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Nainital

District Level Baseline Survey of Family Planning Program in Uttar Pradesh

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SIFPSA, Lucknow **The Population Council, India**

Indian Institute of Health Management Research, Jaipur

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District Level Baseline Survey of Family Planning Program in Uttar Pradesh

Nainital

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PREFACE

The Baseline Survey in Uttar Pradesh was designed to generate important demographic and programme data for research at the district level. In each district, Consulting Organisation (CO) was engaged for handling the project in collaboration with the Population Council. IIHMR in Jaipur was the Consulting Organisation for Pithoragarh study.

The demographic aspects covered in the survey covered individual and household level data. The household and Woman Schedules used for the survey include general socio-economic, demographic and environmental conditions; fertility history, fertility preferences, contraceptive history and mortality experiences. The sample design enables estimation of important demographic indicators.

The BSUP survey has helped in building up capacities in several organizations. The training programmes under BSUP generated many competent young researchers and field investigators in every district. The BSUP survey has strengthened and enriched research experiences in IIHMR in Jaipur and the Population Council in Lucknow. In addition, an extensive and reliable data set is now available in Nainital district for use by researchers and programme managers.

The results of the BSUP in Nainital district were interesting. In a nutshell, it was found that mortality had declined drastically whereas the decline in fertility was relatively slower. In addition, the couple protection rate had increased and coverage under immunisation programme was being achieved at an accelerated pace. Yet, more attention is required on promoting spacing methods of contraception and institutional deliveries in both urban and rural areas.

I thank Mrs. Promila Shankar, IAS, Director, SIFPSA, Lucknow and USAID for giving us full support and cooperation in completing the survey. I am grateful to Dr. John Townsend, Dr. M.E.Khan and Prof. R.B.Gupta, all from the Population Council for providing valuable technical inputs.

At the Institute, Dr. K.M.Sathyanarayana, Assistant Professor, co-ordinated the project activities and he was ably assisted by Mr. Pankaj Gangal, Programmer Analyst and Mr.Manoj Saxena who worked with devotion to complete this project on time.

Their efforts were ably supported by Mr. Ashish Kodesia, Field Officer, and Mr. Sudhir Sharma who supervised the data entry operations. Ms. Sudha Behal typed this report with equal devotion to work, that matched efforts of all others in bringing out this document.

The results of this survey are extremely relevant to programme management. They are all in the right and desirable direction. Implications of these results to programme management need to be identified and analysed further to help managers initiate corrective actions. The IIHMR, Jaipur would be ready to work further with the SIFPSA, Lucknow in this endeavour.

Date: 30 May, 1994
Place: Jaipur

G.GIRIDHAR, D.Sc.
Director

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EXECUTIVE SUMMARY

In September 1992, the Ministry of Health and Family Welfare (MOHFW), and United States Agency for International Development (USAID), New Delhi, reached an agreement to begin the "Innovations in Family Planning Services Project (IFPS)" under the executive management of the State Innovation in Family Planning Services Agency (SIFPSA), Lucknow.

The goal of the project is to reduce fertility rate in the state of Uttar Pradesh (UP), through efforts to expand and improve the family planning services. To achieve this the IFPS project will support service innovations in the public sector, non-governmental sector (NGO) and through contraceptive social marketing mechanisms. These efforts seek to double the use of modern contraceptives in the area, from approximately 20 percent to 40 percent of the eligible couples, over a ten year period. Achievement of project objectives will be measured by the increased level of contraceptive prevalence; the number of couples using family planning- both permanent and spacing methods. To enable this, most interventions will be developed at the district level, suggesting the need for some district level prevalence estimates. Hence, the Baseline Survey in Uttar Pradesh (BSUP) is being undertaken as one important component of the IFPS project. The BSUP is a household sample survey covering 37,500 ever married women in the age group 13-49 years. It is designed to provide information on fertility, family planning, maternal and child health care, that will be helpful in the monitoring and evaluation of population and family welfare policies and programmes.

The SIFPSA has designated the Population Council as the nodal organization responsible for providing co-ordination and technical guidance for the survey. The Population Council has collaborated with a number of Indian Consulting Organizations for survey implementation. The responsibility of conducting this multicentric survey in the district of Nainital was given to the Indian Institute of Health Management Research (IIHMR), Jaipur. The BSUP in Nainital district involved collection of primary data with the help of pre-tested bilingual questionnaires from a sample of 2500 households. These households were located in 69 villages and 7 urban centres throughout the district. The field work for the survey was carried out between 24 November, 1993 and 20 January, 1994.

Major findings of the survey are as follows:

In the sample, 2500 households were selected and interviews were completed in 98 percent of the cases. The average number of eligible women per household in the households interviewed was 1.08. In all, 2708 eligible women were interviewed resulting in a response rate of 92 percent.

In Nainital district, a majority of the population consisted of usual residents. An analysis of the population distribution of usual residents, revealed a higher percentage of younger population, and dependency ratio. Likewise, it was found that females aged between 15 and 34 years were more migratory than other age groups. The average number of members in the household turned out to be 5.7 persons.

Further, it was observed that Hindus formed a larger percentage of the population in the district. A reasonable percentage of the Hindus were residing in pucca households with electricity facilities. These households had access to consumer durables such as newsletter, television and radio. Additionally, it was found that the literacy levels in urban and rural areas for males and females were found to be higher than the state average. Regarding the eligible couples, it was found that, around 89 percent of the women were currently married and a little

over half of them were illiterate. More than 90 percent were classified as nonworkers; while, a majority of working women were working for someone else or in the family farm/business.

The SMAM calculated from various sources over time, indicated a consistent increase in their age at marriage. Yet, when analyzed with age at effective marriage/median age at which they started living with their husband, it was found that women started their effective marriage much before they attained the legal age at marriage. However, with education a strong positive relationship was observed. It is therefore, suggested that female education should be accorded top priority, so that changes in nuptiality pattern can be brought about, and consequently affect fertility through its indirect effect.

The current and cohort measures of fertility indicate, that fertility levels were lower in urban areas than in rural areas. Further, age pattern of fertility revealed a peak in the 20-24 age group for rural areas; while in urban areas it was observed between 25 and 29 years. Moreover, a comparison of the current and cohort measures of fertility (of women aged 40-49 years) revealed that fertility had declined over the years. When analyzed, with education, it was found that, women with above high school education had lower fertility than the illiterates. In other words, an inverse relationship existed between education and fertility. With regard to religion, it was found that Muslims had the highest fertility and an analysis by caste, indicated that scheduled caste and tribe had more number of living and surviving children than the other groups.

The knowledge and practice of family planning was not universal in Nainital district, because the urban and rural areas differed in the pattern of usage of the various (especially spacing) methods of family planning. Further, a high drop out rate in the usage of spacing methods was observed; as judged by the difference between the ever and current users. When the women were asked the reasons for the drop out, the common answer cited by them was back ache/body pain. Moreover, public sector turned out to be the major source of supply of contraceptives, from where the couples in the district availed the various methods most of the time. In addition, it was found that the level of unmet need was quite high i.e. a large percentage of women did not want to have a child immediately after marriage or they wanted to postpone the births. These women formed a potential group for motivation.

Regarding, the contact between the clients and the providers, it was found that the coverage was very low. Among the households visited by the health workers, it was found that they had mentioned about the various methods of family planning. In the households where they had mentioned methods, they had also discussed about both the advantages/disadvantages of the methods. However, it was interesting to see that the presence of atleast two sons, was the major motivating factor for accepting a terminal method of family planning. It can therefore, be deduced that there was a strong sex preference among the couples in the district. Since this aspect is strongly ridden in the social system, efforts to educate the masses through IEC and individual counselling have to be done.

The level of unmet need was also quite high. A sizeable proportion of women wanted to postpone their births beyond a year and hence latent need has not been converted into felt need. The ideal number of children, on an average, turned out to be three. However, the ideal number increased with the absence of a son in the family. In other words, women wanted to have a son (atleast two sons) before she could think of limiting her family size. Regarding unwanted pregnancies, it was found that majority of women in urban areas wanted to abort their pregnancy. But in reality, it was found that a large number of unwanted pregnancies terminated into live

births. Moreover, it was observed that the inter-spouse communication was very weak. In fact, a large number of couples, started discussing about the number of children only after the birth of the second child. In this context, it is suggested to promote counselling of the couples by trained personnel and also to expand IEC activities so that the attitude of the couples changes for the positive.

By and large, the utilization of ANC services was reasonably good in Nainital district, with about fifty percent having undergone physical check-up during the different stages of pregnancy. The percentage of those, who had undergone an ANC check-up, was as expected, higher in urban areas than in rural areas. Moreover, it was observed that women with above high school education had utilized more ANC services than others. Similarly, a higher percentage of institutional deliveries were observed in urban areas than in rural areas. The percentage of home deliveries in rural areas was as high as 80 percentage.

Regarding, immunization to children aged 6-23 months, it was found that 39 and 36 percent of them were fully immunized, while seven and 17 percent had not received a single dose of the recommended vaccines in urban and rural areas respectively. In order to achieve universal immunization, Nainital district has a long way to go.

As far as utilization of health services was concerned, it was noticed that majority of the population were following the allopathic system of medicine, and were availing the services from the public sources inspite of infrequent coverage and inadequate contact between the respondents and the health workers. Despite, their low coverage, majority of the respondents who were visited by them, expressed their satisfaction for the services provided.

In addition, it was found that the mortality levels in the district, measured in terms of CBR and IMR had declined when compared with the state average. The values of these indicators were found to be lower in urban areas than in rural areas.

In the selected sample, three PHC and 10 subcentres villages were located while the remaining were all remote villages. On an average, a villager from the remote village had to travel approximately 5 kms to avail services from the nearest SCs about 12 kms to seek assistance from the nearest PHC. The CBD network in these villages was very poor. The NGO's, Anganwadi's and local organisations were not strongly committed in promoting family welfare programmes. However, it was interesting to find that 35 percent of panchayat members were actively involved in family welfare programmes. Regarding the PHCs and SCs, a proper review into the staffing patterns, status of various equipments etc. has to be done to facilitate improvements in MCH and FP services.

It can therefore be concluded that the results of the BSUP in Nainital district were interesting. In a nutshell, it was found that mortality had declined whereas the level of fertility remained relatively higher. In addition, the couple protection rate, proportion of women seeking antenatal care had increased. However, it was distressing to note that majority of the deliveries were conducted at home itself. Coverage under immunisation programme was being achieved at a slower pace. Likewise, more attention is required on promoting spacing methods of contraception in rural areas. As well, it is suggested that the programme strategies have to be redefined from a micro perspective and the client-workers contact in terms of coverage and quality of services has to be improved. Besides, the IEC component of the programme needs further strengthening.

CHAPTER I

INTRODUCTION

1.1 Introduction

In September 1992, the Ministry of Health and Family Welfare (MOHFW) and United States Agency for International Development (USAID), New Delhi, reached an agreement to begin the "Innovations in Family Planning Services Project (IFPS)", under the executive management of the State Innovations in Family Planning Services Agency (SIFPSA), Lucknow.

The goal of the project is to reduce fertility rate in the state of Uttar Pradesh (UP), through efforts to expand and improve family planning services. To achieve this the IFPS project will support service innovations in the public sector, non-governmental sector (NGO) and through contraceptive social marketing mechanisms. These efforts seek to double the use of modern contraceptives in the area, from approximately 20 percent to 40 percent of the eligible couples, over a ten year period.

The IFPS has three main objectives which are as follows:

1. to increase access to family planning services;

2. to improve the quality of family planning services; and

3. to promote contraceptive use.

The three objectives are interrelated, and success in one area will be tied to accomplishments in other areas. Achievement of project objectives will be measured by the increased level of contraceptive prevalence; the number of couples using family planning- both permanent and spacing methods. To enable these objectives, most interventions will be developed at the district level, suggesting the need for some district level prevalence estimates. Hence, the Baseline Survey in Uttar Pradesh (BSUP) is being undertaken as one important component of the IFPS project. The BSUP is a household survey covering 15 districts with an overall target sample size of 37,500 ever married women in the age group 13-49 years.

The SIFPSA has designated the Population Council as the nodal organization responsible for providing co-ordination and technical guidance for the BSUP. The Population Council has collaborated with a number of Indian Consulting Organizations (CO's) for survey implementation. Each CO has been responsible for facilitating survey activities in one or more districts covered by the BSUP.

The Indian Institute of Health Management Research (IIHMR), Jaipur, has been given the responsibility for conducting the survey in Nainital district.

1.2 Objectives of the Study

The general objectives of the project are to:

1. provide a baseline against which the effectiveness and success of district level project activities can be assessed in the near future; and

2. provide background data at the district level to assist SIFPSA in designing appropriate service innovations.

In specific the project has been designated to fulfill the following objectives:

1. Measurement of current levels of access to family planning services;

2. Estimates of the quality of information; choice and follow-up provided to family planning users on specific methods and their appropriate use;

3. Estimates of knowledge and use of contraceptive methods as well as the level of unmet needs of contraception; and

4. Measurement of the acceptability, utilization and satisfaction with the methods and services provided.

1.3 Socio-economic and demographic profile of Nainital District

Nainital district is located in the northern part of the state, along the southern rim of Himalayas. It comprises partly of hills and plains, and is bounded on the north by districts Almora and Pithoragarh, and on the north-west by Garhwal. In the west it is bounded by Bijnor, and on the south-west by Moradabad, and on the south by districts Rampur, Bareilly and Pilibhit. On the east it forms an international boundary with Nepal, the dividing line being Sharda river which touches the district on the south-west. The district is irregular in shape and occupies the southern and south-eastern portion of Kumaon division.

The following Table 1.1 provides a socio-economic and demographic profile of Nainital district as against the State, from the latest available secondary sources of data.

According to the 1991 Census, Nainital district was the forty fifth largest district in terms of population in the state, having a total population of 1.54 million. Its population constituted 1.1 percent of the total population of the state. The population of the district registered a growth rate of 37 percent as against 25 percent for Uttar Pradesh during the decade 1981-91. The population density of Nainital district was lower than the state average and this has been possible because of a sparse distribution of population in the hilly tracts. Further, it has been observed that nearly 33 percent of the population in the district were residing in urban areas while the same for UP was only 20 percent. In fact, the higher percentage of population in urban areas of the district, had also resulted in a higher percentage of workers employed in the organized sector.

Regarding the other indicators such as sex ratio and dependency ratio there were lot of similarities between the district and the state but in terms of literacy (especially female literacy), crude birth rate and contraceptive prevalence rate there were lot of differentials. In other words, it can be concluded that the district was definitely better off or rather well placed than the state.

Table 1.1: Socio-economic and demographic profile of the district and state

	District	*State*
Population (in millions)		
Total	1.5	139.0
Male	0.8	74.0
Female	0.7	65.0
Growth rate (1981-91)	37.1	25.2
Population density (1991)	227.0	473.0
% of total state population	1.1	-
% of urban population	32.7	19.8
Sex ratio (1991)	870.0	879.0
Percentage of total population (1981)		
0-14 Population	41.9	41.7
65+ Population	3.3	4.0
Dependency ratio (1991)	83.0	84.0
Literacy level		
Total	56.5	40.9
Male	67.9	55.7
Female	43.2	25.3
Crude Birth Rate *	33.0	35.6
Contraceptive Prevalence Rate (1992-93)	40.2	34.5
Percent employed (1991)		
Total	38.6	32.2
Male	52.5	49.7
Female	22.6	12.3
Percent employmed in organized sector (1991)	37.1	26.9
Percent depending on agriculture	62.9	73.1
Percent of total population (1991)		
Scheduled caste	15.8	21.0
Scheduled tribe	5.8	0.2
Other Hindus		
Muslims	78.4	78.7
Other religious groups		
Number of PHC/CHC (1991)	53.0	3929.0
Number of Sub-centres (1991)	287.0	20154.0
Average rural population per sub-centre (1991)	3614.0	5533.0

* Note: Source for CBR at District Level: Preliminary Report
Source for CBR at State Level: SRS, 1990

1.4 Presentation of Report

In Chapter 2, the study design, the sampling procedure in urban and rural areas are presented along with a brief discussion on study tools, recruitment of investigators and training, data processing, estimation procedures and field problems during data collection.

The next chapter is intended to set the stage for the fertility and family planning chapters that follow by describing the background characteristics of the household population, the eligible respondents, and their dwelling conditions. Chapter 4 examines marriage patterns including current marital status, age at effective marriage and age at which the respondent first started living with her husband.

In Chapter 5, the current and cohort fertility measures of the population have been described and later analyzed by background characteristics because of their direct relevance to population policies and programmes.

Chapter 6 on family planning is the largest section of the report. It begins with an appraisal of the knowledge of contraceptive methods before moving on to a consideration of current and past users of family planning. Special attention is focussed on nonuse, reasons for discontinuation and limitation to use in the future.

The next chapter covers fertility preferences and documents women's ideal number of children. It also addresses the unmet need for contraception in the population while Chapter 8 describes maternal care during pregnancy and delivery and immunization.

The last chapter describes the information collected in the village and CHC/PHC/SC level questionnaires which could be useful for interpretation of the survey findings.

CHAPTER II

THE SURVEY DESIGN

In this chapter the study design, the sampling procedure for urban and rural areas, the sample households covered are presented along with a brief discussion on study tools, recruitment of investigators and training, data processing, estimation procedures and field problems at the time of data collection.

2.1 Sample Design and Implementation

The sample for Nainital district was designed to provide statistical estimates of contraceptive prevalence and the use of spacing methods for the district as a whole, for urban and rural areas separately. Further, weighting factors were developed in accordance with the sampling design - the details of which have been discussed in section 2.5.

The overall sample size for Nainital district, in terms of number of eligible women to be selected has been set at 3000. After allowing for non-response at the household and individual levels (a maximum of 15 percent), it was estimated that this would yield approximately 2500 completed interviews for respondents to the womans' questionnaire (ever married women aged 13-49 years).

In addition, an adequate sample size for rural and urban areas was determined separately. This was done by considering their proportion to total district population. If the rural/urban areas had a population proportion of over 20 percent, then a self-weighting sample design was used or else a sample size of atleast 500 households/ eligible women (i.e. 20 percent of the total sample size for the district) was fixed after reallocation. Since, Nainital district had 33 and 67 percent of their population in urban and rural areas respectively, a sample size of 825 and 1675 households were proportionally allocated so as to enable a minimum sample size of 25 households from each Primary Sampling Unit (PSU). In other words, 33 and 67 PSUs were selected from urban and rural areas of the district respectively.

2.1.1 Rural Sample

In rural areas, the 1991 census list of villages served as the sampling frame, and a two-stage stratified systematic sampling design was adopted with selection of villages in the first stage and households in the selected villages in the next stage. The following steps were followed before actual selection of the villages was done:

1. All the villages were divided into three strata's, each of an equal population size (i.e. after arranging the villages by descending order of their population).

2. Less than 50 population villages were deleted from the frame.

3. (51-150) population villages were combined with the next immediate village as per census listing to ensure the minimum required sample size of 25 households from each PSU/village.

4. 67 PSUs/villages to be selected were divided among the three strata's (22, 22 and 23 from stratum 1, 2 and 3 respectively.

5. Using PPS sampling procedure, the required number of PSU's/villages were selected from each stratum separately.

A houselisting operation carried out in each of the selected villages provided the necessary frame for selecting households at the second sampling stage. Five houselisting teams, each team comprising a lister and a mapper, were trained during 18-23 October, 1993 at Nainital. The houselisting operation started on 25 October, 1993 and was supervised by the senior field staff of IIHMR. The households to be interviewed were selected from the household lists using systematic sampling.

2.1.2 Urban Sample

In urban areas, the list of census enumeration blocks provided by the Registrar General of India for 1991 served as the sampling frame. All the towns in the district were classified into the following three strata's based on their population:

Stratum I : Towns with a population of one lakh and above.

Stratum II : Towns with a population between 20,000-99,999.

Stratum III : Towns with a population below 20,000.

After classification, the sample was allocated to each stratum with respect to their population proportion. However, it was decided to give adequate representation for each stratum. In Stratum I, a minimum sample of 100 (4 CEB's) had to be selected while in the other two strata's, a minimum sample of 50 each (2 CEB's) had to be selected.

This also enabled us the number of towns to be selected in each stratum. Again all the towns in each stratum were listed as per the census list and then a three stage sample design was adopted: towns, CEB's and households were selected at each successive stage using PPS sampling technique. As in rural areas, household listing was carried out in the selected blocks and 25 households were selected systematically from each block.

The following Table 2.1 provides the summary of results of the field work from both the household and the individual interviews. It presents the number of households sampled, households to be interviewed and households actually interviewed. Similarly, the number of eligible and interviewed women were also presented in the table. In addition, the table provides household, individual and overall interview response rates.

Of the 2500 households selected in Nainital district, interviews were completed in 96 percent of the cases. In the remaining four percent of the cases, the selected households were either absent or no longer existing/wrong address or there was no adult respondent in the household. The household response rate was higher in rural areas (99 percent) than in urban areas (98 percent).

The average number of eligible women per household in the households interviewed was 1.08. In all, 2708 eligible women who slept in the household the night before the household interview were interviewed resulting in an individual response rate of 92 percent. The individual response rate was higher in urban areas (93 percent) than in rural areas (92 percent) but in the case of overall response rate it was found to be the same in urban and rural areas

Non-response at both the household and individual levels was principally due to the household being vacant/wrong address or an eligible females respondent not being at home despite repeated household visits. Cases where an eligible woman refused to give the interview

were few (overall, less than one percent).

Table 2.1: Sample results

Results	*Urban*		*Rural*		*Total*	
	Number	*Percent*	*Number*	*Percent*	*Number*	*Percent*
Households Selected	825	100.0	1675	100.0	2500	100.0
Households completed	792	96.0	1650	98.5	2442	97.7
Households with no competent respondent	2	0.2	7	0.4	9	0.4
Households absent	12	1.5	9	0.5	21	0.8
Households postponed	-	-	-	-	-	-
Households refused	-	-	1	0.4	1	0.0
Households vacant/no dwelling	19	2.3	7	0.1	26	1.1
Dwelling destroyed	-	-	1	0.1	1	0.0
Others	-	-	-	-	-	-
Households occupied	806	100.0	1667	100.0	2473	100.0
Households interviewed	792	98.3	1650	99.0	2442	98.7
Households not interviewed	14	1.7	17	1.0	31	1.3
Households response rate	NA	0.98	NA	0.99	NA	0.99
Eligible women	860	100.0	1848	100.0	2708	100.0
Women interviewed	797	92.7	1696	91.7	2493	92.1
Women not at home	63	7.3	143	7.9	205	7.5
Women refused	2	0.2	4	0.2	6	0.2
Women partly interviewed	-	-	-	-	-	-
others	-	-	4	0.2	4	0.2
Individual response rate	NA	0.93	NA	0.92	NA	0.92
Overall response rate	NA	0.91	NA	0.91	NA	0.91

2.2 Study Tools

Five types of questionnaires were used in the Nainital BSUP: the household questionnaire, the Woman's Questionnaire, the village level questionnaire, the PHC and the SC questionnaires. The overall content and format of the questionnaires were determined in a Questionnaire Design Workshop held at Lucknow in October, 1993. The workshop was attended by representatives of all the consulting organizations, SIFPSA, the Population Council and USAID.

The household questionnaire was used to list all usual residents of each sample household plus visitors who slept in that household the night before the interview. This questionnaire was used to gather basic information on the characteristics of each listed person relating to age, sex, marital status, relationship to the head of the household, education and occupation. It also included information on the caste, religion, source of drinking water, source of fuel, consumer durable present in the household, the recent births and deaths in the household etc. Information gathered in the questionnaire was further used to identify the eligible respondents for the womans' questionnaire.

The Womans' questionnaire was used to collect information from all eligible ever married women in the age group 13-49 who were either usual residents or visitors who slept in the

household the night before the household interview. The questionnaire covered the following topics:

- Socio-economic characteristics of the couple
- Fertility and family size norms
- Utilization of health services
- Immunization of children
- Knowledge and use of contraception

The village level questionnaire aimed at gathering basic information about the selected villages in terms of village type, population, availability of various amenities such as schools, health centers, medical shops etc. with an emphasis on the health personnel providing family planning services and advice. The questionnaire also included a number of questions on the stocking pattern of condoms, oral pills and the participation of community, NGO's, Anganwadi's in this programme.

The PHC and SC questionnaires were very specific. It aimed at collecting information on the status of the centers in terms of infrastructure, availability of manpower, cold chain equipments, family planning equipments on the one hand and the supply of vaccines and contraceptives on the other in the selected villages which had these facilities within the village itself.

2.3 Recruitment of Investigators and Training

The questionnaires used for the BSUP in Nainital district were bilingual, comprising questions in Hindi and English. For the questionnaire pretest, four females and two males were trained at the IIHMR, Jaipur, during the last week of September, 1993. The actual pretesting was carried out by these persons in Jaipur and a few villages near the institute itself.

The recruitment of field staff (especially females) was done during the last week of October, 1994 with the assistance of Head of the Department of Geography, DSB College, Nainital and training for the main survey was imparted to them between 2 November, 1993 and 22 November, 1993 at Pithoragarh. The training was closely monitored by senior staff of IIHMR. A total of 54 persons (45 females and 9 males) were given indepth training for conducting the field work (it is to be noted here that the training for main survey was held jointly for Nainital and Pithoragarh districts). The training consisted of classes on field procedures, interview techniques on different sections of the questionnaire etc. It also included lectures on areas related to human reproduction, methods of contraception and MCH care. Further, mock interviews between participants in the classroom and practice interviews in the field were undertaken. On completion of the training, candidates were categorized as supervisors, editors and investigators based on their performance.

The main field work for the BSUP in Nainital district was carried out by four interviewing teams, each team consisting of one field supervisor, one field editor and four female interviewers. The main field work was carried out between 24 November, 1993 and 20 January, 1994. The monitoring and supervision of the data collection operations were carried out by the coordinator and senior staff of IIHMR for ensuring correct survey procedures and maintaining the quality of data. In addition, data from the field were simultaneously entered into micro computers, and field

check tables were produced. These were fed back to the interviewing teams and the supervisors so that they could improve their performance if needed.

2.4 Data Processing

Training for entering field data into the computer was carried out during the first week of December, 1993 at IIHMR, Jaipur wherein four individuals were trained. A consultant from the Population Council gave training to the participants.

Data entry operations began on 12 December, 1993 and lasted upto 15 February, 1994. Information from filled and edited questionnaires was coded and fed into computers. The data was processed using micro computers and data entry and editing were done on a package developed for this purpose only.

In order to maintain uniformity in data analyses, the Population Council, India, invited all the COs to the tabulation plan workshop at Lucknow during the first week of April, 1994. Besides, discussing the tabulation plan at length, the use of a common software package (SPSS) for generating the above tabulations was emphasized. After incorporating all the suggestions, the tabulations for the main report was generated at the IIHMR, Jaipur.

2.5 Estimation Procedure

The sampled data collected from 2500 households in Nainital district was blown up to the district level after calculating the weighting factors separately for rural and urban areas respectively. The procedure adopted for calculating weighting factors are given below:

A. Weighting Factor for Rural Areas

$$HouseholdFactor = \frac{P}{axp_i} x \frac{H_i}{h_i}$$

Where:

P = Total rural population (1991 census) of Nainital district.
p_i = Population (1991 census) of the selected ith PSU/Village.
a = Number of selected PSUs/Villages from rural areas of Nainital district.
H_i = Number of listed households in the ith PSU/Village.

It is to be noted here that for segmented villages the total number of households obtained from 1991 census have been projected for 2.5 years to get 1993 projected/listed households for that PSU/Village.

h_i = Actual number of households surveyed from the ith selected PSU/Village.

$$EWFactor = HouseholdFactor x \frac{E_i}{e_i}$$

Where:

E_i = Total number of eligible women existing in the selected households of the ith PSU/Village.
e_i = Number of actual eligible women covered in the ith PSU/Village.

B. Weighting Factor For Urban Areas

Where:

$$HouseholdFactor = \frac{P_i}{a_i x b_i x q_{ijk}} x \frac{H_k}{h_k}$$

P_i = Total urban population (1991 census) in the ith stratum
a_i = Number of selected towns in the ith stratum
q_{ijk} = Population (1991 census) of Kth CEB in the jth town of the ith stratum
b_j = Number of selected CEBs in the jth town
H_k = Number of listed households in the Kth CEB of jth town
h_k = Actual number of households surveyed from the Kth CEB of jth town

Where:

$$EWfactor(urban) = HouseholdFactor x \frac{E_k}{e_k}$$

E_k = Total number of eligible women present in the Kth CEB of the jth town of ith stratum
e_k = Actual number of eligible women covered in the Kth CEB of the jth town of ith stratum

After generating the weighting factors from the above method it was tested for precision by comparing the various population parameters so obtained, for mid 1993, with that of 1991 census figures for the district. It was found that population (both urban and rural areas), sex ratio, percentage of urban population, percentage of young and old dependents and percentage of illiterates (both males and females) more or less compared with the census figures.

2.6 Field Problems

At the outset, getting 30 female investigators for survey activities from the district turned out to be major problem. The response to the newspaper advertisement given by us was very poor. Consequently, the local college and the university were contacted for assistance and they were very helpful in getting us the required number of female investigators in a short time.

The launching of the survey work was delayed due to the legislative assembly elections. During this period the district health authorities could not give us the required assistance and support.

As far as field activities were concerned, the freezing winter season had to be encountered besides covering many villages in the hilly terrains/regions of the district (which included tehsils such as Nainital, Dhari and Kausya Katauli). Since the field activities commenced from these areas, the coverage during the first fortnight by the interviewing teams was very low. Moreover, in a few villages, the teams had to trek on an average 10-12 kms to reach the villages, because a large number of selected villages in these tehsils did not have an approachable pucca road. Further, they had to stay back and complete the selected households. In addition, the selected households were so dispersed that female investigators had to be escorted by atleast three males for security reasons. To enable smooth operations, we used the services of houselisters who were already familiar with the selected PSUs vis-a-vis location of the households. Overall, it was an enriching experience which we at the institute would like to cherish.

CHAPTER III

HOUSEHOLD AND RESPONDENT BACKGROUND CHARACTERISTICS

This chapter describes the household and background characteristics of the population by analyzing the age-sex structure, literacy and education, and housing facilities by urban and rural settings where many of these indicators usually differ.

3.1 Age-Sex Distribution of the Household Population

The following Table 3.1 gives the distribution of the population by age and sex. The population age structure indicates the past history of the population and also its future course. Moreover, subsequent analysis on nuptiality, fertility, family planning dependes a lot on this chapter.

It can be noticed from the following Table 3.1 that the population of Nainital district consisted of 1846541 usual residents and 40229 visitors (as per the visitors criteria of the BSUP survey). Among the usual residents, 40 percent were below 15 years of age and three percent were aged 60 or more years. Sex-wise, the percentages of females aged (0-14 years) and (60+ years) were higher in both urban and rural areas than their male counterparts in the corresponding ages.

The overall sex ratio was 903 females per 1000 males and this was higher in urban areas (869 females/1000 males) than in rural areas (923 females/1000 males).

Regarding the visitors population, it was observed that a larger percentage of them were females aged (15-34 years), followed by male children (0-9 years). Further, an imbalanced sex ratio favoring the females was seen in both urban and rural areas respectively.

In the light of these findings it can be concluded that:

- usual resident population was `young';
- dependency ratio was as high as 75 percent;
- percentage of females aged (0-14 years) exceeded the males in the corresponding age and this was true for both urban and rural areas;
- females in the age group (15-34 years) were more migratory.

Having studied the age and sex distribution of the population, it would be interesting to understand the composition of households by selected characteristics of the head of the household.

Table 3.1: Household population of usual residents and visitors by age and sex

Age	Urban			Rural			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
De jure									
< 1	1.8	1.7	1.8	2.5	2.2	2.4	2.2	2.0	2.1
1-4	9.2	9.1	9.1	10.2	10.9	10.5	9.8	10.2	10.0
5-9	13.9	13.7	13.8	14.2	14.2	14.2	14.1	14.0	14.1
10-14	12.7	15.0	13.8	13.1	14.0	13.5	12.9	14.3	13.6
15-19	13.4	11.1	12.4	11.7	11.2	11.4	12.3	11.2	11.8
20-24	9.1	9.4	9.2	7.6	8.8	8.2	8.2	9.0	8.6
25-29	6.4	6.8	6.6	7.5	7.8	7.6	7.1	7.4	7.3
30-34	6.8	7.2	7.0	6.3	7.3	6.8	6.5	7.3	6.9
35-39	6.0	8.3	7.1	6.3	5.8	6.0	6.2	6.7	6.4
40-44	6.0	5.8	5.9	5.4	4.1	4.8	5.6	4.7	5.2
45-49	4.8	3.0	4.0	3.4	2.9	3.2	3.9	3.0	3.5
50-64	6.9	6.8	6.8	8.1	7.7	7.9	7.7	7.4	7.5
65+	3.0	2.1	2.5	3.9	3.1	3.5	3.5	2.7	3.1
DK/Missing	-	-	-	-	-	-	-	-	-
Total %	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total N	358028	311110	669138	612417	564986	117740	970446	876095	184654
Sex Ratio	NA	NA	869	NA	NA	923	NA	NA	903
Visitors									
< 1	11.5	0.7	4.2	9.3	4.2	6.1	9.9	2.9	5.5
1-4	17.3	12.5	14.0	22.6	17.3	19.3	21.0	15.6	17.5
5-9	12.7	4.0	6.8	14.6	7.4	10.2	14.0	6.2	9.0
10-14	6.3	4.1	4.8	11.4	6.5	8.4	9.9	5.6	7.2
15-19	4.7	15.3	12.0	4.6	18.0	12.8	4.6	17.0	12.5
20-24	12.4	23.6	20.0	6.9	18.2	13.8	8.5	20.2	15.9
25-29	-	13.7	9.4	9.0	14.0	12.1	6.3	13.9	11.1
30-34	7.7	14.7	12.5	10.1	5.1	7.0	9.4	8.6	8.9
35-39	10.2	1.0	4.0	5.9	3.0	4.1	7.2	2.3	4.1
40-44	6.3	-	2.0	0.9	0.8	0.9	2.5	0.5	1.3
45-49	3.6	-	1.2	0.9	-	0.3	1.7	-	0.6
50-64	2.6	2.3	2.4	2.5	4.3	3.6	2.6	3.6	3.2
65+	4.6	7.9	6.9	1.4	1.3	1.3	2.3	3.7	3.2
Total %	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total N	4352	9303	13656	10258	16315	26573	14610	25619	40228
Sex Ratio	NA	NA	2138	NA	NA	1591	NA	NA	1754

Sex Ratio = Females/1000 NA = Not Applicable

3.2 Household Composition

The household composition affects the allocation of resources (financial, emotional, etc.) available to household members. In cases where women or young persons are heads of the household, it is usually found that financial resources are limited. Similarly, the size of the households affects the well-being of its members.

The following Table 3.2 gives the percent distribution of households by various characteristics of head of the household: (sex, age, marital status, religion, caste) as well the number of usual household members. It can be visualized from the table that majority of household heads were males whose median age was 42 years in urban and rural areas, respectively. In addition, it was observed that the average number of usual residents in their household turned out to be 5.7 members.

Data on marital status show that 87 percent of head of the households were currently married, 11 percent were widowed and the remaining two percent were either never married, divorced or separated. Nonetheless, a similar picture was found in urban and rural areas of Nainital district.

Table 3.2: Housing composition

Housing composing	***Residence***		
	Urban	***Rural***	***Total***
Sex of the household head			
Male	91.6	92.5	92.2
Female	8.4	7.5	7.8
Age of household head			
Less than 30	8.6	10.8	10.0
30 - 44	45.3	42.2	43.3
45 - 59	30.8	26.3	28.0
60 +	15.3	20.7	18.7
Median age	42.0	42.0	42.0
Marital status of household head			
Never married	8.6	1.6	2.0
Currently married	45.3	87.4	86.9
Widowed	30.8	10.4	10.7
Divorced	15.3	0.0	0.0
Separated	42.0	0.5	0.4
Religion			
Hindu	74.5	83.3	80.1
Muslim	18.7	9.9	13.1
Others	6.8	6.8	6.8
Caste			
Schedule caste	19.9	28.2	25.4
Schedule tribe	0.3	7.7	5.2
Backward caste	11.6	11.1	11.3
Higher caste	68.2	53.0	58.1
Number of usual members			
1	1.9	1.3	1.5
2	3.7	4.1	3.9
3	6.3	7.5	7.0
4	14.9	15.7	15.4
5	20.9	19.2	19.8
6	18.0	19.1	18.7
7	13.8	11.8	12.5
8	6.6	8.2	7.7
9 +	13.9	13.3	13.5
Mean	5.7	5.7	5.7
Total %	100.0	100.0	100.0
Number of households	111748	195768	307516

As far as religion was concerned, majority were Hindus (80 percent), 13 percent were Muslims and the remaining seven percent belonged to "others" category. Moreover, it was seen that the percentage of Muslims was higher in urban areas (19 percent) than in rural areas (10 percent).

Table 3.3: Usual residents and visitors

Characteristics		*Usual resident*	*Visitor*	*Total %*	*Total N **
Male Age					
< 1		93.8	6.2	100.0	23234
1 - 4		96.9	3.1	100.0	98344
5 - 14		98.7	1.3	100.0	29720
15 - 19		99.4	0.6	100.0	120153
20 - 24		98.5	1.5	100.0	80548
25 - 29		98.7	1.3	100.0	69814
30 - 34		97.9	2.1	100.0	64437
35 - 39		98.3	1.7	100.0	61002
40 - 44		99.3	0.7	100.0	54853
45 - 49		99.3	0.7	100.0	38140
50 - 59		99.8	0.2	100.0	51601
60 +		99.0	1.0	100.0	57213
Residence	Urban	98.8	1.2	100.0	362380
	Rural	98.4	1.6	100.0	622675
	Total	98.5	1.5	100.0	985055
Female Age					
< 1		96.0	4.0	100.0	18554
1 - 4		95.7	4.3	100.0	936893
5 - 14		98.8	1.2	100.0	251503
15 - 19		95.7	4.3	100.0	102281
20 - 24		93.9	6.1	100.0	84197
25 - 29		94.8	5.2	100.0	68614
30 - 34		96.7	3.3	100.0	65792
35 - 39		99.0	1.0	100.0	59323
40 - 44		99.7	0.3	100.0	41173
45 - 49		100.0	--	100.0	25991
50 - 59		98.7	1.3	100.0	46637
60 +		97.2	2.8	100.0	44230
Residence	Urban	97.1	2.9	100.0	320413
	Rural	97.2	2.8	100.0	581301
	Total	97.2	2.8	100.0	901714
Total Age					
< 1		94.7	5.3	100.0	41789
1 - 4		96.3	3.7	100.0	192033
5 - 14		98.7	1.3	100.0	517221
15 - 19		97.7	2.3	100.0	222433
20 - 24		96.1	3.9	100.0	164744
25 - 29		96.8	3.2	100.0	138427
30 - 34		97.3	2.7	100.0	130229
35 - 39		98.6	1.4	100.0	120324
40 - 44		99.5	0.5	100.0	96026
45 - 49		99.6	0.4	100.0	64131
50 - 59		99.2	0.8	100.0	97967
60 +		98.2	1.8	100.0	101444
Residence	Urban	98.0	2.0	100.0	682793
	Rural	97.8	2.2	100.0	1203976
	Total	97.9	2.1	100.0	1886769

* in 00's

Analysis by caste indicates, that 58 percent were from the higher caste Hindu community, 25 percent belonged to scheduled caste, 11 percent were from backward caste while the remaining belonged to the scheduled tribe community. Although, the higher caste Hindus

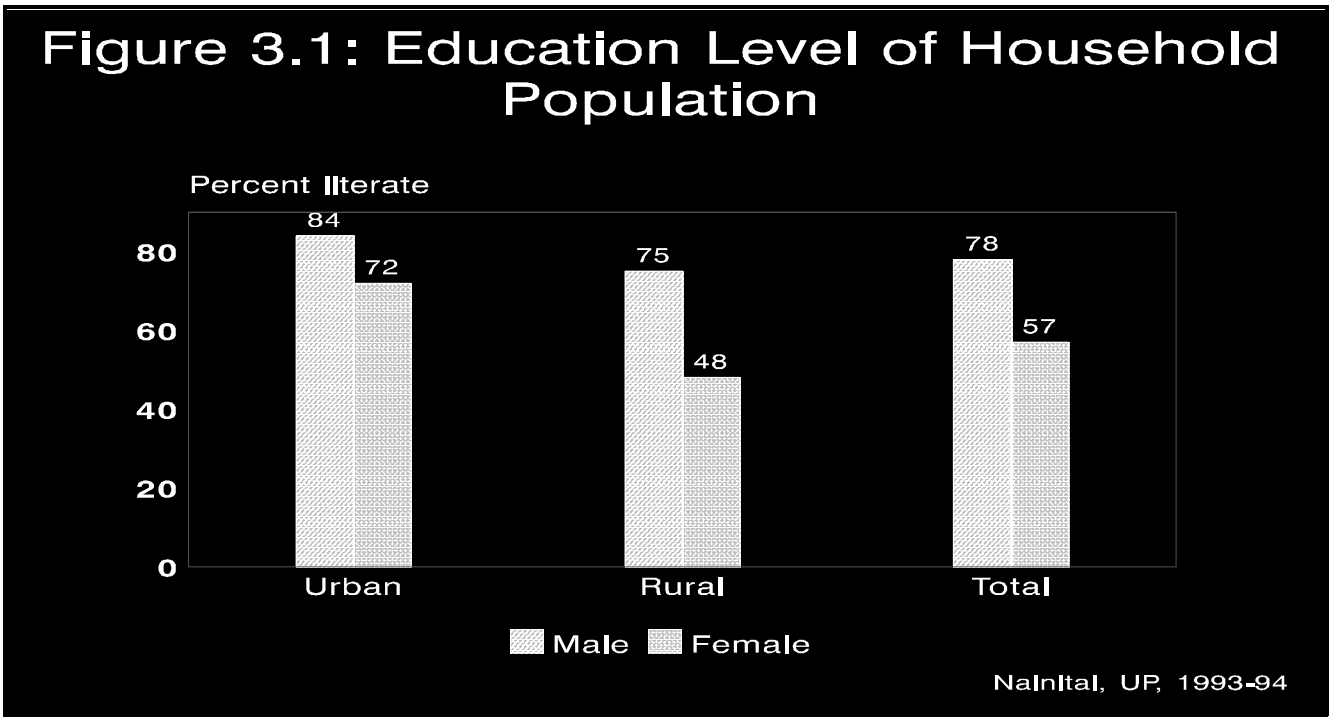
formed a larger percentage in the district, the percentage of scheduled caste and scheduled tribe were higher in rural areas than in urban areas.

Table 3.3 provides percent distribution of de facto population by resident status in the household according to age, sex and residence.

It can be visualized from Table 3.3 that a large percentage of population in the district consisted of usual residents. Analysis by age and sex indicate that the percentage of usual residents was higher for both the sexes and for all the age groups, though, a higher percentage of visitors was found to be clustered or rather concentrated around ages (0-4 years) and (15-34 years) respectively. This tends to indicate a greater mobility among these age groups. A further look at the distribution of visitors by sex, substantiates the earlier finding (ref: Table 3.1) that females aged (15-34 years) in Nainital district were more migratory in nature than the rest.

3.3 Educational Attainment

The education level of the household is perhaps the most important characteristic. Many phenomena such as reproductive behaviour, use of contraception, health of children and proper hygienic habits are issues that are affected by the education of household members. Hence, Tables 3.4 and 3.5 give us an idea of educational attainment for the general as well as the child population aged (6-14 years) respectively.



The following Table 3.4 depicts that overall, the level of literacy in Nainital district was quite high, with 57 and 79 percent of females and males aged six and above, respectively being literate. However, there were substantial urban-rural and male-female differentials in educational attainment. The percentage of male rural dwellers who were illiterate (25 percent) was one and half times as high as the percentage of male urban illiterate (15 percent): and the females who were illiterate (43 percent) substantially exceeded the males who were illiterate (22 percent). Sex differentials in educational attainment exist with the urban and rural areas as well

: 27 percent of males in urban areas had completed high school education, while 17 percent of females in urban areas had done so. A further analysis shows that the percentage of females with a higher level of education (i.e. high school and above) was higher in urban areas (17 percent) than in rural areas (9 percent). Additionally, it was surprising to notice that the median number of years of schooling of the rural residents was very low despite an higher educational attainment.

Table 3.5 gives the percentage of children attending school by age, sex and residence. It can be seen from the table that overall; 78 percent of children aged (6-14 years) were attending school wherein the male attendance rate was higher (73 percent) than the females (72 percent). Age wise there were no differentials in urban areas but in case of females in rural areas the percentage attending school was comparatively lower than other groups, and this percentage further reduced for the 11-14 age group thus indicating a poor attendance as well as disparity between the sexes.

Table 3.4: Educational level of household population

Education level	***Urban***			***Rural***			***Total***		
	Male	***Female***	***Total***	***Male***	***Female***	***Total***	***Male***	***Female***	***Total***
Illiterate	15.8	27.8	21.4	25.1	52.0	38.0	21.6	43.2	31.9
Upto class 4	17.5	18.7	18.1	21.1	17.2	19.7	19.7	17.7	18.8
Primary	7.6	9.9	8.7	9.3	9.6	9.5	8.7	9.7	9.2
Upto middle	13.9	15.4	14.6	18.3	11.1	14.9	16.6	12.7	14.7
Upto high	17.5	11.2	14.5	15.6	5.4	10.7	16.4	7.5	12.2
Above high school	27.7	17.0	22.7	10.6	4.7	7.7	17.0	9.2	13.2
Total %	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total N	306734	269034	575768	513282	472593	985875	820016	741627	1561643
Median number of years	8.0	5.0	7.0	5.0	0.0	3.0	6.0	2.0	5.0

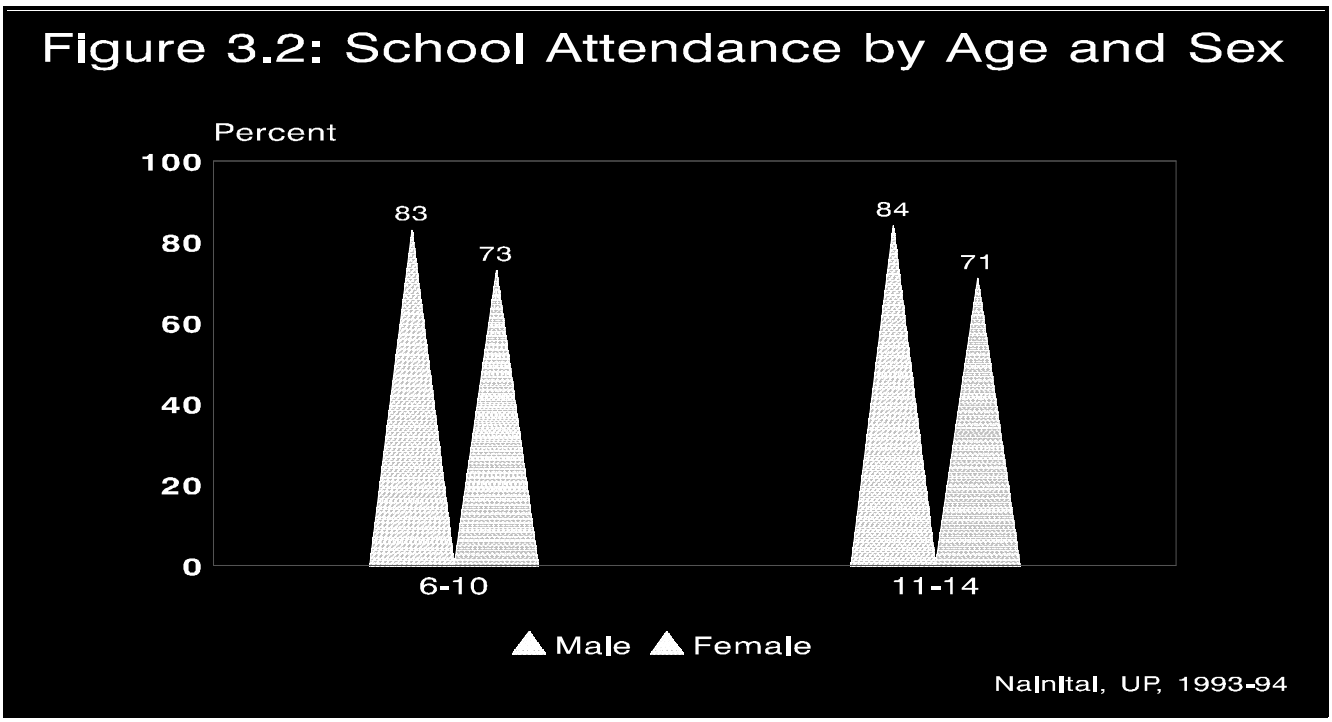


Table 3.5: Percentage of children attending school by age, sex and residence

Age	Urban			Rural			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
6 - 10	83.8	81.8	82.9	82.5	68.6	75.9	83.0	73.2	78.4
11 - 14	85.1	82.4	83.6	83.0	64.3	73.3	83.7	71.3	77.2
6 - 14	84.3	82.1	83.2	82.7	66.8	74.9	83.2	72.4	77.9

3.4 Housing Characteristics

Table 3.6 presents the major housing characteristics by residence. The type of water source and quality of the house are important determinants of the health status of household members, particularly of children. The seriousness of major childhood diseases such as diarrhoea can be reduced by proper hygienic and sanitation practices.

It can be noticed from the following Table 3.6 that a majority of urban households resided in houses which were pucca (65 percent), and nearly 88 percent of the households were electrified. Further, it was observed that piped water (75 percent) formed the major source of drinking water in these households. Regarding the possession of consumer durables such as radio, television, it was found that 61 percent had radio sets and 58 percent had televisions. Additionally, it was seen that 94 percent did not own any agricultural land thus indicating a total dependence on secondary and tertiary sectors for employment.

Table 3.6: Housing characteristics

Housing characteristic	Residence		
	Urban	Rural	Total
% households with electricity	87.5	49.5	63.3
Source of drinking water			
Piped	74.9	43.3	54.8
Handpump	22.3	43.8	36.0
Well water	0.1	0.9	0.6
Other	2.7	12.0	8.6
Type of house			
Hut	7.6	26.5	19.6
Kutcha	7.9	18.6	14.8
Mixed	19.7	18.3	18.8
Pucca	64.8	36.6	46.8
Agricultural land ownership			
Landless	94.0	38.9	58.9
1-3 acres	1.9	42.1	27.5
4-5 acres	0.8	8.6	5.8
6 or more acres	3.3	10.4	7.8
Consumer durable goods			
Radio	61.4	41.4	48.7
Television	57.8	21.9	35.0
Total %	100.0	100.0	100.0
Number of households	111748	195768	307516

In rural areas, a majority were agricultural land owners (61 percent) who resided in houses which were not pucca. About 50 percent of the households were electrified and most of them used both piped and handpump as the source for drinking water. As regards the possession of consumer durables, it was found that 49 percent of the households had an radio

and only 35 percent owned a television. In toto, it can be concluded that urban households had better housing characteristics than their rural counterparts.

3.5 Respondent Background Characteristics

Till now, the previous tables considered characteristics of households, based on results from the BSUP household questionnaires. However, this section examines the selected background characteristics of primary respondents (ever-married women aged 13-49) based on the BSUP woman's questionnaire. A description of background characteristics of women interviewed in the survey (Table 3.7) provides a basis for interpreting findings presented later in the report.

Out of the total ever married women, 89 percent were currently married and 11 percent were either widowed, divorced or separated. The percentage of previously married women was slightly higher in rural areas than in urban areas.

The age distribution of the respondents shows that 42 percent were below 30 years, and this percentage was substantially higher in rural areas (46 percent) than in urban areas (35 percent). This difference may be partly due to the difference in age at marriage between the two areas.

The overall literacy rate of ever married women aged 13-49 years was low with 54 percent of them being illiterate. The percentage of illiterate women in rural areas was as high as 63 percent. The urban-rural difference in this respect was very substantial. On the whole, ever married women in urban areas were substantially better educated than their counterparts in rural areas. For example, 22 percent of urban respondents against five percent had completed high school education.

With regard to religion, it was found that 80 percent were Hindus, 13 percent were Muslims and the remaining seven percent belonged to `others' category. Furthermore, it was observed that the percentage of Muslims was higher in urban areas (20 percent) than in rural areas (9 percent).

Analysis by caste, indicates that 57 percent belonged to higher caste Hindu community, 25 percent were from scheduled caste, 12 percent were from backward caste and the remaining belonged to scheduled tribe. It can therefore be concluded that higher caste Hindus and scheduled caste populations formed a substantial percentage in the district as well in urban and rural areas.

A further analysis by work status of ever married women revealed that majority of them were housewives (not shown in the table). Out of those who were working, it was noticed that 61 percent were employed by someone else and over 35 percent were working in family farm/business. In urban and rural areas the percentage working for someone else was as high as 89 and 52 percent respectively.

As far as their husbands education was concerned, it was found that 24 percent were illiterates. The percentage of illiterate husbands in rural areas was 28 percent as against 17 percent in urban areas. The urban-rural difference in terms of educational attainment was also substantial. For example 39 percent of urban husbands against 16 percent in rural areas had completed high school and above education.

Table 3.7: Background characteristics of the respondents

Background characteristic	Residence		Total number of women		
	Urban	Rural	Total	Weighted N *	Unweighted N
Age					
13 - 14	-	0.3	0.2	550	4
15 - 19	8.4	6.1	5.2	17568	126
20 - 24	14.5	19.4	17.6	60072	450
25 - 29	17.5	20.3	19.3	65808	484
30 - 34	20.0	20.0	20.0	68299	503
35 - 39	21.5	15.7	17.8	60603	432
40 - 44	15.7	10.6	12.4	42350	300
45 - 49	7.4	7.6	7.5	25709	194
Marital status **					
Currently married	89.6	89.1	89.2	383718	3061
Previously married	10.4	10.9	10.8	46220	371
Education					
Illiterate	37.4	63.3	54.0	184074	1413
Upto class 4	5.0	4.8	4.9	16647	124
Primary	10.0	12.3	11.5	39169	294
Upto middle	13.0	9.2	10.6	36036	246
Upto high	12.4	5.6	8.0	27442	185
Above high school	22.1	4.8	11.0	37590	231
Religion					
Hindu	72.8	83.3	79.5	271070	1968
Muslim	20.2	9.1	13.1	44588	344
Sikh	6.4	7.5	7.1	24281	174
Others	0.6	0.1	0.3	1021	7
Caste					
Scheduled caste	20.6	27.1	25.0	67712	517
Scheduled tribe	0.3	8.4	5.8	15610	131
Backward caste	11.5	12.0	11.8	32153	237
Higher caste Hindu	67.6	52.5	57.4	155595	1083
Work status					
Not working	5.6	0.6	1.8	540	3
Working in family farm/business	1.7	46.1	35.2	10455	88
Employed by someone else	89.1	52.4	61.4	18199	125
Self-employed	3.6	0.9	1.6	469	4
Others	-	-	-	-	-
Husband's education					
Illiterate	17.3	27.7	23.9	78416	602
Upto class 4	4.9	7.6	6.7	21795	166
Primary	7.2	10.9	9.5	31259	242
Upto middle	11.8	18.5	16.1	52757	395
Upto high	19.5	19.8	19.7	64427	466
Above high school	39.3	15.5	24.1	78763	521
Total %	100.0	100.0	100.0	NA	NA
Number of ever married women	122583	218377	340960	340960	2493

* in 00's

** Generated through HH factor

In Table 3.8, an analysis of woman's exposure to media by background characteristics is presented. This is because the Government of India has been using media as a powerful tool to communicate and educate people regarding maternal and child health care and family planning programmes, with the idea of bringing down fertility and child mortality through increased use of contraception and extensive coverage of immunization programmes (UIP).

Table 3.8: Access to mass media

Background Characteristic	*Reads or listens to newspaper*			*Watches television*			*Listens to the radio*			*Visits cinema or theater*			*No. of women*	*% not exposed to any media*
	Never	*Less often*	*Frequent*	*Never*	*Less often*	*Frequent*	*Never*	*Less often*	*Frequent*	*Never*	*Less often*	*Frequent*		
Age														
13 - 19	90.3	5.9	3.8	69.6	13.7	16.7	80.3	9.3	10.4	82.6	11.7	5.7	18118	52.4
20 - 24	76.6	14.3	9.1	60.2	13.0	26.8	70.4	22.2	7.4	86.1	10.5	3.4	60072	48.4
25 - 29	76.6	14.3	9.1	56.1	13.6	30.3	71.2	19.9	8.9	86.3	12.2	1.5	65808	46.0
30 +	77.0	14.0	9.1	55.4	13.1	31.5	71.9	19.4	8.7	88.4	9.0	2.6	196962	44.9
Residence														
Urban	62.3	20.7	17.0	32.8	17.5	49.8	63.7	25.8	10.5	81.4	14.5	4.0	122583	24.6
Rural	86.1	9.7	4.2	70.8	10.8	18.3	76.6	15.8	7.6	90.6	7.5	1.9	218377	58.3
Education														
Illiterate	96.6	2.9	0.5	78.5	10.0	11.5	86.0	11.0	3.0	94.2	5.0	0.9	184074	67.7
Upto class 4	92.0	4.2	3.8	59.2	18.9	22.0	70.5	20.4	9.2	89.9	7.6	2.5	16647	43.0
Primary	78.7	17.8	3.5	51.8	18.4	29.8	68.1	21.7	10.2	88.4	7.9	3.8	39169	34.4
Upto middle	64.6	27.7	7.7	35.9	16.1	48.0	67.4	25.1	7.4	82.6	12.7	4.8	36036	25.4
Upto high	38.3	40.1	21.7	17.8	20.9	61.4	45.9	33.9	20.2	76.7	19.9	3.4	27442	8.8
Above high school	17.9	33.2	49.0	6.2	12.6	81.2	31.1	42.0	26.9	63.5	28.4	8.1	37590	1.6
Religion														
Hindu	75.9	14.7	9.4	56.7	12.5	30.8	70.9	19.5	9.6	87.2	9.7	3.0	271070	45.0
Muslim	94.3	4.7	1.0	67.4	14.4	18.3	85.7	11.0	3.3	89.5	9.0	1.5	44588	61.6
Others	65.7	18.7	15.6	44.1	19.0	36.9	58.8	33.8	7.5	84.0	15.0	1.0	25302	32.2
Caste														
Scheduled caste	90.0	7.1	3.0	74.3	10.8	15.0	81.8	14.6	3.7	93.0	6.1	0.9	67712	61.1
Scheduled tribe	92.7	6.7	12.8	69.7	13.5	16.7	81.9	14.1	4.1	88.6	11.4		15610	59.6
Backward caste	91.2	8.0	0.8	71.1	9.8	19.1	84.0	12.5	3.6	94.7	4.2	1.1	32153	61.3
Higher caste Hindu	64.9	20.1	14.9	44.7	13.7	41.6	62.4	23.6	14.0	83.0	12.3	4.7	155595	33.1
Total %	77.6	13.7	8.8	57.1	13.2	29.6	72.0	19.4	8.6	87.3	10.0	2.7	340960	46.2

In Nainital district, overall 54 percent of women were exposed to atleast one or the other types of media presented in Table 3.8. Of those who watched/listened frequently, T.V. turned out to be the most popular media with about 50 percent and 18 percent reporting access in urban and rural areas respectively. This was followed by newsletter in urban areas (17 percent) whereas in rural areas, radio was used as the medium in eight percent of the cases.

Analysis by age indicates, that women aged between 20 and 29 years were more likely to watch television than other age groups. As far as other types of media were concerned, a clear-cut trend was not observed although with education it was noticed that, women with high school and above education had better access to all the types of media mentioned in the table.

With respect to religion, "others" category had more exposure to newsletter and television than Hindus and Muslims and by caste it was found that higher caste Hindus had better exposure to all the types of media than other caste groups.

Recapitulate

In Nainital district, a majority of the population consisted of usual residents. An analysis of the population distribution of usual residents, revealed a higher percentage of younger population, and dependency ratio. Likewise, it was found that females aged between 15 and 34 years were more migratory than other age groups. The average number of members in the household turned out to be 5.7 persons. Further, it was observed that Hindus formed a larger percentage of the population in the district. A reasonable percentage of the Hindus were residing in pucca households with electricity facilities. These households had access to consumer durables such as newsletter, television and radio. Additionally, it was found that the literacy levels in urban and rural areas for males and females were found to be higher than the state average. Regarding, the eligible couples, it was found that, around 89 percent of the women were currently married and a little over half of them were illiterate. More than 90 percent were classified as nonworkers; while, a majority of working women were working for someone else or in the family farm/business.

CHAPTER IV

NUPTIALITY

This chapter addresses the subject of nuptiality, which in the Indian context, has both demographic and social implications.

The principal interest of the BSUP in the subject of nuptiality is that marriage is a primary determinant of exposure to the risk of pregnancy and, therefore, is important for understanding fertility. The study of trends in age at marriage will also throw light on some important aspects of social change.

4.1 Current Marital Status of Women

Table 4.1 presents the current marital status of women. This is an important table as it provides base of various subsequent tables.

Table 4.1 Current marital status

Age	*Marital Status*					*Total %*	*Total N*
	Never Married	*Currently married*	*Widowed*	*Divorced*	*Separated*		
Urban							
13-14	100.0	0.0	0.0	0.0	0.0	100.0	17406
15-19	89.8	10.2	0.0	0.0	0.0	100.0	34681
20-24	42.3	56.7	0.0	0.0	0.0	100.0	29172
25-29	2.6	96.9	0.5	0.0	0.0	100.0	21063
30-34	0.7	98.6	0.7	0.0	0.0	100.0	22249
35-39	0.0	92.3	5.1	0.0	2.6	100.0	25882
40-44	0.0	94.3	5.1	0.6	0.0	100.0	17926
45-49	0.0	81.2	17.3	1.5	0.0	100.0	9444
Total	34.6	62.4	2.4	0.2	0.4	100.0	177822
Rural							
13-14	97.7	2.3	0.0	0.0	0.0	100.0	25968
15-19	81.0	18.7	0.3	0.0	0.0	100.0	63232
20-24	18.8	80.2	0.5	0.2	0.3	100.0	49863
25-29	3.0	95.5	1.4	0.0	0.1	100.0	43992
30-34	0.4	97.9	1.5	0.0	0.2	100.0	41354
35-39	0.2	94.8	4.5	0.0	0.5	100.0	32854
40-44	0.0	92.4	7.6	0.0	0.0	100.0	23110
45-49	0.0	86.9	12.4	0.0	0.7	100.0	16546
Total	29.4	68.0	2.4	0.0	0.2	100.0	296919
Total							
13-14	98.6	1.4	0.0	0.0	0.0	100.0	43374
15-19	84.1	15.7	0.2	0.0	0.0	100.0	97913
20-24	27.5	71.5	0.5	0.4	0.1	100.0	79035
25-29	2.8	95.9	1.1	0.0	0.2	100.0	65055
30-34	0.5	98.1	1.2	0.0	0.2	100.0	63602
35-39	0.1	93.7	4.7	0.0	1.5	100.0	58736
40-44	0.0	93.2	6.5	0.3	0.0	100.0	41036
45-49	0.0	84.8	14.2	0.6	0.4	100.0	25990
Total	31.4	65.9	2.4	0.1	0.2	100.0	474741

It can be noticed that, in Nainital district, 31 percent of the women were never married, 66 percent were currently married and the remaining three percent were either widowed, divorced

or separated. A further analysis by age of the women depict that 97 percent had married before attaining 30 years of age and this pattern was however, found to be common in both urban and rural areas, although a higher percentage of never married women were enumerated in urban areas. Subsequently, it was noticed in both urban and rural areas that the percentage of widowed women increased with an increase in their ages. Nonetheless, it can be deduced that there existed lot of similarities in the distribution of women by their current marital status in urban and rural areas of the district respectively.

Having understood the distribution of women by current marital status in the district, it will be interesting to study the changes in marriage patterns over time from an examination of changes in the singulate Mean Age at Marriage (SMAM). Such a type of analysis is attempted in Table 4.2.

Table 4.2 Singulate mean age at marriage

Source (District Level)	***Singulate mean age at marriage***		
	Male	***Female***	***Difference***
1961 Census	23.0	15.7	7.3
1971 Census *	23.0	17.4	5.6
1981 Census *	23.9	18.9	5.0
1992-93 BSUP	24.8	20.5	4.3

* Data on district wise age at marriage using census data is available from PRC Lucknow publication by J.N. Srivastava.

Table 4.2 provides the SMAM computed from census publication for different points of time. It has to be noted here that the values for the SMAM have been calculated by referring to the census data of 1961, 1971 and 1981 respectively and also the survey data (by using the Hajnal's method), because the reference cited was not available.

It can be observed that the SMAM for males (24.8 years) had always remained higher than females (20.5 years), though the percentage of increase in the SMAM for males was lower than females during the period (1961-94). Further, it can be observed that the difference in the SMAM between males and females had reduced from 7.3 years in 1961 to 4.3 years in 1994 (at the time of survey).

Based on these findings, it can be inferred that the age at marriage for both males and females in Nainital district had increased over time, and the percentage increase in the SMAM for females was higher than males. Being one of the most influential proximate determinants of fertility, it is likely that the fertility levels in the future will decline if the present pace of increase in the female age at marriage in the district continues.

While, the previous table explained the SMAM over time, the present one throws some light on the knowledge of ever married women regarding the legality of marriages (both males and females) by background characteristics.

Overall, it can be observed from Table 4.3 that majority of the ever married women (52 percent) in Nainital district had correct knowledge about the minimum legal age at marriage for females while in case of males it was only 39 percent. This tends to explain that women in the district had better knowledge about the legality of female marriages than that of males and this was also true for urban and rural areas respectively. Likewise, it was found that women in urban

areas had better knowledge than their counterparts in rural areas. By age, it was noticed that younger women aged (13-19) years were less knowledgeable than older women and an analysis by education indicated that with advancing literacy, the percentage of women with correct knowledge for males increased from 20 percent for illiterates to 86 percent for above high school education and in the case of females, the increase was from 34 to 98 percent respectively.

Table 4.3 Knowledge of minimum legal age at marriage

Background Characteristics	***Percentage who correctly know legal minimum age at marriage***		
	For males it is 21 years	***For females it is 18 years***	***Number of women ****
Age			
13 - 19	31.5	38.4	18118
20 - 29	40.0	52.3	125880
30 - 39	39.9	53.9	128902
40 - 49	37.1	52.2	68059
Residence			
Urban	54.8	69.8	122583
Rural	30.0	42.2	218377
Education			
Illiterate	19.8	33.5	184074
Upto class 4	33.6	48.4	16647
Primary	48.1	63.7	39169
Upto middle	57.2	76.0	36036
Upto high	68.0	78.8	27442
Above high school	86.3	90.4	37590
Religion			
Hindu	40.5	53.8	271070
Muslim	27.5	43.1	44588
Others	42.3	50.0	25302
Caste			
Scheduled caste	29.3	45.4	67712
Scheduled tribe	19.7	24.1	15610
Backward caste	57.0	40.3	32153
Higher caste Hindu	50.0	63.3	155595
Total	38.9	52.1	340960

* in 00's

With respect to religion, it was found that "others" category had more knowledge regarding the legal minimum age at marriage for males while in the case of females, Hindus were more knowledgeable than other religious group. Similarly, the backward caste women and higher caste Hindus had better knowledge of minimum legal age at marriage for males and females respectively.

It can therefore be concluded, in general, that the awareness about the legal minimum age at marriage among the ever married women in Nainital district was quite high and with increasing age and education the level of knowledge too increased. Also, it was found that women were more familiar with the female minimum legal age at marriage than that of males.

In the Indian setting, the age at which a woman starts living with her husband marks the beginning of her exposure to the risk of pregnancy. The information in Table 4.4 allows an assessment of the age at which women initiate sexual intercourse and the trend in this indicator across age cohorts.

It can be visualized from the following table that the mean age at which women started living with their husband turned out to be 17.5 years. This was slightly higher in urban areas (18 years) when compared with rural areas (17 years). Overall, the modal age group at which women started their effective marriage was (17-18) years. The urban areas followed a similar pattern but in rural areas, it was found to be between 16 and 17 years. Moreover, analysis by various age cohorts indicates, that the percentage of effective marriages at younger ages had declined or in other words the age at effective marriage had gone up for the younger cohorts when compared with the older cohort of women.

In light of the above findings, it will be interesting to study the median age at effective marriage among these women because "gauna" is an accepted social and cultural norm in Uttar Pradesh (Table 4.5).

Table 4.4: Age at which respondent started living with husband

Current Age	*Percentage who started living with husband by exact age*						*Mean age when started living with husband*
	13-14	*15-16*	*17-18*	*19-20*	*21-22*	*23-25*	
Urban							
13-14	-	-	-	-	-	-	-
15-19	5.1	41.5	43.6	9.8	-	-	16.7
20-24	2.2	17.0	36.9	22.3	20.2	1.4	18.4
25-29	7.4	17.9	34.3	21.8	10.2	8.3	18.2
30-34	5.1	21.8	26.5	25.8	13.9	7.0	18.4
35-39	6.9	27.1	27.4	22.0	8.7	7.9	18.0
40-44	12.7	23.3	21.5	32.1	6.5	4.0	17.7
45-49	4.6	18.7	29.2	37.7	8.5	1.3	18.1
20-49	6.6	21.6	29.1	25.6	11.4	5.7	18.1
25-49	7.4	22.4	27.7	26.1	9.9	6.5	18.1
Rural							
13-19	100.0	-	-	-	-	-	13.5
20-24	12.9	31.7	45.8	4.1	-	-	16.3
25-29	9.2	27.2	36.3	21.9	4.7	0.8	17.3
30-34	10.7	32.0	29.8	14.9	8.6	3.9	17.3
35-39	15.3	33.3	25.9	17.0	6.6	1.9	16.4
40-44	14.1	33.7	26.9	14.4	5.4	5.5	17.1
45-49	22.3	17.2	28.9	21.8	6.0	3.8	17.2
	17.7	31.0	23.9	16.1	6.9	4.3	17.41
20-49							
25-49	13.8	29.8	29.3	17.6	6.4	3.1	17.2
	15.0	30.5	27.4	16.4	6.9	3.7	17.1
Total							
13-14	100.0	-	-	-	-	-	13.5
15-19	10.9	38.2	45.3	5.6	-	-	16.4
20-24	7.1	24.1	36.5	22.0	9.4	0.9	17.6
25-29	9.6	27.3	31.3	17.2	9.2	5.4	17.6
30-34	11.5	29.0	26.2	20.3	9.3	3.8	17.5
35-39	10.9	30.7	27.1	17.8	6.9	6.6	17.5
40-44	17.9	20.0	25.5	26.6	6.2	3.9	17.4
45-49	13.0	26.6	25.9	23.9	7.5	3.2	17.4
20-49	11.1	26.7	29.1	20.6	8.3	5.7	17.5
25-49	12.0	27.3	27.7	20.3	8.0	6.5	17.5

Table 4.5 shows the median age at first cohabitation with husband by current age and selected background characteristics and is used to describe the trends and differentials in the age at which women started living with their husband.

It can be observed from the table, that the median age at effective marriage in Nainital district was 17 years. For different age cohorts (excepting the 15-19), the variation in median age was not significant, eventhough women in urban areas started living with their husband a year later than their counterparts in rural areas.

Table 4.5: Median age at which respondent started living with husband by selected background characteristics

Background Characteristics	*Current age*							
	*15-19**	*20-24**	*25-29*	*30-34*	*35-39*	*40-49*	*20-49*	*25-49*
Residence								
Urban	17.0	18.0	18.0	18.0	17.0	18.0	18.0	18.0
Rural	16.0	17.0	17.0	16.5	16.0	17.0	17.0	17.0
Education								
Illiterate	16.0	17.0	16.0	16.0	16.0	17.0	16.0	16.0
Upto class 4	17.0	16.0	17.0	16.0	17.0	17.0	17.0	17.0
Primary	16.5	17.0	17.0	17.0	16.0	17.0	17.0	17.0
Upto middle	17.5	18.0	18.0	18.0	17.0	18.0	18.0	18.0
Upto high	17.0	19.0	18.0	18.0	18.0	19.5	19.0	18.0
Above high school	17.5	19.0	20.0	20.5	20.0	20.5	20.0	20.0
Religion								
Hindu	17.0	18.0	17.0	17.0	17.0	17.0	17.0	17.0
Muslim	16.0	17.0	17.0	16.0	16.0	18.0	17.0	17.0
Others	16.0	19.0	18.0	19.0	18.0	19.0	19.0	19.0
Caste								
Scheduled caste	17.0	17.0	17.0	16.5	16.0	17.0	17.0	17.0
Scheduled tribe	15.0	16.0	16.0	14.5	17.0	15.0	16.0	15.0
Backward caste	16.0	16.0	16.0	16.0	17.0	17.0	17.0	17.0
Higher caste Hindu	17.0	18.0	18.0	18.0	17.0	18.0	18.0	18.0
Total	16.5	18.0	17.0	17.0	17.0	18.0	17.0	17.0

* Omitted when less than 50 percent of the women have married for the first time by age 20.

With education, a positive relationship was found for all the age cohorts. For example an illiterate woman started her effective marriage, when she was 16 years of age while the same for a woman with above high school education was 20 years. Subsequent analysis with religion revealed that women from "others" category started living with their husbands later than Hindus and Muslims and this was true for all the age cohorts excepting the (15-19) cohort. Additionally, it was found that women from higher caste Hindus started their effective marriage atleast a year later than other caste groups, and this trend was found to be similar for the various age cohorts. It can therefore, be concluded, that place of residence, religion, caste and education in particular had a significant effect on the age at effective marriage.

Recapitulate

The SMAM calculated from various sources over time, indicated a consistent increase in their age at marriage. Yet, when analyzed with age at effective marriage/median age at which they started living with their husband, it was found that women started their effective marriage much before they attained the legal age at marriage. However, with education a strong positive

relationship was observed. It is therefore, suggested that female education should be accorded top priority, so that changes in nuptiality pattern can be brought about, and consequently affect fertility through its indirect effect. Further, it is recommended to strengthen the IEC component on this aspect.

CHAPTER V

FERTILITY

In the BSUP information on current as well as cumulative and past fertility is collected. Based on the information collected, the chapter begins with descriptions of current fertility. This is followed by a description of differentials in fertility by background characteristics. Finally, attention is focused on trends in fertility which permit an examination of age specific fertility in different time periods going back twenty years.

The chapter also looks at cumulative fertility-children ever born. The cumulative fertility tables are derived from a sequence of questions on the number of male and female children living and not living in the household and on children who may have died. The tables included in the report show the mean number of children ever born by current age of the women.

5.1 Current Fertility Levels and Trends

The current level of fertility is the most important topic in this chapter because of its direct relevance to population policies and programmes.

Table 5.1: Current Fertility

Age	*Urban*	*Rural*	*Total*
Urban			
13-14	-	-	-
15-19	0.04	0.07	0.06
20-24	0.17	0.27	0.24
25-29	0.22	0.23	0.22
30-34	0.12	0.10	0.11
35-39	0.03	0.04	0.04
40-44	0.01	0.02	0.02
45-49	-	-	-
TFR 15-44	2.95	3.65	3.45
TFR 15-49	2.95	3.65	3.45
GFR	83	114	103
BSUP CBR based on household birth record (De jure)	23.4	29.7	27.4

Note: Rates from BSUP are for the period 1 - 24 months before the interview except for the CBR from the household birth record which is based on the period 1 - 24 months before the interview. Rates for the age group 45 - 49 might be slightly biased due to truncation.

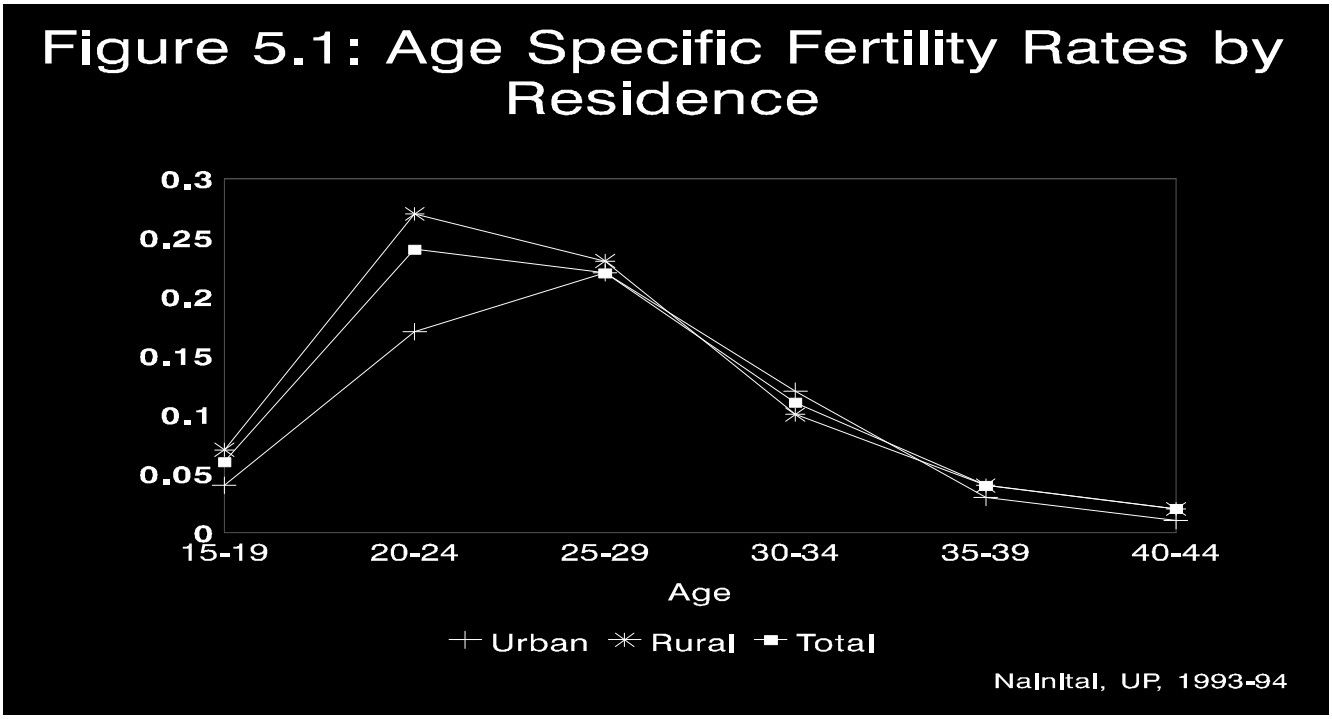
TFR: Total Fertility Rate for ages 15 - 44 and 15 - 49, expressed per woman.

GFR: General Fertility Rate (births / number of women 15 - 49), expressed per 1000 women.

CBR: Crude Birth Rate, expressed per 1000 population

Table 5.1 has been designed to provide estimates of current levels of fertility for the district as a whole and for urban and rural areas respectively. A two year rate is chosen for the BSUP in order to:

- get the most current information;
- reduce sampling error; and
- minimize problems with displacement of births from years immediately preceding the survey to earlier years.



The above table depicts that the total fertility rate for the district as a whole was 3.5 and for urban and rural areas it was 3.0 and 3.7 respectively. The age pattern of fertility revealed a peak in the 20-24 age group for rural areas; while in urban areas it was observed between 25 and 29 years thus implying a difference in the age at marriage and so also in the age at effective marriage between the two areas. Further, it was seen in both the areas that the contribution of fertility by older women (particularly women aged 35 years and above) was marginal. It is therefore, suggested that programme efforts are still needed to bring down the fertility among younger women. This may be achieved by placing more emphasis on the use of spacing methods of family planning.

Likewise, other current fertility measures such as the CBR and GFR have been presented in the table. Overall, it can be noticed that the CBR and GFR in the district were 27 and 103 respectively. However, in urban areas, all these rates were found to be lower than rural areas.

Having found an existence of high fertility in rural areas of the district, it will be interesting to understand further the fertility behavior and differentials by selected background characteristics of currently married women (Table 5.2).

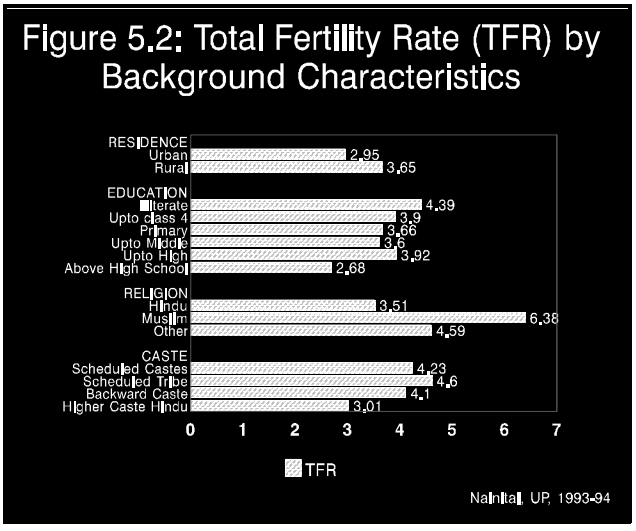
Table 5.2 summarizes the current fertility for major groups in the population. It also provides a basis for inferring trends in fertility by comparing the current synthetic measures with the average number of children everborn to women currently aged 40-49 years. Although, comparison to completed fertility among women aged 40-49 with the total fertility rate can provide an indication of fertility change, such an approach is vulnerable to understatement of parity by older women.

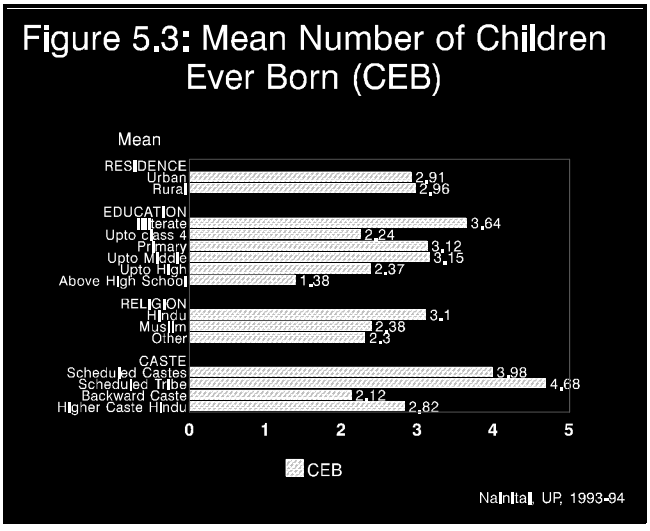
Table 5.2: Fertility by background characteristics

Background characteristic	*Total fertility rate**	*Mean number of children ever born to women aged 40-49 years*
Residence		
Urban	2.95	2.91
Rural	3.65	2.96
Education		
Illiterate	4.39	3.64
Upto class 4	3.90	2.24
Primary	3.66	3.12
Upto middle	3.60	3.15
Upto high	3.92	2.37
Above high school	2.86	1.38
Religion	3.21	3.10
Hindu	6.38	2.38
Muslim	4.59	2.30
Others		
Caste	4.23	3.98
Scheduled caste	4.60	4.68
Scheduled tribe	4.10	2.12
Backward caste	3.01	2.82
Higher caste Hindu		
	3.45	2.94
Total		

* Rate for women aged 15-49 years

It can be noticed that the TFR and mean number of children ever born to women in Nainital district were 3.45 and 2.94 respectively. As expected the values of TFR and mean number of children were lower in urban areas than in rural areas. Further, it can be observed that, the contribution to cohort fertility by women aged 40-49 years was over 2.9 children in urban and rural areas. When this was compared with the current fertility measure, it was found that fertility had declined over the decades.





Similarly a comparison by other background indicators such as education, religion and caste revealed a decline in fertility, eventhough substantial differences existed within the groups. The current fertility for an illiterate woman was as high as 4.39, while it was 2.86 for a woman with above high school education.

Subsequent analysis with religion indicates that Muslims had higher fertility than other religious groups. A break-up by caste depicts that, fertility among higher caste Hindus had declined drastically than the other castes, and it was found to be the highest for scheduled tribes. Overall, it can be concluded that fertility levels in Nainital district had declined and the decline was rapid for highly educated higher caste Hindu women.

5.2 Outcome of Pregnancies

Table 5.3 shows the outcome of all pregnancies, ever-married women have had during the last two years by age of mother and place of residence at the time of the survey.

Table 5.3: Outcome of pregnancy

Current Age	*Outcome of pregnancy*				*Total %*	*Number of pregnancies **
	Spontaneous abortion	*Induced abortion*	*Still birth*	*Live birth*		
Urban						
13-19	-	-	-	100.0	100.0	1930
20-24	-	-	-	100.0	100.0	9573
25-29	-	-	-	100.0	100.0	9818
30-39	0.5	-	2.1	97.4	100.0	11721
40-49	-	-	8.3	81.7	100.0	843
Total	0.2	-	1.2	98.7	100.0	33884
Rural						
13-19	5.4	-	5.4	89.2	100.0	4904
20-24	1.4	0.7	0.6	97.3	100.0	31810
25-29	0.6	-	2.2	97.2	100.0	24574
30-39	0.3	0.4	-	99.2	100.0	19074
40-49	-	-	-	100.0	100.0	1787
Total	1.1	0.4	1.2	97.3	100.0	82148
Total						
13-19	0.4	-	3.8	92.2	100.0	6834
20-24	1.1	0.5	0.5	97.9	100.0	41383
25-29	0.4	-	1.6	98.0	100.0	34392
30-39	0.4	0.3	0.8	98.5	100.0	30795
40-49	-	-	5.9	94.1	100.0	2630
Total	0.8	0.2	1.2	97.7	100.0	116032

* in 00's

Of the total pregnancies, 98 percent of them were live births, while the remaining two percent were either still birth or abortion (spontaneous/induced). The percentage of pregnancies, which got terminated into a live birth was higher among women aged 20-39 years than younger and older women. In other words, the percentage of still birth/abortions was higher among younger and older women respectively. This pattern was similar in both urban and rural areas, although the percentage of still birth/abortions was higher in rural areas.

Table 5.4: Number of live births and living children by age of the mother

Number of live births and living children	Age of the mother								Total %	Number of women
	13-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49		
Urban										
Number of live births	-	29.6	58.7	9.0	2.7	-	-	-	100.0	7823
0	-	4.2	49.9	25.8	11.3	8.4	0.4	-	100.0	12557
1	-	5.3	22.2	27.3	21.7	11.1	8.9	3.5	100.0	23472
2	-	0.3	4.5	18.8	24.5	27.8	19.9	4.2	100.0	27275
3	-	-	1.9	20.9	25.5	26.1	21.0	4.6	100.0	20916
4	-	-	-	10.4	20.3	33.4	19.9	15.8	100.0	11979
5	-	-	-	0.6	20.9	33.2	41.6	25.4	100.0	8814
6	-	-	2.4	7.5	11.3	22.8	17.6	14.4	100.0	4534
7	-	-	-	-	42.6	24.7	26.7	15.1	100.0	2328
8	-	-	-	-	-	33.8	28.0	39.5	100.0	1806
9	-	-	-	-	-	45.0	-	27.0	100.0	1077
10 or more										
		0.6	1.3	2.7	3.6	4.3	4.7	5.3		
Mean		0.9	1.1	1.4	1.6	2.0	2.1	2.2		
SD										
Number of living children										
0	-	28.5	57.2	8.7	5.6	-	-	-	100.0	8108
1	-	5.5	48.3	27.6	10.4	7.8	0.4	-	100.0	13599
2	-	4.4	20.5	25.4	26.6	11.0	8.8	3.4	100.0	23716
3	-	0.2	6.2	22.1	20.9	27.1	19.4	4.1	100.0	27975
4	-	-	-	17.4	30.1	26.5	21.3	4.7	100.0	20625
5	-	-	-	9.2	16.9	35.0	21.4	16.9	100.0	11229
6	-	-	-	0.6	17.9	34.5	20.7	26.3	100.0	8488
7	-	-	-	3.6	12.1	24.4	44.5	15.4	100.0	4237
8	-	-	-	-	22.6	33.3	23.8	20.3	100.0	1726
9	-	-	-	-	-	33.8	26.7	39.5	100.0	1806
10 or more	-	-	-	-	-	45.0	28.0	26.9	100.0	1077
Mean	-	0.5	1.2	2.5	3.3	3.9	4.4	5.0		
SD	-	0.8	1.0	1.3	1.6	1.6	2.0	2.2		
Rural										
Number of live births										
0	2.1	46.5	37.6	7.8	1.4	1.9	-	2.7	100.0	19265
1	0.6	13.1	55.2	18.2	7.6	2.6	1.4	0.9	100.0	23262
2	-	3.3	32.7	33.8	17.0	7.8	4.3	1.1	100.0	39311
3	-	0.2	17.0	25.4	25.8	17.5	9.3	4.8	100.0	44818
4	-	-	3.3	22.1	26.3	24.1	15.2	9.1	100.0	37462
5	-	-	0.5	14.9	25.9	24.0	19.5	15.1	100.0	26687
6	-	-	2.3	11.1	31.1	23.0	17.3	15.1	100.0	15222
7	-	-	-	-	22.1	28.8	24.0	25.1	100.0	6032
8	-	-	-	-	18.1	16.4	29.0	36.5	100.0	2780
9	-	-	-	-	5.9	55.1	33.1	5.9	100.0	1812
10 or more	-	-	-	-	-	16.1	29.8	54.1	100.0	1727
Mean	0.3	0.5	1.6	2.9	3.8	4.3	4.7	5.1		
SD	0.5	0.7	1.2	1.4	1.5	1.8	1.9	2.3		

Rural Number of living children										
0	2.7	45.2	37.6	7.4	2.1	1.8	-	3.2	100.0	20103
1	-	12.8	54.1	16.1	9.6	2.3	3.6	1.5	100.0	26181
2	-	2.4	30.5	31.7	19.1	10.1	4.4	1.7	100.0	41831
3	-	-	14.5	23.8	25.4	18.8	11.8	5.7	100.0	47743
4	-	-	1.4	21.0	27.9	23.4	15.0	11.4	100.0	39443
5	-	-	1.4	15.8	22.4	27.1	18.8	14.5	100.0	25120
6	-	-	-	14.4	29.3	20.1	20.9	15.3	100.0	11728
7	-	-	-	-	15.8	26.2	25.1	32.9	100.0	4334
8	-	-	-	-	-	23.6	39.6	36.8	100.0	1143
9	-	-	-	-	-	71.6	-	28.4	100.0	377
10 or more	-	-	-	-	-	-	35.6	64.4	100.0	430
Mean	-	0.4	1.5	2.7	3.5	3.9	4.2	4.4		
SD	-	0.6	1.1	1.3	1.4	1.5	1.6	1.9		
Total										
Number of live births										
0	1.5	41.6	43.7	8.1	1.8	1.4	-	1.9	100.0	20088
1	0.4	10.0	52.9	21.1	9.0	4.7	1.3	0.6	100.0	35479
2	-	4.1	28.7	31.4	18.8	9.1	6.0	1.9	100.0	62786
3	-	0.2	12.3	22.9	25.3	21.4	13.3	4.6	100.0	72093
4	-	-	2.8	21.7	26.0	24.8	17.3	7.4	100.0	58378
5	-	-	0.4	13.5	24.2	26.9	19.7	15.4	100.0	38666
6	-	-	1.5	7.3	27.4	26.8	18.2	18.9	100.0	24036
7	-	-	1.1	3.2	17.4	26.2	31.6	20.5	100.0	10566
8	-	-	-	-	29.3	20.2	23.8	26.7	100.0	5108
9	-	-	-	-	3.0	44.4	29.9	22.7	100.0	3618
10 or more	-	-	-	-	-	27.2	29.1	43.7	100.0	2804
Mean	0.3	0.5	1.5	2.8	3.7	4.3	4.7	5.1		
SD	0.5	0.8	1.8	1.4	1.6	1.9	2.0	2.2		
Total										
Number of living children										
0	2.0	40.4	43.2	7.8	3.1	1.3	-	2.3	100.0	28211
1	-	10.1	51.1	19.7	9.7	4.1	4.4	0.9	100.0	40558
2	-	2.4	21.3	23.3	17.3	9.4	24.4	1.8	100.0	82716
3	-	0.1	11.2	22.7	23.2	23.1	14.1	5.5	100.0	77290
4	-	-	0.8	19.6	28.5	23.8	17.9	9.3	100.0	60426
5	-	-	0.8	12.9	19.3	27.8	19.5	19.7	100.0	38974
6	-	-	-	9.1	25.8	24.2	19.4	21.5	100.0	19186
7	-	-	-	2.1	16.5	27.2	31.5	22.7	100.0	7225
8	-	-	-	-	18.3	28.6	33.3	19.8	100.0	2127
9	-	-	-	-	-	17.2	30.6	52.2	100.0	1573
10 or more	-	-	-	-	-	19.3	30.8	49.8	100.0	1138
Mean	-	0.4	1.4	2.6	3.4	3.9	4.3	4.6		
SD	-	0.7	1.0	1.3	1.4	1.5	1.8	2.0		

5.3. Children Ever Born and Living

The number of children ever born and surviving are presented in Tables 5.4 and 5.5 for ever married and currently married women resepectively. In the BSUP questionnaire, the total number of children ever born has been ascertained by a sequence of questions designed to maximize recall.

It can be observed from Table 5.4 that the mean number of children ever born and living increased with the increasing age of the women and this pattern was found to be similar in both the areas. Further, it was noticed that women of lower and higher parities experienced a higher loss of children (i.e. lower birth order and higher birth order children experienced a greater risk of dying).

Differentials in the number of children ever born and living by background characteristics are presented in the following table. The mean number of children ever born is another important fertility indicator which gives mean cumulative fertility performance of the couples. This along with the number of living children influence, to a great extent, the couples' decision as to how many more children they would like to have to complete their desired family size. The estimates of cohort fertility, the mean number of children everborn and living are given in Table 5.5. Further, to avoid the confounding influence of different age distributions of women in different groups, the mean values in the table are all age standardized, according to the age distribution of ever married women in Nainital district.

Table 5.5: Mean number of children ever born and living by background characteristics

Background characteristics Currently married	***Children ever born***			***Children living***		
	Male	***Female***	***Total***	***Male***	***Female***	***Total***
Age						
13-19	0.3	0.2	0.5	0.3	0.1	0.4
20-24	0.8	0.8	1.6	0.7	0.7	1.4
25-29	1.5	1.3	2.7	1.4	1.2	2.6
30-39	2.0	1.8	3.8	1.8	1.7	3.5
40-49	2.3	2.1	4.4	2.1	1.9	3.9
Residence						
Urban	1.7	1.3	3.0	1.6	1.1	2.7
Rural	1.6	1.6	3.2	1.5	1.5	3.0
Education						
Illiterate	1.9	1.6	3.5	1.7	1.4	3.1
Upto class 4	1.8	1.4	3.2	1.6	1.3	2.9
Primary	1.5	1.4	2.9	1.5	1.3	2.8
Upto middle	1.7	1.2	2.9	1.5	1.2	2.7
Upto high	1.4	1.1	2.4	1.3	1.1	2.3
Above high school	1.1	1.0	2.1	1.1	1.0	2.1
Religion						
Hindu	1.6	1.4	3.1	1.4	1.4	2.8
Muslim	2.0	1.8	3.9	1.9	1.7	3.6
Others	1.7	1.3	3.0	1.6	1.1	2.7
Caste						
Scheduled caste	1.8	1.4	3.3	1.5	1.4	2.9
Scheduled tribe	1.5	1.6	3.1	1.2	1.4	2.7
Backward caste	1.7	1.3	3.0	1.5	1.2	2.7
Higher caste Hindu	1.5	1.4	3.0	1.4	1.4	2.8
Total	1.6	1.5	3.2	1.5	1.3	2.9

Note: The means are standardized on the age distribution of all currently married women of NFHS age structure for the state (Take the NFHS age structure from the preliminary report of NFHS)

It can be observed from the above table that the completed family size was estimated to be 4.4 children for women in Nainital district. Achieved fertility increased continuously with age, though the rate of increase declined beyond age 30.

On an average, a woman had 3.8 children ever born and 3.5 children living in the age group 30-39 and 4.4 everborn and 3.9 children living in the age group 40-49.

Analysis by place of residence indicates that fertility was lower in urban areas than in rural areas. Likewise, it was found that education had an inverse relationship with both children everborn and living. For example an illiterate woman had 3.5 children everborn as against 2.1 to a woman with above high school education.

Subsequently, with religion it was observed that Muslims had more children everborn and surviving than the other religious groups. On an average, a Muslim woman had 0.7 children more than Hindus. With respect to caste, the scheduled caste women had more children everborn than other castes. The fertility level among other castes was more or less the same.

Based on the above findings it can be concluded that women from urban areas belonging to higher caste Hindu families and educated beyond high school had lower fertility.

Recapitulate

The current and cohort measures of fertility indicate, that fertility levels were lower in urban areas than in rural areas. Further, age pattern of fertility revealed a peak in the 20-24 age group for rural areas; while in urban areas it was observed between 25 and 29 years. Moreover, a comparison of the current and cohort measures of fertility (of women aged 40-49 years) revealed that fertility had declined over the years. When analyzed, with education, it was found that women with above high school education had lower fertility than the illiterates. In other words, an inverse relationship existed between education and fertility. With regard to religion, it was found that Muslims had the highest fertility. Analysis by caste, indicated that scheduled caste and tribe had more number of living and surviving children than the other groups.

CHAPTER VI

FAMILY PLANNING

This chapter begins with an appraisal of the knowledge of contraceptive methods and sources of supply of different contraceptive methods before moving on to a consideration of current and past practices of family planning. Special attention is focused on nonuse, reasons for discontinuation and limitation to use in the future. The chapter continues with tabulation on exposure to media coverage and concludes with an analysis of attitudes toward birth control.

Currently married women in the BSUP were asked about their knowledge of specific contraceptive methods and where they could be obtained. In addition, they were asked if they had ever used each method/whether they were currently using a method and, if so, which method.

6.1 Knowledge of Family Planning Methods and Sources

In the contraception section of the BSUP questionnaire, women were first asked to mention any contraceptive method about which they had heard. For each method not spontaneously mentioned, they were read a description of the method and asked if they had heard of it. Then, for each method about which the woman was aware, she was asked how to use the method and the sources from where it could be obtained. If the woman could answer the location and process of the use of adoption of the method correctly (classified under the category "fully correct") then she was asked if she had ever used that method.

Table 6.1 presents the extent of knowledge separately as assessed by spontaneous and probed responses. Knowledge of different contraceptive methods and of the source from where each method is obtained is presented for currently married women, by method and type.

The knowledge of family planning was not universal in Nainital district. This was because, women in urban areas had more knowledge of the various methods of family planning than those in rural areas. For instance, it was observed in urban areas, that the spontaneous knowledge of various modern methods of family planning varied from a minimum of 53 percent for IUD to a maximum of 66 percent for tubectomy, whereas in rural areas, it varied from a minimum of 29 percent for IUD to a maximum of 52 percent for tubectomy.

Among modern methods, women were most familiar with female sterilization, followed by oral pills, male sterilization, condoms and the IUD. Traditional methods of contraception were known only to a small percentage of women with periodic abstinence being mentioned most frequently. Hence, it can deduced that there were substantial urban-rural differentials in the knowledge of family planning methods. Women in urban areas knew each method of family planning more than those in rural areas.

Later, the women were asked if they knew how to use the contraceptive method (correctly/to some extent) about which they had knowledge. It was found that this percentage was obviously higher in urban areas than in rural areas. Method-wise differentials also existed between the two areas and the knowledge about the use of female sterilization was highest in urban and rural areas of the district. Further, women were asked if they knew where they could obtain each contraceptive method about which they had knowledge. It was found that, for all the methods, urban women were more knowledgeable than their rural counterparts.

Table 6.1: Knowledge of family planning methods (percentage)

Method	*Sponta-neous*	*Sponta-neous + Probing*	*Knows how to use correctly*	*Knows how to use correctly & to some extent*	*Knows a source*	*Percentage ever used the method*
Urban						
Vasectomy	54.6	79.8	43.1	56.2	72.6	5.0
Tubectomy	65.8	86.7	59.0	70.8	79.8	28.9
Loop/CUT	52.6	74.7	43.1	56.0	63.1	12.9
Pills	65.1	80.7	67.4	73.6	53.1	15.4
Condom	62.0	78.9	65.4	70.4	52.1	32.1
Foam Tab/Jelly	5.3	10.4	6.7	8.6	7.7	0.9
Injection	3.6	10.2	6.4	7.9	6.5	0.1
Withdrawal	4.4	5.5	4.8	5.3	-	1.3
Rhythm/Safe period	5.1	7.2	6.3	6.9	-	3.5
Knows at least one modern method	86.3	92.3	89.5	90.5	92.3	72.5
At least one modern **spacing** method	84.1	75.4	79.6	83.9	83.9	47.3
Mean of modern methods known	3.58	5.78	3.25	4.38	4.43	1.31
Mean of modern spacing methods known	2.62	3.82	2.51	3.07	2.94	1.30
Rural						
Vasectomy	29.6	55.7	22.8	34.3	49.7	4.9
Tubectomy	51.8	71.1	49.0	58.5	61.2	29.9
Loop/CUT	28.6	51.4	25.4	34.7	40.1	5.3
Pills	38.6	56.9	47.4	51.0	37.6	7.4
Condom	33.9	52.6	39.3	43.3	32.7	12.7
Foam Tab/Jelly	1.5	2.8	1.4	1.9	1.8	0.1
Injection	1.2	3.8	2.1	2.5	2.4	0.1
Withdrawal	0.5	0.8	0.6	0.6	-	0.3
Rhythm/Safe period	1.5	2.1	1.7	1.9	-	1.0
Knows at least one modern method	68.7	78.5	74.1	75.6	78.1	51.2
At least one modern **spacing** method	45.3	61.8	53.9	56.7	60.4	20.1
Mean of modern methods known	2.70	5.14	2.54	3.50	3.59	1.18
Mean of modern spacing methods known	2.29	3.74	2.15	2.65	2.62	1.27

Likewise, for ever use of family planning lot of similarities in the usage of male and female sterilization were observed between the urban and rural areas. However, with regard to spacing methods, a higher percentage of usage in urban areas was observed. A further look at the mean values indicate that the urbanites had more knowledge about the methods and sources, besides having ever used more methods of contraception.

Knowledge of any modern method of contraception as well as its means are good indicators, because of its relevance for programme publicity, which is usually confined to modern methods. Similarly, percent knowing at least one modern spacing method will give an idea about the efforts put in for promoting spacing methods. Knowledge of a source for obtaining modern methods is also presented.

Table 6.2 shows the differentials in the level of knowledge of modern contraceptive methods and sources of methods among currently married women. The differentials are shown according to background characteristics such as age and education of the woman, religion and caste.

Table 6.2: Knowledge of methods and source by background characteristics

Background Characteristics	*Knows at least one modern method*	*Knows at least one modern spacing method*	*Average number of modern methods known*	*Average number of sources for modern method*	*Number of women*
Rural					
13-19	50.8	44.4	5.0	3.6	18118
20-24	76.4	71.6	5.7	4.1	59748
25-29	82.6	73.2	5.7	4.1	64513
30-34	90.2	73.8	5.4	4.0	124378
35-39	90.7	66.5	4.9	3.6	39555
40-49	80.5	58.7	4.7	3.5	21124
Residence					
Urban	92.3	84.1	5.8	4.4	116906
Rural	78.5	61.8	5.1	3.6	210510
Education					
Illiterate	72.5	56.6	4.9	3.3	174262
Upto class 4	86.3	74.6	6.0	4.1	16022
Primary	88.6	73.6	5.6	4.0	37795
Upto middle	93.5	84.9	5.7	4.4	35450
Upto high	93.8	89.2	6.0	4.5	26665
Above high school	98.6	97.3	6.2	5.1	37222
Religion					
Hindu	85.0	70.8	5.5	3.9	260473
Muslim	72.0	62.2	5.2	3.7	43136
Others	87.4	73.1	5.4	4.1	23807
Caste					
Schedule caste	80.1	65.0	5.1	3.6	65103
Schedule tribe	70.4	51.3	4.0	2.8	14800
Backward caste	80.4	63.7	5.2	3.7	30898
Higher caste	89.4	76.6	5.7	4.2	149673
Total	83.4	69.8	5.4	3.9	327416

It can be observed, that majority of currently married women in Nainital district had knowledge regarding atleast one modern method as well the spacing methods of family planning. The knowledge regarding atleast one modern method was as high as 83 percent and for atleast one spacing method it was 70 percent. On an average, women knew five methods and atleast four sources from where these methods could be obtained. Obviously, all these percentages were higher in urban areas than in rural areas.

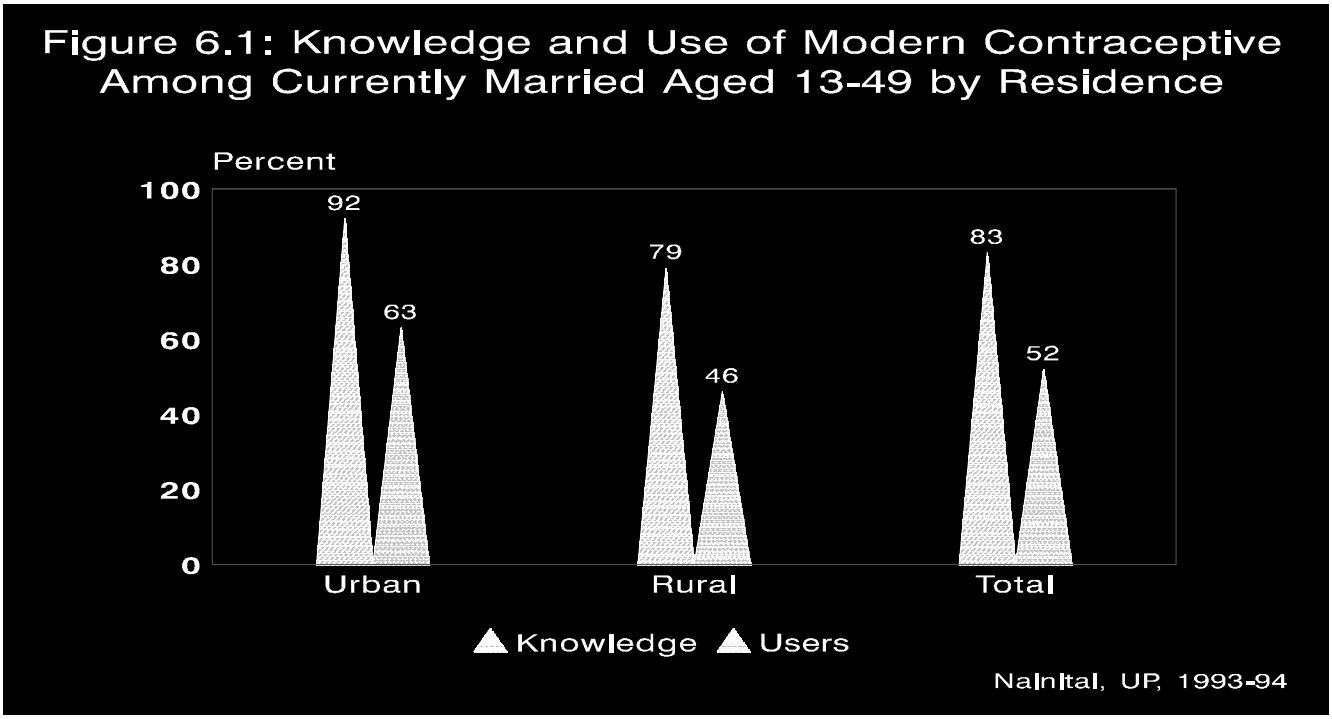
Analysis by age indicates, that women aged between 25 and 44 years had maximum knowledge regarding the modern methods and their sources. Likewise, a positive relationship with education was observed. For example, it was found that 73 percent of illiterates had knowledge about atleast one modern method, while the same for women with above high school education was 99 percent. Similarly, for the other questions in the table, clear-cut differentials were observed.

As far as religion was concerned, Muslims had the least knowledge than the other religion groups, and with caste it was found that higher caste Hindus, followed by backward caste had more knowledge than scheduled caste and scheduled tribes.

It is therefore, suggested that programme efforts, have to more focused in rural areas and awareness among younger women, illiterates and backward caste groups have to be created so that they are motivated to accept a family planning method.

6.2 Contraceptive Use

Table 6.3 presents the pattern of ever use of contraception by age and residence for currently married women. This is a straight forward descriptive table which looks at the extent to which women have had experience with the use of contraceptive methods. Differences between age groups may reflect life-time and/or genuine cohort change.



Sixty percent of currently married women in Nainital district, had ever used a contraceptive method, with modern methods having been used by nearly 59 percent of them. Among modern methods, female sterilization was the most popular method (30 percent) followed by condoms (20 percent), pills (10 percent) and the IUD (8 percent). In case of traditional methods, periodic abstinence accounted for two percent, while withdrawal was being practiced by less than one percent of the women. Ever use of modern methods was quite higher in urban areas (72 percent) than in rural areas (51 percent). Moreover, an analysis by age indicated, that older women in both urban and rural areas had accepted a terminal method, while the younger women had used more of spacing methods. The ever use of condoms (especially in urban areas) seemed to be very high than the district average. This is because, a large percentage of women reported that they (spouse) had used it atleast once in the recent past. However, the following Table 6.4, on current use indicates, a substantial drop in the percentage.

In Table 6.4, the percentage distribution of currently married women by contraceptive method currently used, according to age and residence is presented.

Current use of any contraception is substantial in Nainital district with 53 percent of currently married women practicing family planning, 52 percent using modern methods and the remaining were using traditional methods.

Overall, female sterilization was the most popular contraceptive method in Nainital district, and was used by 29 percent of currently married women; followed by condoms (10 percent), male sterilization (5.0 percent) and IUD & pill (4 percent each). Contraceptive use varied from 46 percent to 64 percent in rural and urban areas respectively. The use of terminal methods was almost the same (34 percent) in urban and rural areas, whereas the use of non-terminal methods was significantly higher in urban areas (29 percent) as compared to rural areas (11 percent) and this is mainly because of a wide difference in the usage of pills and condoms. The prevalence rate for any traditional method of family planning was higher in urban areas than in rural areas. Once again, an analysis by age indicated that older women aged above 30 years of age, were currently using terminal methods of family planning, while the younger women aged less than 30 years, were using more of spacing methods.

Table 6.5 allows for the comparison of levels of current contraceptive use among major groups of the population. It also permits an examination of differences in the method mix among current users in the various subgroups.

The current use of any family planning method was quite higher in urban areas (65 percent) as compared to rural areas (46 percent). Further, the current use of any family planning method increased steadily with an increase in the level of education. Differentials in current use by the level of education were most evident between the illiterates (44 percent) and above high school educated women (74 percent). Also, the use of the IUD and condoms increased with increasing education i.e., as education levels of the women went up there was an increase in the spacing methods of family planning. However, no such relationship was observed in the case of female sterilization. The use of female sterilization was the least among women who had completed atleast a high school level of education, as they were more likely to be using condoms (26 percent) and IUDs (13 percent).

Table 6.3 Ever use of contraception

Method	Any method	Any modern method	Male sterilization	Female sterilization	Cu-T/IUD	Pill	Condom or Nirodh	Injecti-ons	Traditional method	Withdr-awal	Periodic abstinence	Number of women
Urban												
13-19	7.8	7.8	-	-	-	1.3	6.5	-	-	-	-	4166
20-24	55.5	55.5	-	4.6	10.4	13.8	36.5	-	4.4	0.8	3.7	17797
25-29	70.2	70.2	1.1	19.4	16.7	16.0	40.9	-	1.1	-	1.1	21263
30-39	82.4	81.3	2.2	39.5	17.2	19.6	33.9	0.1	6.1	1.1	4.6	48684
40-44	81.4	79.4	13.0	39.1	4.4	10.3	23.2	-	7.7	3.7	4.7	18235
45-49	83.4	83.4	27.7	36.7	10.2	10.7	19.4	-	6.4	3.2	3.2	6760
Total	74.7	72.4	4.9	28.8	12.9	15.4	32.0	0.1	5.0	1.3	3.5	116905
Rural												
13-19	13.8	13.8	-	1.0	1.2	7.2	8.9	-	-	-	-	13952
20-24	32.2	29.6	0.5	5.0	3.7	11.6	16.5	0.3	1.9	0.2	1.7	41950
25-29	45.2	44.6	2.1	2.2	8.2	6.2	16.7	-	1.6	0.2	1.4	43250
30-39	68.0	67.8	5.1	46.4	6.3	7.1	12.9	0.2	1.5	0.4	0.8	75694
40-44	75.0	75.0	8.5	57.5	3.2	5.5	5.3	-	0.7	-	0.7	21300
45-49	50.2	50.2	22.8	22.1	3.0	2.9	2.7	-	1.4	0.7	0.7	14364
Total	51.7	51.4	4.9	29.9	5.3	7.4	12.7	0.1	1.4	0.3	1.0	210510
Total												
13-19	12.4	12.4	-	0.8	0.9	5.8	8.3	-	-	-	-	18118
20-24	37.7	37.3	0.4	4.9	8.5	12.3	22.4	0.2	2.7	0.4	2.3	59748
25-29	53.4	53.0	1.8	21.2	11.0	9.5	24.7	-	1.5	0.2	1.3	64513
30-39	73.6	73.1	3.4	15.6	10.6	12.0	21.1	0.2	3.3	0.7	2.3	124378
40-44	77.9	77.0	10.6	49.0	3.8	7.7	13.6	-	3.9	1.7	2.2	39535
45-49	60.8	60.8	24.3	26.8	5.3	5.4	8.1	-	3.0	1.5	1.5	21124
Total	59.9	58.9	4.9	29.5	8.0	10.3	19.6	0.1	2.7	0.7	1.9	327416

Table 6.4: Current use of contraception

Age	Any method	Any modern method	M sterili-zation	F sterili-zation	Cu-T/IUD	Pill	Condom or Nirodh	Injectio-ns	Any traditional method	Withd-rawal	Periodic abstinence	Other metho d	Not using any method	Number of women
Urban														
13-19	5.0	5.0	-	-	-	-	5.0	-	-	-	-	-	95.0	4166
20-24	44.6	44.6	-	4.6	7.8	7.5	24.6	-	-	-	-	-	55.4	17797
25-29	56.7	56.7	1.1	19.4	10.4	5.1	20.7	-	-	-	-	-	43.3	21263
30-39	74.6	71.1	2.2	39.5	7.9	7.3	14.3	-	3.0	1.1	1.9	0.5	25.4	48684
40-44	74.2	72.1	13.0	39.1	0.8	5.2	14.0	-	2.0	0.8	1.2	-	25.8	18235
45-49	80.3	77.1	27.7	36.7	8.2	1.6	2.9	-	3.2	-	3.2	-	19.7	6760
15-44	63.6	61.7	3.3	28.4	6.9	6.3	16.8	-	1.7	0.6	1.0	0.2	36.4	110145
15-49	68.5	66.6	5.0	30.7	7.4	6.4	17.0	-	1.8	0.6	1.2	0.2	37.6	110145
13-49	64.5	62.6	4.8	28.9	7.0	6.0	16.0	-	1.7	0.2	1.2	0.2	35.5	116905
Rural														
13-19	8.8	8.8	-	1.0	1.2	0.7	5.9	-	-	-	-	-	91.2	13952
20-24	21.1	20.3	0.5	5.0	1.2	5.5	7.7	0.3	0.6	-	0.6	0.7	78.5	41950
25-29	37.4	36.6	2.1	2.2	3.5	1.6	7.4	-	0.8	0.2	0.5	-	61.7	43250
30-39	64.6	64.2	5.1	46.4	2.4	2.4	7.8	-	0.2	-	0.2	0.2	35.2	75694
40-44	72.2	72.2	8.5	57.5	0.6	2.4	3.2	-	-	-	-	-	27.0	21300
45-49	46.4	46.4	22.8	22.1	-	1.0	0.5	-	-	-	-	-	53.6	14364
15-44	46.3	45.8	3.5	30.2	2.1	2.8	7.1	0.1	0.4	0.1	0.3	0.1	53.3	195596
15-49	46.3	45.7	4.8	29.7	2.0	2.7	6.6	0.1	0.3	0.1	0.3	0.1	53.3	209960
13-49	46.2	45.7	4.8	29.6	2.0	2.7	6.6	0.1	0.3	0.1	0.3	0.1	53.4	210510
Total														
13-19	7.9	7.9	-	0.8	0.9	0.6	5.7	-	-	-	-	-	92.1	18118
20-24	28.1	27.6	0.4	4.9	3.2	6.1	12.7	0.2	0.4	-	-	0.2	71.6	59748
25-29	43.7	43.2	1.8	21.2	5.8	2.7	11.8	-	0.5	-	-	-	55.6	64513
30-39	68.5	66.9	3.4	15.6	0.2	1.2	2.6	-	1.5	1.1	1.9	0.3	31.4	124378
40-44	73.1	72.2	10.6	49.0	0.7	3.7	8.2	-	0.9	0.8	1.2	-	26.5	39535
45-49	57.2	56.2	24.3	26.8	2.6	1.2	1.3	-	1.0	-	3.2	-	42.8	21124
15-44	52.5	51.5	3.4	29.6	3.9	4.1	10.6	0.4	0.8	0.6	1.0	0.2	47.5	305742
15-49	52.8	51.8	4.8	29.4	3.8	3.9	10.0	0.4	0.8	0.6	1.2	0.1	47.2	326866
13-49	52.7	51.7	4.8	29.4	3.8	6.9	10.0	0.4	0.8	0.2	1.2	0.1	47.3	327416

Table 6.5: Current use by background characteristics

Background characteristics	Any meth-od	Any modern method	Male steriliza tion	Female steriliza -tion	Cu-T/IUD	Pill	Condom or Nirodh	Other modern method	Any traditional method	Withdr-awal	Periodic abstinenc e	Other methods	Not using any of method	Number women
Residence														
Urban	64.5	62.6	4.8	28.9	7.0	6.0	16.0	1.7	1.9	0.6	1.2	0.2	35.5	116906
Rural	46.2	45.7	4.8	29.6	2.0	2.7	6.6	0.5	0.5	0.1	0.3	0.1	53.8	210510
Education														
Illiterate	43.6	43.4	4.4	29.1	2.0	2.6	5.3	0.1	0.3	-	0.1	0.1	56.4	174262
Upto class 4	52.3	50.4	5.8	33.4	2.1	2.5	6.6	2.0	2.0	0.7	1.3	-	47.7	16022
Primary	60.6	60.3	8.0	34.1	2.0	5.6	10.6	0.4	0.4	-	0.4	-	39.4	37795
Upto middle	63.3	61.6	3.5	33.8	4.3	4.6	15.4	1.8	1.8	1.5	0.3	-	36.7	35450
Upto high	57.2	56.6	4.3	27.6	5.7	7.2	11.8	-	0.6	-	-	0.6	42.8	26665
Above high school	74.1	70.0	4.3	20.7	12.9	5.6	26.2	4.5	3.8	0.4	3.4	-	25.9	37222
Religion														
Hindu	54.8	54.2	5.8	31.9	3.6	3.1	9.7	0.7	0.6	0.0	0.5	0.0	45.2	260473
Muslim	36.7	34.3	1.4	11.6	4.5	6.5	10.0	1.9	2.4	1.6	0.3	0.5	63.7	43136
Others	59.6	56.8	-	33.4	3.9	7.0	12.5	2.2	2.8	-	2.2	0.6	40.4	23807
Caste														
Scheduled caste	46.7	46.4	7.1	27.1	3.1	2.1	7.0	0.3	0.3	-	0.3	-	53.3	65103
Scheduled tribe	43.4	43.4	-	32.6	2.2	6.2	2.5	-	-	-	-	-	56.6	14800
Backward caste	48.0	47.7	4.3	30.5	2.3	2.7	7.9	0.4	0.4	-	0.4	-	52.0	30898
Higher caste Hindu	60.8	60.0	6.1	34.2	4.3	3.4	12.0	0.9	1.2	0.1	0.7	0.1	39.2	149673

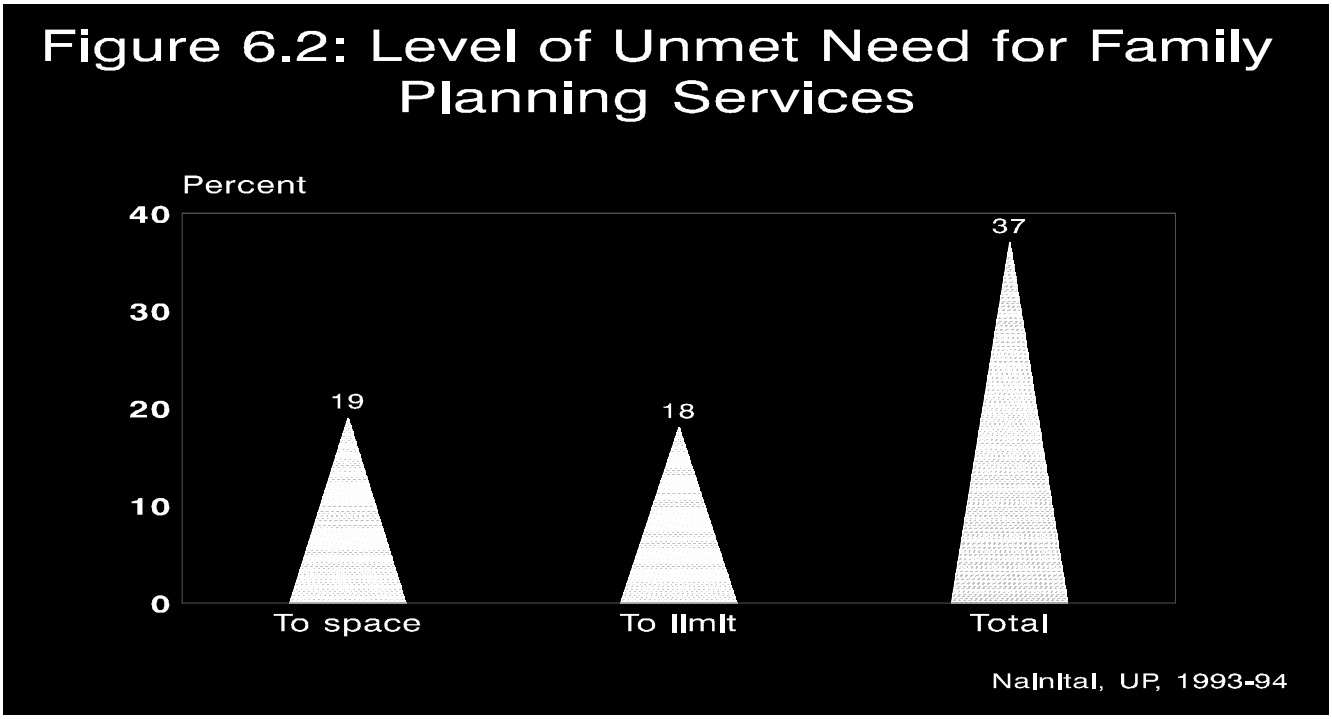


Table 6.6: Current use of contraceptive by sex composition of surviving children

Number and sex of living children	*Sterilization*	*Modern spacing*	*Any traditional method*	*Not using any method*	*Total percent*	*Number of women*
None	-	13.1	0.4	86.5	100	28047
1 child	3.5	20.9	0.6	75.0	100	39583
1 son	5.3	20.4	0.6	73.7	100	21652
No son	1.5	22.2	0.6	75.7	100	17931
2 children	24.1	25.5	0.2	50.2	100	66149
2 sons	40.5	22.2	1.8	35.5	100	20284
1 son	21.0	28.1	2.1	48.8	100	35188
No son	2.9	22.6	2.0	72.5	100	10677
3 children	47.5	17.2	0.3	35.0	100	73614
3 sons	59.7	13.2	-	27.1	100	13218
2 sons	57.0	15.5	-	27.5	100	35779
1 son	30.5	23.2	1.6	44.7	100	20048
No son	11.8	16.1	-	72.1	100	4569
4+ children	49.5	13.5	0.8	36.2	100	120022
3+ sons	50.3	12.1	1.0	36.6	100	19019
2 sons	60.1	9.0	-	30.9	100	32189
1 son	54.3	14.7	0.8	30.2	100	44408
No son	32.4	16.6	2.5	48.5	100	20815
Total	26.3	19.1	2.5	52.2	100	3591

The greatest differentials in current use was found in religion and caste. It was seen that a large proportion of women from Hindu and Other (over 50 percent each) communities were currently using more family planning than the Muslims (37 percent). With caste, a higher percentage of current use was observed among the higher caste Hindus (61 percent) while the

scheduled tribe practiced the least (43 percent). However, the trend of female sterilization was slightly different and was the highest for the higher caste Hindus (34 percent), followed by scheduled tribe (33 percent), backward caste (31 percent) and scheduled caste (27 percent).

Based on the findings, it can be concluded that there was a positive relationship between background variables and the current use of family planning. This relation became very evident when analyzed by residence and education. Hence, future policies in the district, should focus on promoting spacing methods of family planning especially among the younger women residing in rural areas. Also, it is suggested that more of scheduled caste and tribes have to be brought under the wide umbrella of the family planning programmes. While the present analysis discussed the current use by background characteristics, the following one will present the current use by sex composition of surviving children (Table 6.6).

An examination of the data reveals, a positive relationship between the number of surviving children and contraceptive use. Furthermore, it was observed that, a large percentage of women who had two or more sons, had accepted a terminal method, whereas women who had more than two children (but no sons), were using a spacing method of family planning. The above finding clearly indicates a strong preference for sons. However, it can be said that the presence of sons (atleast two) in the family, was the major motivating factor for limiting the family size.

Table 6.7: Percent reporting problem(s) faced with the method currently used

Method used	***Percent faced problem with the method used***			***Total Number***
	Urban	***Rural***	***Total***	
Vasectomy	46.7	45.2	45.7	16153
Tubectomy	50.0	54.9	53.2	96642
Cu-T/IUD	15.1	08.0	12.1	27279
Pill	4.7	10.5	7.3	33584
Condom	2.2	4.8	3.3	64194
Other modern methods	-	-	-	1487
Traditional methods	-	3.1	1.1	8803

Table 6.7 deals with the problems faced by women while using the various methods of family planning. The information so obtained will identify problems with the use of specific methods as well suggest remedies for future educational campaigns.

By and large, majority of respondents in urban and rural areas reported, that they had more problems with sterilization than the spacing methods of family planning. However, with regard to spacing methods, it was observed that urban respondents had problems with the IUD, while their counterparts in rural areas had problems with oral pills. Having found this, let us now proceed to study what are the types of problems respondents faced after using the specific methods (Table 6.8).

Table 6.8 presents the percentage of current users of pills, IUD, female/male sterilization and the problems they had after using the method.

Among the current users of the various methods, the common problem reported was `backache/body pain/headache'. Apart from this, the sterilization users felt `weakness' as another major problem whereas, in case of the IUD and oral pills it was found to be `excessive or irregular bleeding'. Hence, it is suggested that quality of services (at the time of acceptance and other acceptance) has to be improved and follow-up services have to be provided to make the

programme more effective. In order to achieve this, the programme managers at the district level should increase the coverage after providing re-orientation to the grass-root workers; who are the most important contact between the providers and clients.

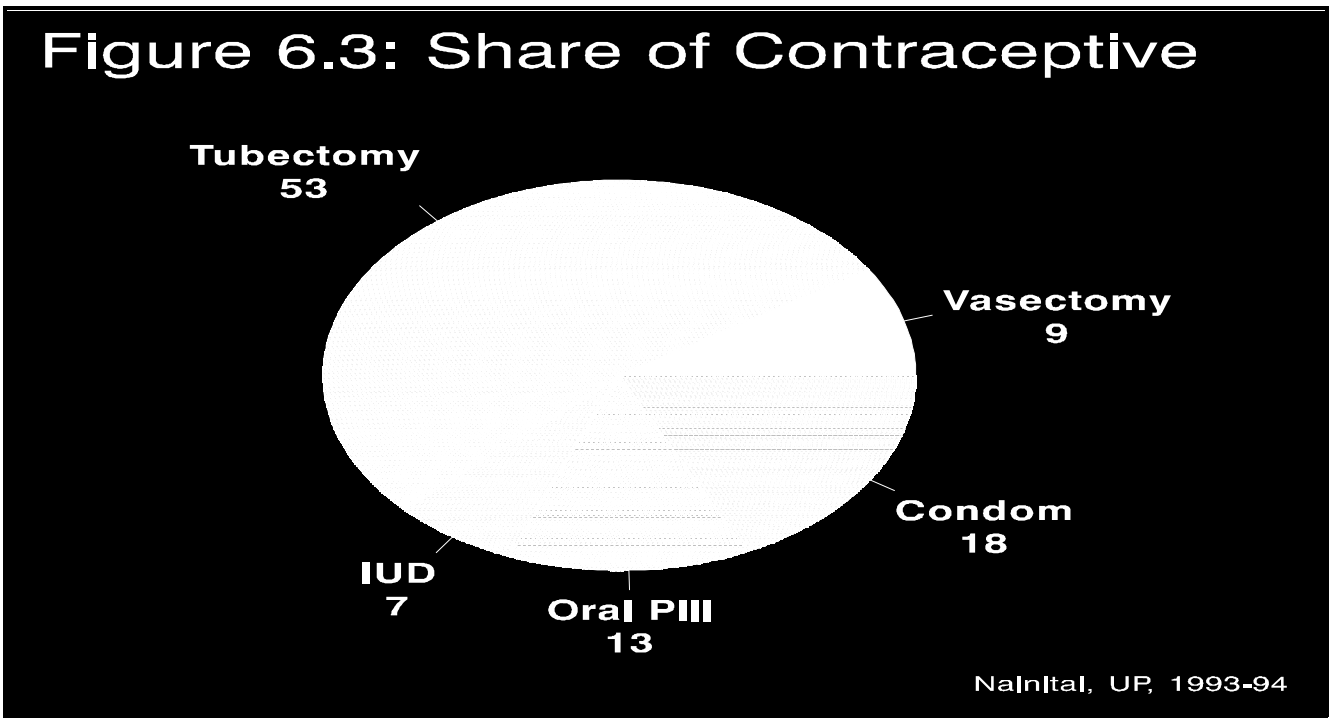
Table 6.8: Problems with the current method

Problem faced	*Male sterilization*	*Female sterilization*	*Cu-T/IUD*	*Pills*
Percent faced problem with the method				
Type of problem faced				
Sepsis	0.8	0.6	-	-
Abdominal/gastric pain	2.5	8.8	1.2	0.7
Backache/body pain/headache	40.8	38.0	18.2	10.7
Weakness	40.0	33.9	10.1	6.8
Excessive or irregular bleeding	-	6.9	13.5	9.6
White discharge	-	2.9	-	1.7
Fear of failure	-	-	-	1.0
Problem in disposing	-	0.4	-	-
Infertility/secondary sterility	-	-	-	-
Loss of sexual desire	-	-	1.0	-
Weight gain	-	-	0.9	2.0
Others	-	-	-	.5
Don't know/can't specify	-	-	-	-

Note: Percentages may add to more than 100 because of multiple problems.

6.3 Level of Unmet Need

Table 6.9 shows the unmet need for family planning according to whether there is need for spacing or limiting births. It can be seen in Nainital district that, 19 percent of the women (non-pregnant) wanted to space their births and another 18 percent wanted to limit their births. The percentage of women who wanted to space and limit their births was higher in rural areas than in urban areas.



Analysis by age indicate, that younger women desired to space their births, while the older women wanted to limit their births. With education, it was found that a higher percentage of illiterates and literates upto primary, wanted to space and limit their births. This could be because of an existence of an high fertility among the educational groups.

Table 6.9: Level of unmet need for family planning services

Background Characteristics	*To space*	*To limit*	*Total*	*No. of women*
Age				
13 - 19	68.5	2.2	70.7	18118
20 - 29	30.6	15.5	46.1	124261
30 - 39	9.2	17.7	26.9	124378
40 - 44	2.6	22.9	25.5	39535
45 - 49	3.4	38.7	42.1	21124
Residence				
Urban	13.6	13.4	27.0	116906
Rural	22.6	20.5	43.1	310510
Education				
Illiterate	21.8	23.6	45.6	174262
Upto class 4	19.3	20.1	39.4	16022
Primary	21.0	10.2	30.2	37795
Upto middle	15.1	11.9	27.0	35450
Upto high	17.7	15.0	32.7	26665
Above high school	12.2	7.0	19.2	37222
Religion				
Hindu	18.2	17.6	35.8	260473
Muslim	26.7	22.1	48.8	43136
Others	19.3	14.3	33.6	23807
Caste				
Scheduled caste	22.7	19.1	41.8	65103
Scheduled tribe	26.7	21.4	48.1	14800
Backward caste	24.3	18.5	42.8	30898
Higher caste Hindu	14.2	16.5	30.7	149673
Number of living children				
None	54.3	1.5	55.8	28047
1	50.9	4.5	55.4	39583
2	22.7	15.9	38.6	66149
3	10.0	18.4	28.4	73614
4+	4.9	26.9	31.8	120022
Total	19.4	18.0	37.4	327416

Subsequently, when analyzed with religion, it was found that Muslims wanted to space and limit their births more than Hindus and other religious groups, and the reason for this has been cited in the earlier paragraph. A further look at the table indicates, that women from scheduled tribe wanted to space and limit more than other caste groups. Additionally, an inverse relationship was observed between the number of living children and the desire to space, while a positive relationship existed among women who wanted to limit their births. Hence, it can be concluded that a potential market exists in the district for promoting both the spacing and terminal methods of family planning. Therefore, it is suggested that eligible couple registers have to be prepared and updated, from time to time, so that it could be easy in identifying the "target" group for motivation as well as acceptance of a family planning method.

After understanding the level of unmet need for family planning, it would be interesting to understand the reasons of unmet need. Such a type of analysis has been attempted in the following Table 6.10.

Table 6.10: Reasons of Unmet Need

Reasons of unmet need	*Urban*	*Rural*	*Total*		
			< 30 years	*> 30 years*	*Total*
Percent face problem with the method					
Going to use a FP method	16.1	23.4	28.1	13.2	21.4
Do not like existing method	8.4	6.2	7.9	5.5	6.8
Services are not available	-	0.5	0.4	0.4	0.4
After operation one can't work	-	-	-	-	-
Fear of operation	-	-	-	-	-
Health does not permit	6.4	4.9	7.4	7.4	5.3
Operation may fail	0.6	0.2	0.7	0.7	0.3
Currently pregnant	-	0.2	-	-	0.1
Fear of after effects of methods	0.4	1.3	1.0	1.0	1.0
Unaware of any FP method					
Opposition from husband or other family members	1.9	3.0	3.2	3.2	2.7
Against religion	6.9	3.3	4.9	4.9	4.2
Natural sterility	10.5	7.6	16.6	16.6	8.3
Attained menopause/MC stopped	4.3	6.5	10.1	12.1	5.9
Others	28.1	30.5	24.0	24.0	29.9
DK/Can't specify	17.8	11.5	13.1	13.1	13.0

Women (non-current users and not wanting additional children or who want to delay their next child) were asked the reasons for not using a family planning method. Majority of the women responded by stating that they were not using a family planning method because of "other" reasons or they are "going to use a family planning method". Moreover, responses like "Natural Sterility" and "do not know" also formed a good percentage (8 and 13 percent respectively). A smaller number said that "they did not like the existing methods" and so on. It was also observed that urban and rural areas showed similar trends in their responses.

Further, a higher percentage of women aged less than 30 years stated "going to use a FP method" when compared with women aged 30 years and above. Likewise, for other responses excepting the "Natural Sterility" and "attained menopause/MC stopped" the answers provided were similar for both the age groups.

Based on the above mentioned responses, it can be inferred that women who "are going to use family planning methods", "do not know" and `other' reasons form a potential target group for motivation and use of any of the family planning methods.

6.4 Hinderances to the Acceptance of Family Planning

6.4.1 Perceived Disadvantages of the Methods

Table 6.11 gives details of perceived problems of different family planning methods. It can be observed, that the perception of women regarding the disadvantages of various family planning methods, varied from a minimum of two percent for condoms to a maximum of 36 percent for tubectomy. Furthermore, the most common disadvantages mentioned by these women in the case of terminal methods were backache/body pain/headache and weakness. However, in the case of the IUD, the major disadvantage was "excessive, or irregular bleeding", and for condoms and pills, "weakness" was mentioned frequently.

In addition, women were asked whether the disadvantage was permanent/temporary in nature. Women who believed that the disadvantage was permanent were considered for the present analysis, and the basis of their belief has been analyzed for each method.

Table 6.11: Perceived disadvantages of the method

Disadvantages	*Vasect-omy*	*Tubec-tomy*	*Laparo-scopy*	*Loop/Cu-T/IUD*	*Oral Pill*	*Condom /Nirodh*
Urban						
A % believed that method has some disadvantage	17.2	35.2	23.	30.6	11.0	3.8
Total number aware of	93300	101337	10133	87323	44362	92193
B Nature of disadvantage						
Sepsis	9.1	0.8	0.6	1.2	-	6.3
Abdominal/gastric pain	6.2	10.9	11.3	5.4	8.7	-
Backache/body pain/headache	82.6	72.5	77.0	55.1	46.4	16.9
Weakness	82.3	78.5	81.3	44.4	62.8	46.4
Excessive or irregular bleeding	0.7	10.5	5.3	79.4	23.8	-
White discharge	0.3	2.4	2.7	2.2	17.2	35.0
Fear of failure	0.8	0.6	-	0.5	3.4	28.1
Problem in disposing	-	1.0	1.5	-	-	25.3
Infertility/secondary sterility	0.7	-	-	-	-	-
Loss of sexual desire	0.7	0.6	-	-	-	14.8
Weight gain	4.7	10.3	8.5	0.7	7.4	6.3
Others desire	-	-	-	-	0.6	4.3
Don't know/can't specify	-	0.4	0.6	0.4	-	-
C % believed disadv. to be permanent in nature	24.1	40.0	41.5	46.4	42.6	36.9
D Basis of this belief						
Own experience	3.7	32.9	40.1	22.3	18.7	8.7
Friends experience	19.2	13.6	13.2	25.6	21.4	13.7
Heard from friend	9.4	10.1	6.3	20.1	18.9	28.1
Heard from others	4.1	4.9	2.3	6.5	4.6	-
TV, radio, posters	0.8	0.9	0.5	0.6	2.1	18.8
Health personnel	-	0.3	0.5	1.2	-	-
Others	-	2.2	0.5	0.8	-	-
Total N	16047	35671	23308	26720	10380	3503
Rural						
A % believed that method has some disadvantage	18.6	37.1	22.2	21.4	8.7	1.3
Total number aware of	117258	149702	149702	10826	11984	110772
B Nature of disadvantage						
Sepsis	2.6	16.8	1.0	2.7	2.7	-
Abdominal/gastric pain	10.9	1.5	11.4	5.4	8.8	15.3
Backache/body pain/headache	79.9	18.9	43.3	61.8	25.8	24.4
Weakness	76.7	69.0	37.2	33.3	46.1	39.7
Excessive or irregular bleeding	1.5	62.7	11.7	64.4	39.3	4.6
White discharge	-	5.1	2.9	1.5	18.0	27.5
Fear of failure	2.3	0.5	-	2.0	2.6	36.9
Problem in disposing	-	0.7	0.3	1.8	1.5	-
Infertility/secondary sterility	-	-	-	-	1.5	9.4
Loss of sexual desire	-	-	-	0.5	1.3	9.9
Weight gain	2.7	5.4	3.1	3.7	4.2	-
Others desire	-	-	-	-	4.9	-
Don't know/can't specify	-	-	-	-	-	-

Disadvantages	*Vasect-omy*	*Tubec-tomy*	*Laparo-scopy*	*Loop/Cu-T/IUD*	*Oral Pill*	*Condom /Nirodh*
C % believed disadv. to be permanent in nature	37.0	59.6	55.2	45.0	36.7	19.4
D Basis of this belief						
Own experience	14.7	55.8	51.9	14.4	21.3	-
Friends experience	17.3	9.8	10.4	22.1	18.3	19.4
Heard from friend	7.4	6.1	6.4	21.5	12.9	1.9
Heard from others	6.6	6.9	6.8	12.3	7.0	9.5
TV, radio, posters	0.6	-	-	0.3	1.4	-
Health personnel	-	-	-	-	-	-
Others	-	1.2	1.0	-	-	-
Total N	21810	55539	33234	23168	10427	1440
Total						
A % believed that method has some disadvantage	18.0	36.4	22.5	25.5	9.7	2.4
Total number aware of	210558	251039	251039	251039	214210	20296
B Nature of disadvantage						
Sepsis	5.3	1.2	1.2	1.9	1.4	4.5
Abdominal/gastric pain	8.9	15.8	15.9	5.4	8.7	-
Backache/body pain/headache	81.1	70.3	74.3	58.2	36.1	16.5
Weakness	79.1	68.9	70.0	39.2	54.4	41.5
Excessive or irregular bleeding	1.1	15.9	13.7	72.4	31.6	11.6
White discharge	0.1	4.1	3.9	1.9	17.6	26.1
Fear of failure	1.7	0.6	-	1.2	3.0	27.9
Problem in disposing	-	0.8	0.9	0.8	0.7	28.7
Infertility/secondary sterility	0.3	-	-	-	0.7	-
Loss of sexual desire	0.3	0.2	-	0.2	0.7	13.2
Weight gain	3.5	7.4	6.6	2.1	5.8	7.3
Others desire	-	-	-	-	2.8	3.1
Don't know/can't specify	-	0.1	0.2	0.2	-	-
C % believed disadv. to be permanent in nature	31.5	51.9	9.5	45.7	39.6	31.8
D Basis of this belief						
Own experience	9.9	46.9	47.0	18.6	20.0	6.2
Friends experience	18.1	11.3	11.6	24.0	19.8	15.4
Heard from friend	8.2	7.7	6.4	20.7	15.9	22.8
Heard from others	5.5	6.1	5.0	9.2	5.8	2.8
TV, radio, posters	0.7	0.4	0.2	0.5	1.8	13.4
Health personnel	-	0.1	0.2	0.7	-	-
Others	-	2.0	0.8	0.4	-	-
Total N	37857	91210	56542	49888	20807	4943

The percentage of women who believed, the disadvantages to be of a permanent nature, ranged from a minimum of 31 percent for vasectomy to a maximum of 52 percent for condoms. The dissatifaction was higher in rural areas for all the methods excepting the IUD; which was marginally higher in urban areas. Regarding, the basis of their assessment, it was found that "own experience" was answered frequently in the case of tubectomy and laparoscopy, and for vasectomy, IUD and pills it turned out to be "friends experience". In the case of condoms, "heard from friend" was the most commonly heard answer. Likewise, lot of similarities were observed in urban and rural areas of Nainital district. It is therefore, suggested that couples have to be educated more about the various methods of family planning - their advantages and

disadvantages etc. At the same time, proper measures have to be taken to enhance the quality of services at all levels, so that the couples do not feel apprehensive about the family planning methods.

6.4.2 Source of Supply of Contraception

Table 6.12: Source of supply of modern contraceptive methods ever used

Source of supply	*Male sterilization*	*Female sterilization*	*Copper T /IUD*	*Pill*	*Condom **	*All modern methods*
Urban Public sector						
Government Hospital/CHC	89.9	93.2	57.4	34.3	25.1	61.5
PHC/camps	-	1.5	1.5	3.3	40.3	9.8
SC/Male/Female worker	-	-	-	-	23.6	6.1
Private medical sector						
Private doctor	1.0	1.8	40.6	21.1	-	11.5
Medical shop	xx	xx	-	40.9	-	8.1
Other private sector						
NGOs, Depot holders	-	-	-	-	81.4	16.7
Others	9.1	3.5	0.5	0.4	-	2.0
Total %						
Total N	5728	33786	15081	18003	18705	91303
Rural Public sector						
Government Hospital/CHC	82.5	79.3	53.8	65.9	37.1	70.01
PHC/camps	8.1	14.8	17.7	12.3	40.0	17.2
SC/Male/Female worker	-	-	15.1	2.9	27.7	10.2
Private medical sector						
Private doctor	0.8	3.0	13.4	7.1	-	4.0
Medical shop	xx	xx	-	10.7	-	1.5
Other private sector						
NGOs, Depot holders	-	-	-	-	78.4	9.6
Others	8.6	2.9	-	1.1	-	2.5
Total %						
Total N	10105	62311	11157	15578	13894	113045
Total Public sector						
Government Hospital/CHC	82.2	84.2	55.9	49.0	30.2	66.2
PHC/camps	5.5	10.1	8.4	7.5	40.2	13.9
SC/Male/Female worker	-	-	6.4	1.3	28.9	8.4
Private medical sector						
Private doctor	0.5	2.6	29.0	14.6	-	7.4
Medical shop	xx	xx		26.9	-	4.4
Other private sector						
NGOs, Depot holders	-	-	-	-	80.1	12.8
Others	8.8	3.1	0.3	0.7	-	2.3
Total %						
Total N	15833	96097	26238	33581	32599	204348

Women who were current users of a modern method of contraception at the time of the BSUP were asked where they obtained the method. The results are presented in Table 6.12.

For Nainital district overall, majority of the couples obtained their method from government hospitals, while private sources formed the major source for condoms (80 percent).

It was evident that the government hospital was the most important source of supply for most of the methods in both urban and rural areas. The predominance of government institutions was especially seen, in the case of male and female sterilizations in both urban and rural areas, where it was the source of supply for more than 90 percent of these services. The main source of supply of IUD's also, has been the district hospital in both the areas. However, in case of oral pills, the source of supply differed between the two areas. In urban areas, private institutions were the major sources of supply, while it was government institutions in rural areas. Overall, it can be said the government institutions were catering to the family planning needs of the people in the district.

Table 6.13 provides the knowledge of the respondents about the sources from where the various methods of family planning could be obtained. It has to mentioned that, only respondents who were aware of the various methods have been considered for the present analysis.

Table 6.13: Knowledge of sources from where the method could be obtained

Methods	***Percentage who mentioned***					***Number of women aware of the method***
	PHC/District hospital	***SC + workers***	***CBD***	***Private doctor***	***Shops***	
Vasectomy	94.6	36.7	0.1	47.0	0.1	210558
Tubectomy	94.3	34.2	0.1	43.8	0.1	251039
IUD	90.9	39.7	0.1	55.1	2.2	195583
Pills	84.2	28.6	0.3	53.9	75.4	214210
Condom	81.7	28.0	0.9	52.8	77.5	202965
Foam tablets/Jelly	82.3	12.5	0.6	4.5	34.0	18010
Injectable	66.9	17.1	-	52.1	12.7	20032

By and large, a large percentage of respondents reported, government institutions as the major source of family planning methods in Nainital district. Apart from this, private doctors formed another major source for all the methods, excepting the pills and condoms. For pills and condoms, shops turned out be an important source. It can therefore be inferred that respondents were aware of the various sources, and government institutions was the one and only source, which was mentioned more frequently. As well, the role of CBD as a source was found to be negligible

6.4.3 Supply Position of Pills and Condoms to the Current Users of the Method

Table 6.14 gives supply position and related issue of pills and condoms as reported by the current users of the method. While for pills, majority were getting their supply from Government Hospital/ CHC/PHC (66 percent), followed by shops (24 percent) for meeting their requirements. Further, the supply position was found to be regular (91 percent) in the district.

Those who mentioned irregularity in supply (9 percent) were asked the alternative in case of short supply. It was noticed that three percent did not use the method, one percent shifted to other methods and another five percent procured the required quota, from other sources. In addition, these women were also asked the supply position during the last three months. It was found in six percent of the cases that they "did not get sometime" and in the remaining cases the supply was regular. On an average a woman in Nainital district desired to procure two pieces (strips) of pills at a time.

In case of condoms, majority (55 percent) were approaching Government/CHC/PHC institutions, followed by shops (40 percent) for obtaining the required supply. Similar observations were made in urban and rural areas. The table further, indicates that about 98

Table 6.14: Supply position of pills and condom as reported by the current users

Source of supply	***Pill Total users***	***Condom***		
		Urban	***Rural***	***Total***
Government Hospital/CHC/PHC	66.3	48.5	63.5	55.0
SC and its male and female workers	1.6	1.7	1.0	1.4
VHG/CBD	-	-	-	-
Shops	24.4	46.1	32.6	40.3
Private doctors/clinic	5.6	3.7	2.6	3.3
Others	2.1	-	-	-
Total %	100	100	100	100
Total N	12656	18672	13912	32584
% reporting regular supply	91.5	97.2	98.1	97.6
Alternative in case of short supply				
Do not use the method	2.9	2.8	1.0	2.0
Get from some other source	4.6	--	--	--
Shift to other method	1.0	--	0.9	0.4
Supply position during last 3 months				
Always got the supply	2.9	2.8	--	1.6
Did not get some time	5.6	--	1.9	0.8
Never received	-	--	--	--
How may cyles R would like to receive at a time	2.0	8.2	12.3	9.9

percent of women felt that the supply at source was regular, while two percent were not sure of the regularity of supply. The analysis thus reveals, that government institutions were the major source of supply of both pills and condoms in the district and most of them were satisfied with the supply situation. On the whole, a person using condoms in urban areas received eight pieces while it was 12 pieces in rural areas.

Table 6.15 gives information on availability of pills and condoms in rural areas, from other than public sources (retailers, chemist shops, depot holder, NGO's, private doctors, etc.). This is an important information as it provides some idea on the availability of contraceptives from other sources. These information were collected in the village level questionnaire and hence the unit of analysis has been the village.

Table 6.15: Availability of pills and condom from other than public sources in rural areas

Villages	***Percentage of villages reporting availability of***		
	Pills	***Condom***	***Both***
Percent of villages having at least one			
Retailers/shop stocking contraceptive	8.7	10.1	8.6
Private doctors providing contraceptive	14.5	14.5	14.5
NGO distributing the method	13.0	13.0	13.0
Depot holder stocking the method	1.4	2.9	1.4

It can be noticed, that the most popular source from where the ruralites obtained their supply of pills and condoms were the private doctors, followed by NGO's and retailers, while the

contribution of depot holders was negligible. Overall, it was found that, these sources were not playing a prominent role in promoting family planning services and its use. Hence, new strategies such as birth-based approach, social marketing, and involvement of the private commercial sector have to evolved, so as to attract more people to family planning programmes.

6.4.4 Attitude of Couples Towards Family Planning

In districts where contraceptive practice has been low, there has been widespread disapproval of contraception and it may act as a barrier to adoption of methods. In the BSUP, women were asked if they approved of a couple using family planning. Probing was also made to know whether anybody in their family opposes use of contraceptives.

This information will prove useful in the formation of family planning policies, by indicating the extent to which further education and publicity is needed to gain acceptance of the principle of contraception. Table 6.16 presents information on the extent of a consensus between women's attitude and those of their husbands.

Table 6.16: Attitude towards family planning

Attitude towards family planning	*Urban*	*Rural*	*Total*
Percent of women approving use of FP	87.5	76.4	80.3
Percent reporting disapproval of FP by family members	5.0	5.0	5.0
Who oppose FP in family			
Husband	45.8	39.0	41.3
Parents	10.0	8.0	8.7
Father-in-law	11.7	19.0	17.3
Mother-in-law	30.3	28.0	29.1
Other male member	--	2.0	1.4
Other female member	2.2	--	0.7
Others	--	2.0	1.5

The differentials presented in the table will facilitate interpretation of data on adoption and use. It can be observed, that 80 percent of the women in Nainital district approved the use of family planning methods. In urban and rural areas it was 88 and 76 percent respectively.

However, with regard to opposition from family members, it was found that, both the areas were very similar (5 percent each). A further analysis revealed ,that husband and mother-in-law were the two family members who opposed the use of a family planning method and the trend was found to be true in urban and rural areas. Based on the above discussion, it can be inferred that the main opposition to the acceptance of a family planning method came from the husband itself. However, it is suggested that doctors providing family planning services must also be trained to provide counselling services to the couples, so that the acceptance rate improves in the district.

Table 6.17: Approval to family planning

Background characteristics	Percent approving FP use	Percentage reporting opposition from						Total %	Number of women
		No one	Husband	Parent	Father-in-law	Mother-in-law	Others		
Age									
13 - 19	57.8	98.1	1.1	0.8	-	-	-	100	18118
20 - 29	77.1	93.6	2.8	0.4	0.9	1.9	0.4	100	124267
30 - 39	85.3	94.6	3.1	0.6	0.8	0.7	0.2	100	124378
40 - 44	86.2	96.6	2.0	0.3	0.3	0.5	0.3	100	39535
45 - 49	78.5	94.7	4.0	-	0.6	0.7	-	100	21124
Residence									
Urban	87.5	95.4	2.6	0.5	0.4	1.0	0.1	100	116906
Rural	76.4	94.3	2.8	0.5	0.9	1.2	0.3	100	210510
Education									
Illiterate	72.1	92.3	4.3	0.7	1.1	1.3	0.3	100	174262
Upto class 4	82.6	96.6	2.6	-	0.8	-	-	100	16022
Primary	86.7	98.2	0.3	0.3	0.3	0.8	-	100	37795
Upto middle	91.7	97.7	1.6	-	-	0.7	-	100	35450
Upto high	88.1	95.8	1.0	0.9	-	1.5	0.8	100	26665
Above high school	95.2	97.5	1.2	-	0.4	0.9	-	100	37222
Religion									
Hindu	81.7	96.4	1.6	0.3	0.5	1.0	0.2	100	260473
Muslim	69.3	83.2	11.2	1.2	2.0	1.8	0.6	100	43136
Other	85.0	96.7	1.1	0.7	0.5	1.0	-	100	23807
Caste									
Scheduled caste	76.0	95.5	2.0	0.4	0.6	1.0	0.5	100	65103
Scheduled tribe	71.4	95.6	2.3	-	-	2.1	-	100	14800
Backward caste	78.6	96.2	1.7	0.5	0.4	1.2	-	100	30898
Higher caste Hindu	85.8	96.9	1.2	0.3	0.5	0.8	0.3	100	149673
Total	80.3	94.7	2.7	0.5	0.7	1.1	0.3	100	327416

Table 6.17 presents the approval to family planning by background characteristics of the women, besides providing opposition from family members. It can be observed that, overall, 80 percent of the women in the district approved of family planning use, and was higher in urban areas (98 percent) than in rural areas (76 percent).

An analysis by age indicated that, women aged above 30 years, approved more of family planning use than those aged below 30 years. With education, it was found that 72 percent of illiterates approved family planning use, while the same for women with above high school education was 95 percent.

Likewise, an analysis with religion revealed, that women from the Hindu and "other" categories approved more of family planning use than the Muslims. A further break-up by caste indicated, that a significant proportion of women, from scheduled tribe, disapproved family planning use.

Regarding, opposition from family members, it was found to be only five percent. Additionally, it was observed that the maximum opposition came from the husband itself. The opposition increased with increasing age of the women. However, with education, an inverse relationship was observed. A further examination of the data revealed, that Muslim families opposed more to the use of family planning than other religious groups and the opposition from husband was as high as 11 percent. With caste, the opposition from husband varied from a minimum of one percent for higher caste Hindus to a maximum of two percent for scheduled caste/tribe. Hence, it can be concluded that, a large percentage of women and their families in Nainital district, approved family planning use.

6.4.5 Exposure to Family Planning Messages on Radio and Television

In order to understand the spread of family planning information through various mass media, respondents were asked whether they have heard such messages on radio and/or television in the past month. Table 6.18 shows the variation in the percentage of women exposed to family planning messages according to various background characteristics.

It can be noticed that a large percentage of women in Nainital district, had heard of family planning messages both on radio and television. The percentage of women who mentioned radio and T.V. only were very few. Analysis by age of the women indicated more or less uniform exposure to family planning messages. Moreover, the exposure to both radio and television, as expected, was higher in urban areas than in rural areas. With education, a clear-cut trend was not seen, although, a larger percentage of women educated beyond high school, were exposed more to media than other educational groups. Likewise, an analysis with religion revealed that `others' category was least exposed than Hindus and Muslims. When caste was considered, it was found that higher caste Hindu and backward caste had listened to more of family planning messages than the other two caste groups.

Regarding, the ever and never users of contraceptives, a significant difference was not observed. In other words, all the currently married women, irrespective of their usage had uniform exposure to media as well the family planning messages.

Table 6.18: Heard family planning messages on radio and television

Background Characteristics	Heard of family planning messages on radio and television				Total %	Total N
	Neither	Radio only	Television	Both		
Age						
13-19	1.5	-	1.8	96.7	100	7201
20-24	0.3	1.0	6.9	91.8	100	38264
25-29	3.1	2.4	2.3	92.2	100	44043
30-39	1.2	1.3	2.7	94.8	100	84579
40-44	1.9	0.6	2.6	94.9	100	28247
45-49	2.2	0.8	1.6	95.4	100	160501
Residence						
Urban	0.9	1.1	3.9	95.0	100	120396
Rural	2.5	1.4	3.5	92.6	100	97988
Education						
Illiterate	2.8	1.9	1.9	93.4	100	53016
Upto class 4	2.0	1.6	2.8	93.6	100	10127
Primary	1.3	1.8	3.7	93.2	100	27629
Upto middle	1.1	0.8	1.3	96.8	100	32239
Upto high	1.7	1.1	1.1	96.1	100	35587
Above high school	0.9	0.9	6.5	91.7	100	59786
Religion						
Hindu	1.7	1.2	3.2	93.9	100	177818
Muslim	2.1	1.6	2.1	94.2	100	18411
Other	0.5	1.9	4.2	93.4	100	22155
Caste						
Scheduled caste	4.4	3.8	1.8	90.0	100	24628
Scheduled tribe	10.7	2.8	5.3	81.2	100	5329
Backward caste	0.9	-	1.8	97.3	100	20710
Higher caste Hindu	0.9	0.8	3.5	94.8	100	135121
Use of contraception						
Ever use	1.2	1.3	3.2	94.3	100	153762
Never use	2.6	1.2	3.2	93.0	100	64622
Total	3542	2845	7034	204963	100	218384

It can be observed from Table 6.19, that television was the most popular media through which many women (43 percent) had heard/seen messages on family planning. This was followed by radio (28 percent) and cinema (13 percent). Further, it was found that women in urban areas had more exposure to all the types of media and messages than their counterparts in rural areas.

Out of the total women who had listened to radio, a majority reported to have heard about family planning messages on the use of pills (53 percent), followed by small family norms (49 percent), use of condoms (40 percent) and the use of IUD (21 percent).

Regarding, the other family planning messages such as sterilization and population problems, only a few women had heard about them, and these views differed between the urban and rural areas. In rural areas, the percentage of women who had heard the use of IUD, exceeded the percentage of women who had heard the small family norms and the use of condoms. In the other two types of media viz; television and cinema, a majority had heard/seen the family planning messages on use of pills, followed by use of condoms, small family norms and use of

IUD in that order. From the ongoing discussion, it can therefore be concluded that whatever may be the media, the major emphasis/thrust was on promoting small family norms and the use of spacing methods of contraception.

Table 6.19: Family Planning Messages through Different Media

Types of messages received on family planning	*Radio*			*Television*			*Cinema*		
	Urban	*Rural*	*Total*	*Urban*	*Rural*	*Total*	*Urban*	*Rural*	*Total*
Percent received messages on family planning	37.2	23.6	28.4	68.0	29.3	43.1	19.0	9.4	12.9
Small family size	55.9	42.0	48.5	53.2	40.8	47.8	39.7	31.8	36.0
Use of condom/Nirodh	44.2	35.6	39.7	53.8	46.3	50.6	40.7	35.3	38.1
Use of oral pills/Mala D	56.1	50.2	53.0	58.8	60.0	59.3	41.1	41.4	41.3
Use of loop/IUD/Cu-T	18.7	44.7	21.0	15.7	25.2	19.9	19.2	27.4	10.0
Sterilization	6.3	8.0	7.3	19.4	9.5	15.1	9.7	10.3	22.2
Population problems	8.8	9.5	9.2	6.1	8.8	7.3	28.1	15.6	0.6
Others	-	0.3	0.2	-	-	-	0.5	0.8	0.6

6.5 Reasons for Discontinuation of FP Methods and Intention of Use of Family Planning in Future

All the ever users of contraception who were not using any method (and were non pregnant) at the time of the survey were asked why they discontinued the use. This information has been presented in Table 6.20.

Table 6.20: Reasons for Discontinuation

Reasons for discontinuation	*Urban*	*Rural*	*Total*
Method failed or got pregnant	6.4	7.5	7.0
Lack of sexual satisfaction	--	1.6	0.9
Created menstrual problem	2.9	1.5	2.1
Created health problem	16.3	17.4	16.9
Inconvenient to use	--	1.1	0.6
Hard to get method	--	3.3	1.9
Put on weight	--	1.1	0.6
Did not like the method	8.1	8.7	8.4
Wanted to have a child	20.7	20.9	20.8
Wanted to replace a dead child	1.6	--	0.9
Lack of privacy for use	--	6.0	3.4
Others	16.0	17.9	17.0
Don't know/missing	28.0	13.0	19.5
Total %	100	100	100
Number	6458	8366	14824

Majority of the past users responded by stating, that they discontinued using a family planning method because "they wanted to have a child" or it "increased health problems". Moreover, responses like "do not know", "others" also formed a good percentage (20 percent and 17 percent respectively). A smaller number said "do not like the method" and "method failed got pregnant" and so on. It was also observed that urban and rural areas, more or less showed similar trends in their responses. Based on the above mentioned responses, it can be inferred that women (past users) who mentioned "do not know", "other", "do not like the method" and "created health problems" form a potential group for re-motivation.

Intention to use contraception in the future provides a forecast of potential demand for services and acts as a convenient summary indicator of disposition towards contraception among current non-users. It has to be noted here that only women who answered "Going to use a FP method" in Q.281 have been considered in the denominator.

Table 6.21: Future Intention

	Rural	***Urban***	***Total***
Within one year	38.8	52.8	50.0
1-2 years	24.6	27.3	26.7
2 or more years	8.0	3.9	4.7
Do not know/can't specify	28.6	16.0	18.7

An examination of the data in Table 6.21 indicate, that majority of the non-current users (50 percent) wanted to adopt a family planning method "within one year/soon". Another 27 percent of them, desired to use between one and two years. Likewise, five percent of the women wanted to adopt a family planning method after two years while the remaining stated "don't know/date not decided". The percentage of women who wanted to accept a family planning method within two years, was higher in urban areas (80 percent) than in rural areas (63 percent).

In light of these findings, it can be deduced that there is a large market for promoting the use of family planning in the district. Before any strategies are developed, it is first recommended to identify the potential women and later provide the services as per the requirements.

Recapitulate

The knowledge and practice of family planning was not universal in Nainital district, because the urban and rural areas differed in the pattern of usage of the various (especially spacing) methods of family planning. Further, a high drop out rate in the usage of spacing methods was observed; as judged by the difference between the ever and current users. When the women were asked the reasons for the drop out, the common answer citied by them was back ache/body pain. Moreover, public sector turned out to be the major source of supply of contraceptives, from where the couples in the district availed the various methods most of the time. In addition, it was found that the level of unmet need was quite high i.e. a large percentage of women did not want to have a child immediately after marriage or they wanted to postpone the births. These women formed a potential group for motivation.

Regarding, the contact between the clients and the providers, it was found that the coverage was very low. Among the households visited by the health workers, it was found that they had mentioned about the various methods of family planning. In the households where they mentioned methods, they had also discussed about both the advantages/ disadvantages of the methods. However, it was interesting to see that the presence of atleast two sons, was the major motivating factor for accepting a terminal method of family planning. It can therefore, be concluded that there was a strong sex preference among the couples in the district. Since this aspect is strongly ridden in the social system, efforts to educate the masses through IEC and individual counselling have to be done.

CHAPTER VII

FERTILITY PREFERENCES

This chapter addresses the following questions which allow an assessment of the need for contraception.

Does the respondent want more children? If so, how long would she prefer to wait before the next child? Two further issues may be examined: To what extent do unwanted or mistimed pregnancies occur? Bearing in mind that the underlying rationale of most family planning programmes is to give couples the freedom and ability to bear the number of children that they want and to achieve the spacing of births that they prefer, the importance of this chapter is obvious.

7.1 Desire for More Children

Table 7.1 provides information about the fertility preferences of currently married women. The table allows an examination of the total potential need for contraceptive services - for spacing as well as limiting births. Until recently, concern to provide appropriate contraception for couples who wish to have no future children has overshadowed contraception for child spacing purposes. The interest in spacing has been reinforced by recent evidence that: a) large number of couples wish to postpone child bearing by contracepting; b) there appears to be a potential demand for contraception to space births in some areas where such a demand for limiting family size has not yet emerged.

It can be observed from the following Table 7.1 that 33 percent of the women were "unsure" or rather "did not know" when they wanted to have an additional child. Further, five percent of the women desired to have an additional child within a year, another 22 percent wanted to have between 12 and 23 months while the remaining 40 percent wished to have after two years. Additionally, it was observed in urban areas, that the desire to have a child within a year, increased with the number of children, whereas in rural areas, a curvilinear relationship existed. Later, the women were asked the preferred sex of additional child/children. It was found that, a majority of women, preferred a son and this was true for both urban and rural areas. The preference for sons was high among women of higher parities. Based on these observations, it can be inferred that there was a very strong son preference in Pithoragarh district.

Table 7.1: Fertility preferences

Desire for children	*Number of living children*				*Total*
	0	*1*	*2*	*3 +*	
Urban					
Desire for additional child					
Within 11 months	5.2	7.6	-	-	5.5
12-23 months	52.1	1.1	17.9	52.7	19.1
24 or more months	13.2	61.2	72.1	21.5	48.5
Do not know	29.5	29.9	10.0	25.8	26.9
Total %	100.0	100.0	100.0	100.0	100.0
Preferred sex of additional child					
Only boy(s)	44.2	59.8	87.3	100.0	61.7
Only girl(s)	43.1	23.6	12.7	-	26.0
Either	12.7	7.5	-	-	7.5
Others	-	9.1	-	-	4.8
Total %	100.0	100.0	100.0	100.0	100.0
Number wanting more children	385	988	226	158	1758
Rural					
Desire for additional child					
Within 11 months	5.3	3.5	5.7	7.5	5.1
12-23 months	35.7	13.0	21.8	22.1	22.0
24 or more months	19.3	49.5	44.8	42.1	39.7
Do not know	39.7	34.0	27.7	27.5	33.1
Total %	100.0	100.0	100.0	100.0	100.0
Preferred sex of additional child					
Only boy(s)	50.1	58.3	83.6	90.2	64.2
Only girl(s)	42.6	27.6	12.8	5.6	27.1
Either	6.0	11.2	3.1	0.6	6.7
Others	1.3	2.9	0.5	3.6	2.0
Total %	100.0	100.0	100.0	100.0	100.0
Number wanting more children	11723	17475	10384	7378	4696
Total					
Desire for additional child					
Within 11 months	5.3	3.7	5.5	7.7	5.1
12-23 months	36.2	12.3	21.7	22.8	21.9
24 or more months	19.1	50.1	45.4	41.7	40.0
Do not know	39.4	33.9	27.4	27.8	32.9
Total %	100.0	100.0	100.0	100.0	100.0
Preferred sex of additional child					
Only boy(s)	49.9	58.4	83.7	90.4	64.1
Only girl(s)	42.6	27.4	12.8	5.4	27.1
Either	6.2	11.0	3.0	0.6	6.7
Others	1.3	3.2	0.5	3.6	2.1
Total %	100.0	100.0	100.0	100.0	100.0
Number wanting more children	12109	18463	10610	7536	48718

Subsequently, table 7.2 indicate the desire for additional children by number of living children. It was encouraging to note that the desire not to have additional children increased with the number of living children and was found to be true for women who had two or more living children. These observations were similar in urban and rural areas. In urban areas, the desire not to have additional children increased from 33 percent to 94 percent for women with one living child to two living children, whereas the same was 13 and 62 percent respectively, in rural areas. Thus, it can be inferred that a large proportion of women who have already had two children did not desire for additional children. Hence, it is suggested that, this potential group of women have to be motivated for accepting a family planning method.

Table 7.2: Number of living children by number of additional desired children

Number of living children	Number of desired children						Total %	Number of women
	0	1	2	3	4+	DK		
Urban								
0	24.8	12.5	42.0	10.7	1.9	8.1	100.0	512
1	32.5	47.6	15.6	0.7	-	3.6	100.0	1465
2	94.0	3.9	2.1	-	-	-	100.0	3789
3	97.8	2.2	-	-	-	-	100.0	3664
4	94.8	5.2	-	-	-	-	100.0	1353
5+	99.2	0.8	-	-	-	-	100.0	1017
Rural								
0	4.8	3.2	62.9	22.4	3.3	3.4	100.0	12316
1	13.0	45.8	34.9	4.0	1.4	0.9	100.0	20097
2	61.5	28.3	9.2	0.5	-	0.5	100.0	27004
3	88.0	9.3	2.1	-	-	0.6	100.0	33381
4	92.0	5.7	1.6	-	0.3	0.4	100.0	23756
5+	92.2	7.0	0.4	0.4	-	-	100.0	19089
Total								
0	5.6	3.6	62.1	21.9	3.3	3.5	100.0	12828
1	14.4	45.9	33.6	3.7	1.3	1.1	100.0	21562
2	65.5	25.3	8.3	0.4	-	0.5	100.0	30793
3	89.0	8.6	1.9	-	-	0.5	100.0	37045
4	92.2	5.6	1.5	-	-	0.5	100.0	25109
5+	92.6	6.7	0.4	0.3	0.3	-	100.0	20106

In Table 7.3, the percentage of women who want more children is shown separately for each parity by selected background characteristics. This tabulation provides information about group variations in the potential demand for fertility control.

It can be noticed that, overall, the desire to have additional children was higher among women aged less than 30 years than those aged above 30 years, and this was also true for women with lower parities. Analysis by residence indicated, lot of similarities between urban and rural areas.

A further look at the data reveal, that illiterate women of higher parities desired more children than their educated counterparts. The desire to have a child was 12 percent for illiterate women of parity 4+, while the same for women with high school education was four percent. This tends to explain a higher desire among illiterate women of higher parities. Likewise, with religion, a higher desire among Hindu women was observed. A break-up by caste indicate, that higher caste Hindus and backward caste, who had two children, desired less number of additional children than scheduled caste and tribe.

Table 7.3: Desired to have more children by background characteristics

Background Characteristics	Number of living children *					Total
	0	1	2	3	4+	
Age						
13 - 19	52.1	43.6	3.0	1.2	-	12187
20 - 29	19.1	42.7	30.5	7.1	.5	21680
30 - 34	8.6	31.3	27.5	17.0	15.6	9360
35 - 39	7.1	18.3	20.6	16.9	37.1	4703
40 - 44	46.8	14.6	14.2	-	24.3	615
45 - 49	100.0	-	-	-	-	174
Residence						
Urban	21.9	56.2	12.9	4.5	4.5	1758
Rural	25.0	37.2	22.1	8.5	7.2	46960
Education						
Illiterate	20.4	31.2	25.6	10.5	12.2	22925
Upto class 4	27.9	36.9	16.9	14.5	3.8	3057
Primary	23.3	43.1	20.7	8.9	3.9	10299
Upto middle	33.0	41.5	21.0	4.5	-	5802
Upto high	36.9	48.4	13.1	1.6	-	3442
Above high school	31.0	51.8	13.1	-	4.2	3193
Religion						
Hindu	24.9	37.8	21.9	8.4	7.1	48530
Muslim	23.2	74.3	2.5	-	-	188
Other	-	-	-	-	-	-
Caste						
Scheduled caste	24.8	31.9	21.2	11.4	10.7	9965
Scheduled tribe	23.1	39.6	15.2	7.2	14.9	924
Backward caste	18.0	66.2	15.8	-	-	-
Higher caste Hindu	25.0	39.0	22.3	7.7	6.1	37245
Number of living sons						
0	41.1	36.3	15.9	4.3	2.5	29443
1	-	46.5	29.4	11.0	13.0	16709
2	-	-	43.2	36.1	20.7	2382
3+	-	-	-	64.4	35.6	183
Number of living daughters						
0	37.3	45.7	12.4	4.6	-	5684
1	-	54.2	37.5	7.8	0.5	13078
2	-	-	59.2	30.8	10.1	6249
3+	-	-	-	20.8	79.2	3495
Total	12109	18463	10610	4074	3462	48718

Additionally, an analysis by number of living sons and daughters indicated, that there was a preference for sons and it increased for women, with more than two living daughters. Hence, it can be deduced that there was a large proportion of women of two plus parity who desired additional children. It is therefore, suggested that programme managers should identify these potential women and motivate them for accepting a family planning method so that the latent need gets converted into felt need.

7.2 Ideal Number of Children

Till now, the chapter has focussed on the respondents present opinion as to how many children a couple should have. Usually, there is a correlation between actual and ideal number of children. The reason is two fold. First, the extent that women implement their preferences, i.e. those who want larger families will tend to achieve larger families. Second, women may adjust upwards their ideal size of family, as the actual number of children increases (i.e. rationalization). It is also possible that women with larger families, have larger ideal sizes, because of attitudes they acquired 20-30 year ago.

Despite the likelihood that some rationalization occurs it is common to find that respondents state ideal sizes lower than their actual number of surviving children. The use of ungrouped variables in Table 7.5 permits the classification of the respondents at each parity into three categories: ideal size is greater than actual size; ideal size is less than actual size; ideal size equals actual size. The third category is of particular interest, because it permits an examination of surplus or unwanted fertility, which is also the topic of a later table.

It can be observed from Table 7.4 that, the mean ideal number of children desired by ever and currently married women in the district was 2.7. In urban areas, it was 2.6 for ever married women and for currently married women respectively, while in rural areas, the same worked out to be 2.7 each, for ever and currently married women. Further, it was noticed in both the areas, that the ideal number of children remained at two for 0, 1 and 2 parity women, and subsequently, it increased to three with increasing parities of the women. In other words, it can be deduced that older women had larger ideal sizes than younger women.

Table 7.4: Ideal and actual number of children

Ideal number of children	Number of living children *							Total
	0	1	2	3	4	5	6+	
Urban								
1	9.4	23.2	7.5	6.0	-	-	-	7.5
2	68.9	65.0	79.5	58.6	68.5	50.5	13.5	75.6
3	9.6	8.0	9.8	34.1	22.9	43.0	49.8	21.9
4	1.7	-	1.8	0.2	8.6	6.5	8.6	2.3
5	-	-	-	-	-	-	2.1	0.2
6+	-	-	-	-	-	-	23.9	0.7
Non-numeric responses	10.4	3.8	1.4	1.1	-	-	2.1	1.8
Total %	100	100	100	100	100	100	100	100
Number of women	569	1501	3833	3898	1386	697	384	12268
Mean ideal number **								
Ever-married women	1.5	1.8	2.5	3.3	3.7	6.0	6.0	2.6
Currently married women	1.9	1.8	2.4	3.2	3.7	6.0	6.0	2.6
Rural								
1	1.8	3.8	0.5	0.6	0.3	-	0.9	1.0
2	58.0	63.2	67.2	30.9	37.7	30.6	21.9	46.0
3	29.9	28.2	27.6	60.1	40.0	46.6	45.3	40.7
4	7.5	2.5	3.9	6.8	17.3	15.8	26.0	9.3
5	-	0.5	-	0.7	1.0	3.6	0.8	0.8
6+	-	-	0.2	0.1	0.9	0.6	1.8	0.4
Non-numeric responses	2.8	1.8	0.6	0.8	2.8	2.8	3.3	1.8
Total %	100	100	100	100	100	100	100	100
Number of women	13676	21040	28517	28517	25293	12235	7610	143880
Mean ideal number **								
Ever-married women	3.0	1.6	2.3	3.0	3.7	4.0	4.3	2.7
Currently married women	3.1	1.5	2.3	3.0	3.7	4.0	4.3	2.7
Total								
1	2.2	5.1	1.3	1.1	0.3	-	0.9	1.6
2	58.5	63.3	68.6	33.6	39.3	31.6	21.5	47.6
3	29.0	26.8	25.5	57.5	39.0	46.4	45.4	39.2
4	7.3	2.3	3.7	6.1	16.8	15.4	25.3	8.7
5	-	0.6	-	0.6	1.0	3.4	0.9	0.7
6+	-	-	0.2	0.2	0.9	0.6	2.8	0.4
Non-numeric responses	3.0	1.9	0.7	0.9	2.7	2.6	3.2	1.8
Total %	100	100	100	100	100	100	100	100
Number of women	14245	22540	32350	39407	26679	12932	7994	156148
Mean ideal number **								
Ever-married women	2.9	1.6	2.3	3.0	3.7	4.0	4.6	2.7
Currently married women	3.0	1.6	2.3	3.0	3.7	4.0	4.6	2.7

* Includes current pregnancy;

** Means are calculated excluding the women giving non-numeric responses

The following Table 7.5 presents the match between ideal number of children and number of living children. It can be observed in Pithoragarh district, that majority (94 percent) of (0-1) parity women had less than the ideal number of children. As the parity increased to two, a situation of "equal to ideal" was seen. Further, increase in parity resulted in a shift to more than ideal, and it was found to be as high as 96 percent for women in parity 5+. Similar

Table 7.6: Husband-wife communication on number of children they should have

Background Characteristics	Stage at which discussion took place					Total %	Number
	Immediately after marriage	After 1st child	After 2nd child	After 3rd child	Never		
Age							
13-19	36.4	8.5	1.6	-	53.5	100	1818
20-24	27.8	19.5	10.2	3.2	38.8	100	59748
25-29	13.7	13.1	25.3	11.4	36.0	100	64514
30-39	7.6	8.6	20.6	20.8	41.1	100	124378
40-44	8.6	9.7	18.7	16.2	45.0	100	39535
45-49	5.6	3.4	13.8	16.1	52.2	100	21124
Residence							
Urban	17.6	15.6	20.0	13.3	32.9	100	116906
Rural	12.1	8.9	16.7	14.0	47.0	100	210510
Education							
Illiterate	8.8	8.0	12.5	15.1	54.3	100	174262
Upto class 4	10.8	9.5	18.3	15.5	45.9	100	16022
Primary	10.4	11.8	24.0	15.4	37.2	100	37795
Upto middle	20.6	11.3	23.2	13.7	30.5	100	35450
Upto high	26.5	20.1	22.9	11.2	18.0	100	26665
Above high school	28.8	20.5	28.3	7.0	15.0	100	37222
Use of contraception							
Ever use	13.4	12.2	23.2	17.9	32.1	100	194472
Never use	15.0	10.1	10.1	7.6	56.2	100	132944
Total	46040	36992	58541	44972	237291	100	327416

It can be visualized from the above table, that a large percentage of couples in the district did not communicate between themselves about the number of children they should have. However, an analysis by age indicates, that a larger percentage of younger women aged less than 30 years, discussed with their husband about the number of children they should have, immediately after marriage while the older women aged above 30 years, had done so, after the birth of the second child. Furthermore, the interspouse communication in urban and rural areas was found to be maximum after the birth of second child.

Likewise, a positive relationship between education and "immediately after marriage" was observed. For instance, nine percent of the illiterate women communicated with their spouse immediately after marriage, while the same for women with above high school education was 29 percent. Similarly, for ever and never users of contraception, it was 56 and 32 percent respectively. Therefore, it can be concluded that urbanities who were young and educated, had communicated with their spouse immediately after marriage.

The following Table 7.7 presents the percentage of currently married women who had experienced unwanted pregnancies and the number of such unwanted pregnancies by selected background characteristics.

It can be seen that the percentage of unwanted pregnancies increased with the increasing age of the women. For women aged between 13 and 19 years, it was only one percent, whereas the same for women aged between 45 and 49 years, it was as high as 14 percent. Furthermore, it was observed that the percentage of unwanted pregnancies was higher in urban areas (12 percent) than in rural areas 7 percent). With education, it was

surprising to find a higher percentage of unwanted pregnancies (13 percent), among women who had studied beyond high school.

Table 7.7: Unwanted pregnancy

Background Characteristics	*Number of unwanted pregnancies*				*Total %*
	0	*1*	*2*	*3+*	
Age					
13 - 19	99.2	0.8	-	-	18118
20 - 24	96.4	3.1	0.6	-	59748
25 - 29	90.6	7.6	1.0	0.8	64513
30 - 39	89.0	7.5	2.6	0.9	124378
40 - 44	90.0	5.9	2.9	1.2	39535
45 - 49	86.3	9.3	4.4	-	21124
Residence					
Urban	87.6	8.8	2.8	0.8	210510
Rural	93.2	4.9	1.5	0.4	116906
Education					
Illiterate	92.4	5.1	2.0	0.5	174262
Upto class 4	94.4	4.6	1.0	-	16022
Primary	92.8	4.3	1.3	1.6	37795
Upto middle	87.6	10.0	1.7	0.6	35450
Upto high	90.3	7.1	1.8	0.8	26665
Above high school	86.7	10.5	2.8	-	37222
Religion					
Hindu	91.6	6.4	1.6	0.4	260473
Muslim	90.5	4.1	3.2	2.2	43136
Other	87.8	9.4	2.4	0.4	23807
Caste					
Scheduled caste	91.1	6.3	1.9	0.7	65103
Scheduled tribe	96.6	2.7	0.7	-	14800
Backward caste	93.2	5.1	1.3	0.4	30898
Higher caste Hindu	91.0	7.0	1.7	0.3	149673
Total	298560	20569	6214	2073	327416

As far as religion was concerned, it was found that women from "others" category had more unwanted pregnancies than Hindus and Muslims. An analysis by caste indicated, that higher caste Hindu and scheduled caste had more unwanted pregnancies than other castes. Having understood the distribution of unwanted pregnancies by background characteristics it would be interesting to study the outcome of unwanted pregnancies (Table 7.8).

Table 7.8 depicts that, 71 percent of unwanted pregnancies terminated into a live birth, 22 percent were still births and about seven percent of them were spontaneous abortions. Likewise, there were a few cases of "Attempted to abort but failed".

Subsequently, a higher percentage of still births was noticed in urban areas, whereas, in rural areas a higher percentage of spontaneous abortions was reported. Overall, it can be deduced that a majority of unwanted pregnancies in the district terminated into live birth.

*Table 7.8: Outcome of unwanted pregnancies **

Outcome of unwanted pregnancies	*Urban*	*Rural*	*Total*
Live birth	71.5	71.1	71.3
Still birth	22.5	20.6	21.5
Spontaneous abortion	5.2	8.3	6.8
Induced abortion/MTP	-	-	-
Attempted to abort but faild	0.8	-	0.4

In the next table, an analysis of fertility planning has been attempted, wherein the timing of births has been discussed, as to when the woman wanted to have her child.

Table 7.9: Fertility planning

Pregnancy intention	*Urban*	*Rural*	*Total*
Wanted then	75.6	92.9	87.3
Wanted later	10.2	2.1	4.7
Wanted no more	14.2	5.0	8.0
Missing	0.0	0.0	0.0
Total %	100	100	100
Number of pregnancies	9575	20118	29695

* Includes current pregnancy

Table 7.9 gives the distribution of births in the current pregnancies by fertility planning status. It can be noticed, that, majority (87 percent) of the women wanted to have a child then, five percent wanted to have later, while the remaining eight percent wanted no more. The percentage of women who wanted to have "a child later" and "did not want anymore" was higher in urban areas than in rural areas. Hence, it can be concluded that nearly one fourth of the currently pregnant women in urban areas, wanted to postpone/limit their family size. If all these women had accepted one or the other methods of contraception, then the CPR of the district would have definitely gone up, thus causing a decline in the levels of fertility. Therefore, it is suggested that in future, efforts have to be made first to identify these women and later motivate them for accepting one of the methods of family planning.

Based on these responses, it would be interesting to see what the women actually did, with the unwanted pregnancies. Such a type of analysis is presented in Table 7.10.

Table 7.10: What the women would do if gets unwanted pregnancy

Intention for unwanted pregnancy	*Urban*	*Rural*	*Total*
Will accept the pregnancy	6.3	11.6	9.6
Will get it aborted	26.2	16.4	20.1
Others	4.8	5.6	5.3
Not sure/do not know	16.6	16.4	16.5
Not possible/sterilized	46.1	49.9	48.5

Table 7.10 discusses the opinion of women regarding unwanted pregnancies. It can be observed that the question was not applicable to 49 percent of the women because of their response "NA/sterilized". In case of the remaining women, it was found that 20 percent wanted to get it aborted, 17 percent did not know and nearly 10 percent wanted to continue with the pregnancy. The percentage of women who wanted to get it aborted was as high as 26 percent in urban areas, while the percentage who wanted to continue with the pregnancy was as high as 12 percent in rural areas. Nonetheless, it can be concluded that a large percentage of women in Nainital district wanted to terminate unwanted pregnancies but, in reality, they had given birth to a child.

Recapitulate

The level of unmet need in Nainital district was quite high. A sizeable proportion of women wanted to postpone their births beyond a year but they have not been covered under the programme i.e. latent need has not been converted into felt need. The ideal number of children, on an average, turned out to be three. However, the ideal number increased with the absence of a son in the family. In other words, a woman wanted to have a son (atleast two sons) before she could think of limiting her family size. Regarding unwanted pregnancies, it was found that majority of women in urban areas wanted to abort their pregnancy. But in reality, it was found that a large number of unwanted pregnancies, terminated into live births. Moreover, it was observed that the inter-spouse communication was very weak. A large number of couples, started discussing about the number of children only after the birth of the second child. In this context, it is suggested to promote counselling of the couples by trained personnel and also to expand the IEC activities so that the attitude of the couples will change for the positive.

CHAPTER VIII

MATERNAL AND CHILD HEALTH AND UTILIZATION OF HEALTH SERVICES

This chapter presents findings from two areas of importance to maternal and child health, i.e. maternal care and immunization of children. Few countries have access to national estimates of the type of Antenatal Care (ANC) pregnant women receive, and this information is of great value in identifying sub-groups of women who do not utilize ANC services, and in planning for improvements in the services. The ANC is defined according to the type of provider, the stage of pregnancy at the time of the first visit, the provision of iron folic tablets, and the number of tetanus toxoid doses received. Similarly, the delivery services are described according to the person assisting and the place of the delivery. Coupled with information about infant mortality rates, this information helps identify groups who are under served.

The presentation of the vaccination coverage information focusses on the age group 6-23 and 12-23 months. Overall coverage levels by the time of the survey and by 12 months of age are shown for this age group. Differences in vaccination coverage between different sub-groups; of the population are an aid in programme planning. Also the chapter briefly looks with the utilization of public health services and the sources from where they seek medical help.

8.1 Antenatal Care

Safe Motherhood and Child Survival is one of the important programme run by the Government of India. Proper care in antenatal period and during delivery is crucial for the good health of both the mother and child. Women in the BSUP were asked whether a health worker had visited them at home for an antenatal check-up and whether they had gone for an antenatal check-up outside the home during the past or current pregnancy. Table 8.1 provides information regarding the extent to which antenatal care services were utilized.

Table 8.1 show that, by and large, the utilization of antenatal care services during the last two years was reasonably high. Nearly fifty percent of the women received physical check-up, 44 percent received iron/folic acid tablets, and about 68 percent received tetanus-toxoid injections during pregnancies in the last two years. The percentage of women who received tetanus-toxoid seems to be higher than the percentage of women who had received physical check-up. This is because, the respondent could have mistaken the tetanus injection for an general one. Further, it was observed, that only two percent of these women were visited at home by health functionaries during the pregnancy. Additionally, women actively sought an antenatal check-up outside the home for 48 percent of their pregnancies.

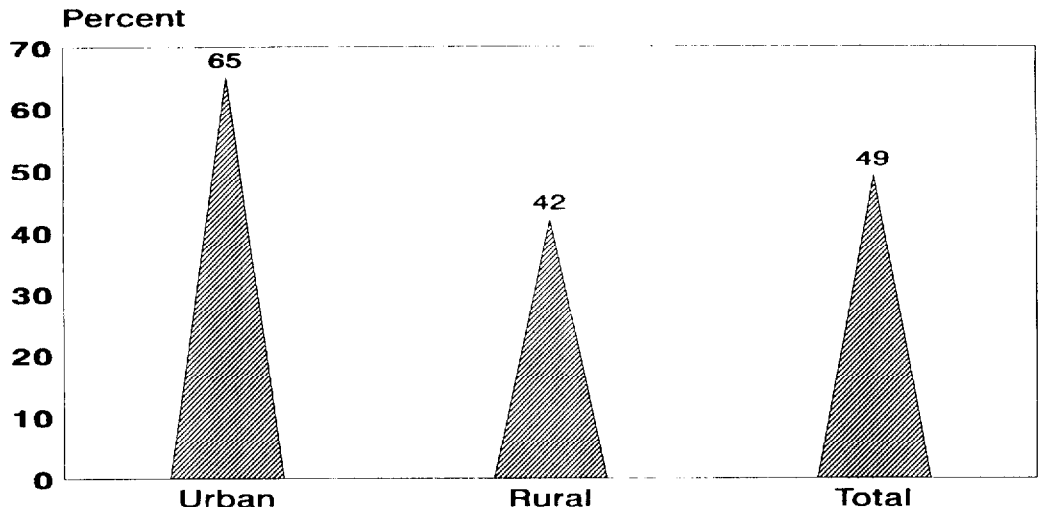
Analysis of data by age of the woman shows that the level of utilization of antenatal services was higher among women aged 20-34 years than the younger and older women.

Analysis by place of residence, show that the percentage of women who received physical check-up, tetanus toxoid injections were, as expected higher in urban areas than in rural areas. The two areas also differed in terms of whether a health worker visited home during her pregnancy and whether antenatal care was received from a health professional. The percentage of women who were visited at home by health functionaries during pregnancy was two percent in rural areas, whereas the percentage of women who sought antenatal care from health professionals was higher in urban areas.

Table 8.1: Antenatal care

Background characteristics	% underwent ANC check-up	Source of ANC treatment						% received		Number of women pregnant in last two years
		District hosp/PHC	Sub-centre	Private doctor	Camp	At home	Others	IFA tab	TT injection	
Age										
< 20	34.6	25.5	1.5	3.7	-	1.2	2.7	25.5	51.2	13871
20 - 34	52.5	30.7	1.2	14.4	1.0	1.7	3.6	47.4	71.3	92112
35 +	43.2	30.8	-	10.8	0.9	0.7	-	39.4	59.4	6937
Residence										
Urban	65.4	43.4	1.1	19.9	-	-	1.3	57.3	84.4	33301
Rural	41.6	24.6	1.2	11.7	1.3	2.3	2.0	38.7	61.3	79619
Education										
Illiterate	37.3	18.9	1.4	12.6	1.2	2.0	1.2	26.7	58.3	63998
Upto class 4	55.7	51.3	4.2	5.7	-	-	6.4	60.3	76.8	5742
Primary	58.7	42.0	2.8	5.8	-	4.5	3.6	63.0	82.3	13318
Upto middle	43.6	29.2	1.1	9.3	-	0.8	3.2	68.7	80.0	9752
Upto high	75.1	48.8	1.1	21.7	1.3	1.3	0.9	59.3	71.1	10038
Above high school	93.6	63.7	-	20.2	1.1	2.3	6.2	82.6	92.2	10072
Religion										
Hindu	50.8	31.4	1.3	14.0	0.9	1.6	1.7	47.2	76.3	84170
Muslim	46.3	31.3	0.3	10.9	0.7	1.9	1.2	42.3	53.5	20017
Other	47.3	13.8	3.9	22.5	1.7	1.3	4.2	19.7	22.5	8733
Caste										
Scheduled caste	48.3	29.3	2.1	4.8	2.0	3.6	3.4	36.3	71.3	24142
Scheduled tribe	27.9	27.9	2.8	6.6	4.1	4.3	-	31.7	61.1	6463
Backward caste	42.7	26.3	1.3	13.0	-	1.2	0.9	38.5	80.8	9515
Higher caste Hindu	57.2	27.1	1.6	26.5	0.2	1.5	1.2	57.3	80.3	44049
Total	48.8	30.6	1.6	13.2	0.9	1.6	1.8	44.2	68.1	112920

Figure 8.1: Percent Underwent ANC Check-up



Nainital, UP, 1993-94

Similar, differences existed among women of different educational attainment. Women who received physical check-up, tetanus toxoid injections and iron/folic acid tablets increased from less than 27 percent for illiterate women to more than 93 percent for women with above high school education. The analysis also indicated that with an increase in the level of education, the percentage of women receiving antenatal care from government and private institutions increased, although a consistent pattern was not observed.

Subsequently, with religion, it was noticed that women from Hindu families had availed more antenatal services than the other religious groups, though the difference was marginal. A break-up by caste indicated, that higher caste Hindus had used more ANC services than the others. Having understood the extent of utilization of ANC services in Nainital district, it would be interesting to study the time when women started using the services. Such a type of analysis is presented in the later Table 8.2.

Table 8.1 (a) presents the mortality situation in Nainital district. The mortality indicators presented here include Crude Birth Rate (CDR) and Infant Mortality Rate (IMR).

Table 8.1(a): Death and Infant Mortality Rates (1991-93)

	Urban	*Rural*	*Total*
CDR	7.1	7.5	7.3
IMR	56.0	67.0	63.0

Table 8.1 (a) presents the crude death rate and infant mortality rate for the two year period prior to the survey which corresponds roughly to the period from (October, 1991 - September, 1993). These rates have been estimated by applying appropriate weights to take sampling error into considerations. The estimates show that the death rate (7.3 deaths/1000 population) and infant mortality rate (63 deaths/1000 live births) were found to be lower than the state figures (12.0 deaths/1000 population and 99 deaths/1000 live births) (SRS, 1990). A further look at the data show that all these rates were lower in urban areas than in rural areas.

The following Table 8.1 (b) provides information on the source of treatment and system of medicines followed by residential status, for the two years preceding the survey.

Table 8.1(b): Percentage distribution of the Source of Main Treatment and System of Medicine followed by Residential Status

Source of Main Treatment	*Urban*	*Rural*	*Total*
District Hospital	38.2	29.1	32.2
PHC	32.4	12.6	19.1
SC	0.0	2.5	1.7
Private Doctor	5.1	22.9	17.0
Local Vaidya	0.0	2.1	1.4
Home Treatment	16.0	22.9	20.6
Others	8.3	7.9	8.0
Total %	100	100	100
System of Medicine followed			
No Treatment	8.2	7.4	7.7
Home Treatment	10.5	25.6	20.6
Magic/Exorcism	0.0	0.0	0.0
Ayurvedic	0.7	3.1	2.2
Allopathic	62.2	55.2	57.5
Homeopathy	2.3	3.8	3.3
Others	9.7	0.0	3.2
Don't know	6.4	4.9	5.5
Total %	100	100	100
Total N	8319	16763	25082

It can be observed that 53 percent had availed health facilities from the governmental sources, about 21 preferred home treatment and 17 percent had visited a private doctor. Similar patterns existed in both urban and rural areas, although, a higher percentage of dependence on government sources was noticed in urban areas. Regarding the system of medicine followed, Allopathic medicine (58 percent) turned out to be the most popular one in Nainital district. This was followed by home remedies in urban and rural areas. Nearly 26 percent of the deceased in rural areas sought home treatment. As well, it was surprising to observe that eight and seven percent of them in urban and rural areas respectively, had not availed any treatment at all. Nevertheless, it can be concluded, that a majority had gone for allopathic treatment in government institutions.

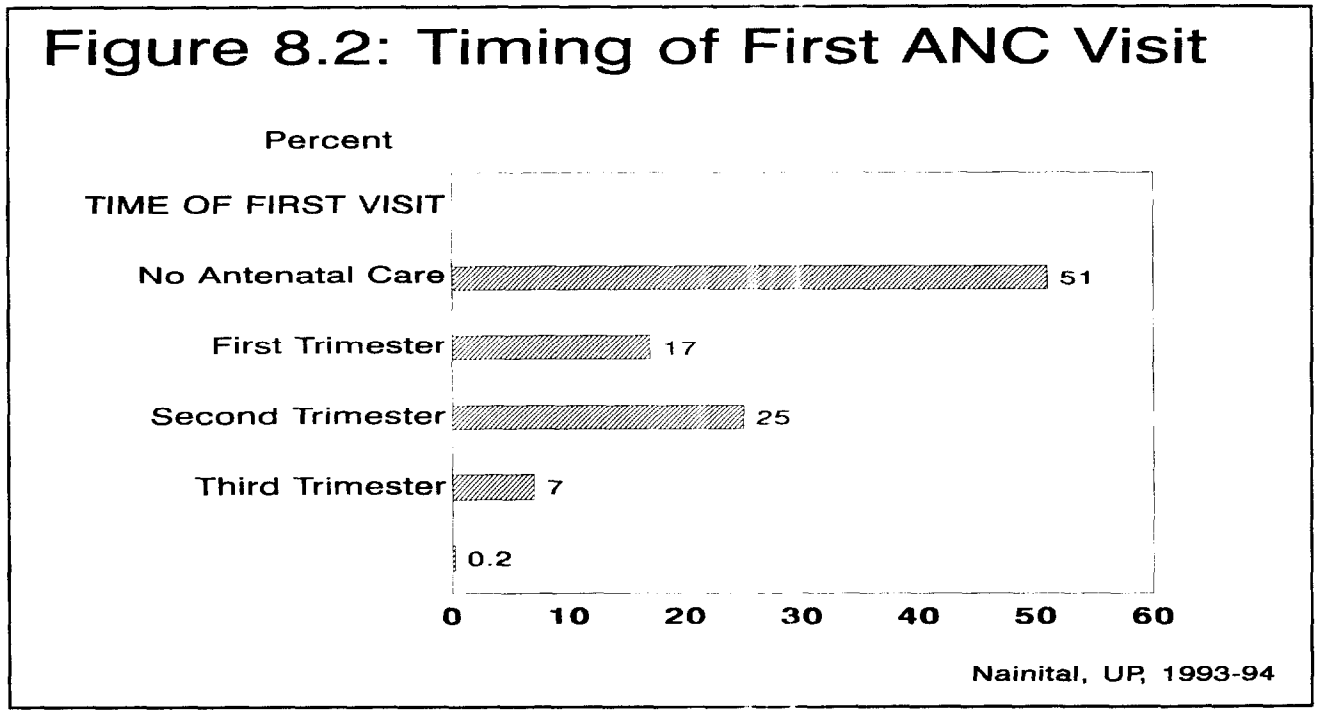
In order to understand the utilization pattern of ANC services; the following Table 8.2 has been presented. It explains the different stages of pregnancy and the time when the woman first sought an ANC check-up.

It can be observed that, the mean and median number of months, when the woman first sought ANC services was 4.4 and 4.0 months respectively. Further, examination reveal that a little over fifty percent of the women did not seek ANC services. During the first trimester only 17 percent visited and in the second trimester it went-up to 25 percent. However, during the last trimester there was a sudden drop in the percentages. These observations were similar in urban and rural areas, but the percentage of women who had no antenatal care was higher in rural areas (58 percent) than in urban areas (35 percent).

Table 8.2: Stage of pregnancy

ANC visits	*Urban*	*Rural*	*Total*
Stage of pregnancy at the time of the first ANC visit	4.4	4.5	4.4
No antenatal care	34.6	58.4	51.2
First trimester	21.9	14.4	16.7
Second trimester	34.3	21.2	25.2
Third trimester	8.9	5.7	6.7
Don't know/missing	0.3	0.3	0.2
Total %	100	100	100
Median months pregnant at first visit (for those with ANC)	4.0	4.0	4.0
Number of pregnancies in last two years	33301	79619	112920

The distressing finding from the foregone analysis, is that, a large percentage of women did not seek an antenatal care at all, and those who underwent an antenatal check-up, dropped out in their subsequent visits. Therefore, a micro plan which would encompass the target group has to planned by programme managers and monitored by the grass-root level workers, so that more women are covered under the programme (ante-natal, natal and post-natal care).



Another important dimension of maternal services is encouraging institutional deliveries and conducting deliveries under the overall supervision of trained health professionals, to ensure better health for the mother and child. To know the current situation in Nainital district, the respondents were asked where they gave birth for each birth that occurred during the two years preceding the survey, and who assisted at the delivery

Tables 8.3 and 8.4 are organized around births in the past two years. The aim is simply to document the distribution of types of services utilized by different segments of the population during delivery. In Table 8.4, the types of services is defined according to whether the baby was born at home or in a institution.

Table 8.3: Place of delivery

Background Characteristics	Place of delivery						Total %	Number of women pregnant in last two years
	Health facility				Home	Missing		
	PHC/Dist hospital	Sub-centre	Public	Private				
Mother's age at birth								
< 20	26.1	-	26.1	0.1	73.8	-	100	13871
20 - 34	24.2	-	24.2	14.0	61.8	-	100	92112
35 +	26.5	-	26.5	2.3	71.2	-	100	6937
Residence								
Urban	60.2	-	60.2	17.0	22.8	-	100	33301
Rural	9.8	-	9.8	10.4	79.8	-	100	79619
Education								
Illiterate	18.4	-	18.4	6.0	75.6	-	100	63998
Upto class 4	26.2	-	26.2	4.9	68.9	-	100	5742
Primary	29.1	-	29.1	7.6	63.3	-	100	13318
Upto middle	34.8	-	34.8	12.5	52.7	-	100	9752
Upto high	41.1	-	41.1	27.7	31.2	-	100	10038
Above high school	30.5	-	30.5	48.9	20.6	-	100	10072
Religion								
Hindu	25.5	-	25.5	14.8	59.7	-	100	84170
Muslim	15.0	-	15.0	1.2	83.8	-	100	20017
Other	38.1	-	38.1	14.9	47.0	-	100	8733
Caste								
Scheduled caste	25.6	-	25.6	3.3	71.1	-	100	24142
Scheduled tribe	19.0	-	19.0	0.8	80.2	-	100	6463
Backward caste	30.7	-	30.7	3.8	65.5	-	100	9515
Higher caste Hindu	25.2	-	25.2	27.9	46.9	-	100	44049
Total	24.6	-	24.6	12.4	63.0	-	100	112920

Table 8.3 indicate that 37 percent of the deliveries were conducted at institutions (both Public and Private) and the remaining were attended at home itself.

An analysis of data on place of delivery by background characteristics of the women depict that women aged 35 + years, were more likely to give births in institutions when compared with the other age groups. A further look by place of residence showed vast differentials between the urban and rural areas. For instance, it was noticed that 60 percent of urban women had delivered in institutions as against 10 percent in rural areas.

Additionally, it could be seen that the percentage of institutional deliveries increased with increasing educational attainment of the women; from 24 percent to 79 percent for illiterates and above high school education. Another important finding was that, as education attainment of the women increased, the proportion seeking assistance for deliveries, shifted from the government to the private doctors.

With religion, it was observed, that a higher percentage of Muslim women had delivered at home when compared with the Hindus and Others. An analysis by caste indicated, that over 80 percent of the scheduled tribe women had delivered at home whereas the same for higher caste Hindus was 47 percent. Nonetheless, it can be concluded that a majority of deliveries

in Nainital district are still being conducted at home and hence sincere efforts have to be made to increase the institutional deliveries.

Figure 8.3: Place of Delivery and Assistance During Delivery

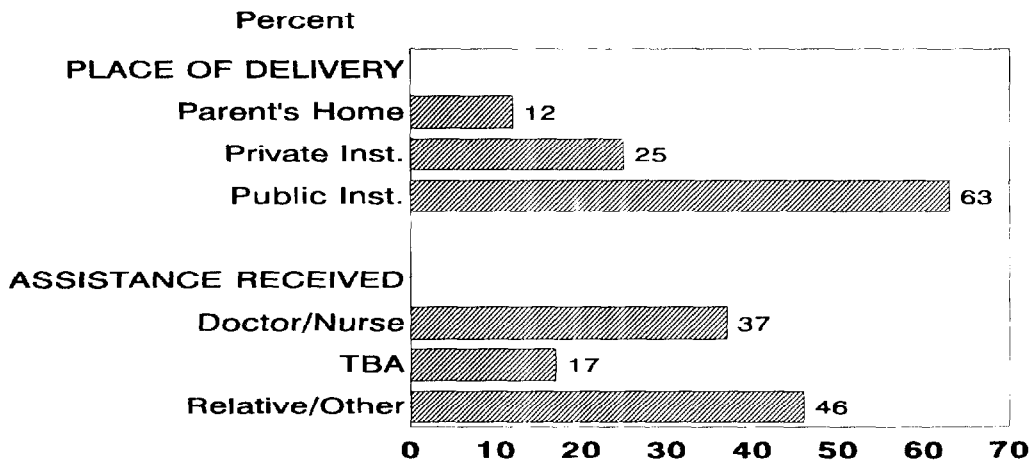


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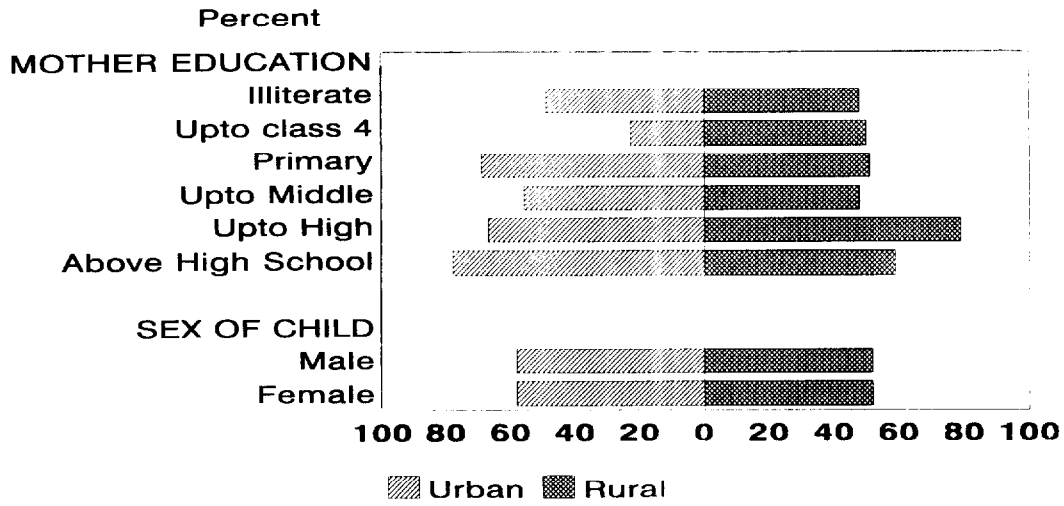
Table 8.4 shows that 54 percent of the deliveries were attended by trained personnel while the remaining were conducted by untrained persons of the total deliveries, which terminated into a live birth, 25 percent were conducted by government doctors or trained nurse, 17 percent by trained dais and another 12 percent by private doctor/nurse, while the remaining (46 percent) were conducted by untrained people. In urban areas, 84 percent of the deliveries were attended by doctors and other trained personnel while in rural areas, it was only 41 percent.

It can therefore, be inferred that the percentage of deliveries conducted by trained personnel was higher in urban areas than in rural areas. However, it is suggested that district authorities should promote/encourage more institutional deliveries in the district and especially in rural areas through updation of eligible coupele (EC) records and maintaining constant contact with the clients at the grass-root level so that a good rapport is established.

Table 8.4: Assistance during delivery

Background characteristics	*Urban*	*Rural*	*Total*
Doctor or trained nurse	60.2	9.7	24.6
Trained dai	7.0	20.7	16.7
Untrained dai	-	33.7	23.7
Family member	-	20.6	14.5
Private doctor/nurse	17.0	10.4	12.4
Others/self	15.8	4.9	8.1
Total	33301	79619	112920

Figure 8.4: Percentage of Children 12-23 Months Who Have Received All Vaccinations



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8.3 Immunization of Children

The Expanded Programme on Immunization (EPI) was initiated in India in 1978. As per the guidelines from the World Health Organization, the programme has the objectives of immunizing children against six preventable killer diseases: namely; tuberculosis, polio, diptheria, perthusis (whooping cough), tetanus and measles. One dose each of BCG vaccine for tuberculosis and measles vaccine and three doses each of DPT injection and oral polio drops should be given by the time a child is 12 months of age Booster doses of DPT and polio vaccines may be given after 12 months of age.

In order to step-up the pace of immunization, the Government of India initiated a special programme called the Universal Immunization programme (UIP) in 1985-86. This scheme has been introduced in every district of the country and has the target of achieving one hundred percent immunization coverage of infants by 1995.

Nowadays an immunization card is issued to mothers bringing their children for immunization and the card will have the particulars of each type of vaccine (number of doses and date administered/received by a child). Mothers are instructed to bring the card with them for updating each time a child is vaccinated.

The purpose of Table 8.5 is to show the percentage of 6-23 months old, who have been vaccinated by the time of the survey, and by twelve months of age. Vaccination information was obtained for all the respondents children under two years of age. Data are presented for children aged 6-23 and 12-23 months, separately because children who have completed one year should have received all the vaccinations and doses listed in the Tables 8.5a and 8.5b.

Table 8.5a show that the immunization rate of children in the district was low and therefore, there is a long way to go to achieve universal immunization coverage for young children.

Table 8.5a: Vaccination by 6-23 months children background characteristics (Urban and Rural)

Background Characteristics	Percentage of children 6-23 months vaccinated against										Number of children
	BCG	DPT			Polio			Measles	All	None	
		1	2	3+	1	2	3+				
Urban											
Sex											
Male	79.6	59.8	56.4	55.2	79.2	73.3	72.4	61.8	37.3	6.5	12902
Female	66.7	49.0	48.8	48.8	65.5	54.1	53.6	55.5	39.7	7.5	12358
Mother's education											
Illiterate	76.3	50.4	50.4	50.4	77.0	70.8	70.8	62.4	36.5	3.8	11340
Upto class 4	65.8	40.8	40.8	40.8	40.8	40.8	40.8	39.6	13.2	35.4	2196
Primary	80.2	53.3	53.3	53.3	63.4	53.3	53.3	50.8	46.0	9.9	2032
Upto middle	63.0	58.1	58.1	58.1	58.1	51.5	51.5	49.3	36.3	13.8	2578
Upto high	88.4	55.4	55.4	55.4	61.4	57.0	57.0	54.9	44.2	--	2450
Above high school	93.0	67.4	57.7	54.5	92.6	71.5	67.7	67.7	51.6	--	4664
Religion											
Hindu	75.0	58.3	58.3	58.3	87.5	80.7	80.7	64.5	43.9	2.6	15294
Muslim	62.0	39.2	33.5	31.5	54.8	40.6	38.4	55.3	24.6	17.4	7919
Others	98.8	74.4	74.4	25.0	25.0	25.0	25.0	25.0	45.3	--	2347
Caste											
Scheduled caste	69.9	40.8	40.8	40.8	51.4	36.2	36.2	48.0	24.2	11.3	2825
Scheduled tribe	--	--	--	--	--	--	--	--	--	--	--
Backward caste	54.7	45.2	45.2	45.2	45.2	45.2	45.2	--	43.5	--	1087
Higher caste Hindu	78.2	63.9	63.9	63.9	99.7	95.0	95.0	74.7	75.2	0.6	11382
Total	73.3	54.5	52.7	52.1	72.5	63.2	63.2	58.7	38.5	7.0	25260
Rural											
Sex											
Male	73.8	62.7	59.3	56.3	70.4	64.6	61.8	43.4	32.8	11.0	36818
Female	72.4	60.7	56.8	52.4	66.3	63.6	60.6	45.2	38.9	18.7	35333
Mother's education											
Illiterate	71.3	54.8	49.9	45.1	66.1	60.2	57.8	38.6	29.9	18.1	45577
Upto class 4	68.5	45.3	45.3	40.4	45.3	45.3	45.3	51.9	20.7	17.6	2983
Primary	68.8	73.0	70.5	66.8	69.5	65.2	62.5	54.1	48.8	12.8	7999
Upto middle	63.7	66.4	64.4	64.4	62.5	61.3	60.0	58.6	43.0	12.0	5187
Upto high	89.7	85.4	84.6	83.8	86.1	86.1	80.1	42.7	50.2	3.2	7528
Above high school	91.7	86.0	86.0	86.0	89.8	89.8	80.1	77.2	57.6	--	2877
Religion											
Hindu	76.6	67.1	62.4	57.6	74.3	68.7	65.4	45.9	39.5	16.9	55216
Muslim	59.0	43.7	43.7	43.7	48.4	48.4	48.4	32.3	22.7	17.3	9635
Other	65.2	44.5	44.5	44.5	49.9	49.9	46.5	47.9	25.1	15.3	7300
Caste											
Scheduled caste	82.5	56.9	44.7	30.7	79.1	64.2	54.7	46.7	51.0	25.3	17976
Scheduled tribe	43.9	41.5	41.5	39.0	41.5	41.5	39.0	28.4	28.9	8.7	6112
Backward caste	56.4	47.6	40.2	40.2	47.6	40.2	40.2	32.9	26.5	16.0	5570
Higher caste Hindu	84.7	84.7	84.7	84.7	84.7	84.7	84.7	52.4	36.8	13.1	25560
Total	73.1	61.7	58.1	54.4	68.4	64.1	61.2	44.3	35.8	16.8	72151

Table 8.5b: Vaccination by 6-23 months children background characteristics (Urban and Rural)

Background Characteristics	Percentage of children 6-23 months vaccinated against										Number of children
	BCG	DPT			Polio			Measles	All	None	
		1	2	3+	1	2	3+				
Urban											
Sex											
Male	82.2	73.0	64.0	64.0	80.0	78.2	78.2	77.0	58.0	7.6	9475
Female	74.0	63.2	58.3	58.3	70.4	61.7	61.7	58.9	58.2	11.3	9102
Mother's education											
Illiterate	66.8	64.3	51.6	51.6	67.0	60.9	60.9	59.1	49.1	16.3	7829
Upto class 4	77.7	30.8	24.4	24.4	58.6	58.6	58.6	76.6	23.0	37.6	1250
Primary	79.1	68.8	68.8	68.8	68.8	68.8	68.8	64.2	68.5	--	1765
Upto middle	78.2	69.2	69.2	69.2	69.2	69.2	69.2	68.3	56.3	--	1660
Upto high	93.0	81.0	76.3	76.3	93.0	93.0	93.0	82.3	66.9	--	2027
Above high school	93.0	80.1	77.1	77.1	93.0	80.9	80.9	76.4	78.2	--	4046
Religion											
Hindu	81.2	75.4	72.7	72.7	87.7	83.3	83.3	82.2	56.7	5.8	10773
Muslim	68.5	46.7	29.0	29.0	46.7	37.9	37.9	33.5	49.3	19.7	5677
Others	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9	--	2127
Caste											
Scheduled caste	80.5	62.8	56.7	56.7	62.8	56.7	56.7	66.2	42.0	28.7	1742
Scheduled tribe	--	--	--	--	--	--	--	--	--	--	--
Backward caste	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	--	982
Higher caste Hindu	85.1	81.3	78.9	78.9	97.6	93.2	93.1	96.0	60.7	15.5	8050
Total	78.2	68.2	61.2	61.2	75.3	70.1	70.1	68.1	58.1	9.4	18577
Rural											
Sex											
Male	76.3	66.2	61.9	61.4	72.7	69.6	69.6	59.8	52.3	10.9	28959
Female	67.9	59.5	59.1	56.0	64.7	63.3	59.0	53.5	51.7	25.0	24924
Mother's education											
Illiterate	71.5	57.2	53.4	50.7	65.9	62.3	59.1	53.4	47.7	16.7	33982
Upto class 4	49.7	49.7	49.7	49.7	49.7	49.7	49.7	49.7	49.7	38.3	2071
Primary	65.9	68.9	68.0	68.0	68.0	68.0	68.0	58.1	50.8	33.1	5810
Upto middle	63.2	62.2	62.2	62.2	62.0	62.0	62.0	49.2	48.3	22.8	4382
Upto high	93.1	88.7	88.7	88.7	93.2	93.2	93.2	82.4	78.6	--	6265
Above high school	91.0	91.0	91.0	91.0	91.0	91.0	91.0	58.6	58.6	--	1373
Religion											
Hindu	72.8	62.8	60.0	57.7	68.0	65.6	65.4	60.4	58.0	16.0	39903
Muslim	68.5	61.1	61.1	61.1	64.9	61.5	52.2	42.0	32.5	32.5	7536
Others	74.6	67.1	64.0	64.0	79.7	79.7	75.0	52.4	37.4	20.7	6444
Caste											
Scheduled caste	59.9	52.7	51.9	49.6	60.4	60.4	60.4	51.8	53.0	17.7	13131
Scheduled tribe	60.8	60.8	60.8	60.8	66.0	66.0	66.0	36.6	42.0	15.3	2866
Backward caste	68.0	62.9	57.9	57.9	93.5	87.3	86.3	54.5	68.9	32.0	4509
Higher caste Hindu	84.4	70.0	65.8	62.5	67.6	64.0	63.8	71.2	61.3	11.3	19400
Total	72.4	63.1	60.6	58.9	69.0	66.7	64.7	56.9	52.0	17.4	53883

Based on information reported by the mother in urban areas, about 39 percent of the children were fully immunized and about seven percent had not received a single dose of these vaccines, while the remaining children had been partially immunized. In rural areas, 36 percent were fully immunized and another 17 percent had not received a single dose of the recommended vaccines.

Overall, vaccination coverage of individual vaccines in urban areas was quite high. In urban areas, the coverage of children for BCG was 73 percent. About 52 and 63 percent of children had received three doses of DPT and Polio. Vaccination against measles was given to 59 percent of children. Not all children who began the DPT and Polio series went on to complete it. This trend was also found to be true in rural areas.

Moreover, when analyzed with sex of child, it was surprisingly found that a higher percentage of females were fully immunized than males. Differentials in immunization coverage were greatest by education of mother. For instance, the proportion of children who received all vaccinations increased with increasing education of mothers.

Analysis by religion reveal, that Muslim children were the least immunized and a further break-up by caste indicate, that children from higher caste Hindu families were fully immunized.

Likewise, the immunization data was analyzed for children aged 12-23 months. It was found in urban areas, that 58 percent of children were fully immunized and about seven percent had not received a single dose of the vaccine while the same in rural areas were 52 and 17 percent respectively. On the whole, the coverage of immunization was slightly higher in urban areas than in rural areas and analysis by other background characteristics such as education, religion and caste, indicated a similar trend as visualized for 6-23 months children. However, with sex of the child,,it was found that more males were fully immunized than females in rural areas.

Nevertheless, it can be inferred that there were less disparities in immunization coverage between males and females and place of residence did not have any significant affect, although the level of mothers education did have a strong impact in the district.

8.4 Utilization of Public Health Services

This section attempts to assess the extent of contact between clients and providers, degree of utilization, and similar related issues.

It can be seen in Table 8.6 that, 43 percent of the women/ households preferred using the public sources, followed by the private sources/doctors (32 percent). Another 24 percent of them sometimes preferred to the public sources and sometimes the private sources, while the remaining reported "others" sources. This pattern was found to be similar in urban and rural areas.

Furthermore, the reasons for preferring the private source always, were asked to women/households, who responded to this question. It was found that a majority (83 percent) preferred the private source, because of better treatment. This was followed by the response "Near to my house". Also "Bad behavior of PHC staff" accounted for 10 percent of the responses and this pattern was true for both urban and rural areas.

In addition, women who always reported public sources, were asked the certainty about availability of doctors at PHC. It was found that 43 percent were not certain, 38 percent were quite certain while the remaining 19 percent did not know. Once again, similarities in the responses were observed the urban and rural areas.

Table 8.6: Preferred sources of medical assistance during sickness

	Urban	*Rural*	*Total*
Preferred sources			
Always public sources (PHC/CHC, District Hospital, SC)	39.0	44.7	42.6
Sometime public source and sometime private	24.3	24.1	24.2
Always private source/doctor	34.3	30.1	31.6
Others	2.4	1.1	1.6
Reasons for always preferring private source			
Cheaper treatment	10.4	7.5	8.6
Near to my house	39.2	39.9	39.6
Better treatment	86.5	80.6	82.9
PHC/SC are far off	0.6	4.5	3.0
Bad behaviour of PHC staff	11.6	9.1	10.0
No alternative	13.8	3.9	3.9
No medicines available	2.3	4.4	3.6
No staff/doctor available	3.4	2.6	2.9
Takes more time at government hospital	12.6	2.9	6.7
Others	1.1	0.7	0.9
Can't say/Don't know	0.1	0.4	0.3
Certainty about availability of doctor at PHC			
Quite certain	35.5	39.6	38.2
Not certain	41.9	43.4	42.9
Do not know	22.6	17.0	18.9

In Table 8.7, the percentage of women reporting payment at public clinics and readiness to pay if services are improved has been presented.

Table 8.7: Payment for the services at public clinics

	Urban	*Rural*	*Total*
Percent of women reporting payment at health centres	21.4	29.3	26.6
Percent ready to pay for services if it improves	79.8	73.9	76.1

It can be seen that 21 and 29 percent of the women in urban and rural areas respectively, had paid for the services at the health centres, inspite of knowing that government services are provided free of cost. Therefore, in the BSUP, women who had not paid and women who were availing from private sources, were asked if they would pay for the services at public clinics, if the services improved. Majority of women, in urban (80 percent) and rural (74 percent) areas reported that they would not mind paying for the services, if the quality of services improved. Based on these findings it can be generalized, that majority of women in Nainital district expressed their willingness to pay if the quality of services improved.

Table 8.8 provides the contact of women/households with the health workers. It can be observed that a small percentage of women or their households had ever visited/contacted the health workers during the last three months. For instance, nine and twelve percent of women/households in urban and rural areas, had contacted the health workers. Also, the average number of contacts the woman made was found to be insignificant.

Regarding, the health workers visit during the same period, it was observed that only two and twelve percent of the women/households in urban and rural areas were visited. This implies and confirms that the overall coverage by the health staff was very low.

Furthermore, women/households who mentioned the visit of workers, were asked the number of persons visited, and the frequency of their visit. It was noticed that the first person had visited more households than the others. However, in urban areas, it was seen that the second person had covered more women/households while in rural areas, the coverage by the first person was as high as 57 percent.

As far as the frequency of visits during the last three months were concerned, it was found that the coverage by both the first and second persons during their first visit were as high as 83 and 65 percent respectively. During their subsequent visits, the percentages dropped down to four and seven percent respectively. This clearly indicate the low coverage of the health staff.

Table 8.8: Client-providers' Contact

	Urban	*Rural*	*Total*
% of women or her HH member contacted PHC/SC workers during last 3 months	9.1	11.9	10.9
Average number of contacts with PHC/SC workers			
Mean	0.2	0.2	0.2
SD	2.6	0.8	0.7
% of households visited **by workers** in the last 3 months	2.4	11.8	8.4
% of households reported visit of			
1 person	28.5	56.6	53.7
2 person	51.3	35.6	37.2
3 or more person	20.2	7.8	9.1
Total %	2940	25692	28632
Frequency of visit during last 3 months			
1st person			
1	63.4	85.3	83.1
2	16.4	12.9	13.3
3 or more times	20.2	1.8	3.6
2nd person			
1	68.2	63.8	64.5
2	8.8	32.4	28.7
3 or more times	23.0	3.8	6.8
Who visited last			
ANM/LHV	36.8	75.8	71.8
Male workers	38.6	7.3	10.5
Doctor	24.6	4.5	6.7
Others	-	12.4	11.0
Percent of families reporting at least one contact with public health service providers	9.1	11.9	10.9

Additionally, women/households were asked who visited them last. Majority of them (72 percent) reported that ANM/LHV visited them last, followed by others and male workers (11 percent each), and doctor (7 percent). Nevertheless, in urban areas it was found that male workers (39 percent) and doctors (25 percent) visited more household than their counterparts

in rural areas. Based on these findings, it can be inferred that the overall coverage by the health staff was low, and the coverage between the first and third visits dropped significantly. Furthermore, the percentage of women or her household members, who contacted the PHC/SC workers during the last three months, was also found to be low. Hence, it is suggested to strengthen the interaction between the client and providers, because the success of the programme totally depends on these grass-level workers.

To understand the quality of client provider interface, a series of questions were asked to the women on time spent, satisfaction with assistance, opinion on revisits and the villager's opinion, in the BSUP. Table 8.9 provides the level of satisfaction with the workers visit, as perceived by the women.

8.9: Quality of client-provider interface

	Number of women reporting visit of a worker	*Provided enough time*	*Satisfied with assistance provided*	*Would like her to visit again*	*Villagers hold good opinion about the worker*
Urban	2940	47.0	91.0	86.0	43.0
Rural	25692	54.4	93.2	94.5	54.9
Total	28632	53.6	93.0	93.6	53.7

Majority (53 percent) of the women reported that the ANM provided enough time, and this was higher in rural areas (54 percent) than in urban areas (47 percent). In other words, the rural women felt that the ANM gave them time, as long as needed. For other questions such as level of satisfaction, opinion on revisits and opinion of satisfaction, opinion on revisits and opinion of villagers, they were very positive (the level of satisfaction was as high as 93 percent and for opinion on revisits and that of villagers, it were 94 and 54 percent respectively). Similar patterns were observed in both urban and rural areas. It can therefore, be inferred that, overall, the respondents were satisfied with the services provided by the ANM. Yet, it is suggested that the coverage in the district has to be increased.

In the following Table 8.10, an assessment of the level of information provided by health workers on the various methods of family planning will be analyzed. Before, any further analysis is done, it has to be mentioned the only currently married women/households who were visited by a health workers, specifically, for providing family planning services were included.

Table 8.10: Level of information (detailed) provided about various methods by workers

Methods	*Percentage reported that*				
	Method was mentioned	*Informed advantages and disadvantages*		*Informed how to use*	*Informed about source*
		Both	*None*		
Vasectomy	49.2	55.7	5.2	78.4	87.3
Tubectomy	84.6	55.9	5.1	87.3	95.2
IUD/CuT	47.6	46.2	9.9	71.1	90.1
Pills	48.9	36.4	14.2	78.7	85.8
Condom	47.7	46.0	9.8	85.8	86.0
Withdrawal	0.4	100	--	--	--
Safe period	--	--	--	--	--

It can be observed in general, that health workers had provided more information on the modern methods rather than traditional methods of family planning. Among the modern

methods, a large proportion (85 percent) of women were informed about Tubectomy whereas information provided on other methods was more or less same, around 50 percent. Nevertheless, it was surprising to notice that spacing methods of contraception were not being emphasized.

Additionally majority of women were informed about both the advantages and disadvantages of the various methods of family planning, and in the present context, only two responses (both & none) have been included. If indicate that spacing methods such as the IUD/Cu-T, oral pills and condoms were not mentioned to 10, 14 & 10 percent of women respectively, whereas the same for terminal methods, it was only five percent.

Furthermore, women who reported that "methods" were mentioned by the health workers, were also informed how the "methods" were used and the sources from where it can be obtained. It was found that more than 70 percent were informed about the use of "methods" could be obtained.

Regardless, it can be inferred that the respondents household where "methods" were mentioned, were also provided with adequate knowledge about the advantages/disadvantages, use and sources of various methods by the health workers.

Table 8.11 presents the perception of women about the ANM. A set of questions concerning the ANMs were asked and respondents opinion have been solicited in the BSUP.

Regarding, the question that a young ANM is better than a traditional dai for assisting delivery, it was found that there was a consensus in the opinion of a majority of women (67 percent). The percentage of women who agreed to this question, was higher in urban areas (77 percent) than in rural areas (61 percent).

The next statement posed to the respondents/women was that, a high caste ANM does not want to attend delivery of scheduled caste women. It was observed that only 28 percent agreed to this and the percentage of women who agreed, was slightly higher in urban areas than in rural areas.

Table 8.11: Perception of women about ANM

	Urban	*Rural*	*Total*
% agreeing that a young ANM is better than a traditional dai for assisting delivery	76.9	60.8	66.6
% agreeing that a high caste ANM does not want to attend delivery of scheduled caste women	29.6	27.7	28.4
% agreeing that ANM/Nurse belonging to SC are not acceptable among high caste	33.9	22.9	26.9
% agreeing that ANM often do not want to visit or attend delivery in poor families	43.5	41.7	42.3

Later, the women were asked, whether the ANM belonging to SC are not acceptable among high caste. It was observed that 66 and 77 percent of the women in urban and rural areas, respectively, disagreed to it.

Lastly 44 and 42 percent of the women in urban and rural areas, felt that the ANM often did not want to visit or attend delivery in poor families

It can however, be concluded that the ANM's were visiting a cross-section of the society, but it is suggested that, ANM's should also give equal importance to all the families (irrespective of the caste the woman belongs), where her assistance is very much important and essential.

Recapitulate

By and large, the utilization of ANC services was reasonably good in Nainital district, with about fifty percent having undergone physical check-up during the different stages of pregnancy. The percentage of those, who had undergone an ANC check-up, was as expected, higher in urban areas than in rural areas. Moreover, it was observed that women with above high school education had utilized more ANC services than others. Similarly, a higher percentage of institutional deliveries were observed in urban areas than in rural areas. The percentage of home deliveries in rural areas was as high as 80 percentage.

Regarding, immunization to children aged 6-23 months, it was found that 39 and 36 percent of them were fully immunized, while seven and 17 percent had not received a single dose of the recommended vaccines in urban and rural areas respectively. In order to achieve universal immunization, Nainital district has a long way to go.

As far as utilization of health services was concerned, it was noticed that majority of the population were following the allopathic system of medicine, and were availing the services from the public sources inspite of infrequent coverage and inadequate contact between the respondents and the health workers. Despite, their low coverage, majority of the respondents who were visited by them, expressed their satisfaction for the services provided.

In addition, it was found that the mortality levels measured in terms of CBR and IMR had declined when compared with the state average. The values of these indicators were found to be lower in urban areas than in rural areas.

CHAPTER IX

COMMUNITY LEVEL VARIABLES

9.1 Village Information Sheet

As mentioned in chapter 2, the village information sheet was also canvassed in the BSUP survey. In Nainital district, a total of 67 PSU's (which included 69 villages) were covered in the sample and in all these selected villages information pertaining to the availability of various infrastructural amenities were collected from several persons such as Pradhan/Sarpanch, Patwari, PHC/SC staff and School teachers.

Table 9.1: Village Level Information of the Selected Villages in Nainital District

Sr. No.	*Item*	
1	Number of villages selected	69
2	Number of PHC villages in the sample	3
3	Number of SC villages in the sample	10
4	Average distance (in kms) from main road Nearest;	
	SC	5 kms
	PHC	12 kms
	CHC	25 kms
	District headquarter	55 kms
5	Presence of;	
	Primary school	90%
	Secondary school (combined)	25%
6	Total no. of medical practitioners	80
7	No. of villages where the medical practitioners provide FP services including FP advices	10
8	No. of Medical Shops	29
	Retail outlets stocking	
	Condoms	5
	Oral Pill	4
9	CBD network for	
	Condoms	9%
	Oral Pills	9%
10	No. of trained dais	45
	No. of untrained dais	63
11	Panchayat Members	153
12	No. of Panchayat Members promoting FP	53

In the selected villages, three PHC and 10 sub-centre villages were located while the remaining were all remote villages. On an average, a villager from the remote village had to travel approximately 5 kms. to avail services from the nearest SC, about 12 kms to seek assistance from the PHC, 25 kms. to reach the nearest CHC and over 50 kms to reach the nearest district head quarter.

Educational facilities were also available in these villages. Nearly, 90 percent of them had

access to primary schools while the same for secondary schools was only 25 percent.

Regarding, medical facilities it was observed that there were 80 medical practitioners, 45 trained and 63 untrained dais, besides the PHC/SC staff to cater to the medical needs of the population residing in the selected villages. Furthermore, it was found that in only 10 villages, family planning services and advice were being provided by the private medical practitioners. The selected villages also had 29 medical shops and only five of them stocked condoms and oral pills respectively.

The CBD network in these villages was very poor. The NGO's, Anganwadi's and local organisations were not strongly committed in promoting the family planning services. However, it was interesting to find that 35 percent of the panchayat members were involved in Family Planning Promotion.

9.2 CHC/PHC/SC Information

The CHC/PHC/SC information sheet was used to collect information on the status of the centres in terms of infrastructure, availability of manpower, cold chain and family planning equipments on the one hand and supply of vaccines and contraceptives on the other in the selected villages which had these facilities `within the village' itself.

In Nainital district, three PHC and 10 subcentre villages were identified in the sample. Majority of the PHCs and SCs were located in government owned buildings with electricity facilities. With regard to the PHCs, it was found that two of them had an operation theatre which were functioning and it was surprising to see that the PHCs did not have vehicles.

Regarding, the availability of manpower, it was felt that a few PHCs/SCs were over-staffed and a few were under-staffed. In other words, it can be said that staffing patterns were not uniform.

Later, questions related to the functioning of cold-chain equipments and supply of vaccines (during the last six months) were analysed. It was distressing to find that none of the PHCs had an ILR equipment and furthermore it was shocking to see that two PHCs did not have a refrigerator and the one which they had was also non-functional. However, the PHCs were well equipped with vaccine carriers and thermos and the supply of vaccines was found to be regular and adequate. In the case of SCs, it was found that they possessed vaccine carriers and thermos and the supply of vaccines was irregular but adequate.

With regard to the working condition of family planning equipments and supply of contraceptives, it was observed that all the equipments excepting the laproscopy equipment were in working condition and were also being attended to by trained personnel. Moreover, the supply situation of contraceptives was found to be regular and adequate in both PHCs and SCs. However, the supply of IEC materials for family planning was neither regular nor adequate and this had resulted in poor publicity.

It is therefore suggested that a proper review into the staffing patterns and status of various equipments has to be done to further improve the MCH and FP services. Also the IEC component needs to be strengthened in Nainital district.

Background of Selected Area

In urban areas of the district, a total of 7 towns and 33 blocks within these towns were selected and in rural areas a total of 67 villages were selected - the details of which are given below.

a List of the selected urban/rural areas:

i Urban Sample

Stratum	*Towns*	*Population (1991)*	*No. of Blocks selected*	*PSU Code*
I	Haldwani	104195	7	8-14
II	Kashipur	69870	18	1-7
	Rudrapur	61280		21-26
	Ramnagar	37281		27-30
	Kichha	21131		15
III	Bazpur	16857	8	16-20
	Gadarpur	9487		31-33

ii Rural Sample

List of selected Villages in Nainital District for BSUP Project

Tehsil Name	*PSU Code*	*Village Name*	*Households*	*Popn. (1991)*
Kashipur	34	Gotam Nagar	109	643
Kashipur	35	Tanda Malloo	121	795
Kashipur	36	Ladwachaur	61	381
Kashipur	37	Rajpur	507	2869
Kashipur	38	Hamirawala	58	342
Kashipur	39	Niwar Mandi	147	811
Kashipur	40	Halduashahu	164	1019
Kashipur	41	Lalpur	296	1832
Kashipur	42	Firojpur	123	613
Kashipur	43	Kachnal Gosion	1008	4325
Kashipur	44	Dhakia Gulaboo	141	962
Kashipur	45	Banskhera Khurd	394	2322
Kashipur	46	Rajpura No. 2	68	435
Kashipur	47	Mundia Kalan	448	2301
Kashipur	48	Betkheri	226	1315
Kashipur	49	Sehali	79	448
Kashipur	50	South Jaspur Range	826	4352
Kashipur	51	Ramnagar Range	428	1598
Nainital	52	Chhara	34	165
Nainital	53	Aghora	120	635
Nainital	54	Kuriya Gaon	292	1622
Nainital	55	Rausil	76	485
Kosya Kutauli	56	Chhapar	233	925
Kosya Kutauli	57	Bishguli	31	166
Kosya Kutauli	58	Lohali	105	621
Dhari	59	Ladfora Malla	56	276
Dhari	60	Pataliya	140	773
Dhari	61	Kachila Kot	53	320
Dhari	62	Kakore	75	384
Haldwani	63	Awala Khot	447	1969
Haldwani	64	Pipalchora	23	141
Haldwani		Ranjitpur	15	99
Haldwani	65	Bajuniya Haldu	229	1141
Haldwani	66	Ramrijasua	24	144
Haldwani		Dhuni Nol	24	123

Haldwani	67	Mukhani	1405	7267
Haldwani	68	Bera Pokhara	68	431
Haldwani	69	Haripur Purnanand	176	856
Haldwani	70	Halduchaur Parma	45	279
Haldwani	71	Katan Khanwal	31	203
Haldwani	72	Gola Range	4785	24800
Kichha	73	Madanapur	279	1654
Kichha	74	Dhanpur Vijaipur	335	1775
Kichha	75	Boora Nagar	191	1080
Kichha	76	Vijay Nagar	835	5361
Kichha	77	Bhoora Rani	337	1971
Kichha	78	Simla Bahadur	45	306
Kichha	79	Fulsungi	113	743
Kichha	80	Khamia Block No. 4	282	1789
Kichha	81	Bandia	1451	7288
Kichha	82	Khurpia	176	854
Kichha	83	Shahdaura	510	2991
Sitarganj	84	Baikunthpur	697	4229
Sitarganj	85	Kalyanpur	120	693
Sitarganj	86	Surendra Nagar	162	1147
Sitarganj	87	Tiliyapur	273	1851
Sitarganj	88	Kunwarpur	238	1338
Sitarganj	89	Sarkara	512	2529
Sitarganj	90	Bidaura	264	1627
Sitarganj	91	Bidauri	56	459
Khatima	92	Biriya	217	1362
Khatima	93	Bilheeri	359	2007
Khatima	94	Kutari	235	1468
Khatima	95	Anandpur	147	530
Khatima	96	Umru Khurd	857	5416
Khatima	97	Baguliya	293	1704
Khatima	98	Uldan	132	962
Khatima	99	Naushar	312	2352
Khatima	100	Haldi	140	734

Nainital Field Staff

Field Officer

1 Govind Singh Yadav

Office Editiors

1 Ms. Kamla Pant
2 Mrs. R.K. Singh

Field Supervisors

1 Alok Nimblekar
2 Rajeev Kumar Sharma
3 S.K.Sharma
4 Mahesh Mahitolia

Field Editiors

1 Jyotsana Chaudhary
2 Santosh Rani
3 Meena Pandey
4 Mamta Khandaka

Field Investigators

1 Manju Joshi
2 Shashikala
3 Madhu Lata
4 Anandi Joshi
5 Devaki Pant
6 Jaya Barma
7 Mamta Rawal
8 Rekha Singh
9 Deepa Bhandari
10 Prabha Bhandari
11 Pushpa Rawat
12 Sunita Danu
13 Ritu Mehara
14 Devaki Banoula
15 Shashi Bala Joshi
16 Bhagwati Tiwari

Reserve Team

1 Mukund Singh (SUP)
2 Kanchan Chaurasiya (EDI)
3 Usha Dalakoti
4 Hira Gariya
5 Mahima Bhandari
6 Renu Upreti

House Listing Investigators

1 Lalit Mohan Joshi
2 Lalit Mohan Pandey
3 Bhuwan Chandra Joshi
4 Mohan Singh Karki
5 Siraj Ahemad
6 Syad Ahmed
7 Dev Singh
8 Surendra Pandey
9 Atul Kumar Sharma
10 Mohamad Anis
11 Kalish Chand Karki
12 Sarfaraz Ahemad