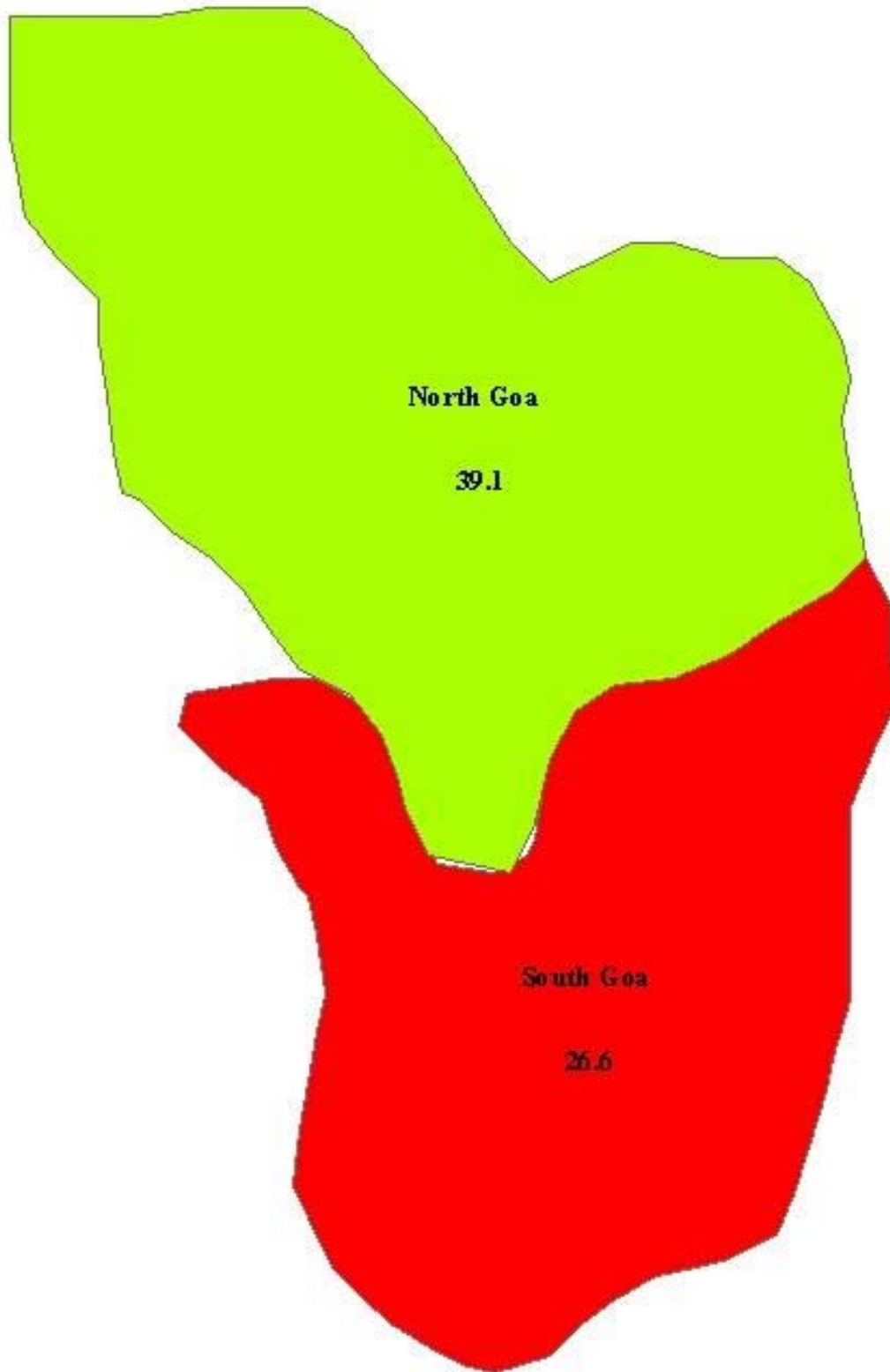
TABLE 6.18: UNMET NEED FOR FAMILY PLANNING SERVICES				
Percentage of currently married women with unmet need for family planning services by selected background characteristics, Goa, 2002-04				
Background Characteristic	Unmet need for FP			Number of women
	Spacing ¹	Limiting ²	Total	
Age				
20-24	31.2	8.7	39.9	152
25-29	18.6	17.2	35.7	294
30-34	13.8	28.7	42.5	324
35-39	8.6	39.3	48.0	280
40-44	3.1	45.5	48.6	212
Residence				
Rural	11.4	26.7	38.1	632
Urban	17.8	30.3	48.1	649
Education				
Illiterate	10.3	24.0	34.3	251
0-9 years@	13.6	32.0	45.6	454
10 years and above	17.3	27.8	45.1	576
Religion				
Hindu	13.1	26.7	39.8	853
Muslim	17.5	21.9	39.4	140
Christian	17.7	37.3	55.0	283
Caste/tribe#				
Scheduled caste	(2.9)	(37.1)	(40.0)	36
Scheduled tribe	(13.0)	(8.7)	(21.7)	24
Other backward class	13.0	25.3	38.3	385
Others	15.9	28.6	44.6	762
Number of living children				
0	10.2	1.7	11.8	171
1	31.4	18.0	49.5	316
2	11.5	40.7	52.2	443
3	4.7	36.7	41.4	225
4+	7.2	33.9	41.1	125
Standard of living Index				
Low	8.8	20.9	29.6	129
Medium	15.6	27.9	43.4	416
High	15.1	30.2	45.3	737
All women	14.6	28.5	43.1	1,281
<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>Total includes 19 cases for age group 15-19 and 6 other religion cases were not shown separately.</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. () Based on less than 50 unweighted cases.</p>				

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 43 percent and it ranges from 36 percent in North Goa to 51 percent in South Goa. . Unmet need for limiting was low in North Goa. whereas unmet need for spacing was low in South Goa.

Districts	Unmet need for		
	Spacing	Limiting	Total
North Goa	15.3	21.3	36.6
South Goa	13.9	37.3	51.2
Goa	14.6	28.5	43.1

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. Only 2.3 percent of the women in Goa reported that the health worker visited them at their residence at least once in last three months preceding the survey. Women age group 25-34 seemed more likely to report a home visit than older women. About 2.4 percent of women in the age group 15-24 years reported at least one home visit compared to only 2.3 percent of women in the age group 35 years and older. The percentage of women in Goa receiving home visits is higher in urban areas (2.5 percent) than in rural areas (2.3 percent). Muslim women (5.3 per cent) and with a low standard of living (4.1 per cent) and non-literate women (3.4 per cent) seemed more likely to report home visits. Women age at 0-9 years and women (1.7 per cent) with a high standard of living (1.8 per cent) and religion group of Christian (1.4 per cent) reported less home visits. There was not much variation by other backward class (2.7 per cent) and other (2.3 per cent) castes. Home visits were less common for women residing in the villages with a health facility.

Table 7.1: HOME VISIT BY HEALTH WORKER		
Percentage of women who had home visit by health worker in the 3 months preceding the survey by selected background characteristics, Goa, 2002-04		
Background characteristic	Percentage with home visit	Number of women
Age		
15-24	2.4	171
25-34	2.5	618
35-44	2.3	492
Residence		
Rural	2.3	632
Urban	2.5	649
Education		
Non-literate	3.4	251
0-9 years@	1.7	454
10 and above	2.5	576
Religion		
Hindu	2.3	853
Muslim	5.3	140
Christian	1.4	283
Caste/tribe#		
Scheduled caste	(5.7)	36
Other backward class	2.7	385
Other	2.3	762
Standard of living index		
Low	4.1	129
Medium	3.0	416
High	1.8	737
Availability of health facility² in the village		
No	1.3	80
Yes	2.4	552
Total	2.3	632
Note: Total includes 6 other religion and 24 scheduled tribe cases 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. ² Includes sub-center, primary health center, Community health center or referral hospital, government hospital, and government dispensary within the village. () Based on less than 50 unweighted cases.		

7.2 Home Visit by Health Workers by Districts

About 64 per cent of the districts in North Goa, health workers visited less than 3- 4 percent of the women at home (Table 7.2 and Figure 7.1). In South Goa (36 per cent of the districts) health workers visited less than 2 per cent of the women at home.

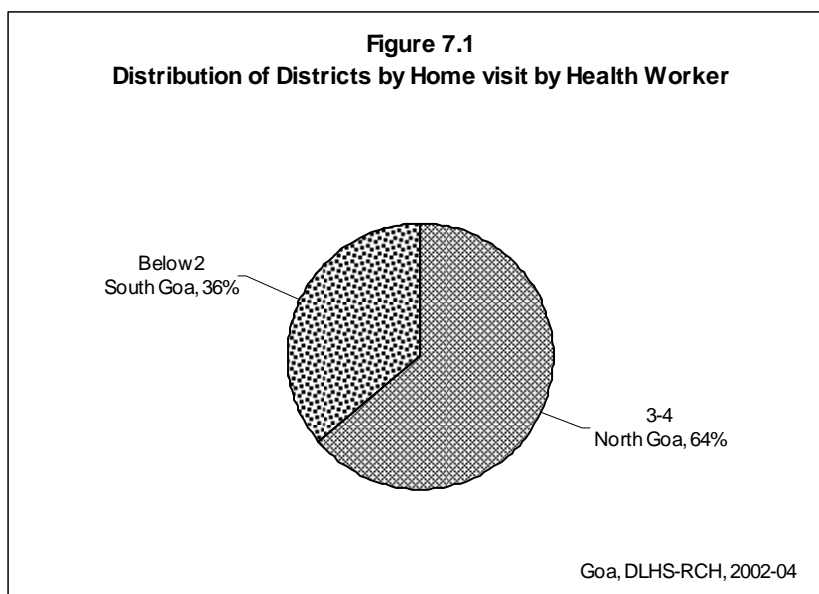


Table 7.2: HOME VISIT BY HEALTH WORKER BY DISTRICT
Percentage of women who had home visit by health worker in the 3 months preceding the survey by district, Goa, 2002-04

District	Percentage with home visit
North Goa	3.0
South Goa	1.7
Goa	2.3

7.3 Matters Discussed during Home visits or Visits to Health Facilities

Women who were visited at home by a family planning worker, as well as those who visited government health facility or other health facility during the three months preceding the survey were asked about the different topics discussed with the workers during any of these visits. Table 7.3 shows the percentage of women who discussed the health and family planning or any health related matters to the health workers during home visits or visits to a health facility during the past three months. There are 13 pregnant woman or women with children born during the reference period, and other women includes 7 current users and 11 current non-users, who were visited by health workers at home.

There were no any discussions relating to health problems, immunization, nutrition, child care etc., during the home visit by health worker pregnant women with children after reference period during three months prior to 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, Goa, 2002-04				
Topic discussed	Pregnant women or women with children after reference period ²	Other women		Total
		Current contraceptive users	Current non-users	
During home visit				
Family planning	*	*	*	(26.7)
Supplementary feeding	*	*	*	(3.3)
Immunization	*	*	*	(10.0)
Nutrition	*	*	*	(6.7)
Diseases prevention	*	*	*	(40.0)
Treatment of health problem	*	*	*	(23.3)
Antenatal care	*	*	*	(6.7)
Childcare	*	*	*	(3.3)
Sanitation / cleanliness	*	*	*	(10.0)
Other	*	*	*	(10.0)
Number of women	13	7	11	31
During visit to health facility				
Family planning	(3.1)	*	(0.0)	3.2
Breastfeeding	(3.1)	*	(0.0)	1.4
Immunization	(0.0)	*	(0.0)	1.8
Nutrition	(100.0)	*	(0.0)	100.0
Diseases prevention	(0.0)	*	(8.7)	3.6
Treatment of health problem	(50.0)	*	(73.9)	63.4
Antenatal care	(31.3)	*	(8.7)	19.5
Delivery care	(12.5)	*	(0.0)	6.1
Postpartum care	(3.1)	*	(0.0)	3.9
Childcare	(9.4)	*	(0.0)	4.1
Other	(6.3)	*	(13.0)	6.3
Number of women	37	21	29	87
Note: Percentage add to more than 100.0 due to multiple responses. ¹ Women who visited private health facility are not included. () Based on less than 50 unweighted cases. * Percentage not shown: Based on few cases.				
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 (50 percent), antenatal care (31.3 percent) child care (16 per cent) and other health related topics (6.3 percent). Only three percent women reported that they discussed family planning during the visit. During visit to health facility half of the pregnant women or women with children born during reference period discussed on treatment of health problems. The higher proportion of current non-users discussed about treatment of health problems (73.9 per cent) and other health related problems (13 per cent) 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 31 percent of women needed to visit health facility but did not visit in comparison with 20.2 percent of women who needed to visit health facility and visited in past three months of the survey. The proportion of such women was higher in rural areas (33.5 percent) than in urban areas (28.8 percent). Among them who visited any health facility, 39.6 percent of women reported that they had visited a private hospital and dispensary (23 percent). The percentage of such women was more or less same in rural as well as urban area.

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, Goa, 2002-04					
Health facility	Total	Residence		Availability of health facility ¹ in the village	
		Rural	Urban	No	Yes
Percentage of women who needed to visit health facility and not visited	31.1	33.5	28.8	31.5	33.7
Percentage of women who needed to visit health facility and visited	20.2	19.7	20.6	12.8	20.7
Number of women	1281	632	649	80	552
Government health facility					
Hospital / CHC / FRU / RH	25.4	22.0	28.5	*	20.5
Dispensary	3.2	3.9	2.6	*	2.5
Primary health center	2.8	5.0	0.7	*	5.4
Sub-center	0.9	1.3	0.6	*	1.4
Private health facility					
Hospital	39.6	38.6	40.5	*	41.1
Dispensary	23.0	22.7	23.3	*	23.0
ISM ² hospital/dispensary	4.7	6.5	3.0	*	6.1
Total Percentage	100.0	100.0	100.0	100.0	100.0
Number of women	258	125	134	10	114
Note: CHC: Community health center, FRU: First referral unit, RH: Referral Hospital. ¹ Includes sub-center, primary health center, Community health center or referral hospital, government hospital, and government dispensary within the village. ² Either government or private health facility of Indian System of Medicine. Total includes 1 other health facility case were not shown separately. * Percentage not shown: Based on few cases.					

Only thirty two percent of the women visited a government health facility, of which 25.4 percent visited government health facility such as, hospital/CHC/FRU/RH, 3 percent visited dispensary, almost 3 per cent visited primary health centre and only one percent visited to sub-centre. About 4.7 per cent of the women reported that they visited Indian system of medicine hospital/ dispensary either government or private. The proportion is higher (6.5 per cent) in rural than urban (3 per cent). There are not much differences 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. Forty seven percent of currently married women in North Goa and 10.4 per cent in South Goa needed to visit a health facility, but they did not visit. Percentage of women who visited to government health facility is higher in North Goa and lower in South Goa. Percentage of women who visited to private health facility was higher (76.8 per cent) in South Goa district as compared to North Goa district(63.3 per cent). More than half of the women in both the district 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, Goa, 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
North Goa	47.3	28.9	36.7	63.3
South Goa	10.4	9.5	21.6	76.8
Goa	31.1	20.2	33.4	66.2

7.6 Client's Perception of Quality of Government Health Services

Utilization of services is an essential indicator reflecting the quality of services. Better quality of services would have a higher utilization rate, which is very important from the policy point of view. Unless clients are satisfied with the services provided by the government, efforts made by the government will be wasted. In order to assess the utilization of government health facilities, a question was asked whether they had visited any health facility for their health problem during past three months to the survey. Those who visited the government health facility were asked their perceptions about quality of services, (personal manner like courtesy, respect, sensitivity, and friendliness of the physician and staff, technical skills and quality like thoroughness, carefulness, and competence and waiting time for receiving the services) and same is presented in Table 7.6. Excepting length of time spend towards waiting in rest of the all quality indicator majority (above 80 per cent) of the women in general perceived that the quality of services was good. Less in proportion by women perceived poor and 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, Goa , 2002-04			
Quality indicator	Poor	Good	Excellent
The convenience of the health facility location	12.9	84.4	2.7
Length ¹ of time spend towards waiting	39.4	54.5	6.2
Personal manner ² of the physician ⁵	6.8	88.1	5.1
The technical skills and quality ³ of the physician ⁵	2.7	91.5	5.8
Personal manner ² of nurse	15.7	79.5	4.8
The technical skills and quality ³ of nurse	16.4	80.4	3.2
Personal manner of other staff ⁵	16.6	80.0	3.4
The technical skills and quality of other ⁴ staff	10.7	86.1	3.2
The explanation of what was done to her	6.2	88.0	5.7
Medical, surgical and diagnostic equipment	12.0	84.1	3.9
General comfort	9.2	82.4	8.4

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
⁴ Including paramedical staff. ⁵Includes hospital/community health center/ first referral unit/ referral hospital, dispensary, and primacy health center last visit made by women.

7.7 Reason for not visiting Government Health Centre

Women who visited the private health centre were asked the main reason for not visiting the government health centre and the results are presented in Table 7.7. Twenty seven percent of the currently married women reported time is not suited for not visiting the government health centre for their health problems. About 20 per cent of the women were reported that due to poor quality of services for not visited the government health facility. Eighteen per cent of women reported inconvenient location of the centre as one of the reason for not visiting the government health centre for their health problems, followed by heavy rush (6.5 per cent), doctors/health workers do not examine properly (4.3 per cent). Other reasons for not visiting government health centres were: non/rare–availability of doctors/health workers (4.1 percent), doctors/paramedical staff does not behave properly (2.1 percent), medicine not/rarely given or of bad quality (1.9 percent) and services are charged (0.5 per cent).

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, Goa, 2002-04

Reason	Total	Residence		Availability of health facility ¹ in the village	
		Rural	Urban	No	Yes
Not conveniently located	18.6	15.6	21.5	*	16.7
Time is not suited	27.4	35.1	20.1	*	34.9
Poor quality of services	20.0	19.6	20.3	*	19.0
Heavy rush	6.5	7.0	6.1	*	7.4
Non/rare-availability of doctors/health workers	4.1	4.0	4.1	*	4.2
Doctors/health workers do not examine properly	4.3	5.4	3.4	*	5.0
Medicine not/rarely given or of bad quality	1.9	0.0	3.6	*	0.0
Doctors/paramedical staff does not behave properly	2.1	3.2	1.0	*	3.5
Services are charged	0.5	0.0	0.9	*	0.0
Other	14.6	10.1	18.9	*	9.4
Total percentage	100.0	100.0	100.0	100.0	100.0
Number of women	172	84	88	5	79

Note: ¹ Includes sub-center, primary health center, Community health center or referral hospital, government hospital, and government dispensary within the village. * Percentage not shown: Based on few cases.

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. Seven percent of currently non-users said that they had advices or discussion on method of family planning with ANM or family planning health worker (Table 7.8). This is higher in rural (9 per cent) than urban (5.4 per cent). The most frequently discussed method was female sterilization (31 percent) and Condom (26.7 per cent), IUD (22 percent) and pills (19.3 per cent). Only one percent of women received advices to adopt male sterilization as a contraceptive method. Discussions about traditional method, such as rhythm or withdrawal were rare. There was no much variation by types 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 that they had been able to get their supply whenever needed. The results are presented in Table 7.9. Only 9 percent of condom or pills users reported that they had a problem in getting these methods. A little higher (13.8 per cent) proportion of rural women than urban women (5.6 per cent) 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, Goa, 2002-04			
Advice/method	Total	Rural	Urban
Percentage of non-users who were advised to adopt family planning method	7.1	9.0	5.4
Number of women	827	392	435
Method			
Female sterilization	30.9	(29.7)	*
Male sterilization	1.2	(2.7)	*
IUD	22.0	(24.3)	*
Pills	19.3	(16.2)	*
Condom	26.7	(27.0)	*
Total percentage	100.0	100.0	100.0
Number of women	59	35	23
Note: * Percentage not shown: Based on few cases. () Based on less than 50 unweighted cases.			

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, Goa, 2002-04		
Method/residence	Percentage who had a problem getting supply	Number of users
Pills		
Rural	(13.8)	30
Urban	(5.6)	37
Total	9.0	67
Note: () Based on less than 50 unweighted cases.		

7.10 Quality of Care of Family Planning Services

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

Around 50.6 percent of sterilized women received information about alternative methods that they could use by the government health facility (Table 7.10) before adopting sterilization. Around 42.7 percent of sterilized women received such information by the private health facility.

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, Goa, 2002-04				
Source of sterilization	Total	Rural	Urban	Number of users
Government health facility	50.6	55.0	50.5	204
Private health facility	42.7	41.3	38.1	51
Total	49.3	52.5	45.2	256
Note: Total includes 1 women who said that they sterilized at other place are 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, Goa, 2002-04			
Information/follow-up	Total	Rural	Urban
Told about side effects			
Sterilization	23.5	22.7	24.5
Other modern method	27.6	25.0	29.7
Any modern method	24.8	23.6	26.5
Received follow-up			
Sterilization	7.7	5.3	10.4
Other modern method	5.6	11.3	1.6
Any modern method	7.1	6.9	7.1

Another important facet of informed contraceptive choice is being fully informed about any side effects and any other problems associated with the method. In Goa, 24.8 percent of users of any modern method were informed about possible side effects or health problems associated with their current method. Twenty six per cent of acceptors of any modern method in urban area and 23.6 per cent rural area reported that they were informed about side effect. Twenty three per cent of acceptors of sterilization were informed about side effect. Of this 24.5 per cent in rural and 22.7 per cent in urban area. Twenty nine per cent of other modern method users in urban and 25 per cent in rural were reported about side effect.

It is clear from the result that ANM or health workers in Goa, 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 users of modern methods. About 10.4 percent of sterilization users in urban area and about 5.3 percent in rural area reported that they received follow-up services by ANM or health worker. Only 7 percent of the users of other modern method received follow-up services. In all, only 7 percent of the users of any modern method in urban area and only 6.9 percent in rural 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, Goa, 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	
North Goa	43.4	14.7	21.4	10.2	7.1	11.4
South Goa	63.6	47.4	36.0	2.3	3.3	2.7
Goa	49.3	23.5	27.6	7.7	5.6	7.1

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 was slightly lower (43.4 per cent) in North Goa district than the South Goa district (63.6 per cent). Percentage of sterilization – users told about side effects or other problems with method was lower (14.7 per cent) in North Goa district, this was higher in South Goa (47 per cent). In South Goa about thirty six per cent of users of other modern method told about possible side effects. This proportion is 21 per cent in North Goa. In Goa follow-up services are slightly better (7.7 per cent) for acceptors of sterilization than for other modern methods (5.6 per cent).

7.12 Quality of Care of Maternal Health Care

Information on few other aspects of quality of care in terms of maternal care was also collected. Women with last live/still births during three years preceding the survey were asked whether the Doctor/ANM/health worker advised you to go to health facility for delivery when they were pregnant, and received any follow-up care after delivering the baby within 2 weeks of delivery and received follow 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, Goa, 2002-04

Advise/follow-up service	Total	Rural	Urban
Percentage of women who were advised to have delivery at health facility	21.6	20.5	22.5
Percentage of women who were visited within 2 weeks of delivery	2.7	4.2	1.5
Percentage of women who were visited at least once within 6 weeks of delivery	3.4	5.1	2.1
Number of women	435	191	243

* Women who had their last live/still birth during three years preceding the survey.

About 21.6 per cent of the women with last live/still births during three years preceding the survey reported that they were advised by doctor or health worker to have delivery in health facility. Women from urban areas (22.5 percent) were more likely than rural areas (20.5 percent) to get advised to deliver their child at health facility.

Almost same percent of women in both the districts were advised for deliver their child in health facility (Table 7.14). About four per cent of women in North Goa reported that they visited by ANM within two weeks of delivery; such visit was only 0.5 per cent in South Goa district. Five per cent of women in North Goa visited at least one within 6 weeks of delivery by ANM, this proportion is very less (0.5 per cent) in South Goa district in Goa.

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, Goa, 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
North Goa	21.6	4.1	5.3
South Goa	21.4	0.5	0.5
Goa	21.6	2.7	3.4

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

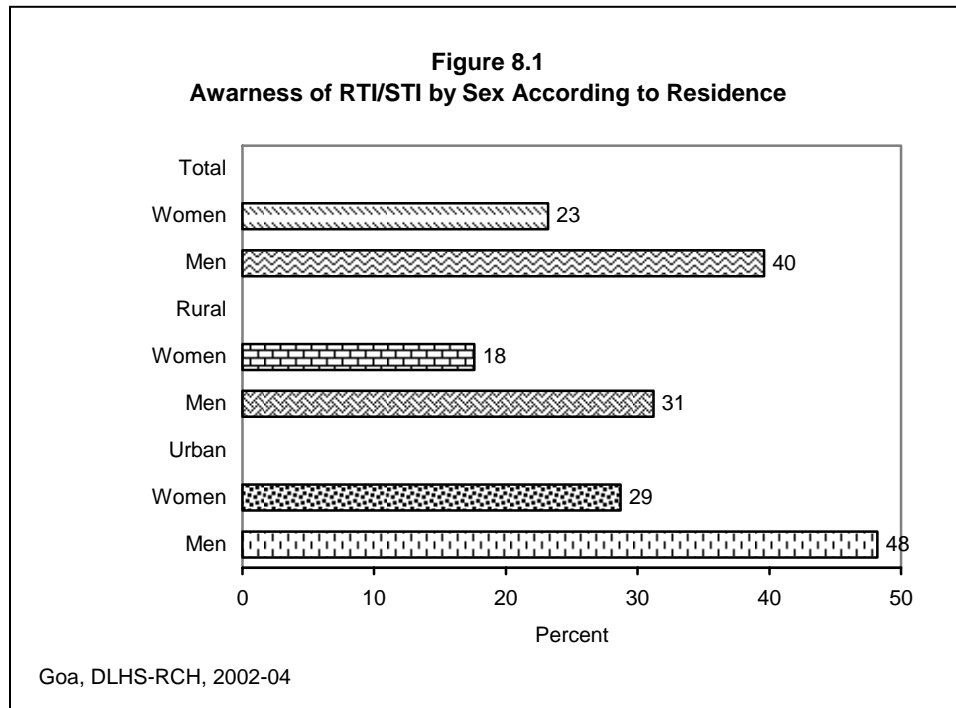
An attempt was made to assess whether couples were aware of RTI/STI. Currently married women and their husbands were asked about their awareness of RTI/STI, and if they were aware, they were further questioned about the source of information and mode of transmission of the disease.

Table 8.1 shows the percentage of women aware of RTI/STI by background characteristics. Twenty three percent of the women in Goa were aware of RTI/STI. The proportion of women who were aware of RTI/STI is much higher in urban areas (29 percent) than in rural areas (18 percent). Awareness of RTI/STI is much lower among women in 35-39 age group, women with at least 9 years of schooling, Hindu and Muslim women, other backward class women and women from households with a low standard of living. Awareness of RTI/STI increases from 16 percent among women with at least 9 years of schooling to 31 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 15 percent among women with a low standard of living to 28 percent among women with a high standard of living.

Those women who had heard of RTI/STI were further asked about the source of information of RTI/STI, which is presented in Table 8.1. More than half 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 (67 percent), radio (56 percent) newspaper or books or magazines (52 percent), slogans or posters or pamphlets or wall hoardings (4.3 percent). Only 5 percent of women received this information from health workers, and about 3 percent of the women reported that they had heard of RTI/STI from school teacher and 2.4 percent from other sources.

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 Goa, the percentage of men who heard of RTI/STI is higher than that of

women (Figure 8.1). Forty percent of the men heard of RTI/STI. Men from urban areas and 35-44 year older men were relatively more aware of RTI/STI. Men belonging to Hindu religion and mainly from other backward classes are less likely to report awareness of RTI/STI. The level of awareness of RTI/STI decreased for men with 10 or more years of schooling. Twenty eight percent of illiterate men were aware of RTI/STI as compared to 49 percent of men who had completed 10 or more years of schooling. Twenty five percent of men from households with a low standard of living were aware of RTI/STI as compared to 48 percent of men with a high standard of living.



Television is the most prominent source of information for RTI/STI for men in Goa. Seventy seven percent of men who knew about RTI/STI received information from television. Other important sources of information about RTI/STI are the radio (56 percent) followed by newspaper or books or magazines (41 percent), doctor (31 percent), slogans or posters or pamphlets or wall hoardings (28 percent), and relatives/friends (24 percent). Only six percent of the men received this information from a health worker, 4 percent from community meetings and 2 percent mentioned that they had received information about RTI/STI from school-teachers. About one percent of the men reported that they heard of RTI/STI from other sources. Television is the most important source of information of RTI/STI in all the groups. The differences in the knowledge of RTI/STI from television as a source of information by caste are quite visible. Only 49 percent of other backward class men had heard of RTI/STI from television which increased to 86 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, Goa, 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)													
Below 25	21.0	171	(42.2)	(76.3)	(73.7)	(2.6)	(10.5)	(5.3)	(5.3)	(0.0)	(18.4)	(0.0)	38
25-29	21.9	294	52.8	65.3	43.1	6.9	22.2	5.6	4.2	2.8	55.6	5.6	72
30-34	31.4	324	60.0	67.0	50.4	3.5	21.7	4.3	3.5	5.2	60.0	0.0	115
35-39	15.2	280	(54.3)	(63.0)	(43.5)	(6.5)	(23.9)	(4.3)	(4.3)	(6.5)	(54.3)	(0.0)	46
40-44	24.8	212	63.2	68.4	61.4	1.8	24.6	3.5	0.0	3.5	52.6	7.0	57
Residence													
Rural	17.6	632	68.2	50.4	20.9	1.6	3.9	3.1	4.7	3.9	79.1	0.8	129
Urban	28.7	649	48.2	78.4	72.9	6.0	32.7	5.5	2.5	4.0	34.7	3.5	199
Education													
Non-literate	17.5	251	(73.3)	(62.2)	(48.9)	(0.0)	(15.6)	(8.9)	(0.0)	(0.0)	(66.7)	(2.2)	45
0-9 years@	16.1	454	55.7	60.8	45.6	1.3	17.7	6.3	3.8	0.0	57.0	0.0	79
10 and above	31.3	576	52.5	71.1	55.9	6.4	24.0	2.9	3.9	6.4	47.1	3.4	204
Religion													
Hindu	20.9	853	50.5	64.6	54.2	3.1	20.3	3.6	4.7	4.2	49.0	1.6	192
Muslim	23.0	140	(44.1)	(70.6)	(55.9)	(5.9)	(23.5)	(14.7)	(0.0)	(0.0)	(32.4)	(0.0)	34
Christian	30.0	283	71.0	71.0	48.0	6.0	23.0	3.0	2.0	5.0	66.0	4.0	100
Caste/tribe#													
Scheduled caste	(20.0)	36	*	*	*	*	*	*	*	*	*	*	7
Other backward class	13.6	385	29.4	54.9	45.1	0.0	11.8	3.9	7.8	2.0	35.3	2.0	51
Other	27.7	762	60.8	69.6	54.9	5.5	23.2	3.8	3.0	5.1	55.7	2.5	237
Standard of living index													
Low	14.7	129	*	*	*	*	*	*	*	*	*	*	20
Medium	18.2	416	51.3	57.7	44.9	1.3	15.4	6.4	2.6	1.3	52.6	0.0	78
High	27.5	737	56.1	71.7	57.0	5.7	23.9	3.5	3.9	5.2	49.1	3.5	230
Total	23.2	1,281	56.1	67.4	52.4	4.3	21.3	4.6	3.4	4.0	52.1	2.4	328

Note: # 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. Total includes 24 scheduled tribe and 6 other religion cases were not shown separately. * Percentage not shown: Based on few cases. () Based on less than 50 unweighted 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, Goa, 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)													
< 35	37.4	216	50.6	77.5	37.7	26.7	30.2	2.5	0.8	0.5	27.0	2.0	81
35-44	40.7	361	54.6	74.6	41.4	28.6	33.2	6.8	1.9	5.1	23.0	0.7	147
45+	39.9	170	67.2	79.5	43.8	26.6	28.9	6.6	3.9	4.7	23.8	1.4	68
Residence													
Rural	31.2	378	53.8	72.0	16.7	5.1	9.7	5.9	2.2	5.6	30.3	0.0	118
Urban	48.2	369	58.1	79.5	57.0	42.6	45.8	5.4	1.9	2.5	20.3	2.0	178
Education													
Non-literate	27.5	135	(78.9)	(84.2)	(26.3)	(26.3)	(26.3)	(2.6)	(0.0)	(0.0)	(15.8)	(0.0)	37
0-9 years@	48.9	430	64.4	83.6	45.5	34.0	37.6	4.0	1.0	3.7	18.2	0.4	210
10 and above	26.5	181	(8.9)	(42.9)	(33.9)	(0.0)	(12.5)	(14.3)	(10.7)	(7.1)	(50.0)	(5.4)	48
Religion													
Hindu	36.6	506	55.0	73.5	40.8	27.3	30.0	6.6	2.0	3.6	29.6	1.9	185
Muslim	37.7	79	(62.1)	(75.9)	(58.6)	(58.6)	(62.1)	(6.9)	(0.0)	(0.0)	(17.2)	(0.0)	30
Christian	50.5	159	58.2	84.4	35.2	17.2	24.2	3.1	2.9	5.5	13.5	0.0	80
Caste/tribe#													
Other backward class	29.4	239	31.9	48.7	31.4	19.2	20.6	14.0	4.0	7.2	46.9	2.4	70
Other	46.3	434	64.9	86.0	44.2	31.2	35.2	3.4	1.6	3.0	17.2	0.9	201
Standard of living index													
Low	24.9	91	*	*	*	*	*	*	*	*	*	*	23
Medium	29.2	227	60.5	74.4	41.4	33.4	34.5	10.1	2.1	0.6	26.6	0.0	66
High	48.2	429	57.2	81.7	44.8	28.3	32.3	4.2	2.2	5.0	20.7	1.7	207
Total	39.6	747	56.4	76.5	41.0	27.6	31.4	5.6	2.0	3.8	24.3	1.2	296

Note: Total includes 3, 22 and 16 cases for other religion, scheduled caste and scheduled tribe were 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. * Percentage not shown: Based on few 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, 15 percent of them did not know anything further about the mode of transmission of this disease. This proportion is relatively higher among rural women, older women, Christian women, and women from high standard of living. Twenty percent of rural women do not know about the mode of transmission of RTI/STI compared to 13 percent of urban women. Heterosexual intercourse was mentioned by 40 percent of women and Lack of personnel hygiene was mentioned by 58 percent of women as mode of transmission of RTI/STI. Only 7 percent of women reported homosexual intercourse and 5 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, Goa, 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						
<25	(5.3)	(73.7)	(60.5)	(5.3)	(7.9)	36
25-29	10.2	29.6	57.2	3.7	19.6	64
30-34	4.3	34.5	56.1	7.5	16.3	102
35-39	(8.7)	(37.0)	(60.9)	(2.2)	(15.2)	43
40-44	10.3	41.2	63.8	1.4	10.0	52
Residence						
Rural	8.1	15.5	52.5	5.9	20.1	111
Urban	7.0	54.4	61.8	4.1	12.5	186
Education						
Non-literate	(11.1)	(33.3)	(55.6)	(0.0)	(13.3)	44
0-9 years@	7.7	36.6	56.7	6.3	15.2	73
10 years and above	6.5	42.7	61.2	5.4	14.3	180
Religion						
Hindu	6.0	41.6	56.1	6.3	18.0	179
Muslim	(2.9)	(55.9)	(50.0)	(2.9)	(17.6)	32
Christian	12.1	29.2	67.1	2.4	8.2	85
Caste/tribe#						
Other backward class	1.8	39.6	30.2	4.0	37.7	52
Other	8.7	39.9	63.7	5.8	10.1	211
Standard of living index						
Medium	4.9	37.6	53.7	4.6	24.9	76
High	8.8	42.0	60.6	5.4	11.4	203
Total	7.4	39.8	58.3	4.8	15.3	297

Note: # Total figure may not add to N due to do not know and missing cases. Total includes 2, 7, 4 and 19 cases for other religion, scheduled caste, scheduled tribe and low sli were not shown separately. @ Literate women with no year of schooling are also included. () Based on less than 50 unweighted cases.

Table 8.4 presents the knowledge of mode of transmission of RTI/STI among men. Among men who had heard of RTI/STI, 10 percent of them mentioned that they did not know anything about the mode of transmission of this disease. The percentage of men who did not know about the mode of transmission is higher among older men, other caste/tribe men, Christian men, and men from households with a high standard of living. Among the men who knew the modes of transmission of RTI/STI, 64 percent mentioned heterosexual intercourse, 56 percent reported lack of personnel hygiene, and only 9 percent mentioned homosexual intercourse, and 1.4 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, Goa, 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						
<35	4.0	63.6	48.8	0.0	16.1	81
35-44	10.1	65.0	58.3	1.1	6.9	147
45+	13.1	61.6	57.9	3.6	8.6	68
Residence						
Rural	4.9	44.4	52.9	0.9	9.7	118
Urban	11.9	76.7	57.4	1.7	9.9	178
Education						
Non-literate	(0.0)	(36.8)	(81.6)	(0.0)	(7.9)	37
0-9 years@	11.9	63.4	60.1	1.3	9.2	210
10 years and above	(5.4)	(83.9)	(23.2)	(3.6)	(10.7)	48
Religion						
Hindu	7.9	64.0	57.2	1.4	10.0	185
Muslim	(0.0)	(86.2)	(62.1)	(0.0)	(10.3)	30
Christian	15.4	55.6	50.5	1.8	8.5	80
Caste/tribe#						
Other backward class	5.6	68.6	35.1	2.4	19.4	70
Other	9.7	60.7	64.5	0.8	6.9	201
Standard of living index						
Medium	2.7	57.4	65.3	0.0	9.6	66
High	12.2	68.2	55.1	2.0	7.4	207
Total	9.1	63.9	55.6	1.4	9.8	296

Note: @ 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. Total includes 6 scheduled caste, 5 scheduled tribe and 23 low sli cases were not shown separately.
() 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 sought treatment, details regarding the source of treatment also recorded. The topic of RTI/STI is quite sensitive; the culture of silence prevents people from discussing such topics in front of others. In spite of intensive training of the investigators, the respondents 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 nearly one fourth (24 percent) of currently married women reported at least one symptom of reproductive tract infection. The problems reported by women were 'low backache' (14 percent), 'pain during sexual intercourse' (3.9 Percent), itching over vulva' (3.4 percent), 'involuntary escape of urine while coughing or sneezing' (2.9 percent), and boils/ulcers/warts around vulva (2.4 percent). Other symptoms of reproductive health reported by women were 'fever' (3 percent), 'some mass coming out of vagina' (0.3 percent) and pain in lower abdomen not related to menses (5 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, Goa, 2002-04			
Symptoms	Total	Residence	
		Rural	Urban
Percentage of women reported any RTI/STI symptoms	23.5	24.2	22.8
Symptoms			
Itching over vulva	3.4	3.1	3.7
Boils/ ulcers/ warts around vulva	2.4	3.0	1.8
Pain in lower abdomen not related to menses	5.0	6.1	3.8
Low backache	14.1	14.5	13.6
Pain during sexual intercourse	3.9	3.7	4.2
Bleeding after sexual intercourse	1.7	0.9	2.5
Swelling in the groin	0.1	0.0	0.1
Frequent / painful passage of urine	1.4	1.5	1.3
Fever	2.5	1.8	3.2
Some mass coming out of vagina	0.3	0.4	0.2
Any involuntary escape of urine while coughing or sneezing	2.9	3.6	2.2
Swelling / lump in breast	1.0	0.9	1.1
Number of women	1,281	632	649

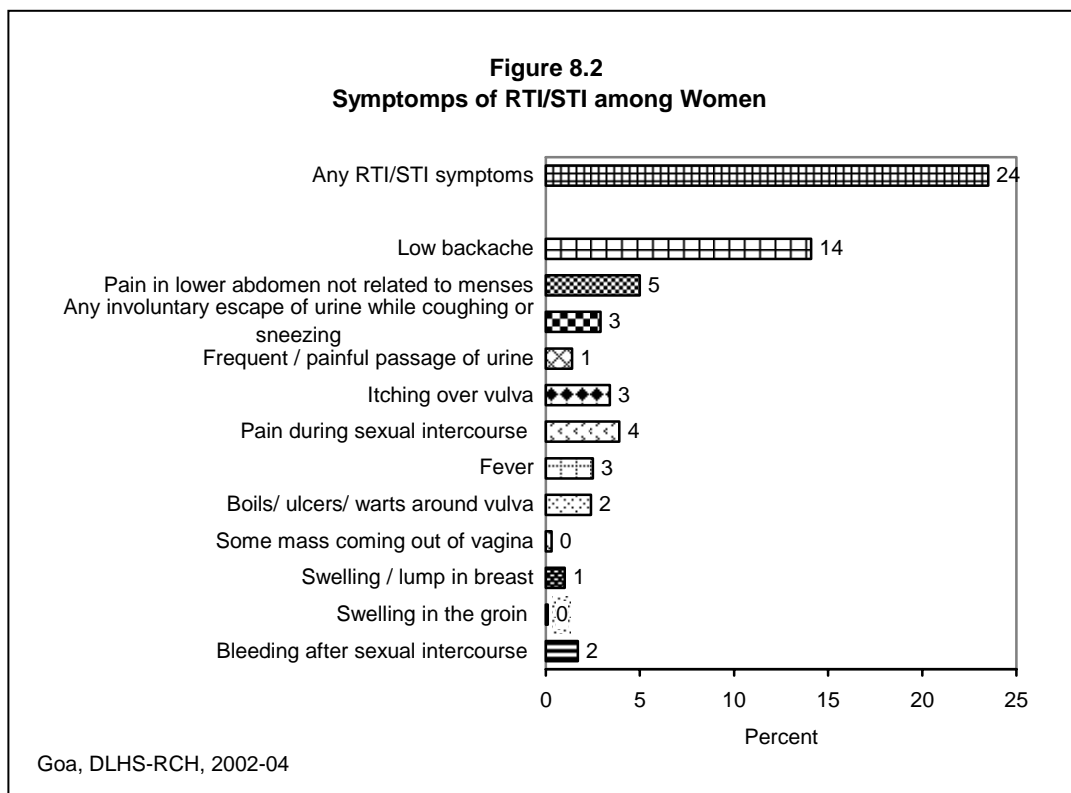


Table 8.6 and Figure 8.3 show the prevalence of reproductive health problems among husbands of currently married women. The prevalence of RTI/STI among men was judged by the reporting of symptoms. Nearly five percent of men reported experiencing at least one symptom of reproductive health problem in the last three months preceding the survey. The prevalence of reproductive health problems is 4 percent in rural areas compared to 5.9 percent in urban areas. The specific problem of reproductive health experienced by men is 'itching / irritation around genital' (2.6 percent), 'difficulty/pain while urinating or very frequent urination' (1.3 percent).

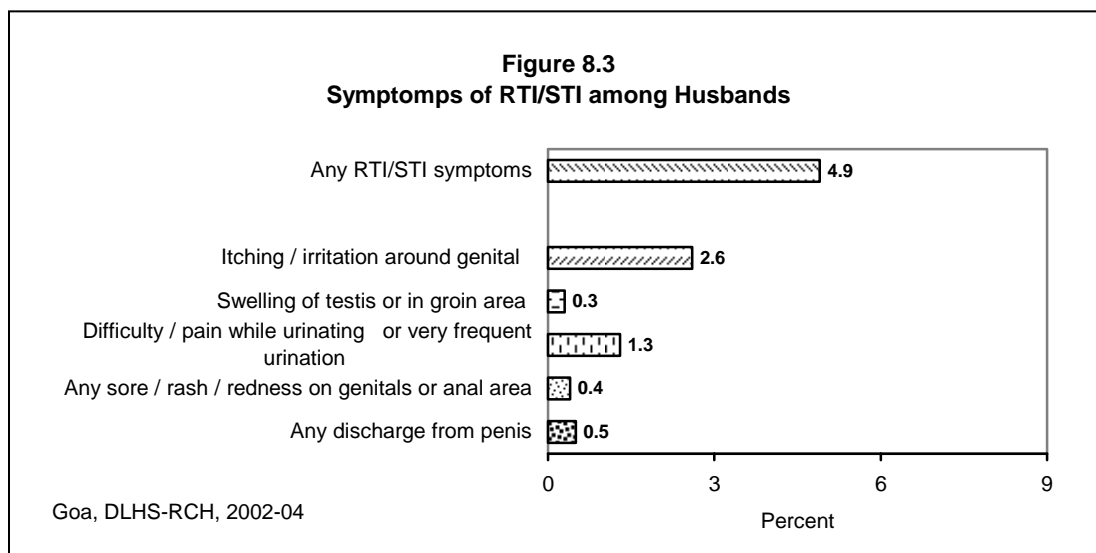


Table 8.6: SYMPTOMS OF RTI/STI AMONG MEN

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, Goa, 2002-04

Symptoms and treatment	Total	Residence	
		Rural	Urban
Percentage of men reported any RTI/STI symptoms	4.9	4.0	5.9
Symptoms			
Any discharge from penis	0.5	0.1	0.8
Any sore / rash / redness on genitals or anal area	0.4	0.0	0.8
Difficulty / pain while urinating or very frequent urination	1.3	0.5	2.1
Swelling of testis or in groin area	0.3	0.3	0.3
Itching / irritation around genital	2.6	3.1	2.2
Number of men	747	378	369
Percentage of men sought treatment for any RTI/STI	(76.7)	*	*
Number of men ¹	37	15	22
Percentage sought treatment at health facility²			
Government health facility ³	(21.7)	*	*
Private health facility ⁴	(69.6)	*	*
Chemist/ medical shop	(8.7)	*	*
Percentage obtained treatment from²			
Doctor	(87.0)	*	*
Home remedy	(4.3)	*	*
Chemist medical shop	(4.3)	*	*
Number of men ⁶	29	14	14

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. * Percentage not shown : Based on few cases. () Based on less than 50 unweighted cases

Among men who reported reproductive health problems, 77 percent of them sought treatment. Among them only 22 percent visited a government health facility and 70 percent visited a private health facility, nearly 9 percent obtained treatment from a chemist or medical shop. Number of cases being small it is not possible to give rural urban break ups. A large proportion of men saw a doctor (87 percent) for treatment.

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 Goa during the three months preceding the survey according to residence. Nearly 7 percent of the women reported problems related to vaginal discharge. The prevalence of vaginal discharge problem is more or less same among rural and urban women (6.3 rural and 6.7 urban).

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, Goa, 2002-04			
Symptoms and treatment	Total	Residence	
		Rural	Urban
Percentage of women reported abnormal vaginal discharge	6.5	6.3	6.7
Number of women	1,281	632	649
Percentage of women sought treatment for vaginal discharge ¹	30.0	(26.7)	(33.3)
Number of women	83	40	43
Percentage sought treatment at health facility²			
Government health facility ³	(9.5)	*	*
Private health facility ⁴	(71.4)	*	*
ISM ⁵ facility	(19.0)	*	*
Percent distribution of women who obtained treatment from²			
Doctor	(100.0)	*	*
Total percent	(100.0)	100.0	100.0
Number of women	25	12	13
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. * Percentage not shown: Based on few cases. () Based on less than 50 unweighted cases.			

Among the women who had reported symptoms of vaginal discharge, 30 percent went for treatment, higher percentage (33 percent) from urban areas compared to their rural counterparts (27 percent). A considerable proportion (71 percent) visited private health facilities followed by ISM (19 percent). Only 10 percent went to a government health facility. Because of the small numbers rural urban differentials are not mentioned. All the women in the state of Goa obtained treatment from doctors for their problems.

8.3 Menstruation Related Problems

Table 8.8 shows the percentage of women who had menstruation problems and who sought treatment during the three months preceding the survey. The Table shows that around 12 percent women in Goa had menstruation problems, and the figures are 11.9 and 11.1 percent in the rural and urban areas respectively. Among the women who had reported menstrual problems in Goa, 51, 33 and 15 percent reported painful periods, delayed periods and frequent or short periods as symptoms respectively. The magnitude of these symptoms are more or less the same among urban as well as rural women. Painful period is the main menstrual problem prevalent in Goa. Among the women who had menstrual problems, forty-four percent sought treatment in the state, and the figures for urban and rural areas are 41 percent and 48 percent respectively. The private health facility and government health facility are the main sources of treatment for menstrual problems. Around 65 percent of women sought treatment at a private health facility and 29 percent sought treatment at government health facility. Thirteen percent of the women were treated at ISM health facility. In urban areas ISM health facility seems to have no existence since none of the urban women sought treatment at ISM health facility.

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, Goa, 2002-04			
Symptoms and treatment	Total	Residence	
		Rural	Urban
Percentage of women with any menstruation related problem	11.5	11.9	11.1
Number of women	1113	551	562
<i>Symptoms¹</i>			
No period	6.1	9.8	2.2
Painful period	51.1	42.6	60.1
Frequent or short period	15.3	16.9	13.6
Delayed period	32.9	35.3	30.4
Prolonged bleeding	8.0	5.5	10.7
Excessive bleeding	11.7	9.3	14.2
Continuous bleeding	0.9	0.0	1.9
Scanty bleeding	10.8	10.2	11.5
Inter-menstrual bleeding	1.3	0.0	2.6
Percentage of women sought treatment who had any menstruation related problems	44.3	47.7	40.6
Number of women	128	66	63
Percentage sought treatment at health facility ⁶			
Government health facility ²	28.5	(29.0)	(25.9)
Private health facility ³	64.9	(51.6)	(81.5)
ISM ⁴ facility	13.3	(22.6)	(0.0)
Percentage of women obtained treatment from ⁶			
Doctor	95.3	(93.5)	(96.3)
ANM/nurse/midwife/LHV	2.1	(0.0)	(3.7)
Other	1.5	(3.2)	(0.0)
Number of women	57	31	25
Note: ¹ Based on women who reported any menstruated related problems. ² Includes Government municipal hospital, dispensary, UHC/ UHP /UWFC, CHC/ rural hospital, Primary health centre, sub-centre and out reach/ MCP clinic in village. ³ Includes private hospital/ clinic, non-governmental / trust hospital/clinic, chemist/ medical shop. ⁴ Either government or private hospital/clinic of Indian system of medicine, ⁶ Includes <i>dai</i> (trained or untrained), relative or friends and chemist/ medical shop. ⁶ Multiple responses. () Based on less than 50 unweighted cases.			

8.4 Prevalence of RTIs/STIs by District

Table 8.9 presents the prevalence of RTIs/STIs among currently married women and their husbands by districts. The reported symptoms of RTIs/STIs among women is lowest in South Goa (0.4 percent) and highest in North Goa (11 percent). In comparison to women, fewer men from both districts of Goa reported symptoms of RTIs/STIs. Men from South Goa reported the lowest prevalence of symptoms of RTIs/STIs (0.6 percent) compared to men from North Goa (8.3 percent).

The percentage of women who have sought treatment for RTIs (abnormal vaginal discharge) is 30 percent in North Goa and 25 percent in South Goa and for men who have sought treatment, it is 79 percent in North Goa and 44 percent in South Goa.

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, Goa, 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
North Goa	39.0	11.4	30.1	8.3	79.1
South Goa	4.0	0.4	24.7	0.6	44.2
Goa	23.5	6.5	30.0	4.9	77.3

8.5 HIV/AIDS

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

DLHS-RCH has collected information on the general state of awareness of HIV/AIDS, its transmission, its prevention and 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. Eighty two percent of currently married women in Goa have heard of HIV/AIDS.

Knowledge of HIV/AIDS is much lower among rural women, illiterate women, Hindu women, women from scheduled cases, women from households with a low standard of living, and older women in age group 40-44. eighty –five percent of urban women had heard about HIV/AIDS compared to 78 percent of rural women. Knowledge of HIV/AIDS steadily increased with increase in educational level and household standard of living. About 58 percent of illiterate women had heard of HIV/AIDS against 92 percent of women who had completed 10 or more

years of schooling. Similarly, about 54 percent of the women with a low standard of living had heard of HIV/AIDS against 90 percent of women with a high standard of living. Except women in age group 40-44, more than 80 percent of the women from other age groups have knowledge of HIV/AIDS. Hindu women (79 percent) were less aware of HIV/AIDS compared to women from Muslim (89 percent) and Christian (87 percent). Women from 'other castes' categories were more knowledgeable about HIV/AIDS (87 percent) than women belonging to other backward classes (74 percent) and scheduled-caste (69 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 78 percent of women reported that television was their source of information about HIV/AIDS, followed by relatives or friends (32 percent), newspapers, books or magazines (28 percent), health worker (18 percent) and radio (17 percent). Fourteen percent of the women reported that a doctor had informed them about HIV/AIDS and 9 percent of the women received information of HIV/AIDS from community meeting. A comparatively high proportion of rural women received information about HIV/AIDS from the television, relatives/friends, and radio.

Table 8.11 shows the percentage of husbands of currently married women who had heard about HIV/AIDS. In Goa, the proportion of men who had heard about HIV/AIDS is much higher than that of women. Eighty-five percent of men had heard of HIV/AIDS as compared to 82 percent of women (Figure 8.4).

About 88 percent of urban men had heard about HIV/AIDS as compared to 83 percent of rural men. Knowledge of HIV/AIDS varies by men's age, and it is higher for the younger age group, <35 years. Awareness of HIV/AIDS is much lower among illiterate men, Muslim men, and men who belong to households with a low standard of living. Sixty-two percent of illiterate men had heard of HIV/AIDS, and it increased up to 88 percent for literate men and up to 9 years of schooling and 95 percent for men who had completed 10 or more years of schooling. Thus, it is positively related to standard of living.

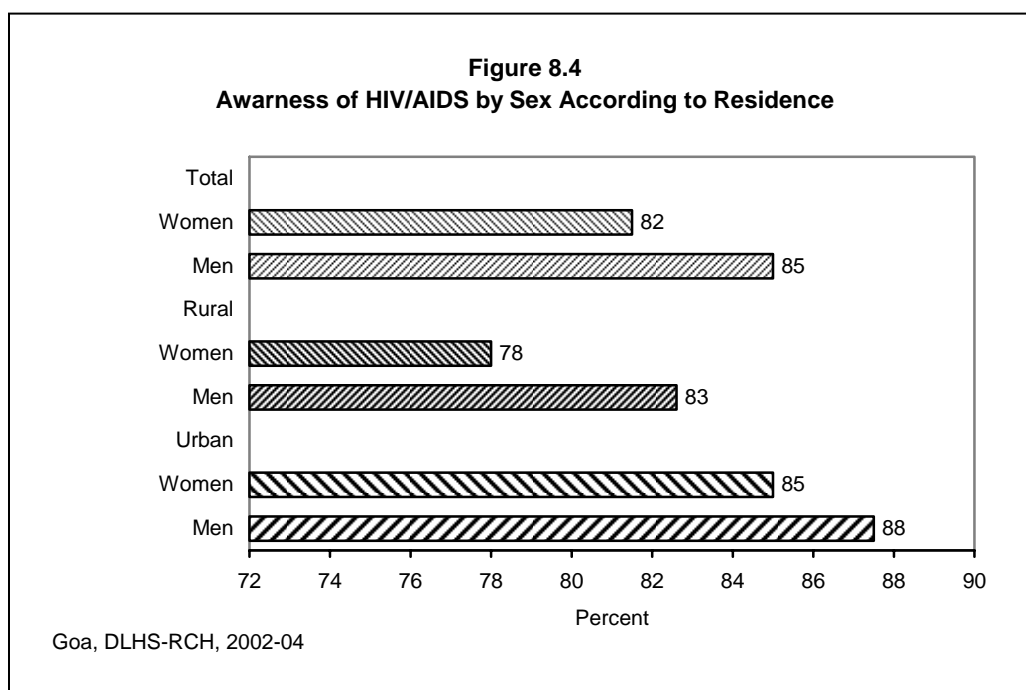


Table 8.11 also shows the percentage of husbands of currently married women who were aware of HIV/AIDS by different sources. As reported by the men of Goa, the most prominent source of information of HIV/AIDS was Television (86 percent), relatives or friends (49 percent) followed by newspaper/books/magazines (42 percent). Other important sources of information for HIV/AIDS are the radio (36 percent) and slogans or pamphlets, posters or wall hoardings (10 percent). Twelve percent of men reported that a doctor had informed them about HIV/AIDS and 11 percent men had received information of HIV/AIDS from a health worker.

About 5 percent reported that they were informed through community meetings and two percent received such information from a school teacher. The information on awareness of HIV/AIDS through mass media, such as television and newspapers, and books or magazines, was received more by medium and high standard of living men compared to low standard of living men.

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, Goa, 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)													
<25	80.7	171	20.5	73.6	30.4	18.7	16.1	14.8	7.3	8.4	22.8	0.0	138
25-29	82.4	294	15.0	74.4	25.9	6.6	16.7	18.8	6.5	9.2	32.4	0.8	242
30-34	83.7	324	21.2	82.2	33.7	11.1	14.3	23.5	2.1	7.4	34.5	1.3	271
35-39	80.2	280	11.4	82.7	21.1	8.4	12.2	15.6	3.4	11.3	30.1	0.9	225
40-44	79.3	212	20.1	75.6	29.6	10.3	10.4	16.6	1.3	9.7	35.6	4.5	168
Residence													
Rural	78.0	632	16.1	78.2	15.4	2.4	9.7	17.7	4.2	11.0	35.8	1.5	493
Urban	85.0	649	18.6	78.4	39.4	17.5	17.9	19.1	3.8	7.5	28.1	1.4	551
Education													
Non-literate	58.4	251	18.1	55.4	11.8	6.0	10.7	31.1	3.2	6.0	40.9	2.5	147
0-9 years@	80.8	454	15.7	75.1	17.0	7.1	10.9	17.6	2.0	12.5	31.5	0.5	367
10 and above	92.2	576	18.4	86.9	40.3	13.8	17.1	15.5	5.5	7.7	29.3	1.8	531
Religion													
Hindu	78.7	853	15.0	79.5	27.2	9.3	14.8	15.7	3.8	7.3	29.7	0.8	671
Muslim	88.6	140	17.4	65.6	22.2	13.7	10.4	26.9	3.4	7.8	20.5	1.6	124
Christian	87.4	283	23.3	81.1	32.9	11.1	13.9	21.9	4.5	14.9	43.2	3.1	247
Caste/tribe#													
Scheduled caste	(68.6)	36	*	*	*	*	*	*	*	*	*	*	23
Other backward class	74.2	385	9.0	75.8	23.0	5.6	14.5	10.4	3.9	11.0	28.2	0.4	286
Other	86.5	762	19.8	79.3	30.2	11.7	13.0	21.3	4.5	9.3	33.5	1.9	660
Standard of living index													
Low	54.2	129	14.8	31.2	6.0	0.0	10.3	40.7	4.0	4.1	53.7	0.9	70
Medium	74.4	416	16.1	72.3	14.6	7.6	14.9	19.0	3.4	9.0	32.3	0.8	310
High	90.3	737	18.3	86.0	36.7	12.7	14.0	15.9	4.2	9.7	29.1	1.8	665
Total	81.5	1,281	17.4	78.3	28.1	10.3	14.0	18.4	4.0	9.1	31.7	1.5	1,044

Note: Total includes 6 other religion, 24 scheduled tribe cases were not shown separately. # Total figure may not add to N due to do not know and missing cases

@ Literate women with no year of schooling are also included. * Percentage not shown: Based on few cases.

Table 8.11: 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, Goa, 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)														
< 35	87.9	216	35.4	84.3	40.6	12.4	13.4	14.3	2.8	5.7	48.8	1.3	190	
35-44	82.9	361	34.2	87.9	41.7	8.7	12.9	11.4	1.3	5.3	49.6	0.5	300	
45+	85.8	170	38.9	83.1	42.8	10.3	7.7	7.7	2.1	4.8	47.8	0.0	145	
Residence														
Rural	82.6	378	31.3	83.8	38.7	8.0	13.4	10.9	1.8	6.4	48.0	0.4	312	
Urban	87.5	369	39.8	87.6	44.5	12.2	10.3	11.9	2.1	4.1	49.9	0.8	323	
Education														
Non-literate	62.0	135	29.8	62.1	10.1	4.9	5.2	14.6	0.0	4.1	58.6	0.0	84	
0-9@ years	88.2	430	41.6	88.5	39.8	10.8	11.5	9.0	2.4	4.8	43.3	0.6	380	
10 and above	94.6	181	25.2	91.0	61.0	11.4	16.0	15.1	1.7	6.9	56.7	1.0	172	
Religion														
Hindu	85.0	506	34.3	85.4	44.2	10.9	13.9	14.0	2.6	3.7	50.7	0.7	430	
Muslim	76.9	79	29.7	77.8	24.1	5.1	1.1	9.9	0.0	2.2	60.6	0.0	61	
Christian	88.8	159	41.9	89.9	41.1	10.5	10.5	4.4	0.8	11.6	39.5	0.8	141	
Caste/tribe#														
Other backward class	84.7	239	19.9	85.3	44.2	11.0	13.9	16.1	2.9	5.1	59.5	0.9	202	
Other	86.1	434	44.5	87.8	42.5	9.9	10.8	8.5	1.7	6.2	41.9	0.4	374	
Standard of living index														
Low	63.9	91	25.6	65.8	22.8	7.0	3.6	19.0	0.9	2.6	54.2	0.0	58	
Medium	82.4	227	27.5	73.4	30.6	6.0	9.9	14.8	1.9	8.4	55.7	0.7	187	
High	90.9	429	41.0	94.6	49.7	12.6	14.0	8.7	2.1	4.2	44.9	0.7	389	
Total	85.0	747	35.6	85.7	41.6	10.2	11.9	11.4	1.9	5.3	48.9	0.6	635	

Note: Table included 3 other religion, 22 scheduled caste and 16 scheduled tribe cases were 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.

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, 16 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, Goa, 2002-04								
Background characteristic	Percentage by knowledge of mode of transmission							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	Do not know	
Age								
<25	8.1	80.2	44.3	15.3	50.3	6.3	18.0	138
25-29	13.5	83.6	49.8	24.9	48.8	12.0	13.1	242
30-34	19.2	81.8	52.3	26.4	52.4	18.2	14.5	271
35-39	11.2	79.3	45.2	18.6	44.9	8.7	15.0	225
40-44	16.6	71.7	36.1	21.8	41.1	11.2	24.0	168
Residence								
Rural	14.0	77.3	46.9	20.9	45.1	13.3	18.0	493
Urban	14.5	82.1	46.2	23.4	50.3	10.9	14.7	551
Education								
Non-literate	15.9	64.1	27.5	17.9	32.1	13.9	33.5	147
0-9 years @	9.6	72.7	37.4	14.1	41.5	8.8	22.5	367
10 years and above	17.0	89.1	58.1	29.0	56.6	13.7	7.2	531
Religion								
Hindu	12.6	79.5	45.5	19.8	45.4	10.6	16.8	671
Muslim	6.7	77.3	41.4	19.4	41.5	7.3	20.0	124
Christian	22.2	82.3	52.1	30.2	57.7	18.2	13.1	247
Caste/tribe#								
Other backward class	5.6	78.2	47.2	12.6	41.0	6.4	19.7	286
Other	17.3	81.7	47.5	26.4	50.2	14.0	13.6	660
Standard of living index								
Low	15.6	53.3	25.4	17.4	24.8	15.6	46.7	70
Medium	12.2	73.4	36.7	14.4	39.0	9.6	21.7	310
High	15.1	85.6	53.3	26.3	54.3	12.8	10.6	665
Total	14.3	79.8	46.5	22.2	47.8	12.0	16.3	1,044

Note: Total includes 2, 23 and 21 cases for other religion, scheduled caste and scheduled tribe were 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 and older women, non-literate women, Muslim women, women from other backward class and women with a low standard of living. Eighteen percent of the rural women do not know about the mode of transmission of HIV/AIDS compared to 15 percent of urban women.

Among women who reported different ways of transmission of HIV/AIDS, a large proportion (80 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 (47 percent), transfusion of infected blood (48 percent), mother to child, if pregnancy occurs during a stage of HIV (22 percent); only 14 percent of the women mentioned that homosexual intercourse could also be a mode of transmission. Twelve 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, Goa, 2002-04								
Background characteristic	Percentage by knowledge of mode of transmission							Number of men who have heard of HIV/AIDS
	Homo-sexual intercourse	Hetero-sexual intercourse	Needles/ blade/ skin puncture	Mother to child	Transfusion of infected blood	Other	Do not know	
Age								
<35	11.4	76.2	40.3	15.3	29.3	4.7	15.5	190
35-44	12.9	78.3	43.4	15.1	28.7	3.4	13.5	300
45+	9.7	69.0	33.9	9.7	20.4	2.9	19.9	145
Residence								
Rural	10.3	71.2	34.4	12.3	25.5	3.6	22.4	312
Urban	13.1	79.8	46.0	15.4	28.4	3.7	9.0	323
Education								
Non-literate	5.1	61.9	34.0	8.4	13.5	5.5	29.5	84
0-9 years @	14.9	70.4	34.8	11.8	14.6	2.7	19.1	380
10 years and above	7.9	93.6	55.7	21.3	61.0	4.9	1.1	172
Religion								
Hindu	9.2	76.9	40.2	15.0	30.4	4.1	15.5	430
Muslim	1.8	77.1	33.1	3.8	14.2	4.2	16.2	61
Christian	23.0	70.2	43.7	15.4	22.6	2.2	16.0	141
Caste/tribe#								
Other backward class	3.4	81.6	35.3	12.4	38.2	3.5	13.4	202
Other	17.0	73.7	45.8	15.6	23.2	3.3	15.1	374
Standard of living index								
Low	0.0	70.0	19.2	6.4	17.0	7.5	26.0	58
Medium	5.2	66.1	33.9	9.1	23.7	4.1	25.1	187
High	16.6	80.9	46.5	17.4	30.1	2.9	9.4	389
Total	11.7	75.5	40.3	13.9	27.0	3.7	15.6	635

Note: @ 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. Total includes 3, 14 and 13 cases for other religion, scheduled caste and scheduled tribe were not shown separately.

Table 8.13 presents the knowledge about mode of transmission of HIV/AIDS among men. Sixteen percent of the men who had heard about HIV/AIDS mentioned that they do not know the mode of transmission. The percentage of men not knowing the mode of transmission is higher among older men, rural men, illiterate men, other caste men and men from households with a low standard of living. Among those who reported ways of transmission of HIV/AIDS, 76 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 (40 percent), transfusion of infected blood (27 percent), mother to child, if pregnancy occurs during a stage of

HIV (14 percent), and only 12 percent of the men mentioned that homosexual intercourse could also be a mode of transmission of HIV/AIDS. Four percent stated that there were other ways of transmission of HIV/AIDS.

8.5.3 How to avoid HIV/AIDS

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

Among women who reported about awareness of HIV/AIDS, nearly 20 percent of them did not know how to avoid getting infected by HIV/AIDS. This percentage is marginally 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 percent of illiterate women reported that they did not know of any way to avoid infection as compared to 9 percent of women who had completed ten or more years of schooling. Similarly, 54 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 and other backward class women and older women.

Among women who mentioned ways to avoid HIV/AIDS, a higher proportion of women (70 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’ (25 percent), ‘sterilizing needles and syringe before injecting’ (39 percent), ‘checking blood prior to transfusion’ (30 percent), and 7 percent of the women reported that the pregnancy should be avoided if couples were infected by HIV/AIDS. Having sex with only one partner, sterilizing needles and syringes for injection and using condoms correctly during each sexual intercourse to avoid becoming infected by HIV/AIDS reported by women are proportionally higher in urban areas, among Christian women, 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, 14 percent of them did not know of any way to avoid infection, compared to 20 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, Goa, 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								
<25	67.4	17.6	27.4	50.6	3.5	1.8	18.1	138
25-29	74.8	27.2	33.4	38.0	8.6	4.3	18.1	242
30-34	76.2	28.3	29.8	42.4	6.9	4.0	16.1	271
35-39	64.5	25.0	34.6	37.6	8.2	3.4	19.4	225
40-44	60.2	20.0	23.7	29.5	6.1	2.6	29.3	168
Residence								
Rural	68.5	22.8	34.1	35.9	7.7	3.7	20.0	493
Urban	70.7	26.2	27.0	42.5	6.4	3.2	19.4	551
Education								
Non-literate	52.4	16.5	13.4	18.0	0.5	3.0	39.7	147
0-9 years@	64.2	14.9	26.7	33.7	4.0	3.0	26.4	367
10 years and above	78.2	33.5	37.6	49.2	10.9	3.8	9.4	531
Religion								
Hindu	69.9	24.0	30.4	39.6	6.5	3.5	19.4	671
Muslim	61.3	14.2	21.7	41.3	4.2	3.3	25.4	124
Christian	72.7	31.4	34.7	37.4	9.6	3.2	17.6	247
Caste/tribe#								
Other backward class	68.2	18.9	32.3	45.5	7.5	3.5	22.4	286
Other	71.0	26.9	30.4	37.9	7.2	3.8	16.5	660
Standard of living index								
Low	43.2	16.1	8.5	9.8	0.0	2.4	54.3	70
Medium	63.7	13.7	24.3	33.2	2.2	3.5	25.1	310
High	75.1	30.5	35.5	45.3	10.0	3.5	13.5	665
Total	69.6	24.6	30.4	39.4	7.0	3.4	19.7	1,044

Note: Total includes 2,23 and 21 cases for other religion, scheduled caste and scheduled tribe were 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 Goa 70 percent of men reported that 'sex with only one partner' is one of the ways to avoid HIV/AIDS, and this was the most commonly reported way to avoid HIV/AIDS in all the groups. Other ways to prevent by HIV/AIDS mentioned by men are 'using a condom correctly during each sexual intercourse'(62 percent), 'checking blood prior to transfusion' (26 percent) 'sterilizing needles and syringe before injecting' (22 percent). , and All the specific ways to avoid becoming infected by HIV/AIDS reported by men are proportionally higher with education.

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, Goa, 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								
<35	72.5	57.3	29.6	28.0	4.5	0.7	14.3	190
35-44	70.4	66.9	26.7	20.2	5.0	0.8	11.0	300
45+	65.8	58.1	17.7	16.3	2.6	1.7	21.5	145
Residence								
Rural	66.6	59.1	28.1	21.5	1.9	0.5	18.0	312
Urban	73.2	64.8	23.0	21.8	6.6	1.4	10.9	323
Education								
Non-literate	48.6	38.1	23.2	17.2	0.9	3.5	34.5	84
0-9 years@	70.7	59.5	17.5	12.5	4.9	0.5	15.8	380
10 years and above	78.8	79.1	44.2	44.0	4.7	0.8	1.4	172
Religion								
Hindu	69.6	61.7	28.2	24.1	4.8	0.9	13.9	430
Muslim	64.6	46.5	12.5	19.6	0.0	2.5	20.0	61
Christian	73.6	69.9	23.3	15.6	4.8	0.5	13.7	141
Caste/tribe#								
Other backward class	69.2	55.9	32.8	26.4	3.0	2.0	14.7	202
Other	73.1	67.0	23.6	20.4	5.3	0.6	12.1	374
Standard of living index								
Low	61.9	33.7	32.5	22.7	2.9	2.8	24.4	58
Medium	57.7	49.1	19.2	17.6	1.3	0.9	25.6	187
High	77.1	72.5	27.5	23.4	6.0	0.7	7.5	389
Total	70.0	62.0	25.5	21.6	4.3	1.0	14.4	635

Note: @ Literate men with no year of schooling are also included. # Total number may not add to N due to don't know and missing cases. Total includes 3, 14 and 13 cases for other religion, scheduled caste and scheduled tribe were not shown separately.

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 (25 percent) than in urban areas (18 percent). Literate women who have completed nine years of schooling, women

from households with a low standard of living, Muslim women, and women from other backward classes 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, Goa, 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	7.7	8.5	14.7	11.5	12.4	10.9	25.1	493
Urban	7.0	6.6	12.5	8.9	10.6	9.5	17.9	551
Education								
Non-literate	10.2	12.0	11.0	11.5	12.8	12.8	15.4	147
0-9 years@	10.6	9.5	15.3	14.0	14.9	15.8	26.3	367
10 years and above	4.3	4.9	13.0	7.1	8.8	5.5	19.4	531
Religion								
Hindu	7.8	8.4	14.7	11.7	13.3	11.0	21.8	671
Muslim	7.6	7.6	11.7	9.2	10.8	13.3	22.0	124
Christian	6.1	5.1	11.3	6.5	7.1	6.3	19.7	247
Caste/tribe#								
Other backward class	11.0	10.0	21.9	17.0	16.9	14.7	29.6	286
Other	5.5	5.7	10.3	6.9	8.8	7.5	18.5	660
Standard of living index								
Low	22.4	25.0	22.7	24.7	24.7	24.7	31.7	70
Medium	8.9	9.0	14.8	10.8	12.4	12.3	21.3	310
High	5.0	5.0	12.0	8.3	9.7	7.6	20.2	665
Total	7.3	7.5	13.5	10.1	11.5	10.1	21.3	1,044

Note: Total includes 2 , 23 an d21 cases for other religion, scheduled caste and scheduled tribe were 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 ‘kissing’ (14 percent), ‘sharing eating utensils’ (12 percent), ‘stepping on urine/stool’ and ‘sharing clothes’ (10 percent each), ‘hugging’ (8 percent), and ‘shaking hands’ (7 percent). The percentage of all these misconceptions is also higher among rural women, other backward class 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 though insect bites, mosquitoes, through flea or bedbugs. Twenty percent of the men in Goa felt so. The percentage who reported that HIV/AIDS could be transmitted through the biting by mosquitoes or flees or bedbugs was much higher among rural men (25 percent) than among urban men (16 percent). Literate men who have completed 10 years of schooling, men from households with a low standard of living, Muslim 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 Kissing (12 percent), ‘sharing eating utensils’ (8 percent), ‘Hugging’, sharing clothes’, ‘stepping on urine/stool’ and shaking hands (4 percent each).

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, Goa, 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	5.5	6.6	16.3	4.5	9.0	4.6	24.8	312
Urban	2.0	2.2	7.9	4.0	7.2	2.4	16.1	323
Education								
Non-literate	3.3	3.3	18.8	7.6	14.6	7.6	22.4	84
0-9 years@	3.4	3.9	11.1	2.8	5.8	1.8	17.7	380
10 years and above	4.8	6.0	10.8	5.9	9.9	5.3	25.3	172
Religion								
Hindu	4.5	4.6	13.1	4.5	9.2	4.3	21.2	430
Muslim	1.9	2.9	9.3	2.9	6.6	1.9	25.2	61
Christian	2.3	4.6	10.2	4.3	5.5	1.7	16.2	141
Caste/tribe#								
Other backward class	7.3	6.9	17.7	7.4	16.2	7.6	29.8	202
Other	2.1	3.4	9.9	3.2	4.9	1.8	17.2	374
Standard of living index								
Low	7.9	5.6	20.7	9.8	17.4	5.6	33.5	58
Medium	4.9	5.8	17.0	4.9	9.6	6.0	27.3	187
High	2.6	3.5	8.4	3.1	6.0	2.0	15.1	389
Total	3.8	4.4	12.0	4.3	8.1	3.5	20.4	635
Note: @ Literate men with no year of schooling are also included. # Total number may not add to N due to don't know and missing cases. Total includes 3,14 and 13 cases for other religion, scheduled caste and scheduled tribe were not shown separately.								

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 15 percent women and 5 percent men have the notion that HIV/AIDS is curable, whereas 69 percent women and 80 percent men replied that the disease is not curable. Sixteen percent women and 15 percent men do not have any idea regarding the curability of the disease. It can be safely asserted from the figures that both men and women of urban area having high level of education, belonging to Christian religion and other classes and from households of high standard of living are showing better performance as far as the knowledge of curability of HIV/AIDS is concerned.

Table 8.18: KNOWLEDGE OF CURABILITY ABOUT HIV/AIDS

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

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	17.1	65.6	17.3	493	5.5	77.9	16.6	312
Urban	12.3	72.1	15.5	551	4.9	82.0	13.2	323
Education								
Non-literate	12.4	61.3	26.4	147	7.7	63.7	28.6	84
0-9 years@	15.3	65.6	19.0	367	4.4	82.7	12.9	380
10 years and above	14.7	73.5	11.8	531	5.6	81.9	12.5	172
Religion								
Hindu	15.4	67.7	16.9	671	5.6	78.6	15.8	430
Muslim	22.3	59.9	17.8	124	11.5	76.8	11.6	61
Christian	8.7	77.1	14.3	247	1.4	84.9	13.7	141
Caste/tribe#								
Other backward class	22.1	61.1	16.8	286	7.9	70.2	21.9	202
Other	11.0	74.7	14.3	660	3.7	85.9	10.4	374
Standard of living index								
Low	12.6	51.2	36.2	70	10.4	63.3	26.3	58
Medium	16.1	65.7	18.2	310	7.0	75.1	17.9	187
High	14.1	72.5	13.4	665	3.5	84.8	11.7	389
Total	14.6	69.0	16.4	1,044	5.2	80.0	14.9	635

Note: Table included 2, 23 and 21 women of other religion, scheduled caste and scheduled tribe were not shown separately. Table includes 3, 14 and 13 men of other religion, scheduled caste and scheduled tribe were not shown separately.

@ Literate persons with no year of schooling are also included. # Total number may not add to N due to don't know and missing cases.

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

Table 8.19 shows the percentage distribution of currently married women and their husbands who are aware of RTI/STI and HIV/AIDS by districts. According to DLHS, 23 percent and 82 percent of women were aware of RTI/STI and HIV/AIDS respectively and the corresponding figures for husbands of eligible women are 40 and 85 percent respectively. The awareness of RTI/STI and HIV/AIDS among men is higher than that among women by 17 and 3 percentage points.

In general, in both 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 South Goa (38 percent), followed by North Goa (11 percent). Similarly among men also the highest level of awareness of RTI/STI was reported in South Goa (63 percent) followed by North Goa (21 percent)

The proportion of husbands' of eligible women who are aware of HIV/AIDS in the districts of Goa state are also presented Table 8.19. Among women the awareness about HIV/AIDS ranges from the highest of 86 percent in South Goa to the lowest of 79 percent in

North Goa. A high level of awareness of HIV/AIDS among men was 88 percent as reported in South Goa followed by 83 percent in North Goa.

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, Goa, 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
North Goa	11.4	78.6	21.2	82.9
South Goa	37.8	85.5	63.4	87.8
Goa	23.2	81.5	39.6	85.0

Appendix – A

Sampling Error Estimation

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

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

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 12-35 months
Measles	Proportion	Children age 12-35 months
Birth order 3+	Proportion	Currently married women age 15-44 years with births in past three years

Sampling errors, Goa, 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	0.335	0.014	1,281	1,281	1.193	4.3	0.306	0.363
Rural	0.355	0.022	632	632	1.296	6.1	0.313	0.397
Urban	0.315	0.019	649	649	1.089	6.0	0.277	0.352
Unmet Need (Currently Married Women age 15-44)								
Total	0.431	0.015	1,281	1,281	1.178	3.5	0.402	0.461
Rural	0.381	0.022	632	632	1.286	5.7	0.338	0.424
Urban	0.481	0.020	649	649	1.073	4.2	0.441	0.520
Received Any Antenatal Check up (last live/still birth of past 3 years)								
Total	0.969	0.009	442	434	1.197	0.9	0.951	0.987
Rural	0.963	0.014	206	191	1.109	1.5	0.935	0.991
Urban	0.974	0.012	236	243	1.303	1.2	0.951	0.997
Received 3+ Antenatal Check up (last live/still birth of past 3 years)								
Total	0.842	0.020	442	434	1.300	2.4	0.803	0.881
Rural	0.820	0.033	206	191	1.404	4.0	0.756	0.885
Urban	0.859	0.024	236	243	1.197	2.8	0.812	0.907
Institutional Delivery (last live/still birth of past 3 years)								
Total	0.912	0.014	442	436	1.085	1.6	0.884	0.940
Rural	0.964	0.013	206	192	0.855	1.3	0.939	0.988
Urban	0.872	0.023	236	244	1.137	2.6	0.827	0.916
Safe Delivery (last live/still birth of past 3 years)								
Total	0.933	0.012	442	435	1.071	1.3	0.909	0.958
Rural	0.970	0.012	206	192	0.905	1.2	0.947	0.993
Urban	0.904	0.020	236	243	1.116	2.2	0.866	0.943
Received BCG Vaccination (last and last but one living children, age 12-23 months)								
Total	0.947	0.018	178	179	1.199	1.9	0.911	0.984
Rural	1.000	0.000	58	53	0.000	0.0	1.000	1.000
Urban	0.925	0.026	120	126	1.146	2.8	0.874	0.976
Received Measles (last and last but one living children, age 12-23 months)								
Total	0.892	0.025	178	179	1.145	2.8	0.843	0.942
Rural	0.971	0.021	58	53	0.889	2.2	0.928	1.013
Urban	0.860	0.034	120	126	1.120	3.9	0.793	0.926
Birth order 3+ (birth in last three years)								
Total	0.200	0.022	393	391	1.196	11.1	0.157	0.244
Rural	0.234	0.038	171	162	1.276	16.1	0.160	0.308
Urban	0.176	0.027	222	229	1.128	15.2	0.124	0.228

Sampling errors, Goa, 2002-04							
District	Estimate (R)	Sampling error (SE)	Number of cases		Relative Error (%)	95% Conf. Interval	
			Unweighted	Weighted		R-1.96 SE	R+1.96 SE
Contraceptive Prevalence Rate (Currently Married Women age 15-44)							
NortnGoa	0.391	0.021	621	621	5.5	0.349	0.433
South Goa	0.266	0.018	660	660	6.7	0.231	0.301

Sampling errors, Goa, 2002-04							
District	Estimate (R)	Sampling error (SE)	Number of cases		Relative Error (%)	95% Conf. Interval	
			Unweighted	Weighted		R-1.96 SE	R+1.96 SE
Unmet Need (Currently Married Women age 15-44)							
NortnGoa	0.366	0.021	621	621	5.8	0.324	0.407
South Goa	0.512	0.020	660	660	4.0	0.472	0.552

Sampling errors, Goa, 2002-04							
District	Estimate (R)	Sampling error (SE)	Number of cases		Relative Error (%)	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)							
NortnGoa	0.963	0.013	230	230	1.4	0.937	0.990
South Goa	0.977	0.011	212	200	1.1	0.956	0.997

Sampling errors, Goa, 2002-04							
District	Estimate (R)	Sampling error (SE)	Number of cases		Relative Error (%)	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)							
NortnGoa	0.791	0.030	230	182	3.8	0.732	0.849
South Goa	0.921	0.019	212	184	2.0	0.884	0.958

Sampling errors, Goa, 2002-04							
District	Estimate (R)	Sampling error (SE)	Number of cases		Relative Error (%)	95% Conf. Interval	
			Unweighted	Weighted		R-1.96 SE	R+1.96 SE
Institutional Delivery (last live/still birth of past 3 years)							
NortnGoa	0.909	0.020	230	231	2.2	0.870	0.948
South Goa	0.914	0.020	212	199	2.2	0.874	0.954

Sampling errors, Goa, 2002-04							
District	Estimate (R)	Sampling error (SE)	Number of cases		Relative Error (%)	95% Conf. Interval	
			Unweighted	Weighted		R-1.96 SE	R+1.96 SE
Safe Delivery (last live/still birth of past 3 years)							
NortnGoa	0.931	0.017	230	231	1.9	0.897	0.965
South Goa	0.934	0.018	212	199	1.9	0.898	0.969

Sampling errors, Goa, 2002-04							
District	Estimate (R)	Sampling error (SE)	Number of cases		Relative Error (%)	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)							
NortnGoa	0.926	0.026	112	109	2.8	0.876	0.976
South Goa	1.000	0.000	51	47	0.0	1.000	1.000

Sampling errors, Goa, 2002-04							
District	Estimate (R)	Sampling error (SE)	Number of cases		Relative Error (%)	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)							
NortnGoa	0.877	0.032	112	109	3.6	0.814	0.940
South Goa	0.928	0.036	51	47	3.8	0.857	0.998

Sampling errors, Goa, 2002-04							
District	Estimate (R)	Sampling error (SE)	Number of cases		Relative Error (%)	95% Conf. Interval	
			Unweighted	Weighted		R-1.96 SE	R+1.96 SE
Birth order 3+ (birth in last three years)							
NortnGoa	0.219	0.031	215	216	13.9	0.159	0.279
South Goa	0.174	0.030	178	166	17.5	0.114	0.234

APPENDIX B

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Appendix – C

Insert bilingual questionnaire
Households, Women, Husbands and Village

NOTES