

**BANGLADESH
CONTRACEPTIVE
PREVALENCE
SURVEY - 1991**

Final Report



MITRA & ASSOCIATES
Dhaka, Bangladesh

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PREVALENCE SURVEY - 1991**

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July 1993

FOREWORD

Contraceptive prevalence surveys are important tools for monitoring and evaluating population programs. They provide rapid feedback to policy makers and program managers on the status of implementation of the programs. Thus, the 1991 CPS information can be used to formulate corrective measures on current program issues and help develop its future policies and plans.

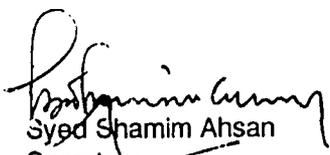
The *1991 Contraceptive Prevalence Survey* is the sixth CPS conducted in Bangladesh. Previous surveys were carried out in 1979, 1981, 1983, 1985/86, and 1989. We thus have data for eleven years to observe demographic and programmatic patterns and trends.

These data show a steady decline in fertility and infant mortality and steady increase in contraceptive knowledge and use. In addition, it shows that a substantial number of Bangladeshi women are either currently spacing and limiting their births or desire to do so. A small family norm thus appears to have taken root in Bangladesh. Policy makers, program managers, and family planning personnel at the grassroots level can take great pride in this achievement.

Mitra and Associates, a private Bangladeshi research firm was given the responsibility for conducting the *1991 Contraceptive Prevalence Survey*. I am happy to note that Mitra and Associates have completed the task with professional excellence.

A Technical Review Committee was constituted by the Government of Bangladesh through the National Institute of Population Research and Training (NIPORT). The Technical Review Committee was composed of representatives from the Government, USAID, Mitra and Associates, and prominent Bangladeshi researchers. The contribution of this committee is an example of the close cooperation between the Government, donor, and research communities in the family planning sector.

I thank all parties for this excellent report, the findings of which are useful to us in setting the directions and priorities of the future program.



Syed Shamim Ahsan
Secretary
Ministry of Health & Family Welfare
Government of Bangladesh
July 1993

PREFACE

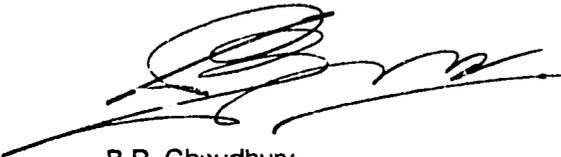
As the Chairperson of the Technical Review Committee (TRC) for the *1991 Contraceptive Prevalence Survey*, I am pleased to introduce this final report.

The *1991 Contraceptive Prevalence Survey* is the sixth survey of its kind being conducted in Bangladesh since 1979 for the purpose of providing rapid feedback of key demographic and programmatic indicators to monitor the strengths and weaknesses of the national family planning program. The wealth of information collected through 1991 CPS will be of immense value to policy-makers and program managers for strengthening of program policies and strategies in future.

The TRC is composed of members with professional expertise in the field of population/family planning research and its membership was drawn from government, non-government, donor agencies and individual researchers. The professional contribution of the TRC members, in major phases of the study, helped ensure collection of information needed for providing the present status and also the future program directions.

The Key Findings of the study were released in July 1992 and were distributed both nationally and locally down to the *thana* level. They were published in both English and Bangla. The TRC also plans to host a workshop to discuss the findings and their implications for future program policy.

On behalf of the 1991 CPS Technical Review Committee, I express my heartfelt thanks to all officers of Mitra and Associates for their hard work in completing this study on time and with professional excellence.



B.R. Chaudhury
Director General, NIPORT
and Chairperson of TRC for
the 1991 CPS

ACKNOWLEDGEMENT

Since 1979, the *1991 Contraceptive Prevalence Survey* is the sixth CPS conducted to evaluate the performance of the National Family Planning Program in Bangladesh. Like previous CPSs, it was sponsored by the Government of Bangladesh and funded by the United States Agency for International Development. We are grateful to both the Government of Bangladesh and USAID for awarding us the contract to conduct this survey.

Although the Mitra and Associates had the sole responsibility to carry out the survey, it could not have been completed without the cooperation of the Directorate of Family Planning, the National Institute of Population Research and Training (NIPORT), and the United States Agency for International Development. We gratefully acknowledge the support by these organizations at different stages of the study.

We give special thanks to the Technical Review Committee, a body constituted by the Government with high level experts from both the Ministry of Health and Family Welfare and other organizations. This committee approved and oversaw the survey. The TRC improved the survey's methodology and implementation. We are indebted to Mr. Nazmul Huq, the former Director General of NIPORT, who as the convener of the TRC ensured its full cooperation. We are also grateful to Mr. B.R. Chaudhury, the present Director General of NIPORT for his whole hearted help as the convener of the TRC in bringing out this report.

Mr. William R. Goldman and Mr. David L. Piet, Director & Deputy Director respectively of the Office of Population and Health, USAID/Dhaka deserve our thanks for their efforts ensuring USAID's continuous cooperation in the implementation of the survey.

We are thankful to Sheryl Keller and Ann Larson of USAID for their important roles in helping to design the questionnaire and survey methodology. We are also indebted to Sk. Ali Noor and Elma Chowdhury of USAID for monitoring the field work of the survey and Dr. Charles Lerman for helping with the data analysis and interpretation. We would like to thank Anne Cross from the *Demographic and Health Surveys* for reviewing the entire final draft of this report and M. Ak. Jdin, Karen Allen, Nowab Ali, John Haaga, Robert Karam, Barkat-E-Khuda, Daniel Lissance, Peter Miller, and Mizanur Rahman for reviewing preliminary draft sections of it.

The personnel of the Ministry of Health and Family Welfare deserve our gratitude for their close cooperation with the interviewing teams. Without their active support, the interviewing teams would have found it impossible to have successfully collected the data.

Personnel of Mitra and Associates carried out the survey by performing assigned tasks diligently and promptly. While extending our deepest appreciation to all of them, a special word of thanks should go to Mr. Shahidul Islam, the Deputy Project Director. Having extensive experience with survey research, he worked long hours to ensure the success of the survey.

Finally, we remain grateful to the thousands of respondents who gave their valuable time to be interviewed.



S.N. Mitra
Project Director

1991 Contraceptive Prevalence Survey

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EXECUTIVE SUMMARY

The *1991 Contraceptive Prevalence Survey* was a nationally-representative sample survey of ever-married women under age 50 that was conducted between June 7 and October 15 1991. The survey was designed to collect data on the patterns and trends of marriage, fertility, contraceptive awareness and use, source of contraceptive supply and fieldworker visitation, fertility preferences, and child health and child survival. In all, 12,050 ever-married women were interviewed--8,973 in rural areas and 3,077 in urban areas. The *1991 Contraceptive Prevalence Survey* was a follow-on to similar surveys conducted in 1979, 1981, 1983, 1985/86 and 1989.

The survey documents that social and economic development among women remains low in Bangladesh. Sixty one percent of ever-married women of reproductive age have never attended school and eighty-four percent are either not employed or have unpaid jobs. In addition, the mean age of marriage for women is only 17.7 years.

Findings from the *1991 Contraceptive Prevalence Survey* point to a rapid decline in fertility in Bangladesh that coincided with the introduction of the field-based National Family Planning Program. At current levels, Bangladeshi women will have an average of 4.2 children during their reproductive years. This represents a considerable decline from the levels of closer to five children per woman that were reported in surveys conducted in 1989. Fertility rates are considerably higher among women in Chittagong Division than among women in the other three divisions. Adolescent childbearing also remains extremely high in Bangladesh, with sixty percent of 19-year old women either already mothers or pregnant with their first child. Survey findings imply that expansion of employment opportunities and especially educational opportunities among women would help to spur further fertility reduction.

Forty percent of all currently married women in Bangladesh are using contraception, thirty-one percent modern methods and nine percent traditional methods. The pill (fourteen percent), tubectomy (nine percent) and the safe period (five percent) are the most commonly used methods.

The level of contraceptive use has accelerated in recent years. In 1989, only thirty-one percent of married women were using a contraceptive method, compared to forty percent in 1991. Most of the rise in contraceptive use has been fueled by increasing use of the pill. Injectable use also enjoyed a solid increase between 1989 and 1991. However, use of tubectomy, which only a few years ago was the most commonly used method, remained constant between 1989 and 1991.

Contraceptive use is highest among women in Rajshahi and Khulna Divisions and lowest among women in Chittagong Division. There are strong differentials in contraceptive use by educational attainment of women, ranging from thirty-seven percent of women with no education to fifty-two percent of those with secondary education.

Survey data show that awareness of at least one contraceptive method is universal among Bangladeshi women. All but a tiny fraction of ever-married women have heard of the pill, tubectomy and injectables. Favorable attitudes towards family planning are also widespread. A solid majority of Bangladeshi women said that they approve of early adoption of family planning by married couples. Furthermore, three-quarters of married Bangladeshi women believe that their husbands approve of family planning.

The most important sources of family planning are clinics and hospitals (forty-three percent of contraceptive users), fieldworkers (thirty-eight percent), and pharmacies and shops (thirteen percent). Just over one-third of currently married women said they had been visited by a family planning fieldworker in the six months before they were interviewed.

Forty percent of married Bangladeshi women say that they do not want any more children. An additional twenty percent are either sterilized, infecund or menopausal. Of those who want to have another child, two-thirds want to wait two years or more before the next birth. In all, twenty-eight percent of married women are considered to have an unmet need for family planning, that is, they say they either want no more children or they want to wait two or more years before having their next child and yet they are not using any contraceptive method.

Infant mortality rates appear to be declining rapidly in Bangladesh, although the exact level and magnitude of the decline are not known due to fluctuations in the data within and between surveys. With regard to indicators of child health, the survey shows that the duration of breastfeeding is long and does not appear to be declining over time. The prevalence of diarrhea is still high in Bangladesh; just over one-third of children under the age of five had diarrhea during the two weeks before the survey. Use of oral rehydration therapy remains low, with only twenty-two percent of children who had diarrhea being given either a solution made from a packet or a homemade sugar, salt and water solution. On the positive side, survey data show that eighty-three percent of children age 12-23 months have received at least one immunization and forty-four percent of children under age five received a Vitamin A capsule within the six months prior to the survey.

CHAPTER 1

INTRODUCTION

The *1991 Contraceptive Prevalence Survey* is the sixth survey of its kind in Bangladesh. These surveys were begun in 1979 and continued in 1981, 1983, 1985/86, and 1989. They are designed to give a reading on the patterns and trends of marriage, fertility, contraceptive awareness and use, source of contraceptive supply and fieldworker visitation, fertility preferences, and child health and child survival. Not only is this information valuable for its own sake, but it also gives policy makers and program managers information needed to gauge the current status of their programs and to chart new directions for them.

This report gives the complete findings of the *1991 Contraceptive Prevalence Survey*, and it will primarily be used by the Government of Bangladesh, non-governmental organizations and related agencies, the donor community, and technical experts. An earlier, more abbreviated report, the *Key Findings of the 1991 Contraceptive Prevalence Survey*, was published in July 1992 for a general audience. It was published in both English and Bangla. Over two-thousand Bangla copies were distributed to program managers and field staff in Bangladesh's sixty-four districts and 489 *thana* (subdistricts).

Contraceptive prevalence surveys from 1983 to 1991 were conducted by Mitra and Associates through a contract by the Government of Bangladesh and the United States Agency for International Development. The next major nationally-representative study of this kind will be part of the worldwide *Demographic and Health Surveys*. Data collection for the *1993/94 BDHS* will begin in November 1993.

1.1 Profile of Bangladesh

Bangladesh is a small country, its land area of 57,295 square miles or 148,393 square kilometers approximately the size of the State of Wisconsin¹. It is bounded by India on the north, west, and northeast, by Myanmar on the southeast, and by the Bay of Bengal on the south. Bangladesh is essentially a flat alluvial plain crisscrossed by seven principal rivers and over two-hundred minor rivers, tributaries, and rivulets. Its rich soil, profuse rainfall, and humid climate provide a favorable environment for its abundant agricultural yields. Its geographical location between the Himalayas and the Bay of Bengal, however, expose it to frequent flooding and cyclones.

Bangladesh is also a relatively new country, having gained its independence from Pakistan in 1971 after a protracted military struggle. It is a sovereign republic with a democratically elected government. Compared to other countries in the region, it is ethnically and linguistically homogenous. Eighty-seven percent of the population is Muslim, with the remaining percent mainly Hindu.

Bangladesh's current administrative structure was established in 1983-84. At the time the *1991 Contraceptive Prevalence Survey* was conducted, there were four divisions -- Dhaka, Chittagong, Rajshahi, and Khulna -- but in 1992, a fifth division, Barisal, was added. These divisions are further subdivided into sixty-four districts, 489 *thana* or subdistricts, and 4,451 unions or clusters of villages. There are also four City Corporations (Dhaka, Chittagong, Rajshahi, and Khulna) and 106 municipalities.

Preliminary results from the *1991 Population Census* show a population size of 109.9 million as of March 1991, but the population size should be in the vicinity of 111.5 to 112 million after the final Census

¹Unless otherwise stated, the figures cited in this chapter come from the *Statistical Pocketbook of Bangladesh 92*.

results are released in August 1993. Bangladesh is the ninth most populated country in the world after China, India, the United States, Indonesia, Brazil, Russia, Japan, and Pakistan. As of 1991, its population density was around 750 people per square kilometer, making it the most densely populated country in the world, excluding some city-states. Based on an estimated 1991 population of 111.7 million, the 1981-91 intercensal *per annum* growth rate would be 2.17 percent. This growth rate implies a population doubling time of thirty-two years. The preliminary results of the *1991 Population Census* showed a sex ratio of 106 males for every 100 females, reflecting relatively high mortality among females. In 1991, the expectation of life at birth was in the mid-fifties, with the male expectation of life slightly higher than the female expectation of life. The crude birth rate is in the low to mid-thirties per thousand population, and the crude death rate is in the low to mid-teens per thousand population.

Most of Bangladesh's people still live in rural areas. Based on preliminary returns from the *1991 Population Census*, only eleven percent of the people lived in ninety-five of the country's municipal areas. Other estimates have put the urban population at between fifteen and twenty percent of the total population. Despite these relatively low proportions, given Bangladesh's large population size, substantial numbers of people live in urban areas. For example, Dhaka, the capital city, has 6.5 million people and is considered one of the fastest growing metropolises in the world. This 6.5 million figure is almost certainly too low because of the relatively large underenumeration of slum populations.

According to the *1989 Labor Force Survey*, sixty-seven percent of the total population ten years and above was employed². Of those employed, sixty-six percent worked in agriculture and related activities, fourteen percent in production and transport, nine percent in sales, and less than five percent in professional, managerial, or clerical activities. Eighty-one percent of males and sixty-two percent of females ten years and above participated in the labor force³. Almost ninety percent of employed females worked in the agricultural sector, with less than five percent in either services or production/transportation. Unlike most other countries, only minuscule numbers of women worked in the sales sector. Adolescent employment was also high in Bangladesh, with forty percent of males and thirty-one percent of females 10-14 years old participating in the labor force in 1989. Predictably, agriculture was the predominant source of employment in rural areas, but it was also the second greatest source of employment in urban areas. Because of changes in employment definitions between various labor force surveys, it is difficult to chart trends in the proportion of workers employed in agriculture over time.

Most farm-owning Bangladeshis only owned small plots. According to the *1983-84 Bangladesh Census of Agriculture and Livestock (Rural)*, seventy percent of all farms were less than 2.5 acres and twenty-four percent were less than 0.50 acres. Less than five percent of farms were 7.5 acres or larger.

In 1989/90, the contribution of the industrial sector to the Gross Domestic Product was only 8.8 percent, down from 9.3 percent in 1985/86. Between 1988/89 and 1990/91, employment in major industries remained static except for a moderate decline in the number of jute workers and a sharp increase in the number of ready-made garment workers. Between 1985/86 and 1989/90, the value of production rose in all the principal industries, but the productivity of workers remained unchanged except for a fall in the productivity of jute industry workers.

²An employed person was defined as one who was ten years and above who (a) worked one or more hours for pay or profit or worked fifteen hours or more without pay in a family farm or enterprise during the reference week or (b) did not work but who had a job or business for which he or she was temporarily absent.

³The *1989 Labor Force Survey* used a broad definition of labor force activity compared to earlier labor force surveys. The 1985/86 LFS, for example, found that only nine percent of females ten years and above participated in the labor force.

Bangladesh remains a poor country. The *per capita* Gross National Product in 1990/91 was approximately \$US190. Nevertheless, the *per capita* Gross Domestic Product in constant 1984-85 taka rose six percent between 1987/88 and 1990/91. Income inequality, however, also grew in Bangladesh over time. In 1983/84, the poorest twenty percent of the population possessed 7.2 percent of the household income and the wealthiest twenty percent 43.4 percent. The corresponding numbers were 6.6 percent for the poorest twenty percent and 46.2 percent for the wealthiest twenty percent in 1988/89. The Gini ratio rose from 0.36 to 0.38 between 1983/84 and 1988/89.

Another way to measure poverty is to observe caloric intake. In 1983/84, sixty-six percent of the urban population and fifty-seven percent of the rural population had below recommended daily caloric intake (2122 k.cals/day/person). By 1988/89, forty-four percent of the urban population and forty eight percent of the rural population had below minimum caloric intake. Corresponding figures for "hard core" poverty (1805 k.cals/day/person) were thirty-five percent of the urban population and thirty-eight percent of the rural population in 1983/84 and twenty-one percent of the urban population and thirty percent of the rural population in 1988/89. A lower proportion of children 6-71 months were moderately malnourished and a higher proportion were mildly malnourished in 1989/90 than in 1985/86. However, the proportion of children who were normally nourished -- 5.5 percent in 1985/86 and 6.1 percent in 1989/90 -- was virtually unchanged over time.

Bangladesh is a country heavily dependent on foreign aid. Foreign assistance was responsible for forty-four percent of total receipts in 1990/91, down from fifty percent in 1987/88.

According to unadjusted preliminary 1991 Census results, only twenty-five percent of Bangladeshis of all ages were literate. Literacy varied by region and sex. Twenty-eight percent of Dhaka Division residents were literate compared to twenty-six percent of Chittagong Division residents and twenty percent of Rajshahi Division and Khulna Division residents. According to the *1981 Population Census*, thirty-one percent of males over age five were literate versus sixteen percent of females (Mitra, *et al.* 1990). In 1991, ninety-five percent of children 5-9 years old attended primary school, twenty-eight percent of children 10-14 years old attended secondary school, and four percent of adolescents 15-24 years old attended higher secondary school. Approximately ten percent more children 5-9 years old attended primary school in 1991 than in 1989. However, pupil-teacher ratios were high, with on average sixty-four primary school students per teacher in 1991. *Per capita* public expenditure on education in 1991 was only \$US3.60.

1.2 Summary and Conclusions

Bangladesh remains a desperately poor country, despite some signs of improving conditions. Certainly a doubling time of around thirty years for such a large population living in such a small land area should be cause for concern. There are several ways the country could cope with such an increase. First, people could move to cities and be absorbed into labor-intensive industries. Preliminary Census figures do not suggest rapid urbanization, however, and only the garments industry has absorbed large numbers of laborers over the decade. The garments industry mainly employs female workers, but whether this industry alone can counteract the deleterious effects of population growth is as yet unclear. As of 1991, most of the labor force was still rural and agricultural, and the pace of change toward urban residence and industrialization appears dull. Notably, the contribution of the industrial sector to the GDP did not grow over the latter half of the 1980s decade.

Second, people can alter their fertility behavior by having fewer babies. The evidence in this monograph suggests that precisely such fertility-reducing behavior has occurred quickly. Given Bangladesh's pronatalist traditions, one compelling determinant of this reduction could be the country's lack of socioeconomic development and the negative consequences thereof on both the current quality of life and the prospects and hopes for a better future. The third response to rapid population growth in a small land area could be increased mortality, but the available evidence indicates the opposite -- declining

mortality rates, especially among young children, a probable result of high immunization coverage over recent years. And finally, there could be substantial emigration. To date, there has been no good national-level data on the flow of migrants abroad, but an analysis of the *1991 Population Census* will make such a study possible.

Even though improvements have been made over the past decade, most Bangladeshis remain uneducated and many are malnourished. Most agricultural holdings are small and are probably becoming smaller, and income inequality is growing and may continue to grow. Reductions in mortality, although worthwhile in their own right, will increase the population growth rate. The clear trend is toward rising employment in labor-intensive industries, but whether these industries can prosper in an environment of low education and high malnutrition is an open question. With the worsening international climate toward immigration, movement out of the country could become a politically risky means of population control. It is therefore imperative that the country continue to place significant resources on fertility control.

CHAPTER 2

METHODOLOGY

The *1991 Contraceptive Prevalence Survey* used a nationally representative sample of ever-married women under age fifty. A total of 12,050 ever-married women were interviewed -- 8,973 in rural areas and 3,077 in urban areas. The sample was designed to be comparable to previous contraceptive prevalence surveys in order to identify and evaluate program performance trends.

2.1 Selection of Sample Areas

The sampling employed a two-stage design. The first stage involved the selection of sampling areas and the second stage the selection of households. In the first stage, Bangladesh was divided into rural and urban strata. All the locations enumerated as urban in the *1986 Economic Census* were defined as urban and the remaining locations were defined as rural. Sample areas were independently selected using a separate sampling frame for each rural or urban stratum.

During the first sampling stage, the country was divided into sample areas or Primary Sampling Units (PSUs) using rural village/urban *mahalla* (block) lists of households produced by the *1986 Economic Census*. Each PSU contained between 150 and 500 households. In most cases, the boundaries of a rural PSU overlapped with the boundaries of a village, and the boundaries of an urban PSU overlapped with the boundaries of a *mahalla*. However, rural villages were split into two PSUs if they contained more than 500 households or merged into one PSU if they contained less than 150 households. The same procedure was applied to the urban PSUs.

The first stage sampling frames were composed of all the rural and urban PSUs listed in their respective strata. Two-hundred PSUs were then randomly drawn from these frames -- 120 PSUs from the rural frame and 80 PSUs from the urban frame.

The distribution of selected sample areas or PSUs by division, region¹, and urban-rural stratum is presented in Table 2.1. The map of Bangladesh on page 7 shows the geographical location of these PSUs. Since PSUs were selected according to probability proportional to size, the number of PSUs in a region, division, or stratum depended on the population size of the relevant areas. However, each of Bangladesh's four divisions -- Dhaka, Chittagong, Rajshahi, and Khulna -- had an adequate number of PSUs in each rural/urban stratum to ensure reliable divisional estimates of key variables. A total of 63 PSUs were selected from Dhaka Division, 51 from Chittagong Division, 48 from Rajshahi Division, and 38 from Khulna Division.

2.2 Selection of Households

Households were listed by enumerators within each PSU and then assigned equal probability of selection in order to ensure self-weighting of the sample. Thus, in each stratum, the probability of selecting households from a PSU was inversely proportional to the number of households in the PSU. The number of households selected averaged 76 per PSU in the rural stratum and 38 per PSU in the urban stratum.

¹Regions refer to old districts which existed before the introduction of the new administrative system in early 1986.

Division	Region	Stratum	
		Rural	Urban
RAJSHAHI	Rajshahi	8	3
	Rangpur	10	5
	Dinajpur	5	2
	Bogra	5	2
	Pabna	5	3
	Subtotal	33	15
KHULNA	Khulna	6	6
	Barisal	7	4
	Kushlia	2	1
	Jessore	6	3
	Patuakhali	2	1
	Subtotal	23	15
DHAKA	Dhaka	10	19
	Mymensingh	10	5
	Jamalpur	4	1
	Tangail	3	1
	Faridpur	7	3
	Subtotal	34	29
CHITTAGONG	Chittagong	4	11
	Comilla	10	3
	Noakhali	6	2
	Sylhet	8	3
	Chittagong Hill Tracts	2	2
	Subtotal	30	21
	TOTAL	120	80

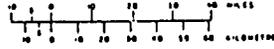
A total of 12,122 households were selected in the sample, 9,104 from the rural stratum and 3,018 from the urban stratum (Table 2.2). Of these, 11,401 households were successfully contacted for interviews -- 8,594 in the rural stratum and 2,807 in the urban stratum. The non-response rate for households was 5.6 percent in the rural stratum and 7.0 percent in the urban stratum (Table 2.3). The most common reason for household non-response was a vacant dwelling unit (Table 2.4).

2.3 Eligible Respondents

Ever-married women under fifty years of age who had slept in the sample households the night preceding the interview date were defined as eligible respondents. A total of 12,347 eligible respondents were identified among the successfully contacted households -- 9,167 in the rural stratum and 3,180 in the urban stratum (Table 2.2). Of these, 12,050 were successfully interviewed -- 8,873 in the rural stratum and 3,077 in the urban stratum. The non-response rate was 2.1 percent in the rural stratum and 3.2 percent in the urban stratum (Table 2.5). The most common reason for respondent non-response was non-availability (Table 2.6). The interviewer made four visits to a household before classifying the respondent as not available for interview.

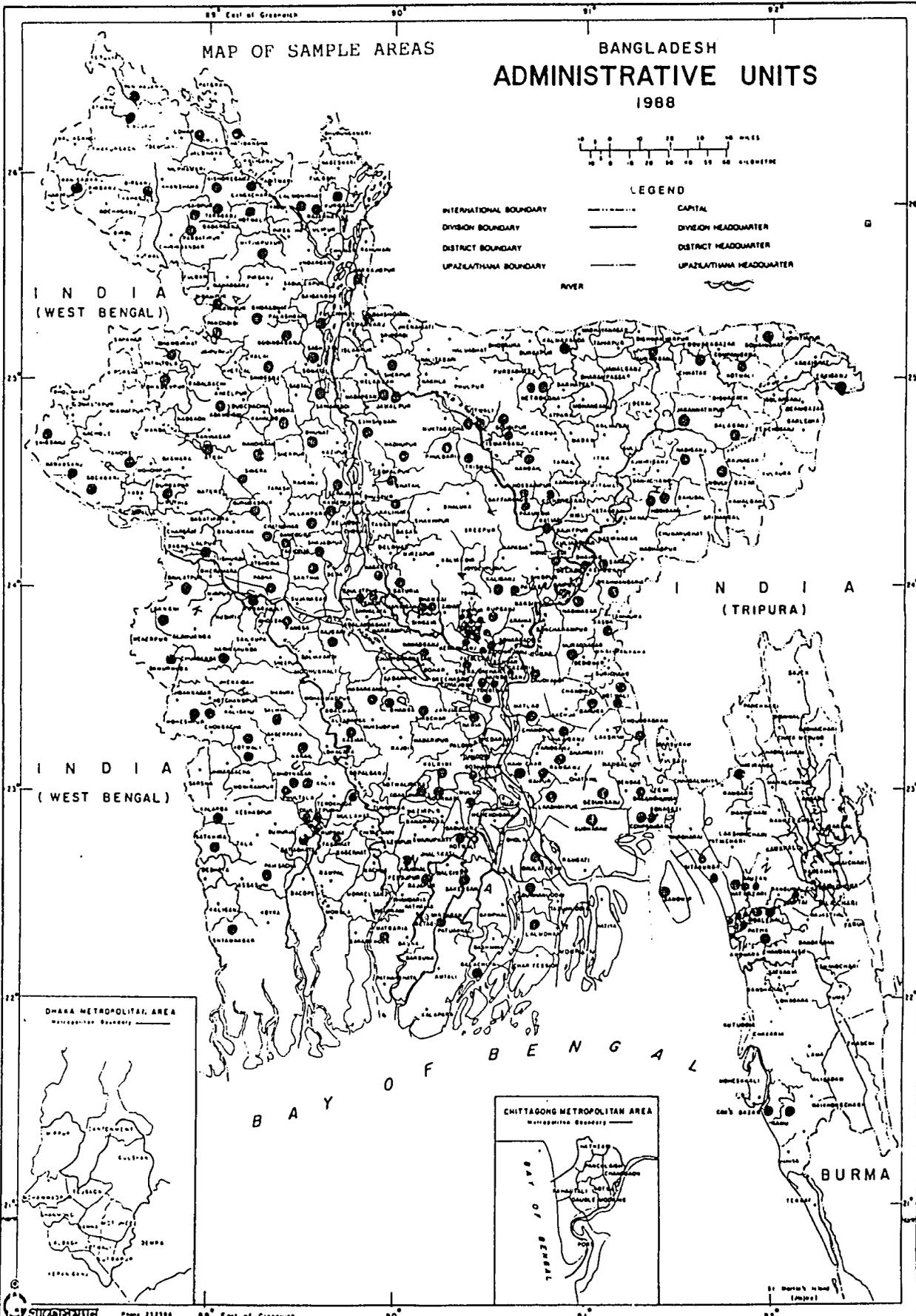
MAP OF SAMPLE AREAS

BANGLADESH ADMINISTRATIVE UNITS 1988



LEGEND

- INTERNATIONAL BOUNDARY
- DIVISION BOUNDARY
- DISTRICT BOUNDARY
- UPAZILATHANA BOUNDARY
- RIVER
- CAPITAL
- DIVISION HEADQUARTER
- DISTRICT HEADQUARTER
- UPAZILATHANA HEADQUARTER



DHAKA METROPOLITAN AREA



CHITTAGONG METROPOLITAN AREA



Table 2.2 Number of households and number of eligible respondents selected and interviewed according to stratum, 1991 Bangladesh Contraceptive Prevalence Survey

Stratum	Number of households		Number of eligible respondents	
	Selected	Interviewed	Selected	Interviewed
Rural	9104	8594	9167	8973
Urban	3018	2807	3180	3077
Total	12122	11401	12347	12050

2.4 Weighting

The urban stratum was oversampled in order to obtain reliable estimates of the urban population. Because of the disproportionate sampling between rural and urban strata, appropriate weights were calculated to compute national estimates.

Weights calculated for the household and respondent samples according to stratum are presented in Table 2.7. The design weight² was .50636 for households in the urban stratum and unity for households in the rural stratum. The corresponding urban stratum weight for respondents was 48389. (See Table 2.2.) After adjustment for the non-response rate (See Table 2.2.), the urban stratum weight for households changed to .51392 for households and .51988 for respondents (Table 2.7). Thus, the weighted national household sample size was estimated to be 10,037 households, and the weighted national respondent sample size was estimated to be 10,573 respondents.

2.5 Interviewing Schedules

Both a household schedule and a respondent schedule were used in the survey. The household schedule listed all members of a sample household who slept in the household the night preceding the interview date by age, sex, and marital status and identified all eligible respondents -- ever-married women under age fifty. The respondent schedule was used to interview these eligible individuals. The schedules were designed using the 1989 Contraceptive Prevalence Survey questionnaire and the Demographic and Health Survey model questionnaires as prototypes. Drafts of the schedules were reviewed by USAID/Dhaka

²The number of households in the sampling frame was 2,164,194 for the urban stratum and 12,893,015 for the rural stratum. The sample included 3,018 households selected from the urban stratum and 9,104 households from the rural stratum. The weight for the urban stratum was calculated according to the following formula:

$$\frac{(P_u/P_r) * S_r}{S_u}$$

where P_u is the number of urban households in the sampling frame, P_r is the number of rural households in the sampling frame, S_r is the number of rural households in the sample, and S_u is the number of urban households in the sample. Using the appropriate numbers, the urban weight was calculated as follows:

$$\frac{(2,164,194/12,893,015) * 9,104}{3,018}$$

or .50636.

and the Government of Bangladesh's Technical Review Committee. The schedules were then modified, translated into Bangla, pretested, and finalized. The final draft was also submitted for review, following which they were printed. The English version of the questionnaire is presented in Appendix A.

Division	Rural stratum			Urban stratum		
	Number of households		Non-response rate (percentage)	Number of households		Non-response rate (percentage)
	Selected	Interviewed		Selected	Interviewed	
Rajshahi	2515	2393	4.9	565	535	5.3
Khulna	1629	1549	4.9	566	524	7.4
Dhaka	2600	2452	5.7	1092	1008	7.7
Chittagong	2360	2200	6.8	795	740	6.9
Total	9104	8594	5.6	3018	2807	7.0

Reason	Rural stratum		Urban stratum	
	Number	Percent	Number	Percent
No competent respondent found	8	1.6	7	3.3
Refused interview	3	0.6	2	1.0
Vacant dwelling	308	60.3	112	53.0
Address not found	13	2.6	24	11.4
Address does not exist	81	15.9	19	9.0
Other	97	19.0	47	22.3
Total	510	100.0	211	100.0

2.6 Household Listing

Twelve teams, with two members in each team, were deployed over a period of two months to map and list the households in each PSU. Maps were sketched of the PSUs and households listed within them.

2.7 Interviewing

Nine teams interviewed respondents between June 7 and October 15, 1991. Each interview team had one male supervisor, one female supervisor, four female interviewers, and one field assistant. The female supervisor was responsible for the quality of the interviewing by both advising and checking up on the interviewers. The male supervisor was responsible for distributing tasks among the interviewers, arranging accommodations for the team, and providing for other logistics. Both the male and female team supervisors were responsible for editing the questionnaires. Respondents whose questionnaires contained inconsistent answers were reinterviewed.

2.8 Quality Control

Four quality control teams handled the quality control of the interviewing. Each quality control team had one male quality control officer and one female quality control officer. Quality control checks were performed in randomly chosen PSUs. In these areas, the quality control officers reinterviewed randomly selected respondents by administering two or more sections of the questionnaire. Later, they cross-checked their sections with those completed by the regular interviewer. In addition, four field officers were deployed to oversee the work of all field personnel, including the quality control officers. Senior professional staff of *Mitra & Associates* supervised the interviewing teams in the field. Representatives of USAID/Dhaka also visited the field to monitor the data collection operations.

Division	Rural stratum			Urban stratum		
	Number of households		Non-response rate (percentage)	Number of households		Non-response rate (percentage)
	Selected	Interviewed		Selected	Interviewed	
Rajshahi	2500	2446	2.2	622	607	2.4
Khulna	1784	1740	2.5	589	570	3.2
Dhaka	2569	2517	2.0	1123	1081	3.7
Chittagong	2314	2270	1.9	846	819	3.2
Total	9167	8973	2.1	3180	3077	3.2

Reason	Rural stratum		Urban stratum	
	Number	Percent	Number	Percent
Incomplete	5	2.6	1	1.0
Respondent not available	130	67.0	80	77.6
Deferred	1	0.5	1	1.0
Refused	5	2.6	2	1.9
Other	53	27.3	19	18.5
Total	194	100.0	103	100.0

2.9 Monitoring

In addition to the quality control checks, a data monitor cell was established to review the responses in the completed schedules. This review was conducted as follows:

- Interviewing was carried out in five phases, each between three and four weeks long. As soon as questionnaires completed in a phase were received at the office, responses to selected questions were tabulated according to the PSUs covered by an interviewing team.
- The tabulated data of all the interviewing teams were compared. If the comparison showed a deviation in the responses of a particular interviewing team to the normal pattern of responses, the responses for that team were further tabulated by individual interviewers in order to ascertain if the deviations were real or an artifact of the interviewer not conducting the interviews properly.

Such monitoring helped to ensure that interviewers collected high quality data.

2.10 Data Management

Data management activities included registration of the questionnaires, data processing, and computer processing. As soon as the questionnaires were received from the field, the household schedules were recorded in a registration book which noted identification numbers, household interviewing status, the number of eligible respondents in the household, the number of eligible respondents actually interviewed, and the individual respondent's interviewing status. The registration of questionnaires facilitated their storing and handling during the data-processing stage. A research assistant was assigned to register, store, and maintain the questionnaires.

Stratum	Number of households			Number of respondents		
	Unweighted	Weights	Weighted	Unweighted	Weights	Weighted
Rural	8594	1.00000	8594	8973	1.00000	8973
Urban	2807	0.51392	1443	3077	0.51988	1600
Total	11401		10037	12050		10573

Information from the questionnaires was edited before it was coded for entry into the computer. Editing was undertaken in order to verify that schedules had been correctly and completely filled out by the interviewers and that there was consistency between the responses. A team of editors and editing verifiers performed these tasks. The Deputy Project Director checked ten percent of the edited and verified questionnaires. Coding of the information was initially done by coders and then verified by coding verifiers. The Deputy Project Director verified ten percent of the coding work.

The SOSDATA double entry program was used to enter data into the computer. Data were keyed into the computer twice. The program automatically stopped during the second entry if a discrepancy was encountered with the first entry. After completing the second entry, the data were checked for range and consistency errors, again using SOSDATA programs. In addition, specific FORTRAN and SPSS programs were used to detect accurate input data. After the data entry operations were completed, SPSS system files were constructed to analyze the data.

2.11 Training

Survey personnel were trained in five stages. Listers were trained for one week in the first stage and interviewers for three weeks in the second stage. Training was organized for supervisors and quality control officers in the third stage, for editors in the fourth stage, and for coders in the fifth stage. Training methods included classroom lectures, demonstration interviews, role playing, field practice, and problem review sessions.

2.12 Executive Agency

Mitra & Associates was the executive agency of the survey, and its Executive Director was responsible for the implementation of the survey. The Senior Deputy Director of *Mitra & Associates* was responsible for day-to-day survey activities.

CHAPTER 3

SOCIOECONOMIC CHARACTERISTICS AND MARRIAGE PATTERNS

As described in Chapter 1, Bangladesh is a country which is characterized by a host of problems: poverty, low female education and non-agricultural employment, and population pressure on resources. The *1991 Population Census*, whose results will be released shortly, will document demographic and socioeconomic trends in the country during the 1981-91 decade. Periodic contraceptive prevalence and fertility surveys using samples of women have described these trends over two to three year intervals over the same time. The findings from the various *Contraceptive Prevalence Surveys* have shown gradual increases in the education, employment, and average age of marriage for women. This chapter will investigate the same patterns in order to identify any acceleration in these trends.

Interviewers asked respondents about two important personal socioeconomic characteristics: education and employment. Respondents were asked about their school attendance, their level of education, and their highest class passed. In addition, they were asked about regular work for which they were paid in cash or kind and the type of work performed. Interviewers also asked respondents household level questions about landownership, housing material, source of water and type of sanitary facility, and commodity ownership. In the following chapters, education, employment, landownership, and household wealth are used to examine differentials in fertility, contraceptive use and supply source, fertility intentions, and child health and child survival. Household wealth was measured by creating a scale using household characteristics and commodity ownership. Its construction is described in Appendix B.

Women's young age of marriage has historically been an important determinant of high fertility in Bangladesh. Even though contraception is extraordinarily important for reducing fertility rates, its effect is diluted if women marry young and hence are exposed to the risk of pregnancy throughout most of their fertile years. Interviewers asked respondents about their age of first marriage and their current marital status. In addition, information about the marital status of all household women was gleaned from the household questionnaire.

3.1 Household Composition

Table 3.1 presents the *de facto* household population by age and sex for both rural and urban areas. As described in Chapter 2, interviewers questioned all ever-married women less than fifty years of age who were identified as having slept in the household during the previous night.

Forty-three percent of the household population was composed of children under the age of 15. The proportion of the young population to the total population was similar in rural and urban areas -- forty-three percent in rural areas versus forty-one percent in urban areas.

Table 3.1 shows a national sex ratio of the 0-4 year old household population of 1.04 (104 males for every 100 females). The rural sex ratio was 1.05 and the urban sex ratio was 1.01. The female household population, however, significantly outnumbered the male household population in the 15-29 year old age groups. This pattern reversed itself in the 30-49 year old population. Both rural and urban sex ratios followed this pattern, with the exception of the 10-14 year old urban population where females significantly outnumbered males. Forty-six percent of the women were in the reproductive age range -- forty-six percent of the rural women and forty-nine percent of the urban women.

Table 3.1 Percent distribution of the *de facto* household population by five-year age group according to rural-urban residence and sex, Bangladesh, 1991

Age group	National			Residence					
				Rural			Urban		
	Male	Female	Sex ratio	Male	Female	Sex ratio	Male	Female	Sex ratio
0-4	15.0	14.5	1.04	15.3	14.8	1.05	13.3	13.2	1.01
5-9	14.8	14.7	1.00	14.9	15.1	1.00	13.6	13.5	1.01
10-14	13.1	13.4	0.99	13.1	13.2	1.00	13.1	14.4	0.90
15-19	8.7	11.0	0.79	8.5	10.9	0.79	9.6	11.8	0.81
20-24	8.5	10.4	0.83	8.4	10.1	0.83	9.5	11.8	0.80
25-29	7.4	8.1	0.92	7.3	8.0	0.92	8.0	8.6	0.93
30-34	6.6	6.1	1.09	6.5	6.2	1.07	7.3	5.9	1.23
35-39	5.9	4.8	1.26	5.9	4.7	1.27	6.3	5.2	1.20
40-44	4.5	3.4	1.31	4.4	3.4	1.30	5.0	3.6	1.37
45-49	3.9	2.6	1.51	3.9	2.6	1.51	3.8	2.4	1.54
50-54	2.6	3.2	0.82	2.7	3.3	0.80	2.5	2.7	0.94
55-59	2.1	2.7	0.79	2.1	2.7	0.76	2.4	2.2	1.06
60+	6.9	5.0	1.39	7.0	5.0	1.43	5.6	4.7	1.18
Total	100.0	100.0	NA	100.0	100.0	NA	100.0	100.0	NA
Number	29566	29364	1.01	25132	24902	1.01	8627	8682	0.99

NA = Not applicable
 Note: Weighted number of the household population at the national level and unweighted numbers at rural and urban levels.

Table 3.2 Percent distribution of the *de facto* household population by five-year age group according to rural-urban residence and sex, Bangladesh, 1989

Age group	National			Residence					
				Rural			Urban		
	Male	Female	Sex ratio	Male	Female	Sex ratio	Male	Female	Sex ratio
0-4	15.4	15.6	1.02	15.6	15.8	1.02	13.1	13.1	1.03
5-9	14.8	15.1	1.02	15.0	15.2	1.02	13.6	13.9	1.01
10-14	12.9	12.7	1.05	12.9	12.5	1.07	12.5	14.8	0.87
15-19	10.5	11.6	0.94	10.4	11.4	0.95	11.4	13.6	0.86
20-24	7.7	9.5	0.83	7.6	9.4	0.83	9.1	10.9	0.86
25-29	7.2	7.2	1.05	7.1	7.1	1.04	8.3	7.4	1.15
30-34	5.9	6.5	0.94	5.8	6.4	1.94	6.9	7.6	0.93
35-39	5.6	4.7	1.24	5.4	4.7	1.21	7.0	4.6	1.57
40-44	4.4	3.9	1.17	4.4	4.0	1.14	5.0	3.4	1.54
45-49	3.6	3.2	1.16	3.6	3.2	1.14	3.7	2.7	1.41
50-54	2.7	2.0	1.42	2.7	2.0	1.42	2.6	1.8	1.44
55-59	2.4	3.2	0.79	2.4	3.2	0.78	2.2	2.5	0.90
60+	6.9	4.9	1.46	7.1	5.1	1.47	4.7	3.5	1.37
Total	100.0	100.0	NA	100.0	100.0	NA	100.0	100.0	NA
Number	29745	28703	1.04	27317	26348	1.04	2428	2355	1.03

NA = Not applicable
 Note: Unweighted number of the household population at the national level and unweighted numbers at rural and urban levels.

Table 3.2 shows the *de facto* household population from the *1989 Bangladesh Fertility Survey*¹. Because the BFS only published unweighted age-sex distributions, comparisons are limited to rural or urban residence. The proportion of the household population under the age of 15 was almost the same in the BFS as in the CPS -- forty-four percent in the rural areas and forty-one percent in the urban areas. The rural sex ratio was 1.02 and the urban sex ratio was 1.03 for children age 0-4. Despite some fluctuations in the numbers by individual age groups, the 1989 BFS and the 1991 CPS show basically similar patterns of age-specific sex ratios -- a preponderance of rural females in the 15-24 age group and urban females in the 10-24 age group and a preponderance of both rural and urban males in older age groups. Forty-six percent of rural females and fifty percent of urban females were in the reproductive age range.

Residential and demographic characteristics	Weighted percent	Number of ever-married women	
		Weighted number	Unweighted number
Residence			
Rural	84.9	8973	8973
Urban	15.1	1600	3077
Division			
Dhaka	29.1	3079	3588
Chittagong	25.5	2696	3089
Rajshahi	26.1	2762	3053
Khulna	19.3	2036	2310
Age			
< 15	1.6	165	180
15-19	13.9	1475	1649
20-24	22.1	2340	2669
25-29	19.4	2054	2358
30-34	15.7	1658	1889
35-39	12.1	1281	1478
40-44	8.6	909	1045
45-49	6.5	692	782
Marital Status			
Currently married	92.2	9745	11097
Widowed	4.3	458	532
Divorced/Separated	3.5	370	421

3.2 Residential and Demographic Characteristics

Table 3.3 presents the residential and demographic characteristics of ever-married women. The rural/urban percentages reflect the division of locations in the *1986 Economic Census* -- eight-five percent of the population living in rural areas and the remaining fifteen percent in urban areas. The distribution of the population by division reflects the population proportional to size of the divisions. (See Chapter 2.) The

¹Data taken from Table 2 of the *1989 Bangladesh Fertility Survey Analytical Tables* (Huq, Cleland *et al.*, 1990: A4).

proportion of ever-married women in the <15-49 age range peaked in the 20-24 age group, reflecting the young age of marriage in Bangladesh. Of the ever-married women in the sample, ninety-two percent were currently married, four percent widowed, and four percent divorced or separated.

3.3 Social and Economic Characteristics

Table 3.4 shows the social and economic characteristics of ever-married women. Eighty-eight percent of the ever-married respondents were Muslim and the remainder Hindu. Sixty-one percent had never attended school, eighteen percent had less than a primary level education, nine percent a complete primary level, and twelve percent a secondary level education or higher. Sixteen percent of the ever-married women had paid employment and eighty-four percent unpaid or no employment. Fifty-eight percent of the women were from households which owned land and the remaining forty-two percent from households which did not own land. Over one-quarter each of the respondent's husbands were landowners or skilled and service workers, one-fifth laborers, and one-tenth each agricultural workers or professional workers.

Table 3.4 also considers the geographic mobility and group membership of ever-married women. Since marriage, forty-five percent had gone to another part of their village, town or city alone, twenty percent to a health center or hospital alone, and only nine percent shopping or marketing alone. Less than three percent of ever-married women belonged to the Grameen Bank, the Bangladesh Rural Advancement Committee (BRAC), the Bangladesh Rural Development Program (BRDP), or a Mother's Club.

3.4 Trends in Education

Education increased among ever-married women over time (*Table 3.5*). The proportion of women who had never attended school progressively decreased from sixty-nine percent in 1986 to sixty-one percent in 1991. The proportion with either partial or complete primary level education climbed from twenty-three percent in 1986 to twenty-seven percent in 1991, and the proportion with secondary level education and above rose from eight percent in 1986 to twelve percent in 1991. This trend toward higher education among women was apparent in both rural and urban areas. The proportions of ever-married women with partial or complete primary level education were similar in rural and urban areas. However, the proportion of ever-married urban women who had never attended school was around twenty percentage points lower than the proportion of corresponding rural women, and likewise, the proportion of ever-married urban women who had secondary level education and above was around twenty percentage points higher than the proportion of corresponding rural women.

3.5 Differentials in Education

The national mean years of education was low among ever-married women of reproductive age - 1.9 years (*Table 3.6*). Urban women had 3.4 mean years of education versus 1.7 mean years for rural women. Rajshahi women had lower mean education than women from the other three divisions. Younger women and women with a small family size had higher mean education than older women and women with a large family size. Currently married women had higher mean education than widowed or divorced/deserted women. Non-Muslim women had higher mean education than Muslim women, women with unpaid or no employment higher mean education than women with paid employment, and women whose households owned land higher mean education than women whose households did not own land. Finally, women from wealthier households had higher mean education than women from poorer households.

Table 3.4 Percent distribution and number of ever-married women by social and economic characteristics, Bangladesh, 1991			
Social and economic characteristics	Weighted percent	Number of ever-married women	
		Weighted number	Unweighted number
Religion			
Muslim	87.9	3290	10575
Hindu	11.8	1249	1436
Christian	0.3	31	34
Buddhist	..	4	5
Educational level			
Not attended	60.6	6407	7081
< Primary	18.3	1939	2193
Primary	9.0	948	1092
Secondary +	12.1	1278	1683
Employment status			
Employed	15.5	1636	1857
Unpaid or no employment	84.5	8936	10192
Landownership status			
Owens land	58.3	6163	6749
Does not own land	41.7	4408	5298
Husband's Occupation			
Landowner	27.2	2872	2980
Agricultural worker	11.7	1234	1295
Laborer	20.6	2178	2485
Skilled and service worker	26.9	2847	3437
Professional worker	11.4	1209	1580
Other	2.2	232	273
Mobility			
Goes to another part of village/town/city alone	45.4	10573	12050
Goes shopping/marketing alone	9.2	10573	12050
Goes to health center/hospital alone	20.4	10573	12050
Membership in groups			
Grameen Bank	2.5	10573	12050
BRAC	1.3	10573	12050
BRDP	0.3	10573	12050
Mother's Club	0.8	10573	12050
Other group	5.8	10573	12050
Not a member of any group	89.3	10573	12050
.. Less than .05 percent			

3.6 Trends in Employment and Landownership Status

Table 3.7 shows trends in female employment status and landownership status. Paid employment among ever-married women 15-49 years old steadily rose from nine percent in 1983 to sixteen percent in 1991. This growth was essentially the same in both rural and urban areas. Nationally, the proportion of

these women's households owning land declined from sixty-six percent in 1983 to fifty-eight percent in 1991. This decline was evident in both urban and rural areas.

Educational level	National				Residence							
					Rural				Urban			
	1983	1986	1989	1991	1983	1986	1989	1991	1983	1986	1989	1991
Not attended	68.8	69.3	63.6	60.6	70.8	71.7	66.7	63.3	51.5	48.5	45.5	45.6
< Primary	17.6	14.7	17.7	18.3	17.8	14.7	17.9	18.5	15.1	14.5	16.2	17.2
Primary	6.6	7.9	8.7	9.0	6.3	7.8	8.4	8.8	9.1	8.8	10.5	9.7
Secondary +	7.0	8.1	10.0	12.1	5.1	5.8	7.0	9.4	24.3	28.2	27.8	27.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	8514	8539	10293	10572	7669	7680	8761	8973	2438	2623	2846	3077

Note: Weighted number of ever-married women at the national level and unweighted numbers at the rural and urban levels.

3.7 Differentials in Employment and Landownership Status

Regional differentials of employment status indicate that rural women from Rajshahi Division and urban women from Khulna or Dhaka Divisions were more likely to have paid employment than their residential counterparts (Table 3.8). The difference in paid employment between rural Rajshahi Division women and rural women from the other three divisions was particularly striking. Women 30-39 years old were most likely to have paid employment, followed by women 20-29 and 40-49 years old, in both rural and urban areas. Likewise, women with three or four children were more likely to have paid employment than women with only one or two children or women with five or more children, in both residential areas. Substantially higher proportions of ever-married women who were divorced, deserted, or widowed than women who were currently married had paid employment. Widowed women in urban areas were more likely to have paid employment than widowed women in rural areas.

Employment status varied little by religious affiliation. Generally, higher proportions of less educated than more educated women had paid employment, although women with secondary level education and above were more likely to have paid employment than women who had only completed primary level education. Finally, women from poor households were substantially more likely to have paid employment than women from households of higher wealth -- a finding pertaining to both rural and urban areas.

Landownership was highest among ever-married women from Khulna Division and lowest among ever-married women from Chittagong Division (Table 3.7). Low landownership was particularly evident among rural Chittagong Division women. There were few differences in landownership status among ever-married women by either age or family size. Nationally, currently married women were more likely to be from landowning households than either widowed or divorced/deserted women. In rural areas, widowed women were almost as likely as currently married to live in landowning households. In urban areas, however, they were far less likely than currently married women or divorced/deserted women to live in landowning households.

Table 3.6 Mean years of education of ever-married women by selected characteristics according to rural-urban residence, Bangladesh, 1991

Selected characteristics	National	Residence	
		Rural	Urban
Division			
Dhaka	2.0	1.6	3.7
Chittagong	2.2	2.0	3.3
Rajshahi	1.4	1.2	3.0
Khulna	2.1	1.9	3.6
Age			
< 15-19	2.4	2.2	3.2
20-29	2.1	1.8	3.8
30-39	1.8	1.5	3.4
40-49	1.2	0.9	2.5
Number of living children			
None	2.6	2.4	3.8
1-2	2.3	1.9	4.3
3-4	1.7	1.5	3.1
5+	1.3	1.1	2.0
Marital status			
Currently married	2.0	1.7	3.6
Widowed	1.1	0.9	1.8
Divorced/Deserted	0.9	0.8	1.2
Religion			
Muslim	1.8	1.6	3.3
Non-Muslim	2.6	2.3	4.0
Employment status			
Paid employment	1.5	1.3	3.1
Unpaid or no employment	2.0	1.7	3.5
Landownership status			
Owens land	2.4	2.1	4.8
Does not own land	1.2	0.9	2.5
Household wealth scale			
Low	0.4	0.4	0.6
Medium	1.0	0.8	1.8
High	3.4	3.0	5.6
Total	1.9	1.7	3.4
N	10572	8973	3076

Note: Weighted number of ever-married women at the national level and unweighted numbers at rural and urban levels.

Table 3.7 Percent distribution of ever-married women by employment status and landownership status according to rural-urban residence, Bangladesh, 1983-1991

Status	National				Residence							
					Rural				Urban			
	1983	1986	1989	1991	1983	1986	1989	1991	1983	1986	1989	1991
Employment status												
Paid employment	0.7	5.0	13.4	15.5	0.5	5.6	13.1	15.6	9.9	7.9	14.9	14.9
Unpaid or no employment	91.3	94.2	86.6	84.5	91.5	94.4	86.9	84.4	90.1	92.1	85.1	85.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	8523	8541	10293	10573	7677	7682	8761	8973	2440	2623	2623	3077
Landownership status												
Owens land	66.1	63.8	56.8	50.3	68.2	66.0	60.6	61.6	46.4	44.5	35.3	39.7
Does not own land	33.9	36.2	43.2	41.7	31.8	34.0	39.4	38.4	53.6	55.5	64.7	60.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	8518	8541	10291	10571	7637	7682	8759	8973	2436	2622	2846	3077

Note: Weighted number of ever-married women at the national level and unweighted numbers at rural and urban levels.

Muslim and non-Muslim ever-married women were equally likely to be from landowning households in rural areas. However, higher proportions of Muslim than non-Muslim households in urban areas owned land. Landownership was associated with education, with women with at least a complete primary level education most likely to come from landowning households, followed by women with only a partial primary level education. Household wealth was strongly correlated with landownership status. Nationally, seventy-nine percent of high wealth households owned land compared to sixty-five percent of medium wealth households and only twenty percent of low-wealth households. These differentials were wider in rural than urban areas.

3.8 Housing Characteristics

The housing characteristics of ever-married women of reproductive age are presented in Table 3.9. Nationally, fifty-two percent of all houses had roofs made from tin and an additional forty-one percent had roofs made from *katcha* (mud or woven bamboo). The vast majority of houses had walls and floors made from *katcha*. A substantially higher proportion of urban than rural houses had roofs, walls, and floors made from concrete.

Tubewells predominated as the source of drinking water for both rural and urban households. Nationally, only two percent of households received drinking water from an inside pipe, although eleven percent of urban households received their water this way. Most rural households used either "other latrines" (mainly hanging over water) or the outdoors as their principal sanitary facilities. By contrast, most urban households used *pukka* (concrete) latrines or "other latrines."

3.9 Commodity and Homestead Ownership

Table 3.10 shows ownership of consumer goods and homesteads. Nationally, seventy-three percent of households owned a cot; forty-nine percent a table, chair, or bench; thirty-nine percent a watch or clock; twenty-eight percent a radio; and around twenty-two percent each an *almirah* (wardrobe) or a cycle or boat. Eighty-six percent of households owned their own homestead. Ownership of these items was higher in urban than rural areas, except for cycles/boat and homesteads.

Table 3.8 Percentage of ever-married women having paid employment and owning land by selected characteristics according to rural-urban residence, Bangladesh, 1991

Selected characteristics	Percent having paid employment:			Percent owning land:		
	National	Residence		National	Residence	
		Rural	Urban		Rural	Urban
Division						
Dhaka	14.1	13.5	16.6	58.8	64.3	34.3
Chittagong	11.1	11.0	11.8	52.0	54.4	38.7
Rajshahi	21.6	22.5	14.5	59.2	61.6	40.9
Khulna	15.0	14.7	16.8	64.6	67.1	50.0
Age						
< 15-19	7.1	7.3	6.3	61.0	63.7	41.5
20-29	15.5	15.9	13.6	55.9	58.9	39.8
30-39	20.2	19.9	21.9	58.6	62.5	37.8
40-49	15.2	15.6	12.7	61.5	65.1	41.4
Number of living children						
None	7.8	7.1	11.9	61.9	64.7	44.4
1-2	16.5	16.6	15.9	55.5	58.7	39.2
3-4	18.1	18.3	17.1	57.2	60.5	37.6
5+	15.1	15.6	12.4	61.9	65.5	40.5
Marital status						
Currently married	13.9	14.1	12.9	59.0	62.2	40.9
Widowed	31.5	30.5	36.1	52.8	58.9	24.9
Divorced/Deserted	36.5	40.0	39.3	45.1	48.1	29.0
Religion						
Muslim	15.6	15.7	15.2	58.6	61.7	40.9
Non-Muslim	14.6	14.8	13.5	56.3	61.2	31.3
Educational level						
Not attended	17.6	17.5	18.2	50.5	53.6	26.3
< Primary	14.0	14.0	13.8	65.0	69.1	40.0
Primary	8.6	8.5	9.3	74.2	79.4	48.0
Secondary +	12.4	12.4	12.3	75.4	84.0	58.8
Household wealth scale						
Low	24.1	24.5	22.0	20.1	19.7	22.3
Medium	15.0	15.1	14.4	60.8	65.1	34.0
High	10.7	10.5	12.1	78.9	84.8	50.5
Total	15.5	15.6	14.9	58.3	61.6	39.7
N	10573	8973	3077	10573	8973	3077

Note: Weighted number of ever-married women at the national level and unweighted numbers at rural and urban levels.

Table 3.9 Percent distribution of households with ever-married women having selected characteristics according to rural-urban residence, Bangladesh, 1991

Housing characteristics	National	Residence	
		Rural	Urban
Material of roof			
Concrete	5.5	3.0	19.4
Tin	51.5	50.4	54.9
Katcha	40.9	44.1	22.9
Other	2.5	2.5	2.8
Material of wall			
Concrete	8.9	4.8	32.0
Tin	9.2	9.4	8.5
Katcha	81.1	85.0	58.4
Other	0.8	0.8	1.0
Material of floor			
Concrete	7.6	3.3	31.3
Katcha	92.2	96.5	68.4
Other	0.2	0.2	0.3
Source of drinking water			
Piped inside dwelling	2.0	0.4	11.0
Piped outside dwelling	2.0	0.9	8.0
Tubewell	84.5	85.7	78.6
Pond/Tank/River/Canal	4.6	5.3	0.9
Other	6.7	7.5	1.5
Type of sanitation facility			
Flush toilet	1.2	0.4	5.8
Slab latrine	5.4	4.5	10.5
Pukka latrine	13.0	8.9	35.9
Other latrine	45.9	47.6	35.9
Outdoors	34.5	38.5	11.9
N	10573	8973	3077

Note: Weighted number of households at the national level and unweighted numbers at rural and urban levels.

Consumer durables and homestead ownership	National	Residence	
		Rural	Urban
Consumer durables			
Almirah	22.9	18.4	48.3
Table/Chair/Bench	49.1	46.2	65.5
Watch/Clock	38.7	35.1	58.9
Cot	72.7	70.6	84.3
Radio	27.7	25.4	40.3
Cycles/Boat	22.1	22.6	19.3
Homestead ownership	86.0	89.5	66.4
N	10573	8971	3077

Note: Weighted number of ever-married women at the national level and unweighted numbers at rural and urban levels.

3.10 Proportions of the Never Married and Ever Married of the Household Population

The marital status of the household population by sex is presented in Table 3.11. It underscores the near universality of marriage in Bangladesh. Approximately ninety percent of males 30-34 years old and females 20-24 years old had been married at least once. Women married at younger ages than men. In the 15-19 age range, fifty percent of women had been married compared to less than three percent of men. Indeed, only one-quarter of men in the 20-24 age range had ever been married.

Age group	Male				Female			
	Never married	Ever married	Total	Number	Never married	Ever married	Total	Number
< 15	99.8	0.2	100.0	12671	98.5	1.5	100.0	12550
15-19	97.3	2.7	100.0	2564	46.7	53.3	100.0	3233
20-24	75.2	24.8	100.0	2523	12.3	87.7	100.0	3055
25-29	31.9	68.1	100.0	2195	2.8	97.2	100.0	2374
30-34	8.4	91.6	100.0	1958	0.5	99.5	100.0	1794
35-39	2.9	97.1	100.0	1757	0.1	99.9	100.0	1398
40-44	0.3	99.7	100.0	1322	0.3	99.7	100.0	1007
45-49	0.1	99.9	100.0	1146	..	100.0	100.0	958
50-54	..	100.0	100.0	779	..	100.0	100.0	952
55-59	..	100.0	100.0	620	..	100.0	100.0	782
60+	..	100.0	100.0	2030	..	100.0	100.0	1460
Total	60.7	39.3	100.0	29566	48.8	51.2	100.0	29364

.. Less than .05 percent

3.11 Trends in the Never Married Female Household Population and the Singulate Mean Age of Marriage

Table 3.12 considers trends in marriage patterns and the singulate mean age of marriage from 1983 to 1991. Nationally, the proportion of women 15-19 years old who were never married rose by thirteen percentage points between 1983 and 1986, but it levelled off since that time. The proportion of never-married women 20-24 years old rose steadily from four percent in 1983 to twelve percent in 1991.

Current age	National				Residence							
					Rural				Urban			
	1983	1986	1989	1991	1983	1986	1989	1991	1983	1986	1989	1991
< 15	98.0	98.7	96.4	98.5	98.0	98.6	96.1	98.3	98.6	99.0	98.0	99.1
15-19	34.2	47.5	45.8	46.7	32.2	46.0	43.2	44.1	49.5	58.5	58.1	60.1
20-24	4.0	7.1	9.3	12.3	3.0	6.5	7.8	9.9	11.7	12.2	17.6	23.4
25-29	0.7	1.0	1.6	2.8	0.5	0.8	0.9	2.5	1.7	1.9	5.2	4.8
30-34	0.4	0.1	0.5	0.5	0.3	0.1	0.4	0.5	0.6	0.4	0.4	1.0
35-39	--	--	0.5	0.1	--	--	0.4	0.1	--	--	1.2	0.4
40-44	0.1	--	0.2	0.3	0.1	--	0.1	0.4	--	0.5	0.4	0.3
45-49	0.1	--	0.1	--	0.2	--	--	--	--	--	0.5	--
Singulate mean age at marriage	16.7	17.7	17.7	17.7	16.6	17.6	17.4	17.4	18.1	18.6	18.8	19.1

-- Less than .05 percent
 Note: Weighted number of never-married household members at the national level and unweighted numbers at rural and urban levels.

Both rural and urban areas were characterized by basically the same marriage trends. In both areas, the proportion of never-married 15-19 year old women increased between 1983 and 1986, but then levelled off between 1986 and 1989, and in both areas the proportion of never-married 20-24 year old women grew between 1983 and 1991. However, the absolute proportion of never-married women was substantially higher among urban than among rural women -- sixty percent of urban 15-19 year old women versus forty-four percent of corresponding rural women and twenty-three percent of urban 20-24 year old women versus ten percent of corresponding rural women. Additionally, *per annum* growth in the proportion of never-married 20-24 year old women was 1.5 percentage points for urban women compared to only 0.9 percentage points for rural women.

The singulate mean age of marriage is a summary measure which shows the mean age of marriage of women marrying before age fifty and is calculated from the proportion of women who are single in successive age groups (Shryock and Siegel, 1976: 167). The singulate mean age of marriage increased from 16.7 in 1983 to 17.7 in 1986 and remained constant since that time.

3.12 Marital Status

Table 3.13 considers the distribution of ever-married women by marital status and age. The highest proportion of currently married women was in the 20-24 age group, followed by the 25-29 age group. The likelihood of widowhood increased with age and was particularly noticeable as women moved from the 40-44 to the 45-49 age groups. Divorce and separation, by contrast, were concentrated among younger women, with almost one-third of all divorced and separated women in the 20-24 age range. These patterns

varied little by residential area except that divorce and separation were more concentrated among younger rural women than urban ones.

Table 3.13 Percent distribution of ever-married women by five-year age group according to marital status and rural-urban residence, Bangladesh, 1991

Age group	Currently married			Widowed			Divorced/Deserted			Total		
	National	Residence		National	Residence		National	Residence		National	Residence	
		Rural	Urban		Rural	Urban		Rural	Urban		Rural	Urban
<15	1.6	1.7	1.1	--	--	--	1.9	1.6	1.9	1.6	1.6	1.0
15-19	14.5	14.9	12.3	1.2	1.1	1.9	13.9	14.0	13.1	13.9	14.3	11.8
20-24	22.6	22.6	23.1	3.4	3.2	4.5	31.7	32.5	28.1	22.2	22.1	22.3
25-29	20.0	19.7	21.5	6.0	5.6	7.7	21.7	22.9	15.9	19.4	19.2	20.6
30-34	15.9	15.9	15.7	12.8	13.0	11.6	14.2	13.4	19.6	15.7	15.7	15.7
35-39	11.9	11.7	12.8	20.4	19.9	22.6	8.8	8.0	14.0	12.1	11.9	13.3
40-44	8.0	7.9	8.4	24.7	24.4	25.8	5.4	5.1	6.5	8.6	8.5	9.2
45-49	5.5	5.6	5.2	31.5	32.8	25.9	2.4	2.5	0.9	6.5	6.6	6.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	9745	8282	2815	458	377	115	370	314	107	10573	8973	3077

-- Less than .05 percent
 Note: Weighted number of ever-married women at the national level and unweighted numbers at rural and urban levels.

3.13 Age at First Marriage and Mean Age of Marriage

Age at first marriage and the mean age of marriage among ever-married women are shown in Table 3.14. The majority of women in all age groups married below the age of 15. The proportion of women above age 19 who married below the age 15 progressively increased with their age. For example, eighty-one percent of women 45-49 years of age married below age 15 compared to only fifty-eight percent of women age 20-24. The mean of age of marriage shown in the last column of Table 3.8 also reveals an increasing age of first marriage. Whereas the mean age of marriage was only 12.7 for women 45-49 years old, it was 14.6 for women 20-24 years old.

Table 3.14 Percent distribution of ever-married women by five-year age group according to age at first marriage and mean age at first marriage, Bangladesh, 1991

Current age	Percent never married	Percent Ever-married by Age						Total percent	Number of women	Mean age
		<15	15-19	20-24	25-29	30-34	35-39			
<15	98.5	100.0	NA	NA	NA	NA	NA	100.0	164	12.7
15-19	46.7	61.9	38.1	NA	NA	NA	NA	100.0	1474	14.2
20-24	12.3	57.9	36.9	5.1	NA	NA	NA	100.0	2337	14.6
25-29	2.8	61.3	33.6	4.7	0.4	NA	NA	100.0	2054	14.4
30-34	0.5	69.2	26.9	3.0	0.8	0.1	NA	100.0	1658	13.9
35-39	0.1	72.1	24.5	2.8	0.4	0.1	0.1	100.0	1282	13.5
40-44	0.3	77.9	19.7	2.1	0.2	--	0.1	100.0	909	13.2
45-49	--	80.9	17.5	1.4	0.1	--	0.1	100.0	692	12.7
Total	48.8	66.5	30.1	3.1	0.3	--	--	100.0	10669	14.0

NA = Not applicable
 -- Less than .05 percent

3.14 Differentials in Mean Age at First Marriage

Table 3.15 shows the mean age of first marriage by subgroup of the ever-married female population. Urban women had a higher mean age of first marriage than rural women. Chittagong Division women had the highest mean age of first marriage, followed by Dhaka Division women. Non-Muslim women had a higher mean age of marriage than Muslim women. Education was closely associated with marital age, with women with a secondary school education and above having the highest mean age of first marriage and women who never attended school the lowest. Women's employment or landownership status had no effect on their mean age of first marriage. Women from comparatively wealthy households had a higher mean age of first marriage than women from comparatively poorer households.

Table 3.15 Mean age of first marriage among ever-married women 25-49 years of age by selected characteristics according to rural-urban residence, Bangladesh, 1991			
Selected characteristics	National	Residence	
		Rural	Urban
Division			
Dhaka	13.8	13.5	14.9
Chittagong	14.6	14.4	15.2
Rajshahi	13.0	12.9	13.8
Khulna	13.5	13.4	14.2
Religion			
Muslim	13.5	13.4	14.5
Non-Muslim	15.0	14.9	15.7
Educational level			
Never attended	13.2	13.2	13.6
< Primary	13.8	13.7	14.0
Primary	14.5	14.4	14.9
Secondary +	16.4	16.0	16.8
Employment status			
Paid employment	13.6	13.4	14.7
Unpaid or no employment	13.8	13.6	14.6
Landownership status			
Owens land	13.7	13.6	14.9
Does not own land	13.7	13.5	14.4
Household wealth scale			
Low	13.1	13.1	13.6
Medium	13.5	13.5	13.8
High	14.2	13.9	15.5
Total	13.7	13.7	14.6
N	6594	5556	1996

Note: Weighted number of ever-married women 25-49 years of age at the national level and unweighted numbers at rural and urban levels.

3.15 Summary and Conclusions

This chapter has documented that social and economic development among women remains low in Bangladesh. In 1991, sixty-one percent of ever-married women of reproductive age had never attended school and eighty-four percent currently either had no employment or had unpaid jobs. In addition, the mean age of marriage for all women was only 17.7 years. Because of *purdah* regulations, female mobility was restricted. Few Bangladeshi women belonged to non-household groups, thus precluding them from forming corporate identities or personal networks important for acquiring independent decision-making.

Not only was the level of social and economic development low but social and economic trends over time were not uniformly positive. Landownership, for example, was associated with comparatively high education and wealth, but the proportion of ever-married women of reproductive age who lived in landowning households declined over time.

Female employment, often viewed as an important determinant of fertility decline, was not associated with either high education or wealth. On the contrary, employed women were disproportionately clustered in the poorest households, and relatively high proportions of widowed, divorced, or deserted women, as well as older women and women with large families, were employed. Most female employment therefore did not appear to be directed toward developing a long-term, productive career but rather toward augmenting meager household incomes. Given the continuing importance of household seclusion in Bangladeshi society, female employment outside the home may also be associated with a decline in social prestige. Significantly, the proportion of women having paid employment rose over time in both urban and rural areas.

By 1991, only a minority of ever-married women of reproductive age had attended school and the proportion of women who had received partial or complete primary level school only increased minimally over time. On a more positive note, however, the proportion of women who received secondary level education and above grew between 1983 and 1991, particularly in urban areas. Younger women and women with a small family size had higher mean years of education than older women and women with a large family size, indicating that younger cohorts of women may have obtained more schooling than older cohorts of women.

Ever-married urban women of reproductive age were on average better educated than corresponding rural women, but the differences were modest. A far higher proportion of urban than rural women received secondary education and above, probably reflecting opportunities in the professional and bureaucratic labor market and the higher prestige of education for girls in urban areas. Proportions of women receiving primary level education suitable for trade and simple clerical positions were basically the same in rural and urban areas and remained largely static over time.

Housing accommodations and amenities and commodity ownership remain low in Bangladesh. Most houses were at least partially constructed from flimsy materials such as mud or woven bamboo, and even in urban areas, only a minority of houses had durable concrete walls or floors. Most "sanitation facilities" in rural areas were either outdoors or hanging latrines over ponds, and around half of all such facilities in urban areas were this kind. One positive development was the high proportion of drinking water supplied from tubewells, generally considered a safe source of water.

A substantial proportion of Bangladeshi households did not possess such basic consumer items as simple furniture, wardrobes, watches, or radios. A key feature of modern life, for example, is the ability to order life according to measured time. This feature appears to be lacking among considerable numbers of Bangladeshis. A large proportion of Bangladeshi households also did not possess a radio. Although some women may have access to the wider world through community-owned radios, the custom of *purdah* would restrict many of them from having easy and regular access to mass communication.

The age of marriage did not increase significantly in Bangladesh, even though some evidence suggests that younger cohorts of women, particularly those in urban areas, marry at older ages than older cohorts of women. The mean age of marriage for all ever-married women of reproductive age, 14.0 years, was extraordinarily low, although the difference between this mean which is based on reported age of marriage and the singulate mean age of marriage which is based only on age-specific proportions single suggests underreporting of the age of marriage by women. (See Huq and Cleland, 1990: 46). The differentials suggest that women's age of marriage should rise as more women move to urban areas and as they become more educated. Chittagong Division women, conservative on many measures, actually had a marginally higher mean age of marriage than women from the other three divisions.

In brief, these socioeconomic and marriage patterns and trends suggest that women have not made rapid social and economic progress in Bangladesh during the 1980s decade, despite some improvements in the education and age of marriage of younger cohorts. A significant share of female employment appears to be a response to poverty, although its long-range effects in the form of greater mobility and independent income generation may lead to greater female empowerment.

The distribution of households by age and sex indicates that there is a deficit of males in the young adult age groups and generally an excess of males in the older adult age groups. The high sex ratios in the older age groups may reflect the effects of high female mortality in these ages, in particular maternal mortality among women in the older reproductive age groups. It may also reflect differential age misreporting between males and females. Apart from differential age-misreporting, the low sex ratios among young adult populations may indicate more international emigration by males than females. It may also indicate the males were more likely than females to live in institutional settings -- settings which by design were excluded in the survey household listings. Finally, it may indicate that male-dominant sample areas did not appear in the sampling frame produced from the *1986 Economic Census*, probably because these areas were composed of in-migrants and were established after 1986. Given the way the sample was drawn, however, this exclusion of sample areas would have affected urban *mahalla*, not rural villages.

CHAPTER 4

FERTILITY

One of the major objectives of the Bangladesh National Family Planning Program is to reduce the country's fertility. On the basis of preliminary findings from the *1991 Population Census*, the 1981-91 *per annum* population growth rate was estimated to be 2.17 percent. If this rate is maintained, Bangladesh's population will double in thirty-two years to roughly 224 million people. Over the long term, international out-migration should face severe constraints. Mortality reduction will actually spur population growth. Lowering fertility is therefore the only sustainable way to limit population size.

The questionnaire was designed to measure cumulative fertility and past and current fertility rates. Cumulative fertility refers to the total number of children ever born to ever-married women 15 to 49 years of age. Respondents were asked about the total number of sons and daughters currently residing at home, the number not residing at home, and the number born alive who later died.

Current fertility and past fertility rates are calculated by the number of births to women of specific ages during a given period divided by all women of those ages during that period. Using a birth history format, interviewers asked ever-married women 15-49 years old the names of all their children born over an eight-year period (May 1983 to the interview date), their sex, their year of birth in either English and Bengali years¹, their month of birth, their survival status, and if dead, their age at death in months. This kind of truncated birth history enables a collection of data about both the number and the timing of recent births.

4.1 Age Misreporting and Underreporting of Deaths

Inaccurate estimation of fertility trends may stem from age displacement of births. For example, mothers may backdate recent births, an error which results in an underestimation of recent childbearing and an overestimation of past childbearing. This bias could lead to unwarranted optimistic conclusions about recent fertility decline. Displacement of births has also been ascribed to interviewer failure to enumerate valid birth dates in a birth history (Arnold and Sultan, 1991). Table 4.1, however, shows that age misreporting should not seriously affect fertility estimates generated from the *1991 Contraceptive Prevalence Survey*. Under normal conditions, were births reported accurately, births in year x should roughly equal the average of births in year $x-1$ and year $x+1$. As shown by the calendar year birth ratios in the last column of Table 4.1, the reported distribution of births generally follows the predicted pattern. The only exception is a ten percent deficit of births in 1989 compared to 1988 and 1990. In order to reduce the effects of any bias associated with misreported birth dates, some fertility rates given in this chapter are averaged over multiple year periods.

Another potential source of error is underreporting of infant deaths by mothers. In order to minimize this underreporting, interviewers reiterated their questions to mothers about the total number of children ever born and probed about possible infant deaths shortly after birth. Because there is no reason to believe that underreporting of infant deaths was greater in the *1991 Contraceptive Prevalence Survey* than in past surveys, it is unlikely that an interpretation of rapid fertility decline would be seriously affected

¹ A usable date of birth was found for all births reported in the eight-year birth history. Interviewers asked women to report all births from May 1983 to the interview date starting with the most recent birth. If a woman could not recall an exact date of birth, the interviewer estimated a date after probing with an events calendar.

by it. Indeed, as data collection experience has matured in Bangladesh, there is probably better reporting of infant deaths now than in past years -- a situation which would result in lower fertility declines than would have been the case had reporting not improved.

Calendar year	Number of births (weighted)			Calendar year ratio ¹		
	Living	Dead	Total	Living	Dead	Total
1991 ²	926	67	993	NA	NA	NA
1990	1663	164	1827	NA	NA	NA
1989	1477	159	1637	89.7	88.1	89.6
1988	1631	197	1828	105.2	106.2	105.2
1987	1625	212	1837	100.3	102.9	100.6
1986	1610	215	1824	101.7	96.2	100.9
1985	1541	235	1776	96.3	111.6	98.1
1984	1591	206	1797	NA	NA	NA
1983 ²	1147	163	1311	NA	NA	NA

NA = Not Applicable
¹ $[2B_x/B_{x-1} + B_{x-1}] \times 100$ where B_x is the number of births in calendar year x .
² Incomplete year

In conclusion, age displacement does not appear to be a serious problem in the 1991 *Contraceptive Prevalence Survey*. The shortage of births in 1989 may be explained by some frontdating of 1989 births to 1990 and some backdating of 1989 births to 1988 or by a real dearth of births possibly caused by the 1988 flood. These effects are reduced by averaging single-year fertility rates over multiple years. Omission of births may downward bias fertility estimates to an unknown degree, but there is no reason to believe that this bias is greater now than in past years. Therefore, even though estimated fertility levels may be too low, evidence of a downward fertility trend should be reliable.

4.2 Children Ever Born

Table 4.2 shows the number of children ever born (CEB) for all women and for currently married women. CEB is a measure of the cumulative fertility of women up to the time of the interview. The percent distribution of the number of children ever born for all women was calculated by assuming that all births occurred among ever-married women. As expected, mothers' age was positively related to their number of births, with on average a one child addition for each succeeding five-year age cohort.

In 1991, currently married women 45-49 years of age averaged 7.7 children but only 5.8 children were still alive toward the end of their mothers' childbearing years. Mortality therefore lowered family size among the oldest women of childbearing age by two children, a reduction of twenty-five percent. However, only eleven percent of the children ever born to women 20-24 years old had died by the time of the survey. Because infant mortality is disproportionately responsible for all deaths among children ever born, the lower proportion of CEB deaths to younger women may reflect improved child survival conditions over recent years. (See Chapter 9.)

Table 4.2 also shows continuing large family size among women currently nearing the end of their reproductive careers. Sixty-eight percent of all women 40-44 years old and 76 percent of all women 45-49 years old had borne at least six children. These women were well into their prime childbearing years more than fifteen years ago at a time before the family planning program had become fully institutionalized in Bangladesh. However, young childbearing is still common in Bangladesh, with thirty percent of all women 15-19 years old bearing at least one child.

Table 4.2 Percent distribution of all women and currently married women by five-year age groups according to number of children ever born, mean number of children ever born, and mean number of living children, Bangladesh, 1991													
Age	Number of children ever born									Total	Number of women (weighted)	Mean no. of CEB	Mean no. of living children
	0	1	2	3	4	5	6	7	8+				
All women													
15-19	70.1	22.4	6.4	0.9	0.2	0.1	--	--	--	100.0	1473	0.4	0.3
20-24	24.1	23.2	27.7	16.2	6.5	1.8	0.4	0.1	--	100.0	2340	1.7	1.4
25-29	6.3	8.2	18.9	25.0	21.3	12.6	5.5	1.7	0.6	100.0	2054	3.2	2.7
30-34	3.4	3.8	10.0	15.3	17.8	19.5	13.5	9.1	7.6	100.0	1658	4.5	3.6
35-39	1.5	2.0	5.3	9.2	14.1	16.8	14.5	14.6	22.1	100.0	1281	5.7	4.5
40-44	1.2	1.1	3.6	5.6	3.3	12.4	15.9	14.4	37.7	100.0	909	6.7	5.2
45-49	0.8	1.5	2.5	3.8	7.0	8.5	11.5	14.2	50.2	100.0	692	7.4	5.5
Total	17.5	11.0	13.6	13.0	11.4	9.7	7.3	5.8	10.7	100.0	10407	3.5	2.8
Currently married women													
15-19	42.7	42.7	12.4	1.7	0.3	0.1	--	--	--	100.0	1416	0.6	0.6
20-24	12.6	25.3	32.4	19.3	7.8	2.1	0.4	0.1	--	100.0	2206	1.9	1.7
25-29	2.9	7.1	19.2	26.1	22.8	13.6	5.9	1.8	0.6	100.0	1946	3.4	2.8
30-34	2.1	3.1	9.7	15.3	18.1	20.0	14.5	9.3	7.9	100.0	1546	4.6	3.7
35-39	1.0	1.3	4.4	8.6	14.0	17.1	15.4	15.4	22.8	100.0	1155	5.8	4.7
40-44	0.6	0.7	2.5	4.8	7.2	12.5	15.8	15.5	40.4	100.0	776	6.9	5.4
45-49	0.7	0.9	2.1	3.2	6.0	7.4	9.9	15.0	54.8	100.0	539	7.7	5.8
Total	10.4	14.3	15.7	14.0	12.0	10.0	7.3	5.8	10.5	100.0	9585	3.7	3.0
-- Less than .05 percent													

Table 4.3 considers temporal declines in cumulative fertility. After adjusting for differences in age distributions over time, the mean number of CEB to ever-married women fell from 4.2 in 1983 to 3.7 in 1991, a decline of twelve percent over eight years. Women 15-29 years old experienced small reductions in cumulative fertility between 1983 and 1986, but these reductions vanished between 1989 and 1991. The pace of childbearing among younger women thus remained stable over the recent past. Most fertility reduction between 1986 and 1991 occurred among women between the ages of 30 and 44.

Table 4.3 Mean number of children ever born to ever-married women by five-year age groups, Bangladesh, 1983-1991				
Age	Year			
	1983	1986	1989	1991
15-19	0.8	0.7	0.7	0.7
20-24	2.3	2.1	1.9	1.9
25-29	3.8	3.6	3.3	3.3
30-34	5.5	5.1	4.7	4.5
35-39	6.5	6.5	5.9	5.7
40-44	7.3	7.4	7.0	6.7
45-49	7.5	7.2	7.5	7.4
Standardized mean	4.2	4.0	3.8	3.7
Note: The mean is standardized by the 1991 age distribution of ever-married women.				

Age of first marriage was positively associated with cumulative fertility (*Table 4.4*). This pattern is typical given that the number of children ever born is usually related to years spent in marriage, especially in a country such as Bangladesh where the vast majority of women do not engage in premarital sexual intercourse. For example, the cumulative fertility of women 40-49 years of age who married between the ages of 18 and 20 was twenty-eight percent lower than the cumulative fertility of the same cohort of women who married below the age of 15. Even though many of the women who married below age 15 were probably subfecund, their cumulative fertility was still higher than women who married between the ages of 15 and 17.

Age at first marriage	Current age		
	20-29	30-39	40-49
< 15	3.0	5.3	7.2
15	2.5	4.9	6.9
16	2.3	4.5	6.7
17	1.9	4.3	6.1
18-20	1.2	3.7	5.2
21+	0.9	2.7	4.0

4.3 Parity Progression Ratios

Table 4.5 shows parity progression ratios for currently married women² in five-year age groups between the ages of 30 and 49 from 1986 to 1991. A parity progression ratio is the proportion of women at parity x who continue to the next higher parity $x+1$. Reproductive time spent after the field-based National Family Planning Program started in the mid-1970s seems to be a strong defining factor for advancing to higher parities. The last column of the table indicates that women at the end of their childbearing years had essentially the same probability of having additional children in 1991 as they had in 1986. These women would have been in their peak childbearing ages either before or at the start of the National Family Planning Program's field-based system. The first evidence of the effect of this Program was among those 40-44 years old at parity four. These women would have been in their mid-twenties to mid-thirties at the beginning of the field-based Program. Likewise, there were signs of fertility reduction among women 35-39 years old at parity three and women 30-34 years old at parity two. Women in these age groups would have spent a substantial portion of their reproductive careers after the field-based Program had been initiated.

Changing fertility patterns can also be seen by comparing the proportion of women 30-34 years old and 35-39 years old at given parities between 1986 and 1991. There were lower proportions of women at all parities, except parity one, in 1991 than in 1986. The differences were particularly striking at parity eight for 30-34 years olds. Fifty-five percent of them went on to have nine or more children in 1986 compared to only thirty-four percent in 1991. This decline may indicate that dramatic reductions of very high parity births may be taking place in Bangladesh.

² Currently married rather than ever-married women at given parities are used as the denominator in order to eliminate effects of divorce and widowhood on the progression to higher parities.

Table 4.5 confirms that virtually all Bangladeshi women have at least two children. For example, regardless of the CPS survey year, ninety-seven percent of currently married Bangladeshi women 30-34 years old who had given birth to one child went on to have a second child.

Parity	Age											
	30-34			35-39			40-44			45-49		
	1986	1989	1991	1986	1989	1991	1986	1989	1991	1986	1989	1991
1	.97	.97	.97	.99	.99	.99	1.00	.99	.99	.98	.99	.99
2	.95	.92	.90	.97	.96	.95	.99	.99	.97	.97	.98	.98
3	.89	.86	.82	.96	.93	.91	.96	.96	.95	.96	.96	.97
4	.80	.77	.74	.89	.87	.83	.95	.95	.92	.95	.97	.94
5	.70	.65	.61	.84	.80	.76	.89	.88	.85	.93	.91	.92
6	.59	.56	.54	.76	.71	.71	.86	.84	.78	.83	.87	.88
7	.50	.46	.46	.69	.62	.60	.77	.78	.72	.82	.77	.79
8	.55	.41	.34	.58	.62	.54	.74	.67	.68	.74	.76	.71

4.4 Age-Specific Fertility Rates and Total Fertility Rates

Age-specific fertility rates and total fertility rates are presented in Table 4.6. An age-specific fertility rate (ASFR) is the ratio of births to all women of a specific age at a given time divided by all women who were that age at that time³. A total fertility rate is a summary measure that can be interpreted as the number of children a woman would bear during her childbearing years if her fertility behavior conformed to prevailing age-specific fertility rates. It is calculated by multiplying each age-specific rate by five, the number of years in each five-year age group, and then summing them.

Age at mid-interval	Months before the survey								
	1-12	13-24	25-36	37-48	49-60	61-72	1-36	1-60	1-72
15-19	0.178	0.169	0.190	0.192	0.205	0.210	0.179	0.187	0.191
20-24	0.234	0.227	0.229	0.254	0.248	0.218	0.230	0.239	0.235
25-29	0.180	0.187	0.196	0.207	0.217	0.228	0.188	0.198	0.203
30-34	0.123	0.123	0.143	0.165	0.159	0.186	0.129	0.142	0.150
35-39	0.072	0.070	0.092	0.087	0.100	0.116	0.078	0.084	0.089
40-44	0.032	0.036	0.039	0.067	0.043	0.082	0.036	0.044	0.050
45-49	0.014	0.021	0.003	[0.018]	NI	NI	0.013	0.011	0.010
TFR 15-49	4.16	4.16	4.46	4.95	4.86	5.20	4.26	4.52	4.63

NI = No Information
Note: ASFR in brackets is partially truncated.

³ Because childbearing rarely occurs outside marriage in Bangladesh, interviewers only asked the birth history to ever-married women, not to all women. In order to calculate the age-specific fertility rates of all women, the rate for ever-married women was first computed. This rate was then inflated by the reciprocal of the ratio of ever-married women to all women, as reported in the household listing.

ASFRs and TFRs are presented over twelve month intervals up to seventy-two months before the survey date. The total fertility rate declined twenty percent over time, from 5.20 during the sixth year before the survey date to 4.16 during the first year before the survey date. Identical TFRs during the first and second years do not suggest any backdating of recent births. The right-hand panel of Table 4.6 smooths out erratic annual fluctuations of births by showing an average six-year TFR of 4.63, an average five-year TFR of 4.52, and an average three-year TFR of 4.26. If Bangladeshi women follow the fertility behavior reflected in the three-year TFR estimate, they would bear nearly 3.0 children by their thirtieth birthdays and nearly 4.3 children by the end of their reproductive careers.

4.5 Trends in Age-Specific Fertility Rates and Total Fertility Rates

Recent trends in age-specific fertility rates indicate that fertility fell most rapidly among older women (Table 4.7). Using three-year total fertility rates, ASFRs are thirty-two percent lower among 40-44 year olds in 1991 than in 1989. Likewise, they are twenty-eight percent lower among 35-39 year olds and nineteen percent lower among 30-34 year olds in 1991 than in 1989. This trend suggests increased contraceptive use among older women in Bangladesh. On the other hand, fertility actually rose by five percent among 15-19 year olds, reflecting a low use of contraception and a lack of increase in the average age of marriage among these women over recent years.

Age at mid-interval	3-year rates		5-year rates	
	1989	1991	1989	1991
15-19	0.171	0.179	0.176	0.191
20-24	0.241	0.230	0.252	0.235
25-29	0.217	0.188	0.225	0.203
30-34	0.160	0.129	0.167	0.150
35-39	0.109	0.078	0.114	0.089
40-44	0.053	0.036	0.060	0.050
45-49	0.014	0.013	0.016	0.010
TFR 15-49	4.82	4.26	5.05	4.63

Table 4.8 compares total fertility rates over recent years from several data sources in order to identify both historical trends and the degree of consistency between the data sources. The two Contraceptive Prevalence Surveys and the Bangladesh Fertility Survey (BFS) are cross-sectional, nationally representative surveys. The Sample Vital Registration System (VRS) collects vital events data on an ongoing basis from 210 primary sampling units in both rural and urban areas nationwide. All sources show that fertility generally moved in a downward direction throughout the 1980s. The gap between the VRS data and CPS/BFS survey data also narrowed considerably over time. The 1989 BFS and the 1991 CPS TFRs are remarkably consistent between 1986 and 1988, both surveys showing that the TFR fell from around 5 children to 4.6 during these years. The direct estimate of TFR for calendar year 1990 derived from the 1991 Contraceptive Prevalence Survey is 4.24.

4.6 Differentials in Total Marital Fertility Rates

Table 4.9 shows differentials in total marital fertility rates (TMFR) among population subgroups. A TMFR is similar to a TFR but it applies to ever-married women rather than to all women. The national TMFR was 5.54 during 1985-1987 and 5.05 during 1988-1990 for a nine percent decline over these years. Even though the urban TMFR was lower than the rural TMFR, the rate of decline was similar in the two areas. Married Chittagong Division women could expect to have almost one child more than married women from

the other divisions. However, the rate of marital fertility decline for Chittagong Division women between 1985-87 and 1988-90 was roughly equivalent to the rate of decline for women from the other divisions.

Selected surveys	Calendar years							
	1983	1984	1985	1986	1987	1988	1989	1990
1991 CPS	.	5.19	4.96	5.08	4.94	4.68	4.12	4.24
1991 VRS	5.07	4.83	4.71	4.70	4.42	4.39	4.35	4.33
1989 CPS	.	.	5.59	5.14	4.72	5.04	.	.
1989 BFS	6.08	5.93	5.55	5.00	4.86	4.64	.	.

Note: CPS = Contraceptive Prevalence Survey; VRS = Vital Registration System; and BFS = Bangladesh Fertility Survey.

The 1988-90 TMFR among non-Muslim women was 4.51 compared to 5.14 among Muslim women. Urban non-Muslim could expect to have almost one child less than urban Muslim women in 1991, and this difference by religious affiliation grew substantially over time.

Education was negatively related to marital fertility in 1988-1990, with those having more education having lower fertility than those having less education. Differences in marital fertility by education, however, widened between 1985-87 and 1988-90. Whereas TMFRs were roughly similar for the lowest three educational groups in 1985-1987, there were pronounced differences between them by 1988-1990, with the marital fertility of women with full primary level education in particular starting to converge with the marital fertility of women with secondary level education and above. This trend was especially apparent among urban women with full primary level education.

Women with paid employment had lower marital fertility and a higher rate of marital fertility decline than women with unpaid or no employment. The rate of fertility decline was especially high among employed women living in urban areas. TMFR differences between women whose households owned land and whose households did not own land were modest. The TMFR of women from wealthy households was almost one child lower than the TMFR of women from poor households in 1988-90. The rate of marital fertility decline among women from wealthier households was also higher than the rate for women from poorer households. These fertility differentials by wealth were particularly striking among urban women.

4.7 Differentials in Median Birth Intervals

The median interval since the previous birth during the eight years preceding the survey (May 1983 to the survey date) was thirty months, the same in both rural and urban areas (*Table 4.10*). Median intervals did not vary between the four divisions, except for slight differences between urban areas. The length of the birth interval increased with the mother's age. The birth interval of women <15-19 years of age was only twenty-six months compared to thirty months for women 20-39 years of age and thirty-two months for women 40-49 years old. The median birth interval varied little by the sex of the previous birth (the sex of the first birth in the closed birth interval), although the slightly longer interval where the previous birth was a male child may suggest some sex preference. The survival status of the prior birth, however, strongly affected the median birth interval. If the previous child died, the median interval to the next child was twenty-five months, compared to thirty-one months if the previous child survived.

Table 4.9 Total marital fertility rates among ever-married women by selected characteristics according to rural-urban residence, Bangladesh, 1991

Selected characteristics	National		Residence			
			Rural		Urban	
	1988-1990	1985-1987	1988-1990	1985-1987	1988-1990	1985-1987
Division						
Dhaka	4.93	5.53	5.22	5.65	4.11	4.87
Chittagong	5.63	6.25	5.69	6.33	5.16	5.76
Rajshahi	4.86	5.33	4.88	5.37	4.50	4.93
Khulna	4.64	4.99	4.75	5.13	3.86	4.27
Religion						
Muslim	5.14	5.61	5.24	5.70	4.53	5.05
Non-Muslim	4.51	5.20	4.64	5.21	3.81	4.96
Educational level						
Not attended	5.33	5.67	5.50	5.71	5.01	5.40
< Primary	5.01	5.67	5.10	5.74	4.44	5.16
Primary	4.60	5.48	4.70	5.50	3.74	5.06
Secondary +	3.93	4.30	4.04	4.52	3.62	4.01
Employment status						
Paid employment	4.67	5.29	4.78	5.39	3.76	4.60
Unpaid or no employment	5.15	5.61	5.25	5.69	4.53	5.15
Landownership status						
Owens land	5.02	5.55	5.10	5.62	4.33	4.85
Does not own land	5.11	5.53	5.27	5.65	4.51	5.11
Household wealth scale						
Low	5.50	5.85	5.47	5.86	5.54	5.80
Medium	5.29	5.78	5.35	5.79	4.87	5.67
High	4.88	5.21	4.84	5.39	3.71	4.37
Total	5.05	5.54	5.16	5.72	4.43	5.02
N	9456	8247	8008	7000	2765	2399

Note: Weighted number of ever-married women at the national level and unweighted numbers at rural and urban levels.

Table 4.10 Median months since previous birth in the eight years preceding the survey by selected characteristics according to rural-urban residence, Bangladesh, 1991				
Selected characteristics	National	Residence		Total number of births (weighted)
		Rural	Urban	
Division				
Dhaka	30.0	30.0	29.0	2079
Chittagong	30.0	30.0	30.0	2051
Rajshahi	30.0	30.0	31.0	1757
Khulna	30.0	30.0	32.0	1218
Age				
< 15-19	26.0	26.0	25.5	235
20-29	30.0	30.0	30.0	4233
30-39	30.0	30.0	30.0	2243
40-49	32.0	32.0	31.0	394
Sex of prior birth				
Male	30.0	30.0	31.0	3488
Female	29.0	29.0	29.0	3616
Survival of prior birth				
Living	31.0	31.0	31.0	6207
Dead	25.0	25.0	24.0	898
Religion				
Muslim	30.0	30.0	30.0	6387
Non-Muslim	31.0	31.0	31.0	715
Educational level				
Not attended	30.0	30.0	29.0	4692
< Primary	30.0	29.0	31.0	1336
Primary	29.0	29.0	30.0	549
Secondary +	32.0	32.0	32.5	527
Employment status				
Paid employment	30.0	30.0	29.0	1085
Unpaid or no employment	30.0	30.0	30.0	6018
Landownership status				
Owens land	30.0	30.0	31.0	4014
Does not own land	30.0	30.0	29.0	3091
Household wealth scale				
Low	30.0	29.0	30.0	2179
Medium	30.0	30.0	29.0	2234
High	30.0	30.0	31.0	2691
Total	30.0	30.0	30.0	7105

Note: Calculation from weighted number of births at the national level and unweighted numbers of births at rural and urban levels.

Differences in the median length of the birth interval were not significant by religious affiliation, employment status, landownership status, or household wealth. However, the level of education had some

impact on the length of the previous birth interval, with this interval being somewhat longer for women with secondary level education and above than for women with lower education attainment.

4.8 Differentials in Adolescent Childbearing

Thirty-six percent of all Bangladeshi women 15-19 had begun childbearing -- twenty-nine percent who were already mothers and seven percent who were pregnant with their first child (*Table 4.11*). Adolescent childbearing was higher among rural women than urban women. Adolescent childbearing was highest among Rajshahi Division women, followed by Dhaka Division women and Khulna Division women. Chittagong Division women were least likely to have experienced adolescent childbearing. At age 19, sixty percent of Bangladeshi women were either mothers or were pregnant with their first child.

Selected characteristics	Percent who are		Percent who have begun childbearing	Number of all women 15-19 years of age (weighted)
	Mothers	Pregnant with first child		
Residence				
Rural	31.3	7.0	38.3	1285
Urban	22.7	5.3	28.0	363
Division				
Dhaka	29.7	8.9	38.6	409
Chittagong	24.4	5.1	29.5	415
Rajshahi	39.2	6.5	45.7	341
Khulna	27.6	6.2	33.8	309
Age				
15	8.2	6.8	15.0	209
16	19.0	8.3	27.3	279
17	31.5	7.7	39.2	283
18	44.8	6.4	51.2	370
19	56.2	4.0	60.2	333
Total	29.4	6.6	36.0	1474

Note:
1 Unweighted number of all women 15-19 years of age is used to calculate the residential differentials.

4.9 Women Currently Pregnant

Eleven percent of all currently married women were pregnant in Bangladesh in 1991 (*Table 4.12*). Almost twenty percent of women 15-19 years old were pregnant, followed by sixteen percent of women 20-24 years old, fourteen percent of women less than 15 years old, eleven percent of women 25-29 years old, and less than ten percent of women 30 years old or older. There was no residential variation in the total percentage of currently married women who were pregnant, although disaggregated by age, higher proportions of rural than urban women above 24 years old were pregnant whereas higher proportions of urban than rural women 15-24 years old were pregnant.

Age	National	Residence		Number of pregnant women (weighted)
		Rural	Urban	
<15	13.6	13.7	10.3	21
15-19	19.6	19.2	22.5	274
20-24	16.2	15.9	18.1	352
25-29	11.2	11.5	9.8	216
30-34	7.1	7.2	6.6	109
35-39	4.2	4.5	2.9	48
40-44	1.5	1.7	0.4	12
45-49	0.2	--	0.4	1
Total	10.7	10.7	10.7	1033

-- Less than .05 percent
Note: Calculation from weighted number of currently married women at the national level and unweighted numbers at rural and urban levels.

4.10 Summary and Conclusions

Findings from the *1991 Contraceptive Prevalence Survey* point to a rapid decline in fertility in Bangladesh, and the evidence from the patterns of cumulative fertility of age cohorts of women in their reproductive years indicate that the decline coincided with the introduction of the field-based National Family Planning Program. Indeed, this association between rapid fertility reduction and the mass distribution of contraceptives is typical for much of the developing world.

These findings about fertility reduction probably reflect a real phenomenon rather than an artifactual one. Birth distribution patterns by calendar year do not indicate a gross misreporting of birth dates in Bangladesh. Indeed, backdating of recent births which can lead to erroneous conclusions about rapid fertility reduction is not apparent in the data. Even though there may have been underreporting of infant deaths, given the consistency of the fertility data with those in past surveys there is no reason to believe that the problem was greater in 1991 than in previous years. Therefore even though the 4.2 TFR directly estimated from the birth histories may be low because of birth omissions, the trend showing rapid fertility decline from past survey years is probably valid.

In order to reduce the effects of time reference errors, it is useful to compare the average total fertility rates over three years (or the fertility 1-36 months before the survey date) as shown by the 1989 and 1991 CPSs. The three-year TFR from the 1989 CPS corresponding to mid-year 1986 to mid-year 1988 was 4.82. The *Bangladesh Fertility Survey* also showed a calendar year 1986-1988 three-year TFR⁴ of 4.82. The three-year TFR from the 1991 CPS corresponding to mid-year 1988 to mid-year 1990 was 4.26, twelve percent lower than the earlier figure.

Applying the rate of fertility decline over the mid-1980s to the end of the decade can also be useful. The 1989 *Bangladesh Fertility Survey* showed that total fertility rates fell from 5.00 in 1986 to 4.64 in 1988. Extrapolating that same rate of decline linearly gives a 1990 TFR of 4.29, close to the 4.24 obtained directly from the 1991 CPS. A linear extrapolation may overstate the fertility rate because contraceptive use rose significantly during recent years. However, the direct fertility estimate is undoubtedly too low because of birth omissions. Given these considerations, our best 1990 TFR estimate is 4.3.

⁴ See Huq and Cleland, 1990: Table 9.8.

Marriage has an important effect on cumulative fertility, with women marrying at younger ages having significantly higher numbers of children ever born than women marrying at later ages. Women who marry below age fifteen have higher cumulative fertility than women who marry at older ages. Although the data bear more investigation, it is possible that women who marry below age fifteen not only have more children because they spend more years exposed to the risk of pregnancy but also because they are less likely to use contraception at given parities. This selectivity would become more apparent as contraception became widespread in a society. The effect of subfecundity on women who marry below age fifteen on cumulative fertility may thus be more than offset by the lower likelihood to use contraception.

The timing of fertility decline shown by the parity progression ratios supports the argument that the introduction of the field-based contraceptive distribution system was the key factor influencing fertility decline in Bangladesh. The decline is precipitous at higher parities among younger cohorts of women, indicating that a family size of more than eight children may rapidly become a thing of the past in Bangladesh.

Differentials in marital fertility indicate that although Chittagong women still have the highest fertility, their rate of decline is similar to that of women from the other three divisions. Chittagong women therefore are not impervious to changes in their fertility behavior, although their total demand for contraception may be generally lower than that of women from other regions. (See Chapter 8.)

The marital fertility of Muslims still exceeds the fertility of non-Muslims, and the rate of decline among urban non-Muslims is particularly striking. A critical factor in this decline is the relatively greater propensity of non-Muslims to use sterilization. (See Chapter 6.)

Education at medium levels in Bangladesh has started to have a strong impact on marital fertility patterns, as the marital fertility of women with complete primary level education has begun to converge with that of women with secondary level education and above. Marital fertility among women with incomplete primary level education also started to drop faster than that of women with no education. This finding is important because it suggests that expanding educational opportunities among women should have a profound impact on fertility decline. Fertility decline is also more apparent among women with paid employment than unpaid or no employment, indicating that expanding employment opportunities should also help spur fertility reduction. Higher household wealth is also associated with marital fertility decline, and urban women from medium-wealth households are reducing their fertility at the same rate as women from comparatively wealthy households. Indeed, socioeconomic influences on marital fertility decline are more pronounced in urban areas than in rural areas, which suggests interactive effects between urban living and socioeconomic opportunities on fertility decline.

Adolescent childbearing remains extremely high in Bangladesh, with sixty percent of 19-year old women either already mothers or pregnant with their first child. Surprisingly, Chittagong Division women were least likely of all women to have experienced adolescent childbearing, perhaps because of their older average age of marriage. (See Chapter 4.) Chittagong's case is unusual in that lower fertility during the adolescent years appears to translate into higher overall fertility.

CHAPTER 5

CONTRACEPTIVE AWARENESS AND ATTITUDES TOWARD FAMILY PLANNING

Contraceptive awareness logically precedes contraceptive use, and it is therefore important to know if women are aware of contraception and aware of specific contraceptive methods. Both the *1989 Contraceptive Prevalence Survey* and the *1989 Bangladesh Fertility Survey* found that the vast majority of Bangladeshi women had heard of at least one modern family planning method. Since that time, however, a growing pool of young married couples became eligible to use contraception, thus making it important to see whether past high levels of awareness were maintained or even increased from 1989 to 1991.

Standard techniques were used to ascertain contraceptive method awareness in the *1991 Contraceptive Prevalence Survey*. Interviewers asked ever-married women to name contraceptive methods. If respondents did not mention a method spontaneously, the interviewers prompted them by giving them the name of the method and then asking them if they had ever heard of it. Since spontaneous awareness would tend to underestimate awareness and prompted awareness overestimate it, together they give the lower and upper bounds of overall awareness of a contraceptive method.

The attitudes that Bangladeshis have toward family planning, the malleability of these attitudes, and their effect on contraceptive use have been matters of some debate. Some scholars have argued that resistance to family planning should run high because social, religious, and cultural practices are conducive for high fertility. Others have argued that these attitudes are not as rigid or orthodox as have been presumed, and that the introduction of extensive family planning provision would lead to quick and tolerant acceptance of their use.

The 1991 CPS asked women two attitudinal questions about family planning: (1) if they believed that recently married young couples should adopt family planning, and (2) if they believed that their husbands approved of family planning methods to avoid pregnancy. After modern contraceptive methods enter a country, use is typically highest where demand is greatest -- among older and higher parity women who desire to end their childbearing. Later, younger and lower parity women adopt family planning primarily to space their births. Bangladesh may still be in the first stage of contraceptive acceptance, because older women are more likely than younger women to use contraception. A substantial number agreeing with the idea that young married couples should use contraception could thus presage a possible shift to the second stage of contraceptive use.

Given the state of gender relations in Bangladesh, women often believe that their husband's approval is a prerequisite for their own use of contraception. According to the *1989 Contraceptive Prevalence Survey*, husbands were as familiar with and sympathetic to family planning as their wives (Mitra, *et al.*, 1990). It is important to see, however, if women perceive the existence of this support.

5.1 Levels and Trends of Contraceptive Awareness

By 1991, ninety-eight percent of ever-married Bangladeshi women were spontaneously aware of modern methods (*Table 5.1*). Nearly all Bangladeshi women were spontaneously aware of pills, four-fifths tubectomy, nearly three-fifths injectables and IUDs, one-half condoms, and one-third vasectomy. Many of those not spontaneously aware of specific modern methods said they had heard of these methods after probing by interviewers. Of all the modern methods, women were least aware of condoms and vasectomy.

Only twenty-three percent of women were spontaneously aware of at least one traditional method, but sixty percent were aware after probing by interviewers. Sixty-eight percent were aware of the safe period compared to less than fifty percent for all other traditional methods.

Table 5.1 Percent distribution of ever-married women who are aware of specific contraceptive methods by type of method according to rural-urban residence, Bangladesh, 1991

Contraceptive method	National				Residence							
					Rural				Urban			
	Awareness		No Awareness	Total	Awareness		No Awareness	Total	Awareness		No Awareness	Total
	Spontaneous	Prompted			Spontaneous	Prompted			Spontaneous	Prompted		
Any modern method	97.8	2.0	0.2	100.0	97.6	2.3	0.1	100.0	99.0	1.0	--	100.0
Pill	96.1	3.6	0.3	100.0	95.7	3.9	0.4	100.0	97.8	2.1	0.1	100.0
Condom	49.3	36.3	14.4	100.0	46.9	37.7	15.4	100.0	63.0	28.4	8.6	100.0
Injectable	56.8	38.4	4.8	100.0	56.5	38.5	5.0	100.0	58.6	37.9	3.5	100.0
IUD	59.4	29.5	11.1	100.0	58.4	29.9	11.7	100.0	64.7	27.1	8.2	100.0
Tubectomy	81.1	18.3	0.6	100.0	80.4	19.0	0.6	100.0	84.9	14.7	0.4	100.0
Vasectomy	31.0	56.4	12.6	100.0	29.4	57.9	12.7	100.0	39.9	47.9	12.2	100.0
Any traditional method	23.0	60.3	16.7	100.0	22.9	60.0	17.1	100.0	23.5	62.3	14.2	100.0
Safe period	11.5	56.5	32.0	100.0	11.0	56.2	32.8	100.0	14.1	58.1	27.8	100.0
Withdrawal	3.1	45.5	51.4	100.0	2.9	44.5	52.6	100.0	4.5	50.7	44.8	100.0
Abstinence	0.8	40.8	58.3	100.0	0.8	40.4	58.8	100.0	1.1	43.6	55.3	100.0
Other	12.8	20.5	66.7	100.0	13.4	20.4	66.2	100.0	9.9	20.5	69.6	100.0
Any method	97.9	2.0	0.1	100.0	97.7	2.2	0.1	100.0	99.9	0.1	--	100.0

-- Less than .05 percent
 Note: Calculation from weighted number of ever-married women at the national level and unweighted numbers at rural and urban levels.

A higher proportion of urban than rural women were spontaneously aware of all contraceptive methods except other traditional methods such as herbs and massage. In particular, urban women were more spontaneously aware of the two modern male contraceptive methods -- condoms and vasectomy -- than rural women.

Spontaneous contraceptive awareness of at least one modern method remained high in Bangladesh from 1986 to 1991 (Table 5.2). However, awareness of many specific modern methods increased over recent years. Proportions spontaneously aware of condoms, injectables, and IUDs increased between 1989 and 1991, and there was no decline in the already high proportions spontaneously aware of pills and tubectomy during the same period. Spontaneous awareness of vasectomy, however, remained relatively low and flat between 1989 and 1991.

Spontaneous knowledge of at least one traditional method doubled between 1986 and 1989 and doubled yet again between 1989 and 1991. Awareness about menstrual regulation grew slightly over the same period.

Spontaneous awareness of at least one modern method grew rapidly among rural women between 1983 and 1986 and since then has remained high. Awareness of at least one modern method stayed high among urban women between 1983 and 1991. This pattern appears mainly driven by pill awareness which increased dramatically among rural women between 1983 and 1986. Condom and vasectomy awareness also grew rapidly among both rural and urban women between 1983 and 1986. Injectable, IUD, and tubectomy awareness climbed steadily among these women between 1983 and 1991.

Spontaneous awareness of at least one traditional method grew steadily among both rural and urban women between 1983 and 1991. It specifically grew for the safe period, withdrawal, and other traditional methods and also for menstrual regulation among both rural and urban women over time.

Contraceptive method	National				Residence							
					Rural				Urban			
	1983	1986	1989	1991	1983	1986	1989	1991	1983	1986	1989	1991
Any modern method	81.9	96.0	95.6	97.8	80.6	95.8	95.3	97.6	93.0	97.6	97.6	99.0
Pill	74.5	92.1	91.5	96.1	72.9	91.7	90.9	95.7	88.4	95.9	95.0	97.8
Condom	23.0	39.1	41.9	49.3	20.4	36.5	39.0	46.7	47.1	63.2	58.7	63.0
Injectable	15.4	20.8	39.0	46.8	14.5	19.6	38.5	56.5	24.0	31.1	41.8	58.6
IUD	15.4	26.1	48.9	59.4	13.6	24.1	47.3	58.4	31.4	44.1	58.4	64.7
Tubectomy	50.5	68.6	76.9	81.1	49.4	68.2	76.6	80.4	60.5	72.0	78.4	84.9
Vasectomy	11.5	28.8	31.0	31.0	10.7	28.1	30.1	29.4	19.1	35.1	36.0	39.9
Any traditional method	3.0	5.1	12.3	23.0	2.9	4.9	12.0	22.9	4.6	6.8	14.0	23.5
Safe period	0.7	1.9	4.6	11.5	0.6	1.8	4.2	11.0	2.0	3.5	7.1	14.1
Withdrawal	0.4	0.7	1.4	3.1	0.3	0.6	1.1	2.9	1.0	2.2	2.8	4.5
Abstinence	0.2	0.4	0.6	0.8	0.2	0.3	0.6	0.8	0.2	1.2	0.5	1.1
Other	2.1	3.1	7.5	12.8	2.1	3.1	7.6	13.4	2.3	3.1	6.9	9.9
Any contraceptive method	82.0	96.0	95.8	97.9	80.8	95.8	95.4	97.7	93.1	97.6	97.7	99.0
Menstrual regulation	1.0	2.5	3.8	5.1	0.8	2.1	3.3	4.5	3.5	6.6	6.9	8.5
N	8523	8541	10293	10573	7677	7682	8761	8973	2440	2623	2846	3077

Note: Weighted number of ever-married women at the national level and unweighted numbers at rural and urban levels.

5.2 Differentials in Awareness

High proportions of women from all four divisions were spontaneously aware of pills (*Table 5.3*). Comparatively high proportions of women from Khulna Division were aware of condoms, injectables, IUDs, and vasectomies, and comparatively low proportions of women from Chittagong Division were aware of condoms, IUDs, and vasectomies. Compared to women from the other three divisions, women from Rajshahi had low awareness of injectables, and compared to women from Dhaka and Khulna Divisions, they also had low awareness of tubectomies.

Higher proportions of women 20-29 and 30-39 years of age were aware of modern methods than either younger or older women. There was high awareness about pills across all the age groups. Similarly, higher proportions of women with 1-2 children or 3-4 children were aware of modern contraceptives than women with either no children or with five or more children. Compared to women with no children, women with five or more children were more aware of tubectomies, IUDs, and injectables.

Table 5.3 Percentage of ever-married women spontaneously aware of contraceptive methods by selected characteristics and according to specific contraceptive method, Bangladesh, 1991

Selected characteristics	Percent having spontaneous awareness of:						Number of women
	Pill	Condom	Injectable	IUD	Tubectomy	Vasectomy	
Division							
Dhaka	97.6	53.8	58.9	62.4	87.7	29.8	3079
Chittagong	93.9	35.2	54.0	46.0	76.8	22.8	2696
Rajshahi	94.9	50.3	49.2	61.0	74.6	32.2	2762
Khulna	98.1	59.8	67.5	70.3	85.6	41.9	2036
Age							
< 15-19	95.2	43.0	52.8	48.3	73.4	27.4	1639
20-29	97.5	56.6	60.1	64.5	82.5	33.1	4394
30-39	96.1	49.9	58.1	62.5	84.7	32.1	2939
40-49	92.8	34.7	49.4	50.9	78.5	27.0	1601
Number of living children							
None	93.8	42.9	49.1	42.5	70.6	26.3	1434
1-2	96.7	54.1	58.4	62.8	81.2	33.7	3716
3-4	96.8	53.5	59.3	64.0	84.7	32.3	3073
5+	95.5	40.1	55.7	58.2	82.5	27.9	2350
Religion							
Muslim	96.0	49.2	57.3	59.8	80.9	30.7	9290
Non-Muslim	96.6	50.0	53.2	56.1	82.6	33.2	1282
Educational level							
Not attended	94.6	38.6	54.5	53.7	79.0	25.7	6407
< Primary	97.8	56.6	59.3	64.0	82.9	34.0	1939
Primary	98.3	62.0	62.1	67.1	84.0	35.8	948
Secondary +	98.8	82.7	60.6	74.9	86.5	49.3	1278
Employment status							
Paid Employment	95.4	52.8	56.7	62.7	83.3	35.4	1636
Unpaid or no employment	96.2	48.7	56.8	58.8	80.7	30.2	8936
Landowning status							
Owns land	96.4	51.9	57.1	61.1	80.6	32.7	6163
Does not own land	95.5	45.6	56.4	57.0	81.7	28.7	4408
Household wealth scale							
Low	94.8	37.1	55.6	54.3	80.7	27.6	2771
Medium	95.6	44.2	57.3	57.3	80.4	29.3	3040
High	97.0	59.7	57.1	63.7	81.8	34.1	4761
Total	96.1	49.3	56.8	59.4	81.1	31.0	10573

In general, there was little variation in spontaneous awareness between Muslim and non-Muslim women. Muslims, however, were somewhat more aware of injectables and IUDs and somewhat less aware of tubectomies and vasectomies than non-Muslims.

Education was directly related to spontaneous awareness, with those most educated having the most awareness and those least educated having the least awareness. The one exception was pills where there was high awareness across all educational groups. Injectable and tubectomy awareness also varied little across the groups. Higher proportions of more educated women, however, were aware of the two modern male methods, condoms and vasectomies, than less educated women.

Generally, a higher proportion of women with paid employment were aware of contraceptive methods than women with no employment or unpaid employment. This difference was especially notable for vasectomy. Likewise, a higher proportion of women from households with land were aware of contraceptive methods than women from households without land. Finally, a higher proportion of women from wealthier than poorer households were aware of contraceptive methods, except for pills, injectables, and tubectomies where the differences were minimal. Condom awareness in particular was most evident among women from the wealthier households.

5.3 Differentials in Family Planning Attitudes

Nationally, sixty percent of ever-married women under age fifty asserted that recently married young couples should adopt family planning (*Table 5.4*). Variation in this response by rural or urban residence was modest. However, there was significant regional variation, with Khulna Division women most likely to agree with this statement, followed by Dhaka Division women. Residential differences by division were minimal, except in the case of Rajshahi Division where higher proportions of urban than rural women agreed with an early adoption of family planning.

Women in the oldest age group (40-49 year olds) were least likely to approve of an early adoption of family planning, although even in this group, approval ran high. Notably, ever-married women less than 20 years old were as likely to agree with this attitude as older women. A similar pattern emerged with family size, with women with either no children or five children or more having nearly as much approval for an early adoption of family planning as women with between one and four children. The sex composition of children had little bearing on women's attitude toward early adoption.

Higher proportions of Muslim than non-Muslim women approved of an early adoption of family planning (*Table 5.5*). The differential between Muslim and non-Muslim women was even larger in rural areas than in urban areas. Women with secondary education and above were most likely to approve of an early adoption of family planning, followed by women with partial or complete primary level education. Attitudinal differences by educational group were smaller among urban women than among rural women.

Slightly higher proportions of women with paid employment than with unpaid or no employment agreed with an early adoption of family planning than women with unpaid or no employment. Landownership status had little bearing on this attitude. Finally, women from higher wealth households were more likely to support early adoption of family planning than women from lower wealth households.

Returning to *Table 5.4*, seventy-one percent of rural women and seventy-nine percent of urban women reported that their husbands approved of family planning methods to avoid pregnancy, making a national total of seventy-two percent. Over seventy-five percent of Dhaka, Rajshahi, and Khulna Division women asserted that their husbands approved of family planning compared to only fifty-nine percent of Chittagong Division women. The rural-urban residential differential in this approval was also wider among Chittagong Division women than among women from the other three districts.

Both age and family size affected the degree to which women perceived their husbands supporting family planning. Women in the prime reproductive years (20 to 39 years old) were most likely to report that their husbands approved of family planning, followed by women less than 20 years old. Women with either 1-2 children or 3-4 children were most likely to report this approval, followed by women with five or more

children. The sex composition of children only had a marginal bearing on these perceptions, with women with the same number of sons and daughters reporting slightly higher husband approval than other women.

Residential and demographic characteristics	Percent saying that recently married young couples should adopt family planning:			Percent saying that their husbands approve of family planning methods to avoid pregnancy:		
	National	Residence		National	Residence	
		Rural	Urban		Rural	Urban
Division						
Dhaka	62.3	61.8	64.4	77.2	76.0	82.5
Chittagong	54.6	54.2	56.7	58.7	56.5	70.9
Rajshahi	55.9	54.7	65.2	76.4	76.1	79.0
Khulna	69.3	69.4	68.6	77.8	77.0	82.5
Age						
< 15-19	61.2	60.5	66.3	68.6	67.9	73.4
20-29	61.5	61.1	63.3	77.1	75.9	83.0
30-39	60.2	59.1	66.0	75.3	74.1	81.9
40-49	54.4	54.2	55.4	56.5	55.3	63.4
Number of living children						
None	58.5	57.3	66.1	59.8	58.4	68.5
1-2	60.0	59.3	63.4	74.8	73.5	81.3
3-4	62.3	61.9	64.7	78.9	78.0	84.7
5+	57.8	57.5	59.5	67.5	66.8	72.1
Sex composition of children						
No children	58.5	57.3	66.1	59.8	58.4	68.5
More sons	60.3	59.9	62.4	74.5	73.5	79.8
More daughters	60.6	59.9	64.5	72.4	71.2	79.0
Same number	59.4	59.1	60.7	77.6	76.7	83.3
Total	60.0	59.4	63.3	72.4	71.3	78.8
N	10573	4973	3077	9745	8282	2815

Note: Weighted number of ever-married or currently married women at the national level and unweighted numbers at rural and urban levels.

Non-Muslim women were more likely to report spouse approval than Muslim women (*Table 5.5*). Women with secondary level education and above were most likely to report this approval, followed by women with full and partial primary level education. The same proportion of urban women as rural women with no education reported husband approval. Among groups of women with some education, by contrast, higher proportions of urban women than rural women made this claim.

Higher proportions of women with unpaid or no employment than women with paid employment reported husband approval of family planning. Similar proportions of women, regardless of their landownership status, reported this approval. Finally, slightly higher proportions of women from the wealthiest households reported spouse approval compared to women from medium or low wealth

households. In the medium and high wealth households, urban women were more likely than rural women to report husband support of family planning.

Social and economic characteristics	Percent saying that recently married young couples should adopt family planning:			Percent saying that their husbands approve of family planning methods to avoid pregnancy:		
	National	Residence		National	Residence	
		Rural	Urban		Rural	Urban
Religion						
Muslim	60.6	60.1	63.7	71.8	70.7	78.0
Non-Muslim	55.4	54.4	60.8	76.9	75.6	83.7
Educational level						
Not attended school	55.7	55.2	59.8	66.8	66.6	67.8
< Primary	63.5	63.6	62.8	75.5	74.8	79.6
Primary	66.9	67.4	64.3	79.3	78.7	82.2
Secondary +	70.8	71.8	68.9	89.5	87.4	93.5
Employment status						
Paid employment	63.5	63.2	63.7	71.8	70.7	78.0
Unpaid or no employment	59.4	58.7	60.8	76.9	75.6	83.7
Landowning status						
Owns land	60.1	59.6	64.6	72.7	71.6	82.6
Does not own land	59.8	59.0	62.4	72.0	70.9	76.0
Household wealth scale						
Low	56.0	55.3	60.7	67.6	67.7	66.8
Medium	58.1	57.7	60.4	70.3	69.8	73.7
High	63.5	63.0	65.9	76.4	74.4	86.4
Total	60.0	59.4	63.3	72.4	71.3	78.8
N	10573	8973	3077	9745	8282	2815

Note: Weighted number of ever-married or currently married women at the national level and unweighted numbers at the rural and urban levels.

5.4 Summary and Conclusions

Contraceptive awareness has remained high in Bangladesh over the years, and indeed has increased even with growing numbers of couples starting their reproductive careers. Spontaneous awareness of modern methods was substantially higher than such awareness of traditional methods, probably because modern methods are more associated with family planning in the public mind. Nonetheless, women increasingly report traditional method awareness over time, either because they genuinely came to know about these methods or because they became more willing to verbalize their awareness to interviewers. Women, in particular those from rural areas, claimed least awareness of the male methods, although few of them were probably completely ignorant about condoms or withdrawal.

Contraceptive awareness appears generally associated with contraceptive use. (See Chapter 6.) Nevertheless, there is not a perfect match, suggesting that awareness is a necessary but not sufficient condition for actual use. For example, compared to Rajshahi Division women Chittagong Division women had similar or higher awareness of pills, injectables, and tubectomy, but yet their actual use of these methods was only one-half as high. Muslim women had the same awareness of IUDs and tubectomy as non-Muslim women, but their use of these methods, especially tubectomy, was substantially lower. Pill awareness was similar among women at all levels of education and wealth, but far higher proportions of comparatively well-educated and wealthy women used these methods. Likewise, women with low education and wealth were less aware of sterilization than other women, but had higher use of these methods. These discrepancies suggest that even though awareness may be a first step for contraceptive use, demand and supply considerations also determine actual use. Increasing awareness of specific methods may not increase use of these methods, either because of supply problems or because of the availability of other known methods.

At any rate, it is heartening that high levels of family planning awareness have been sustained in Bangladesh, and that the vast majority of Bangladeshi women have some awareness of all the modern methods as well as the safe period. Future surveys should move beyond collecting information about simple awareness by examining the depth of the knowledge.

A solid majority of Bangladeshi women approve of an early adoption of family planning by married couples. There is thus strong attitudinal support for birth spacing. Normatively, therefore, Bangladesh appears poised to enter the second stage of family planning acceptance where young couples adopt family planning for birth spacing purposes. Importantly, there was strong support for this idea across most subgroups of the population. The greatest opposition came from women in the oldest age group whose views on this matter may count for less than those of younger women. Support for family planning adoption by newly married couples was reasonably strong among women with no children, especially among those living in urban areas, which suggests that potential exists for promoting birth spacing among this population. Support for birth spacing was also evident among women from Chittagong Division, rural women, and Muslim women -- three groups which can be viewed as relatively conservative.

Three-quarters of Bangladeshi women also believe that their husbands approve of family planning - virtually the same percentage as found in the *1989 Bangladesh Fertility Survey* (Huq and Cleland, 1990: Table 6.1). Women from Chittagong Division were the exceptions, with far fewer of them claiming spouse support for family planning than women from the other three divisions. But even in Chittagong Division, almost three-fifths of women indicated that their husbands approved of family planning. One fruitful area of research may be to investigate further the degree of fit between women's perceptions of their husbands attitudes toward family planning and the attitudes of the husbands themselves.

Lower proportions of women with no children than women with children assert that their husbands approve of family planning, but this finding probably more reflects personal circumstances than a general attitude. Lower proportions of older women also assert husband approval, which may indicate residual conservative ideas toward family planning among older cohorts of Bangladeshi men or opposition to family planning in response to lower coital frequencies after wives become grandmothers or reach the end of their childbearing years.

Lower proportions of Muslim women, women with no education, and women from relatively poor households reported husband approval of family planning, suggesting lingering religious and social resistance to birth control. Other contributing factors could include ignorance about family planning and marital communication problems among low educated and poor couples. It is unlikely that a desire for more sons was a major reason for husbands to oppose family planning because the sex composition of children little affected reported husband disapproval. In general, these findings show that opposition to

family planning by husbands, with the possible exception of those from rural Chittagong Division, is not a major impediment to the adoption of family planning in Bangladesh.

CHAPTER 6

EVER USE, CURRENT USE, AND INTENDED USE OF CONTRACEPTIVE METHODS

Use of contraception is generally the main determinant driving fertility reduction in developing countries. It is therefore important to know the proportion of married couples who have ever used contraception, the proportion currently using, specific methods used, differential use of contraception across subgroups, and trends in contraceptive use over time.

The Government of Bangladesh currently promotes a cafeteria approach to contraceptive use by offering a wide array of modern contraceptive methods to Bangladeshi couples. Male methods now include condoms and vasectomies, and female methods include oral contraceptives, injectables (Depo-Provera and Noristerat), IUDs (Copper T380A), and tubectomies. The program also offers menstrual regulation, although as a maternal health rather than as a contraceptive procedure. It recognizes, but does not actively promote, traditional contraceptive methods such as the safe period and withdrawal. Norplant was introduced in 1985 on an experimental basis, but clinical trials for this method are still continuing and there is little prospect over the next two or three years for it to be distributed on a national basis.

Contraceptive use patterns have profoundly changed in Bangladesh since the inception of the family planning program in the 1950s. In the early 1960s, family planning services were provided in hospitals and health dispensaries nationwide, with a heavy dependence on IUDs. Throughout the 1970s and early 1980s, there was continued reliance on clinical contraception with the emphasis shifting from IUDs to tubectomy and vasectomy. Two major reasons for this reliance and shift were (1) the mobilization of existing health facilities and creation of union-level Family Welfare Centers staffed by trained paramedics (FWVs) to provide clinical contraceptive methods, and (2) the provision of higher financial payments for tubectomies and vasectomies compared to IUDs.

Within a few years after independence in 1971, a field-based home delivery system was formed by creating a non-medical cadre of female fieldworkers (Family Welfare Assistants or FWAs) who distributed pills and condoms. During the mid-1970s, non-governmental organizations and the Social Marketing Project (SMP) were also established, and they too became involved in the local distribution of non-clinical methods. Both government and NGO contraceptives were made completely free-of-cost, and SMP products were sold at nominal cost.

Starting in the mid-1980s, these clinic-based and home-based service delivery systems were supplemented by satellite clinics staffed by both FWVs and FWAs. Satellite clinics are community-donated residences visited eight times a month by FWVs and FWAs. These clinics typically offer injectables, and some also offer IUDs.

6.1 Levels and Trends of Ever Contraceptive Use

Ever use of contraceptive methods climbed steadily in Bangladesh between 1983 and 1991 (*Table 6.1*). By 1991, fifty-nine percent of Bangladeshi women had used some type of contraception, and forty-nine percent had used at least one modern method. Ever use of contraception has also accelerated in Bangladesh. *Per annum* growth in ever use actually declined 0.3 percentage points between 1983 and 1986, but it jumped to 3.9 percentage points between 1986 and 1989 and to 7.4 percentage points between 1989 and 1991.

As reported by ever-married women, thirty-four percent of eligible couples had used pills, twenty-two percent the safe period, thirteen percent condoms, and eleven percent withdrawal by 1991. Less than ten percent had ever used other contraceptive methods. Ever use of pills, condoms, injectables, and IUDs rose steadily between 1986 and 1989, and ever use of the safe period, withdrawal, and abstinence rose sharply between 1989 and 1991. In addition, ever use of menstrual regulation grew slowly between 1983 and 1991. Ever use of both tubectomies and vasectomies, however, declined between 1989 and 1991.

Table 6.1 Percent distribution of ever contraceptive use among ever-married women who have ever used specific contraceptive methods and menstrual regulation according to rural-urban residence, Bangladesh, 1983-1991

Contraceptive method	National				Residence							
					Rural				Urban			
	1983	1986	1989	1991	1983	1986	1989	1991	1983	1986	1989	1991
Any modern method	23.8	25.9	37.5	49.2	21.5	23.1	34.4	47.3	44.3	50.9	55.4	60.0
Pill	14.1	14.3	23.3	34.1	12.2	11.8	20.2	31.7	31.4	36.3	40.9	47.1
Condom	7.1	5.7	9.3	13.4	6.0	4.5	7.0	11.5	17.6	16.1	22.0	24.1
Vaginal method	2.2	1.6	2.4	2.9	1.9	1.3	1.7	2.2	5.5	4.6	6.0	6.6
Injectable	1.2	1.3	2.8	6.6	0.8	1.0	2.4	6.5	4.7	4.0	4.9	7.1
IUD	2.2	2.7	4.6	6.2	2.0	2.1	3.8	5.6	4.3	8.0	9.2	9.3
Tubectomy	5.8	7.4	8.7	8.0	5.5	7.3	8.8	9.1	8.7	8.5	8.4	7.8
Vasectomy	1.4	1.6	1.6	1.4	1.4	1.7	1.8	1.4	0.8	0.9	0.7	1.1
Any traditional method	17.3	11.9	15.3	29.6	16.6	11.5	14.7	29.0	23.4	16.2	18.5	33.1
Safe period	11.0	7.8	9.7	21.5	10.5	7.5	9.3	21.0	15.1	10.8	12.3	24.1
Withdrawal	5.3	2.9	3.6	11.1	5.0	2.6	3.1	10.7	7.5	6.0	6.0	13.4
Abstinence	3.1	1.2	0.9	4.1	2.9	1.1	0.9	4.2	4.4	2.0	1.1	3.8
Other	3.5	2.7	3.8	4.2	3.5	2.7	3.9	4.4	4.3	2.3	3.2	3.1
Any Method	33.4	32.5	44.2	59.0	31.3	29.9	41.5	58.6	52.1	55.3	59.8	67.4
No Method	66.6	67.5	55.8	41.0	68.7	70.1	58.5	41.4	47.9	44.7	40.2	32.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Menstrual Regulation	1.0	0.9	2.1	3.1	0.7	0.5	1.6	2.3	3.6	3.9	4.6	7.6
N	8523	8541	10243	11573	7677	7582	8761	8973	2440	2623	2846	3077

Note: Weighted number of ever-married women at the national level and unweighted numbers at rural and urban levels.

Sixty-seven percent of urban women had ever used contraception compared to fifty-nine percent of rural women. However, growth in rural ever use proceeded at a faster pace than growth in urban ever use. This residential difference was particularly apparent for pills. Although tubectomy ever use grew slowly among rural women between 1983 and 1989, it shrank slowly among urban women over the same time. Likewise, vasectomy ever use shrank in rural areas between 1989 and 1991. Ever use of menstrual regulation among urban women grew at a slightly faster pace than among rural women.

6.2 Levels and Trends of Current Contraceptive Use

Table 6.2 shows the levels and trends of current contraceptive use by eligible couples -- currently married women under age fifty or their spouses. In 1991, over thirty-one percent of eligible couples used

a modern method and almost nine percent used a traditional method, for a total of forty percent using any contraceptive method. Almost fourteen percent used pills, followed by nine percent who used tubectomy and five percent who used the safe period. Between two and three percent of eligible couples used condoms, injectables, or withdrawal and less than two percent used IUDs, vasectomy, abstinence, or other traditional methods (herbs, massage, etc.).

Contraceptive method	National				Residence							
					Rural				Urban			
	1983	1986	1989	1991	1983	1986	1989	1991	1983	1986	1989	1991
Any modern method	13.8	18.4	24.4	31.2	12.1	16.3	22.3	30.0	28.8	36.8	36.8	38.3
Pill	3.3	5.1	9.1	13.9	2.6	3.9	7.9	13.1	10.4	15.8	16.3	18.8
Condom	1.5	1.6	1.9	2.5	1.1	1.4	1.2	2.0	5.2	5.5	6.1	5.9
Injectable	0.2	0.5	1.1	2.6	0.2	0.4	1.0	2.6	0.7	0.9	1.4	2.3
IUD	1.0	1.4	1.7	1.8	0.9	1.1	1.5	1.7	1.8	4.6	3.0	2.4
Tubectomy	6.2	7.9	9.0	9.1	5.8	7.7	9.0	9.3	9.3	9.0	8.9	7.7
Vasectomy	1.2	1.5	1.5	1.2	1.3	1.6	1.6	1.2	0.7	0.8	0.7	1.1
Any traditional method	5.4	6.9	7.0	8.7	5.2	6.8	6.8	8.6	6.9	7.4	8.0	9.7
Safe period	2.4	3.8	3.8	4.7	2.3	3.8	3.7	4.5	3.6	4.3	4.5	5.5
Withdrawal	1.3	0.9	1.2	2.0	1.3	0.8	1.1	1.9	1.3	1.7	1.8	2.5
Abstinence	0.4	0.5	0.5	0.5	0.4	0.5	0.5	0.5	0.3	0.5	0.5	0.6
Other	1.4	1.7	1.5	1.5	1.3	1.7	1.5	1.6	1.7	0.9	1.1	1.0
Any method	13.1	25.3	31.4	39.9	17.3	23.2	29.1	38.5	35.7	44.2	44.8	48.0
No method	80.9	74.7	68.6	60.1	82.7	76.8	70.9	61.5	64.3	55.8	55.2	52.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	7662	7822	9318	9745	6911	7037	7953	8282	2167	2397	2536	2815

Note: Weighted number of currently married women at the national level and unweighted numbers at rural and urban levels.

Contraceptive use has accelerated over time. It grew on average two percentage points *per annum* between 1983 and 1989 but soared by over four percentage points *per annum* between 1989 and 1991. Modern method growth was especially robust, climbing on average almost two percentage points *per annum* between 1983 and 1989 and over three percentage points *per annum* between 1989 and 1991.

Growth in pill use was the prime factor accounting for this surge in total contraceptive use. Pill use rose on average less than one percentage point *per annum* between 1983 and 1986, over one percentage point between 1986 and 1989, and over two percentage points between 1989 and 1991. Injectable use, though still limited, doubled between 1989 and 1991. Condoms, the safe period, and withdrawal registered modest growth over the same period. At the same time, growth in invasive or surgical clinical methods -- IUDs, tubectomy, and vasectomy -- was essentially flat between 1989 and 1991. This stagnation was particularly noteworthy for tubectomy which had experienced steady growth earlier in the 1980s decade.

Urban contraceptive use exceeded rural use, with forty-eight percent of urban women using contraception compared to only thirty-nine percent of rural women. However, the rural-urban gap was essentially halved during recent years, with the average eighteen percentage point contraceptive use difference throughout the 1980s plunging to a ten percentage point difference in 1991.

Contraceptive growth in rural areas held steady at two percentage points per year between 1983 and 1989 but doubled to four percentage points per year between 1989 and 1991. Growth in urban areas, while roughly similar to growth in rural areas between 1983 and 1986, has been lackluster since 1986. Pill use has grown substantially in rural areas but modestly in urban areas. Tubectomies and IUDs actually dropped by fifteen percent and twenty-five percent respectively in urban areas, whereas both methods rose moderately in rural areas. The safe period and withdrawal grew moderately in both rural and urban areas between 1989 and 1991.

Table 6.3 shows method use among those women most likely to use contraception -- those who are not pregnant and are not postpartum amenorrheic. According to this narrow definition of eligibility¹, forty-two percent of Bangladeshi couples used modern contraceptive methods and an additional eleven percent used traditional methods, for a total of fifty-three percent of couples who used any contraceptive method. Fifty-two percent of rural couples and sixty-one percent of urban couples used contraception. Under the more narrow definition of women most likely to use, one-quarter of urban women and nearly one-fifth of rural women used pills.

Table 6.3 Percent distribution of current contraceptive use among currently married women who are not pregnant and not amenorrheic by specific contraceptive method and according to rural-urban residence, Bangladesh, 1991			
Contraceptive method	National	Residence	
		Rural	Urban
Any modern method use	41.8	40.5	48.8
Pill	19.0	18.0	24.3
Condom	3.3	2.5	7.4
Injectable	3.5	3.6	3.0
IUD	2.4	2.2	3.1
Tubectomy	12.1	12.5	9.6
Vasectomy	1.6	1.7	1.4
Any traditional method	11.1	11.0	11.9
Safe period	6.4	6.2	7.1
Withdrawal	2.6	2.5	2.9
Abstinence	0.6	0.6	0.7
Other	1.6	1.7	1.1
Any method	52.9	51.5	60.7
No method	47.1	48.5	39.2
Total	100.0	100.0	100.0
N	7111	5982	2172

Note: Weighted number of currently married women who are not pregnant and not amenorrheic at the national level and unweighted numbers at rural and urban levels

¹A contraceptive prevalence rate uses currently married 15-49 as a denominator. This rate, by contrast, uses all currently married women 15-49 who are not pregnant or amenorrheic.

6.3 Multiple Method Use

Most Bangladeshi couples did not use more than one contraceptive method at the same time (Table 6.4). If a second method were used, it was mainly when couples used condoms, the safe period, or withdrawal as a primary method. Nineteen percent of couples who used condoms also used the safe period and withdrawal, and eleven percent of couples who used the safe period also practiced withdrawal. Likewise, ten percent of couples who practiced withdrawal also used the safe period and an additional four percent of these couples used condoms. Only negligible numbers of pill, injectable, and IUD users used another method.

Secondary contraceptive method	Primary contraceptive method					
	Pill	Condom	Injectable	IUD	Safe period	Withdrawal
Any modern method use	0.7	1.2	0.8	0.3	1.3	3.6
Pill	NA	0.8	0.4	0.0
Condom	0.7	NA	0.8	0.3	0.8	3.6
Injectable	NA	0.0
IUD	..	0.4	..	NA	..	0.0
Any traditional method use	2.3	20.6	0.4	..	13.4	10.4
Safe Period	1.0	12.0	NA	9.8
Withdrawal	1.0	7.3	0.4	..	10.9	NA
Abstinence	0.1	0.4	1.8	0.5
Other	0.1	0.8	0.7	0.0
Multiple method use	3.0	21.8	1.2	0.3	14.7	14.0
No multiple method use	97.0	78.2	98.8	99.7	85.3	86.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
N	1358	248	253	177	455	52

NA = Not applicable
.. Less than .05 percent

6.4 Differential Contraceptive Use

Tables 6.5 and 6.6 show differential contraceptive use by subgroups of eligible couples. A higher proportion of Rajshahi, Khulna, and Dhaka Division couples used contraception than Chittagong Division couples. Compared to couples in other divisions, Rajshahi couples had higher pill and sterilization use and Khulna couples higher injectable, IUD, and traditional method use. Chittagong couples, on the other hand, had comparatively low pill, tubectomy, and vasectomy use. Even traditional method use was relatively low among Chittagong Division couples.

Contraceptive use was more concentrated among the older than younger age groups, peaking among women 35-39 years old. Because traditional method use was higher among older women, this age differential narrows for modern method use, but does not entirely vanish. Pill use was highest among women 20-34 years old, condom use among women 30-39 years old, injectable and IUD use among women 25-29 years old, and sterilization use among women 30-49 years old. In particular, tubectomy use was centered among 35-39 year old women.

Contraceptive use was most concentrated among women with three or four children, followed by women with five or more children. Women with between one and four children were more likely to use pills, condoms, and IUDs than women with either no children or with five and more children. By contrast, women with three or more children were more likely to use injectables, tubectomy, and vasectomy than women with fewer than three children.

Table 6.5 Percent distribution of current contraceptive use among currently married women by their residential and demographic characteristics and according to their specific contraceptive method of use, Bangladesh, 1991

Residential and demographic characteristics	Any modern method	Modern methods						Any traditional method	Any method	No method	Total	Number of women
		Pill	Condom	Injec- table	IUD	Tubec- tomy	Vasec- tomy					
Division												
Dhaka	32.9	14.6	2.9	2.2	2.2	10.3	0.7	0.9	41.7	50.3	100.0	2054
Chittagong	20.5	9.8	2.0	1.4	1.3	5.8	0.3	6.6	27.1	72.0	100.0	2462
Rajshahi	37.2	17.3	2.7	2.9	1.3	10.6	2.4	0.8	46.1	53.0	100.0	2554
Khulna	34.6	13.7	2.5	4.4	2.7	9.7	1.6	11.1	45.7	54.3	100.0	1076
Age												
< 15	0.1	2.9	2.2	1.0	0.3	0.3	0.0	5.0	13.0	87.0	100.0	160
15-19	14.2	9.7	1.9	1.2	1.1	0.1	0.1	5.3	10.5	89.5	100.0	1410
20-24	26.6	16.3	2.1	2.7	2.0	2.8	0.8	8.1	32.7	67.3	100.0	2206
25-29	37.6	19.1	3.0	3.7	2.7	8.1	1.0	8.2	45.7	54.3	100.0	1048
30-34	41.1	15.9	3.4	3.0	1.8	15.1	1.8	11.2	52.3	47.7	100.0	1546
35-39	44.0	13.2	3.7	3.1	2.0	10.8	2.2	13.0	57.1	42.9	100.0	1155
40-49	20.1	6.6	1.4	1.6	1.0	15.3	2.2	11.6	39.7	60.3	100.0	1315
Number of living children												
None	5.4	3.2	1.4	--	0.1	0.1	0.5	3.8	0.1	99.9	100.0	1271
1-2	29.7	16.5	3.1	2.1	2.0	5.0	1.0	7.5	37.2	62.8	100.0	3410
3-4	42.5	16.7	2.9	3.6	2.5	15.2	1.7	0.4	52.0	48.0	100.0	2800
5+	33.6	12.7	1.0	3.5	1.6	12.6	1.3	12.6	46.2	53.8	100.0	2167
Number of dead children												
None	30.1	15.0	3.1	2.5	1.9	6.8	0.8	8.1	38.2	61.8	100.0	5031
1	34.1	13.7	2.2	3.0	2.1	11.4	1.6	0.6	43.7	56.3	100.0	2166
2	33.5	10.8	1.0	2.9	1.5	14.9	2.1	10.3	43.7	56.4	100.0	920
3+	20.1	9.6	1.2	2.3	0.5	13.6	1.9	9.6	38.7	61.4	100.0	729
Sex composition of children												
No children	5.4	3.2	1.4	--	0.1	0.1	0.5	3.8	0.1	99.9	100.0	1271
More sons	35.0	14.9	2.4	2.8	2.3	11.2	1.4	9.9	44.9	55.1	100.0	2930
More daughters	32.7	14.8	2.7	3.0	2.0	8.0	1.3	8.5	41.3	58.7	100.0	3143
Same number	39.4	18.3	3.4	3.3	1.0	11.6	1.0	10.4	49.3	50.7	100.0	1701
Total	31.2	13.9	2.5	2.6	1.8	9.1	1.2	8.7	39.9	60.1	100.0	9745

-- Less than .05 percent

Child mortality was not strongly associated with current contraceptive use. Women with at least one dead child had higher sterilization use and lower pill use than women with no dead children, but this finding is best explained by their presumed older age and higher parity. The sex composition of children may be linked to contraceptive use, because women with equal numbers of sons and daughters or a majority of sons were more likely to use tubectomy than women with either no children or with a majority of daughters.

A higher proportion of non-Muslims than Muslims used contraception, a relationship stemming almost entirely from higher tubectomy and traditional method use among this subpopulation (Table 6.6).

Women with secondary level education and above were substantially more likely to use contraception than women with less education. In particular, women with high education were more likely to use pills, condoms, and traditional methods than women with low education. Poorly educated women, however, were more likely to use injectables and tubectomy than highly educated ones.

Social and economic characteristics	Any modern method	Modern methods						Any traditional method	Any method	No method	Total	Number of women
		Pill	Condom	Injec-table	IUD	Tubec-tomy	Vasec-tomy					
Religion												
Muslim	39.6	14.0	2.6	2.7	1.7	8.2	1.2	8.2	38.7	61.3	100.0	8557
Non-Muslim	36.6	13.3	2.5	1.5	2.6	15.6	1.0	12.7	49.2	50.8	100.0	1189
Educational level												
Not attended	29.6	11.4	1.0	2.0	1.5	11.3	1.5	7.5	37.0	63.0	100.0	5703
< Primary	31.1	14.6	2.6	3.1	1.8	8.0	1.0	9.6	40.7	59.3	100.0	1825
Primary	30.3	16.7	3.5	2.0	2.0	5.2	0.8	10.5	40.8	59.2	100.0	894
Secondary +	39.8	22.0	0.1	0.0	3.0	3.2	0.6	12.2	51.7	48.1	100.0	1242
Employment status												
Paid employment	41.6	14.7	3.1	3.0	2.2	16.0	2.7	11.2	52.8	47.2	100.0	1357
Unpaid or no employment	29.5	13.0	2.5	2.5	1.0	8.0	1.0	8.3	37.9	62.1	100.0	8387
Landownership status												
Owens land	30.0	14.4	3.0	2.7	2.3	6.0	1.0	9.6	39.6	60.4	100.0	5754
Does not own land	33.0	13.3	1.0	2.5	1.5	12.3	1.5	7.5	40.5	59.5	100.0	3990
Household wealth scale												
Low	30.5	9.9	0.9	2.9	1.5	13.2	2.2	8.6	37.1	62.9	100.0	2482
Medium	29.5	12.7	1.2	3.3	1.3	9.0	1.2	8.6	38.2	61.8	100.0	2787
High	32.6	17.0	4.3	2.0	2.3	6.3	0.7	9.0	42.6	57.4	100.0	4477
Total	31.2	13.9	2.5	2.6	1.8	9.1	1.2	8.7	39.9	60.1	100.0	9745

Women with paid employment were more likely to use contraception, especially tubectomies and traditional methods, than women with no employment or unpaid employment. Contraceptive use differences by landownership status, however, were generally not conspicuous, with the exception of higher tubectomy use among women whose households did not own land.

Differences in contraceptive use were also not particularly pronounced by level of household wealth. Compared with women from poorer households, women from wealthier households were more likely to use pills, condoms, and traditional methods and less likely to use tubectomies and injectables.

6.5 Levels and Trends of Method Mix

Patterns of method mix (or the share that each contraceptive method makes to total use) have changed in Bangladesh between 1983 and 1991, especially in rural areas (*Table 6.7*). Nationally, the share of modern contraceptive use to total use rose from seventy-two percent in 1983 to seventy-three percent in 1986 to seventy-eight percent in 1989. Since 1989, however, there has been no change in this proportion.

These changes in the ratio of modern to traditional methods are related to important method-specific changes between 1983 and 1991. Pill use soared from less than one-fifth of all contraceptive use in 1983 to over one-third in 1991. Likewise, injectable use climbed substantially from one percent of total use in 1983 to almost seven percent in 1991.

Table 6.7 Percent distribution of current contraceptive use among currently married women using contraception (method mix) by their specific method of use and according to their rural-urban residence, 1983-1991

Contraceptive method	National				Residence							
					Rural				Urban			
	1983	1986	1989	1991	1983	1986	1989	1991	1983	1986	1989	1991
Any modern method	72.0	73.0	78.0	78.0	69.7	71.0	76.6	78.0	81.0	83.0	82.0	80.0
Pill	17.2	20.2	28.9	34.9	14.9	16.9	27.1	34.1	29.1	35.7	36.5	39.3
Condom	7.8	7.1	6.0	6.3	6.3	6.1	4.1	5.2	14.6	12.4	13.6	12.3
Vaginal method	1.6	0.8	0.6	..	1.1	0.9	0.3	..	2.0	0.7	0.9	..
Injectable	1.0	2.0	3.5	6.5	1.1	1.7	3.4	6.8	2.0	2.0	3.1	4.8
IUD	5.2	5.5	5.4	4.5	5.2	4.8	5.2	4.4	5.0	10.4	6.7	5.0
Tubectomy	32.3	31.2	28.6	22.9	33.3	33.3	30.9	24.2	26.1	20.4	19.9	16.1
Vasectomy	6.3	5.9	4.8	3.0	7.5	6.9	5.5	3.1	2.0	1.8	1.6	2.3
Any traditional method	28.0	27.0	22.0	22.0	29.3	29.0	23.4	22.0	19.0	17.0	18.0	20.0
Safe period	12.5	15.0	12.1	11.8	13.2	16.5	12.7	11.7	10.0	9.7	10.1	11.5
Withdrawal	6.8	3.6	3.8	5.0	7.5	3.5	3.8	4.9	3.6	3.8	4.0	5.2
Abstinence	2.1	2.0	1.6	1.3	2.3	2.2	1.7	1.3	0.8	1.1	1.1	1.3
Other	7.3	6.7	4.8	3.8	7.5	7.4	5.2	4.2	4.8	2.0	2.5	2.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	7662	7822	9318	9745	6911	7037	7953	8282	2167	2397	2536	2815

.. Less than 5 percent
 Note: Weighted number of currently married women using contraception at the national level and unweighted numbers at rural and urban levels.

By contrast, the tubectomy share of total contraceptive use dropped from almost one-third in 1983 to less than one-quarter in 1991. Similarly, the vasectomy share declined from six percent to three percent of total use. The condom share remained at less than ten percent of total use while IUDs hovered around five percent of total use during the eight-year period. Vaginal methods, never significant in Bangladesh, vanished altogether by 1991.

Safe period use fluctuated between twelve percent and fifteen percent of total use over time, and each of the other traditional methods -- withdrawal, abstinence, and other methods -- generally constituted less than five percent of the total share between 1983 and 1991.

Virtually no difference now exists in modern and traditional method proportions between rural and urban areas. Modern method use in rural areas rose steadily between 1983 and 1991. This use in urban areas rose but then dropped over the eight year period. Between 1983 and 1991, both pill and injectable use increased rapidly in rural areas and more modestly in urban areas. The condom share remained essentially static in both rural and urban areas over time. The IUD share was also static in rural areas over time. The IUD share in urban areas rose sharply between 1983 and 1986 but slumped to its originally low proportion by 1991.

Increases in pill and injectable shares were offset by declines in the sterilization share. In rural areas, the tubectomy share waned slowly between 1983 and 1989 and then more steeply between 1989 and 1991. In urban areas, the rapid decline took place earlier in the 1980s decade. The vasectomy share in rural areas steadily dropped from 1983 to 1991, whereas in urban areas it remained at essentially the same low level over the same period.

6.6 Contraceptive Use Intentions

Table 6.8 shows future contraceptive use intentions among fecund, non-menopausal women not currently using contraception. Seventy-one percent of these women intended to use contraception -- eighty percent of women currently pregnant or amenorrheic, sixty-seven percent of ever contraceptive users not currently using, and fifty-six percent of never users. Thirty-three percent of these women would choose pills and twenty percent injectables. Intended injectable use was particularly high among pregnant or amenorrheic women. Eight percent of women said that they intended to use "other traditional methods."

Table 6.8 Percent distribution of currently married non-contracepting women who intend to use a contraceptive method to avoid pregnancy in the future by their specific method of intended use according to whether they are pregnant or amenorrheic, ever users, or never users, Bangladesh, 1991				
Intended contraceptive method	Percent of women not currently using contraception who are:			Total
	Pregnant or amenorrheic	Ever users	Never users	
Any modern method	69.2	56.2	45.6	59.7
Pill	35.8	33.6	26.9	32.8
Condom	2.0	3.4	1.3	2.1
Injectable	24.9	13.7	14.8	13.6
IUD	1.8	2.5	0.9	1.7
Tubectomy	4.8	2.9	1.7	3.5
Vasectomy	..	..	..	..
Any traditional method	11.0	11.2	10.1	10.8
Safe period	2.2	4.7	0.9	2.4
Withdrawal	0.5	0.9	0.2	0.5
Abstinence	0.2	0.3	0.2	0.2
Other	8.0	5.2	8.7	7.6
Any method	80.2	67.4	55.7	70.5
No method	19.8	32.6	44.3	29.5
Total	100.0	100.0	100.0	100.0
N	2457	1056	1389	4903
.. Less than .05 percent				
Note: Excludes women who are current contraceptive users and women who are infecund or menopausal				

Regional differentials for intended contraceptive use were more pronounced than residential ones. Intended use among urban non-contracepting women was only marginally higher than among rural non-contracepting women. Regional intended contraceptive use was substantially higher among Dhaka, Rajshahi, and Khulna Division non-contracepting women than among corresponding Chittagong Division women (Table 6.9). Low intended pill use was particularly evident among Chittagong Division women.

Intended contraceptive use was lowest among older women and women with a large family size. Intended use, however, was as high for women with three or four children as with no children. Pills and injectables were the most popular intended methods, regardless of age and family size. Less than four

percent of women 30 to 49 years old or women with five children or more intended to have a tubectomy. The sex composition of children had little effect on an intention to use contraception, the only exception being slightly higher proportions of women with equal numbers of sons and daughters intending to use injectables than women with other sex composition configurations.

Table 6.9 Percent distribution of non-contracepting currently married women who intend to use a contraceptive method in the future by their residential and demographic characteristics and according to their specific method of intended use, Bangladesh, 1991

Residential and demographic characteristics	Any modern method	Modern methods					Any Traditional Method	Any Method	No Method	Total	Number of Women
		Pill	Condom	Injectable	IUD	Tubectomy					
Residence											
Rural	59.3	82.4	1.8	20.0	1.6	3.5	10.5	69.9	30.1	100.0	4268
Urban	62.2	35.1	3.8	17.0	2.2	4.1	12.4	74.6	25.4	100.0	1222
Division											
Dhaka	65.6	37.1	2.5	20.6	2.0	3.4	10.5	76.1	23.9	100.0	1419
Chittagong	50.0	25.9	1.4	17.6	1.6	4.2	9.5	60.0	40.0	100.0	1468
Rajshahi	65.0	37.1	2.4	18.2	1.4	4.2	10.6	74.0	26.0	100.0	1146
Khulna	60.7	31.6	2.0	23.3	1.8	2.0	13.6	74.3	25.7	100.0	871
Age											
< 15-19	65.0	41.1	2.1	19.6	1.0	1.3	11.9	76.9	23.1	100.0	1248
20-29	65.1	35.1	2.3	20.7	2.0	4.9	10.8	75.9	24.1	100.0	2365
30-39	50.7	23.6	1.9	19.6	1.8	3.9	10.9	61.7	38.3	100.0	1017
40-49	22.2	9.0	0.6	10.2	1.8	0.6	4.8	27.0	73.0	100.0	274
Number of living children											
None	58.5	38.3	2.3	15.9	1.3	0.7	13.7	72.1	27.9	100.0	962
1-2	64.9	37.1	2.5	19.4	1.9	3.9	9.8	74.7	25.3	100.0	1950
3-4	60.5	29.8	1.9	22.0	1.7	5.1	10.9	71.4	28.6	100.0	1186
5+	47.5	20.2	1.0	21.0	1.6	3.7	9.4	56.9	43.1	100.0	805
Sex composition of children											
No children	58.4	38.3	2.3	15.9	1.3	0.7	13.7	72.1	27.9	100.0	962
More sons	59.4	32.0	1.8	19.5	1.8	4.3	9.8	69.3	30.7	100.0	1660
More daughters	58.8	30.7	2.0	20.2	1.8	4.0	10.1	69.0	31.0	100.0	1564
Same number	64.2	31.7	2.3	23.9	1.8	4.5	10.2	74.4	25.6	100.0	716
Total	59.7	32.8	2.1	19.6	1.7	3.5	10.8	70.5	29.5	100.0	4903

Note: Rural and urban numbers are unweighted
Note: Excludes women who are current contraceptive users and women who are infertile or menopausal

Non-contracepting Muslims and non-Muslims were equally likely to intend to use contraception in the future (Table 6.10). Compared to non-Muslims, Muslims more preferred injectables and less preferred tubectomy as methods of future use.

Non-contracepting women with secondary level education or higher were most likely to intend to use contraception in the future, followed by women with complete or partial primary level schooling. A higher proportion of more educated than less educated women intended to use pills, condoms, and traditional methods. By contrast, a higher proportion of less educated women than more educated women intended to use injectables.

Differences in intended contraceptive use varied little by women's employment status or landownership status. A slightly higher proportion of women from wealthier than poorer households intended to use contraception, and this differential intention to use was expressed for all methods, except injectables and tubectomy.

Table 6.10 Percent distribution of non-contracepting currently married women who intend to use a contraceptive method in the future by their social and economic characteristics and according to their specific method of intended use, Bangladesh, 1991

Social and economic characteristics	Any modern method	Modern methods					Any Traditional Method	Any Method	No Method	Total	Number of Women
		Pill	Condom	Injectable	IUD	Tubectomy					
Religion											
Muslim	60.0	32.8	2.2	20.4	1.6	2.9	10.5	70.5	29.5	100.0	4407
Non-Muslim	57.3	32.7	1.0	12.4	2.1	9.0	13.0	70.3	29.7	100.0	495
Educational level											
Not attended	57.5	29.7	1.3	21.4	1.3	3.8	9.2	66.6	33.4	100.0	2981
< Primary	61.9	34.6	1.7	21.1	1.8	2.8	12.3	74.2	25.8	100.0	908
Primary	59.5	38.0	3.0	13.4	1.9	2.8	13.5	73.0	27.2	100.0	447
Secondary +	68.7	42.2	5.8	12.6	3.6	4.4	14.6	83.2	16.8	100.0	548
Employment status											
Paid employment	63.4	32.4	2.4	21.3	2.4	4.9	10.6	74.0	26.0	100.0	539
Unpaid or no employment	59.3	32.9	2.0	19.4	1.6	3.4	10.8	70.1	29.9	100.0	4364
Landownership status											
Owns land	59.5	32.7	2.3	19.6	2.0	2.9	11.4	71.0	29.0	100.0	2877
Does not own land	60.0	32.9	1.7	19.7	1.3	4.4	9.8	69.8	30.2	100.0	2025
Household wealth scale											
Low	60.0	30.9	1.0	22.4	1.4	4.4	10.1	70.1	29.9	100.0	1332
Medium	58.7	31.5	1.9	20.9	1.0	3.4	9.5	68.2	31.8	100.0	1453
High	60.3	34.9	2.9	17.0	2.4	3.2	12.0	72.3	27.7	100.0	2120
Total	59.7	32.8	2.1	19.6	1.7	3.5	10.8	70.5	29.5	100.0	4903

Note: Excludes women who are current contraceptive users and women who are infertile or menopausal

6.7 Summary and Conclusions

Contraceptive use rose steadily in Bangladesh between 1983 and 1991, and the country is unique among the countries of the world by having a relatively high contraceptive prevalence rate in an environment of low socioeconomic development (Mauldin and Ross, 1991). If anything, the forty percent CPR may be an underestimate of the true rate, first because women may be reticent to admit use of contraception (Huq and Cleland, 1990) and second because women may understate the use of male methods (Mitra, *et al.*, 1987).

Contraceptive use in 1991 continued and accelerated trends apparent in the late 1980s -- rising contraceptive prevalence rates fuelled by rising pill use. Injectable use also enjoyed a solid increase between 1989 and 1991. These two methods may well be destined to constitute the bulk of contraceptive use in the future. Women not currently using contraception by far preferred these two methods over other methods. The potential for rapid injectable growth can be seen in the Matlab Project, where injectable use now accounts for a substantial proportion of all contraceptive use (Caldwell and Caldwell, 1992). This project made all conventional contraceptive methods, including doorstep injectables, readily available to women. Injectables also appear to appeal to women generally considered "hard to reach" -- those with comparatively low education and who come from poor households.

The proportion of women using tubectomy, which in addition to pills was a major method throughout the 1980s, remained constant between 1989 and 1991. Its share of total contraceptive use, however, plummeted over the same period. Indeed, the continuing presence of tubectomy as a major method in Bangladesh may be open to doubt. First, compared to pills, condoms, and injectables whose use is generally recent, tubectomies often occur several years in the past. Tubectomy prevalence thus may not closely mirror new acceptance. In Bangladesh where tubectomy prevalence has not grown over the past several years, one would expect falling new acceptance, which in fact has happened (AVSC, 1992). Another indication of the falling popularity of tubectomy is the minuscule number of non-contracepting women who intend to use the method in the future.

Several factors may account for the waning popularity of tubectomy. The surge in tubectomy acceptance in the earlier part of the 1980s decade may have met latent demand for the method, especially among those Muslims willing enough to undergo the procedure. Additionally, the field-based delivery of non-clinical methods expanded rapidly throughout the latter half of the decade, and Bangladeshi couples now have a greater selection of easily accessed methods than they had in the past. The home delivery of these non-clinical methods does not entail the opportunity, travel time, or operation and recovery time costs of clinical methods, and because they are free, they also do not entail commodity costs. Other programmatic factors, such as the erosion of value of the sterilization reimbursement fee and the shortage of trained medical personnel, may also in part explain the waning popularity of tubectomy. Finally and critically, a large number of Bangladesh Association for Voluntary Sterilization clinics which historically had provided a significant number of sterilizations in Bangladesh closed down between 1989 and 1991.

The decline in the use of clinical methods has implications for women for whom such methods are most appropriate. Significant proportions of women age 35 and above or who have more than three living children use non-clinical methods. Moreover, only negligible numbers of non-contracepting women who are age thirty and above or who have more than three living children intend to use clinical methods in the future. Designing appropriate policies and program strategies to reverse these trends will surely require considerable thought and resources over the next several years.

Other methods remained relatively stable over time, and the pattern of response for intended use does not betoken any change in the immediate future. What past trends and future intended use demonstrate is that Bangladeshi couples are opting for the reversible female methods of pills and injectables. Their enthusiasm for either male methods or for permanent and invasive female methods appears limited. Condoms and withdrawal are also used with the safe period which may reflect a lack of confidence in these methods or the desire on the part of women to use the safe period should their husbands fail to use condoms or practice withdrawal properly.

Chittagong Division continues to perform poorly both in its total level of contraceptive use and in its use of specific methods. Its prospects for rapid convergence with the other divisions is also doubtful because of the relatively low proportions of non-contracepting women who intend to use contraception in the future. Both actual pill use and intended pill use are low in Chittagong Division compared to the other divisions which may reflect poor fieldworker performance. However, the intended use of injectables in

Chittagong approaches that of the other divisions, so that the home delivery of injectables or their provision through satellite clinics may be an effective way to boost total contraceptive use in this division.

Traditional method use is relatively high in Bangladesh. Research in Bangladesh has not yet determined if women understand their ovulation cycle or the efficacy of the traditional methods. The reasons for couples using traditional methods are also unknown, whether because of the perceived or encountered side effects of modern methods, poor experience with the formal family planning program, or positive experience with the traditional methods. Some understanding of the shortcomings of traditional methods must exist, because they are sometimes used in tandem with each other or with condoms. Notably, use of traditional methods is higher in urban areas than in rural areas and also among more educated and wealthier couples, which suggests some Bangladeshi couples may be discriminating in their choice of traditional methods.

Growth in contraceptive use has also been relatively flat in urban areas since 1986, even though growth in rural areas has been robust. This finding is not surprising given that the government family planning delivery system operates in the rural areas, not the urban areas, and that contraceptive growth over the past several years has been driven by pill distribution through fieldworkers. (See Chapter 7) The delivery system in urban areas is mainly handled by the NGOs, the Social Marketing Company, and the commercial sector, and a question thus arises about the comparative effectiveness of public versus non-public delivery systems.

Several reasons may explain dull urban growth over the past several years. First, contraceptive use is still almost ten percentage points higher in urban areas than in rural areas, and typically growth in contraceptive use slackens once latent demand has been met. If this is true, the contraceptive prevalence rate may reach a threshold of around fifty percent and then level off. Second, substantial flows of urban migrants might place considerable pressure on urban family planning delivery systems. Bangladesh's average urban population growth rate was estimated to be 6.3 percent per year between 1985 and 1990, the highest in South Asia except for Nepal. Dhaka alone doubled its population from an estimated 3.3 million in 1985 to an estimated 6.6 million in 1990 and is projected to double its population yet again to 12.2 million by the year 2000 (United Nations, 1991: Tables A.5 and A.10). This high rate of growth is in good part the consequence of high rates of rural-to-migration, and both the sheer volume of these migrants and their frequent poverty and residence in new, periurban areas assuredly strain the existing urban family planning delivery system.

It is sobering, however, that tubectomy, the primary clinical contraceptive method in Bangladesh, is lower in urban than rural areas, even though hospitals and clinics giving tubectomy are more concentrated and easily accessed in urban areas. This finding also bears further investigation. One explanation for it is that all methods, not only tubectomy, may be more easily obtained in urban than rural areas. In addition, tubectomy is most prevalent among low educated, poor, and landless women. These women may have fewer resources in rural than urban areas and thus be more willing to undergo the operation. Finally, variations in demographic characteristics or social networking between rural and urban areas may account for the difference.

Much has been written about gender preference in Bangladesh. Some preference for either a balanced sex composition or for an imbalance in favor of sons appears in the data, with mothers of equal numbers of sons and daughters and mothers with a majority of sons having higher tubectomy use than mothers with a majority of daughters. However, the differences are modest and almost disappear entirely with intended use. Pending further analysis, these data do not support the argument that son preference is a major impediment to fertility reduction in Bangladesh.

CHAPTER 7

SOURCE OF SUPPLY AND FIELDWORKER VISITS

Contraceptive methods in Bangladesh can be divided into two major categories according to whether they are primarily obtained in clinics or outside clinics. The non-clinical methods -- pills and condoms -- are mainly supplied through commercial outlets (pharmacies, shops, or other small retail outlets) and fieldworker home visits. The clinical methods -- injectables, IUDs, tubectomies and vasectomies -- are mainly supplied through fixed-site hospitals, clinics, or government health complexes.

Contraceptives in Bangladesh are channeled through three major sectors: the Government of Bangladesh (BDG), non-governmental organizations, and the commercial sector. The Social Marketing Company sells its pills and condoms at subsidized prices through roughly 150,000 retail outlets nationwide. The Organon Company also sells its fully-priced pill brands -- Ovostat, Marvelon and Lyndiol¹ -- nationwide. (No other wholly commercial sector company currently sells contraceptives in Bangladesh.) The BDG supplies a complete range of non-clinical and clinical methods, which, apart from a nominal charge for condoms, are free of cost. Most NGOs supply pills, condoms, injectables, and IUDs for free or at a nominal price. The BDG and the NGOs distribute the same brands of pills and condoms.

Because many women do not know if their clinics or fieldworkers belong to the government or NGOs, the 1991 CPS questionnaire did not contain a question which specifically asked for that information. Respondents, however, were asked to show their pill or condom packets to the interviewer, or if they were unable to do so, to identify the brands on a chart. It is thus possible to distinguish the BDG/NGO, SMC, or commercial sector origin of pills and the BDG/NGO or SMC origin of condoms.

Fieldworker-based distribution of contraceptives, primarily pills and condoms, is an integral part of the Bangladesh National Family Planning Program. In 1991, the Government of Bangladesh employed approximately 21,000 Family Welfare Assistants (FWAs) for the home delivery of contraceptives, with some 10,000 of these 21,000 FWAs newly recruited between 1989 and 1991. A full complement of 23,000 FWAs will be employed by 1992. With this additional employment of FWAs, fieldworker-to-population ratios will be reduced from roughly 1:7,500 to 1:4,000.

FWAs are instructed to visit each household once every two months, covering on average 700 eligible couples during this period. There are some 200 family planning NGOs in Bangladesh, and these organizations employ some 9,000 fieldworkers for the domiciliary provision of contraceptive commodities and services. These fieldworkers should also visit eligible couples every two months.

7.1 Levels and Trends of Source of Supplies and Services

Currently married women under fifty years of age using a contraceptive method were asked where they or their husbands last obtained that method. The first panel of Table 7.1 shows that forty-three percent of women received their modern contraceptive supplies from clinics (including satellite clinics) or hospitals, thirty-eight percent from fieldworkers, and thirteen percent from pharmacies or shops.

¹Lyndiol is a high-dose pill that is prescribed for medical purposes. It is not available for general distribution as a contraceptive.

Table 7.1. Percent distribution of currently married women using modern contraceptive methods by most recent source of supply and rural-urban residence according to the specific contraceptive method of use, Bangladesh, 1991

Source of supply	Non-clinical methods		Clinical methods				Total users
	Pill	Condom	Injectable	IUD	Tubectomy	Vasectomy	
National							
Pharmacy*	20.3	22.7	0.8	0.6	..	..	11.0
Shop	2.2	13.5	..	..	..	..	2.1
Traditional doctor	0.7	..	2.0	..	..	..	0.5
Qualified doctor	0.3	0.4	2.4	1.1	0.1	..	0.4
Mobile camp	..	..	5.1	2.8	2.3	..	1.2
Depot holder	0.2	0.4	..	..	..	..	0.1
Satellite clinic**	..	..	1.2	2.2	1.4	..	0.6
Clinic/Hospital	5.0	4.5	53.0	69.2	96.1	94.8	42.6
Fieldworker***	66.7	50.3	35.1	23.0	0.1	..	37.6
Others	3.2	2.7	0.4	1.1	..	..	2.7
Don't know	1.2	5.5	..	..	0.1	5.2	1.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	1357	248	253	177	888	117	3040
Rural							
Pharmacy	16.5	14.3	0.5	..	..	..	8.2
Shop	2.1	13.7	..	..	..	..	1.8
Traditional doctor	0.9	..	2.3	..	..	..	0.6
Qualified doctor	0.3	0.6	2.7	0.7	0.1	..	0.4
Mobile camp	..	..	5.9	3.5	2.5	..	1.5
Depot holder	0.3	0.6	..	..	..	..	0.2
Satellite clinic**	..	..	0.9	2.8	1.5	..	0.7
Clinic/Hospital	4.5	5.6	48.8	64.1	95.6	95.0	43.8
Fieldworker***	71.3	56.2	38.8	27.5	0.1	..	39.1
Others	3.0	1.9	..	1.4	..	..	2.5
Don't know	1.1	6.8	..	..	..	5.0	1.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	1083	161	219	142	775	101	2481
Urban							
Pharmacy*	35.3	38.3	1.5	1.5	..	..	23.5
Shop	2.3	13.2	..	..	..	..	3.2
Traditional doctor	..	0.0	..	..	..	..	..
Qualified doctor	0.4	0.0	..	1.5	..	..	0.3
Mobile camp	..	0.0	..	..	0.9	..	0.2
Depot holder	..	0.0	..	..	..	..	..
Satellite clinic	..	0.0	1.5	..	..	..	0.1
Clinic/Hospital	6.8	2.4	78.8	91.1	98.6	93.3	36.3
Fieldworker	49.7	38.9	13.7	5.9	..	..	31.4
Others	4.2	4.2	4.5	..	..	..	3.6
Don't know	1.3	3.0	..	..	0.5	6.7	1.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	257	167	66	68	215	30	1073

.. Less than .05 percent

* Pharmacies do not supply IUDs in Bangladesh. Response may reflect respondent or coding error.

** Tubectomies are not performed in satellite clinics. Response may reflect respondent or coding error.

*** Fieldworkers do not give tubectomies. Response may reflect respondent or coding error.

Note: Weighted number of currently married women using modern contraceptives at the national level and unweighted numbers at rural and urban levels.

The first panel also reveals that nationally sixty-seven percent of pill users and fifty percent of condom users received their contraceptives from fieldworkers. Twenty percent of pill users purchased their pills from pharmacies, and thirty-six percent of condom users purchased their condoms from either pharmacies or shops. Fifty-three percent of injectable users acquired their injections from clinics or hospitals and an additional thirty-five percent from fieldworkers. Sixty-nine percent of IUD users received their method from clinics or hospitals and twenty-three percent from fieldworkers. Virtually all tubectomy and vasectomy clients had their operations in fixed-site clinics or hospitals.

As shown in the second and third panels of Table 7.1, fieldworker distributions of pills, condoms, injectables, and IUDs were substantially greater in rural areas than in urban areas. By contrast, higher proportions of urban than rural women obtained their pills and condoms from pharmacies and their injectables from clinics/hospitals.

Tables 7.2 and 7.3 present trends in non-clinical method supply. Between 1983 and 1991, the proportion of women who received their pills and condoms from pharmacies/shops remained relatively stable at between two and four percent. Between one and three percent of rural women and ten to fourteen percent of urban women acquired their non-clinical methods from this source during these years.

Table 7.2. Percentage of non-clinical contraceptive method (pill and condom) use among currently married women by source of supply according to rural-urban residence, Bangladesh, 1983-1991												
Source of supply	National				Residence							
					Rural				Urban			
	1983	1986	1989	1991	1983	1986	1989	1991	1983	1986	1989	1991
Pharmacy/Shop	2.4	3.6	4.4	4.0	1.5	2.5	3.3	3.0	10.2	14.0	10.4	10.1
Fieldworker	1.5	2.2	4.7	10.6	1.3	1.8	4.1	10.4	3.0	5.0	8.2	11.6
Clinic/Hospital	0.4	0.4	1.0	0.8	0.4	0.3	0.8	0.7	0.9	1.0	1.6	1.4
Total	4.3	6.2	10.1	15.4	3.2	4.6	8.2	14.1	14.1	20.0	20.2	23.1
N	7662	7822	9318	9745	6911	7036	7953	8282	2167	2397	2536	2818

Note: Weighted number of currently married women at the national level and unweighted numbers at rural and urban levels.

Nationally, fieldworker provision of pills and condoms rose slowly from roughly two percent to five percent of eligible women between 1983 and 1989 but then more than doubled to eleven percent in 1991. This rapid increase in fieldworker supply began earlier in urban areas than in rural areas. Pill and condom distribution through clinics/hospitals remained stable at less than two percent of both rural and urban women between 1983 and 1991.

The rapid crossover from pharmacy/shop to fieldworker distribution of non-clinical methods is reflected in the changes of the relative shares of non-clinical method use by supply source over time (Table 7.3). Nationally, fifty-one percent of currently married women using non-clinical methods purchased their contraceptives from pharmacies/shops in 1986, but only twenty-four percent so purchased by 1991. By contrast, thirty-one percent acquired these methods from fieldworkers in 1986, rising to forty-two percent in 1989 and sixty-four percent in 1991. This crossover from pharmacies or shops to fieldworker occurred among both rural and urban women, although in 1991 the proportion of urban women receiving pills and condoms through pharmacies/shops was twice that of rural women.

Table 7.3. Percent distribution of currently married women using non-clinical methods (pills and condoms) by source of supply (source of supply share) according to rural-urban residence, Bangladesh, 1983-1991												
Source of supply	National				Residence							
					Rural				Urban			
	1983	1986	1989	1991	1983	1986	1989	1991	1983	1986	1989	1991
Pharmacy/Shop	46.6	51.1	39.6	24.4	39.4	45.1	36.2	19.7	62.3	65.1	47.6	40.7
Fieldworker	29.5	30.6	42.4	64.3	34.5	33.6	44.6	69.3	18.4	23.5	37.3	47.1
Clinic/Hospital	8.2	5.8	8.7	4.9	9.3	6.3	9.2	4.7	5.7	4.7	7.5	5.8
Total	84.3	87.5	90.7	93.6	83.2	85.0	90.0	93.7	86.4	93.3	92.4	93.6
N	391	553	1039	1606	269	384	728	1245	353	515	577	695

Note: Weighted number for currently married women using non-clinical contraception at the national level and unweighted numbers at rural and urban levels.
Note: Total percentages do not equal to 100 percent because other supply sources are not shown in the table.

7.2 Differential Client Characteristics of Source of Supply

Various user characteristics were associated with the source of supply of non-clinical methods (Table 7.4). Higher proportions of rural than urban women received pills and condoms from fieldworkers, and similarly, higher proportions of Dhaka, Rajshahi and Khulna Division women than Chittagong Division women received these methods from fieldworkers. A higher proportion of Chittagong Division women than other women, however, received their pills and condoms from both pharmacies/shops and hospitals/clinics.

Age differences for source of supply were not dramatic, although a higher proportion of older than younger women received their non-clinical methods from fieldworkers. The presence of living children differentiated source use more than age, however, with far more women with children obtaining their pills and condoms from fieldworkers than those with no children.

A higher proportion of non-Muslim woman than Muslim women received their pills and condoms from shops/pharmacies (Table 7.5). In addition, education was associated with pharmacy/shop use, with over twice the proportion of women with secondary level education and above using this source than those with no education or incomplete primary level education.

Employment status was not an important differentiating factor for fieldworker use, although a lower proportion of women with paid employment used shops/pharmacies and a higher proportion used clinics/hospitals than women with unpaid or no employment. A higher proportion of women from households which owned land than did not own land used fieldworkers. Finally, source of supply was highly affected by household wealth, with pharmacy/shop use rising with the wealth of the household.

7.3 Obtainer of Method

Sixty-nine percent of currently married women obtained their pills and fifty-two percent obtained their condoms on their own (Table 7.6). Higher proportions of rural than urban women received their pills and condoms on their own rather than from their husbands. Only negligible percentages of pill and condom users acquired their contraceptives through other parties.

Table 7.4. Percent distribution of currently married women using non-clinical contraceptive methods (pills and condoms) by their demographic and residential characteristics according to their specific source of supply, Bangladesh, 1991

Residential and demographic characteristics	Non-clinical method source of supply				Number of women
	Fieldworkers	Shops/Pharmacies	Clinics/Hospitals	Total	
Residence					
Rural	69.2	19.8	4.7	87.4	1246
Urban	46.9	40.7	5.7	93.3	697
Division					
Dhaka	62.9	24.9	5.4	93.2	501
Chittagong	50.8	35.4	7.0	93.2	291
Rajshahi	71.4	19.1	2.8	93.3	512
Khulna	66.7	22.7	5.5	94.4	304
Age					
< 15-19	58.3	26.4	5.0	89.7	173
20-29	64.4	25.1	5.3	94.8	835
30-39	64.6	24.1	4.6	93.3	495
40-49	69.4	19.1	3.4	91.9	106
Number of living children					
None	39.2	37.1	6.1	82.4	58
1-2	62.0	26.3	6.0	94.3	669
3-4	68.5	21.3	3.5	93.3	566
5+	65.6	24.3	5.0	94.9	315
Total	64.2	24.5	4.9	93.6	1608

Note: Total percentages do not equal to 100 percent because other supply sources are not shown in the table.
Note: Rural-urban numbers of women are unweighted.

7.4 Levels and Trends of Brand Sources and Brands

Nationally, eighty-five percent of pill and condom users who used BDG or NGO brands obtained their contraceptives personally (*Table 7.7*). By contrast, eighty-three percent of pill and condom users who used Social Marketing Company brands obtained their contraceptives from their husbands, with only fifteen percent making the purchase personally. Rural and urban users differed little in these brand source receipt or buying patterns.

By 1991, eleven percent of all currently married women used BDG/NGO brands of pills, up from six percent in 1989 and less than two percent in 1983 and 1986 (*Table 7.8*). Less than two percent of all currently married women used SMC pill brands from 1983 to 1991, although the proportion using these brands rose in the earlier part of the decade and held steady since 1989. Similarly, less than two percent of all currently married women used private manufacturer pill brands over time, but in this case the proportions fell from 1986 onward. Less than two percent of all currently married women used BDG/NGO or SMC condom brands from 1983 to 1991.

Table 7.5. Percent distribution of currently married women using non-clinical contraceptive method sources of supply by their social and economic characteristics according to their specific source of supply, Bangladesh, 1991					
Social and economic characteristics	Non-clinical method source of supply				Number of women
	Fieldworkers	Shops/Pharmacies	Clinics/Hospitals	Total	
Religion					
Muslim	64.9	18.0	5.1	87.0	1420
Non-Muslim	66.1	25.7	3.7	95.5	189
Educational level					
Not attended	75.4	15.1	3.7	94.2	715
< Primary	70.8	18.6	4.5	93.9	315
Primary	56.5	35.9	4.7	97.1	181
Secondary +	42.2	41.1	7.4	90.7	397
Employment status					
Paid employment	65.6	18.0	9.0	92.6	241
Unpaid or no employment	63.9	25.7	4.2	93.8	1367
Landownership status					
Owns land	67.3	21.8	5.3	94.4	606
Does not own land	62.3	26.2	4.7	93.2	1002
Household wealth scale					
Low	83.8	7.7	3.8	95.3	268
Medium	74.7	13.1	5.9	93.7	388
High	54.4	33.1	4.8	93.1	954
Total	64.2	24.5	4.9	93.6	1608

Note: Total percentages do not equal to 100 percent because other supply sources are not shown in the table

Over the 1980s decade, the BDG/NGO pill market share rose dramatically, with a parallel decline in SMC and private manufacturer market share (*Table 7.9*). Seventy-seven percent of pill users used BDG or NGO brands in 1991, compared to forty percent 1983, thirty-six percent in 1986, and sixty-two percent in 1989. SMC market share declined two-fold and the commercial sector four-fold between 1986 and 1991. The BDG/NGO market share essentially doubled in both rural and urban areas over the same period. The share of the SMC pill market in rural areas rose significantly between 1983 and 1986 but then dropped to pre-1983 levels by 1991. SMC pill market share in urban areas, however, only declined modestly between 1983 and 1991. The share of commercial sector pills in rural areas fell from thirty-six percent of the total market in 1983 and 1986 to only six percent in 1991. The urban commercial sector share, by contrast, fell less precipitously, from approximately one-half of the total share in 1983 and 1986 to one-fifth in 1991.

A similar shift toward BDG/NGO brands was evident with condoms (*Table 7.10*). The market share of BDG/NGO condom brands basically doubled between 1986 and 1991, a trend apparent in both rural and urban areas. During the same period, the SMC market share declined by half in rural areas and by thirty-five percent in urban areas.

Table 7.6 Percent distribution of currently married women using pills or condoms by obtainer of method according to pill or condom use and rural-urban residence, Bangladesh, 1991

Obtainer of method	Pills			Condoms		
	National	Residence		National	Residence	
		Rural	Urban		Rural	Urban
Respondent	68.8	71.5	58.4	51.6	56.5	42.5
Respondent's husband	27.2	24.3	38.7	47.6	42.9	56.3
Other	4.0	4.3	2.9	0.8	0.6	1.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
N	1356	1084	527	248	161	167

Note: Weighted number of currently married women using pills or condoms at the national level and unweighted numbers at rural and urban levels.

Table 7.7 Percent distribution of currently married women using non-clinical methods by obtainer of method according to rural-urban residence and brand source, Bangladesh, 1991

Obtainer of method	National		Residence			
			Rural		Urban	
	BDG/NGO	SMC	BDG/NGO	SMC	BDG/NGO	SMC
Respondent	84.9	14.7	85.4	14.5	82.9	15.1
Respondent's husband	11.0	82.7	10.2	83.0	14.2	81.9
Others	4.1	2.6	4.4	2.5	2.9	3.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
N	1182	286	966	200	415	166

Note: Weighted number of women using non-clinical methods at the national level and unweighted numbers at rural and urban levels.

Table 7.8 Percentage of currently married women using pill and condom brand sources, Bangladesh, 1983-1991

Brand source	Pills				Condoms			
	1983	1986	1989	1991	1983	1986	1989	1991
BDG/NGO	1.4	1.9	5.6	10.7	0.5	0.5	0.7	1.5
SMC	0.6	1.3	1.9	1.9	1.0	1.3	1.2	1.0
Private manufacturer	1.3	1.9	1.5	1.3	NA	NA	NA	NA
Others	..	..	0.1	..	..	..	..	..
Total	3.3	5.1	9.1	13.9	1.5	1.8	1.9	2.5
N	7662	7822	9318	9745	7662	7822	9318	9745

NA = Not Applicable
.. Less than .05 percent

Table 7.9 Percent distribution of currently married women using pills by pill brand source according to rural-urban residence, Bangladesh, 1983-1991

Pill brand source	National				Residence							
					Rural				Urban			
	1983	1986	1989	1991	1983	1986	1989	1991	1983	1986	1989	1991
BDG/NGO	40.0	36.3	62.1	76.9	44.2	38.1	65.5	80.3	30.7	32.8	52.5	63.3
SMC	19.3	25.6	20.7	13.8	19.5	29.5	21.7	13.4	19.5	17.5	18.2	15.4
Private manufacturer	39.6	37.2	16.2	9.2	35.7	32.0	12.3	6.2	48.9	48.6	27.6	21.1
Others	1.1	0.9	1.0	0.1	0.6	0.4	0.5	0.1	0.9	1.1	1.7	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	255	399	850	1352	178	275	626	1078	225	378	413	527

Note: Weighted number of currently married women using pills at the national level and unweighted numbers at rural and urban levels.

Table 7.10 Percent distribution of currently married women whose husbands use condoms by condom brand source according to rural-urban residence, Bangladesh, 1983-1991

Condom brand source	National				Residence							
					Rural				Urban			
	1983	1986	1989	1991	1983	1986	1989	1991	1983	1986	1989	1991
BDG/NGO	33.4	26.6	35.7	58.6	38.8	29.2	29.7	64.0	27.9	20.9	42.4	48.8
SMC	64.0	72.9	61.8	40.6	59.9	70.8	65.9	34.8	72.1	79.1	56.9	51.2
Others	2.6	0.5	2.5	0.8	1.3	..	4.4	1.2	..	..	0.7	..
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	117	139	176	244	80	96	91	158	118	129	151	166

.. Less than .05 percent
Note: Weighted number of currently married women whose husbands use condoms at the national level and unweighted numbers at rural and urban levels.

Major changes in consumer use of particular brands for both pills and condoms emerged between 1989 and 1991 (*Table 7.11*). Sixty-eight percent of pill users used the BDG/NGO brand Combination-5 in 1991, up from thirty-nine percent in 1989. Ovral use dropped from twenty-three percent to eight percent of the total share over the same period. This trend characterized both rural and urban areas.

Ovacon remained the major SMC pill brand in Bangladesh between 1989 and 1991, but its market share declined from fifteen percent of the total market to ten percent over this period. Its sister brand, Maya, dropped from six percent to three percent of the total share during the same time. The decline for both brands occurred in both rural and urban areas, but was more pronounced in the rural areas. SMC's upscale pill brand, Norquest, which was introduced in January 1991, had almost one percent of the total market share by the end of 1991 when the survey was taken.

Organon's Ovostat remained the only significant private company brand on the market, but its share dropped from twelve percent of the market in 1989 to seven percent in 1991. As with the SMC pill brands, the decline was evident in both rural and urban areas.

The BDG/NGO Sultan brand of condoms climbed from a thirty-five percent market share in 1989 to a fifty-seven percent share in 1991. The Sultan brand market share increased by thirty-two percentage points in rural areas between 1989 and 1991 and by eight percentage points in urban areas over the same period. SMC's Raja condom brand dropped steeply from forty-two percent of the market in 1989 to twenty-five percent in 1991. This decline was far more pronounced in rural than urban areas. On the other hand, SMC's Panther brand gained an additional five percentage points of the market between 1989 and 1991, rising from ten percent to fifteen percent of the total. This increase was most pronounced in urban areas where the share grew from one-sixth to one-quarter of the total market. SMC's Majestic brand tumbled from a ten percent to a two percent share of the market between 1989 and 1991, reflecting its withdrawal from the market in 1989.

7.5 Levels and Trends of Fieldworker Visits

Levels of fieldworker visits have fluctuated over time. In 1983, thirty percent of all currently married women under age fifty reported at least one visit by a fieldworker during the previous six months² (*Table 7.12*). This level declined to twenty-seven percent in 1986 and twenty-five percent in 1989, only to rise to thirty-six percent in 1991. Fieldworker visits to urban women steadily rose from 1983 to 1989 but then levelled off between 1989 and 1991. Fieldworker visits to rural women, by contrast, declined between 1983 and 1989 but then surged between 1989 and 1991.

7.6 Client Differentials of Fieldworker Visits

Residential and demographic characteristics of women highly affected the degree to which they were visited by fieldworkers (*Table 7.13*). Considerably lower proportions of Chittagong Division women were visited by fieldworkers than women from the other three divisions. Visit levels were similar across rural and urban areas within the divisions save in Khulna Division where the proportion of urban women visited by fieldworkers was below rural ones.

Fieldworkers were more likely to visit women in their prime reproductive years between 20 and 39 years old than those less than 20 years old or 40 years old and above. Likewise, they were more likely to visit women with children than women with no children.

Social and economic characteristics of women also affected fieldworker visit levels, but they had less impact than their residential and demographic characteristics (*Table 7.14*). Muslim and non-Muslim women were equally likely to be visited by fieldworkers. Nationally, fieldworkers were most likely to visit women with secondary level education and above, followed by women with either partial or full primary level education. Urban visit patterns were more erratic than rural ones, with fieldworkers visiting a higher proportion of women having less than primary level education than women having full primary level education.

²The relevant question in the questionnaire refers to women visited by a fieldworker who either discussed family planning matters with them or gave them contraceptives. A larger number of women may have been visited by fieldworkers who did not discuss family planning with them. According to the 1989 *Bangladesh Fertility Survey* (Huq and Cleland, 1990: 71), fieldworkers discussed family planning during only sixty-nine percent of their household visits.

Table 7.11 Percent distribution of currently married women using non-clinical methods by verified brand names according to rural-urban residence, Bangladesh, 1989-1991

Brand	National		Residence			
	1989	1991	Rural		Urban	
			1989	1991	1989	1991
<u>PILLS</u>						
BDG/NGO brands	62.1	76.9	65.5	80.3	52.5	63.3
Noriday	0.7	0.8	0.8	0.8	0.5	0.6
Ovral	22.7	8.2	23.8	8.8	19.9	5.7
Combination-5	38.6	67.9	40.9	70.7	32.2	57.0
SMC brands	20.7	13.8	21.7	13.4	18.2	15.4
Maya	6.1	2.8	6.2	2.6	5.8	3.6
Ovacon	14.6	10.1	15.5	10.1	12.3	10.2
Norquest	..	0.9	..	0.7	..	1.5
Private manufacturers	16.2	9.2	12.3	6.2	27.6	21.1
Ovostat	12.3	6.7	10.2	4.8	18.4	14.2
Marvelon	1.6	1.3	0.8	0.8	3.9	3.0
Others	2.3	1.2	1.2	0.6	5.3	3.8
Other	1.0	0.5	0.5	0.1	1.7	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
N	850	1352	626	1078	413	527
<u>CONDOMS</u>						
BDG/NGO brands	35.6	58.6	29.7	64.0	42.3	48.8
Sultan	34.7	57.1	29.7	62.1	40.3	48.2
Other	0.9	1.4	..	1.9	2.0	0.6
SMC brands	51.9	40.6	65.9	34.8	57.0	51.2
Raja	42.4	24.5	51.6	24.1	31.8	25.3
Panther	9.8	14.5	5.5	8.9	14.8	24.7
Majestic	9.7	1.7	8.8	1.9	10.6	1.2
Other	0.8	0.4	1.1	0.6	0.7	..
Brand not recognized	1.7	0.4	3.3	0.6	..	..
Total	100.0	100.0	100.0	100.0	100.0	100.0
N	172	244	91	158	151	166

.. Less than .05 percent

Note: Weighted number of currently married women using non-clinical methods at the national level and unweighted numbers at rural or urban levels.

In rural areas, fieldworkers visited a higher proportion of women whose households owned land than did not own land, although this relationship was reversed in urban areas. Fieldworkers were more likely to visit more wealthy than less wealthy women in both residential areas.

Table 7.12 Percent distribution of currently married women by field worker visitation during the last six months according to rural-urban residence, Bangladesh, 1983-1991

Fieldworker visitation	National				Residence							
					Rural				Urban			
	1983	1986	1989	1991	1983	1986	1989	1991	1983	1986	1989	1991
Visited	30.1	27.3	24.9	36.1	30.2	26.8	22.7	36.0	28.0	32.5	37.8	36.3
Not visited	69.9	72.7	75.1	63.9	69.8	73.2	77.3	64.0	72.0	67.5	62.2	63.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	7656	7820	9317	9744	6907	7037	7953	8281	2167	2397	2536	2815

Note: Weighted number of currently married women at the national level and unweighted numbers at rural and urban levels.

Table 7.13 Percentage of currently married women who were visited by a fieldworker during the last six months by their residential and demographic characteristics according to rural-urban residence, Bangladesh, 1991

Residential and demographic characteristics	National	Residence	
		Rural	Urban
Division			
Dhaka	40.9	40.5	42.4
Chittagong	23.8	23.6	24.8
Rajshahi	40.1	39.8	42.8
Khulna	39.5	40.4	33.9
Age			
<15-19	26.3	26.4	25.5
20-29	42.0	42.2	40.9
30-39	38.5	38.3	39.4
40-49	23.0	22.7	24.5
Number of living children			
None	15.8	16.0	14.9
1-2	40.0	40.0	40.5
3-4	41.2	41.3	40.4
5+	34.9	34.8	35.2
Total	36.1	36.0	36.3
N	9745	8282	2815

Note: Weighted number of currently married women at the national level and unweighted numbers at rural and urban levels.

Fieldworkers visited forty-nine percent of women using contraception compared to twenty-eight percent of women not using contraception (*Table 7.15*). Among those women using contraception, fieldworkers were most likely to have visited pill, condom, and injectable users, followed by IUD and traditional method users. Only a small percentage of those sterilized were visited by fieldworkers. Among

those women not using contraception, a higher proportion of non-pregnant and fertile women was visited by fieldworkers than pregnant, infertile or menopausal women. The difference between the two groups, however, was only six percentage points. There was little residential variation in these fieldworker visits by contraceptive use patterns³.

7.7 Levels of Fieldworker Discussions with Clients

Family planning fieldworkers discussed at least one modern method with thirty-six percent of all the currently married women (*Table 7.16*). Virtually all the women visited by fieldworkers thus received information about at least one modern method from their fieldworkers. Fieldworkers were most likely to have discussed pills with their clients, followed by injectables, tubectomy, IUDs, and condoms. Vasectomies were discussed with only a small fraction of women. The pattern of response did not vary by rural or urban residence. Most women who reported pill discussions did so spontaneously, whereas for all other methods except vasectomies, spontaneous responses were more or less evenly divided with probed ones. Most women who reported vasectomy discussions only did so after probing.

7.8 Differential Characteristics of Clients Receiving Fieldworker Discussions

Tables 7.17 and 7.18 shows differential patterns of spontaneous response by women visited by fieldworkers during the preceding six months. Method specific responses varied for condoms and tubectomies by residence, with more urban women reporting discussions about condoms and more rural women reporting discussions about tubectomy. With the exception of the two sterilization methods, higher proportions of women from Khulna Division than women from the other three divisions reported method-specific discussions. This divisional difference was quite striking for condoms, injectables, and IUDs. By contrast, markedly lower proportions of women from Chittagong Division reported condom and IUD discussions than women from the other three divisions.

Compared to younger women, lower proportions of women aged 40-49 spontaneously reported discussions about pills, condoms, and injectables but higher proportions reported discussions about tubectomies. Discussions about tubectomy were relatively high among women age forty and above. Nevertheless, fieldworkers were twice as likely to have discussed pills than tubectomy with women in this age group. Fieldworkers discussed vasectomy with only a minuscule number of older women.

A relatively high proportion of women with three or more living children spontaneously reported discussions about tubectomy, although a significantly higher proportion of these higher parity women reported discussions about pills. Discussions about vasectomy were held with only a small number of these women. Even though a relatively low number of women with no children reported discussions about injectables, IUDs, or tubectomy, a relatively high number of them reported discussions about condoms. The sex composition of the children had no impact on method-specific discussions by fieldworkers.

Religious differences were generally not important for fieldworker discussions (*Table 7.18*). Similar proportions of Muslim and non-Muslim women reported fieldworker discussions about methods, including sterilization, except a somewhat higher proportion of Muslim women reported fieldworker discussions about injectables.

Fieldworkers were more likely to have discussed condoms with higher than lower educated women. Similarly, they were more likely to have discussed condoms with women whose households owned than did not own land, who had unpaid or no employment than paid employment, or who had

³Although the percentage of contraceptive users by method who were visited by fieldworkers in urban areas is generally lower than the percentage visited in rural areas, the overall percentage visited is almost identical because higher proportions of urban women use contraception.

higher household wealth than lower household wealth. By contrast, they were more likely to have discussed tubectomy with women with lower than higher education, women who had paid employment than unpaid or no employment, or who had low or medium household wealth than high household wealth.

Table 7.14 Percentage of currently married women who were visited by a fieldworker during the last six months by their social and economic characteristics according to rural-urban residence, Bangladesh, 1991			
Social and economic characteristics and current contraceptive use	National	Residence	
		Rural	Urban
Religion			
Muslim	36.2	36.2	36.2
Non-Muslim	35.5	35.3	36.8
Educational level			
Not attended	33.1	33.5	30.1
< Primary	38.9	38.5	41.8
Primary	37.5	38.4	33.1
Secondary +	44.5	45.2	43.3
Employment status			
Paid employment	39.3	39.6	37.3
Unpaid or no employment	35.4	35.3	36.0
Land ownership status			
Owns land	37.7	38.1	34.8
Does not own land	33.7	32.7	37.2
Household wealth scale			
Low	33.0	33.2	31.4
Medium	35.2	35.4	33.8
High	38.4	38.1	39.6
Total	36.1	36.0	36.3
N	9745	8282	2815

Note: Weighted number of currently married women and unweighted numbers at rural and urban levels.

Table 7.15 Percentage of currently married women who were visited by a fieldworker during the last six months by their current contraceptive use status according to rural-urban residence, Bangladesh, 1991			
Current contraceptive use status	National	Residence	
		Rural	Urban
Contraceptive users	48.8	48.9	48.6
Pill	72.8	75.2	63.5
Condom	72.2	78.3	61.1
Injectable	66.6	67.6	60.6
IUD	49.3	52.1	38.2
Sterilization	13.1	13.0	13.9
Traditional methods	40.9	39.8	42.8
Contraceptive non-users	27.6	28.0	24.9
Non-pregnant and fertile	30.1	30.5	27.2
Pregnant or infertile/menopausal	23.8	24.0	22.3
Total	36.1	36.0	36.3
N	9745	8282	2815

Note: Weighted number of currently married women and unweighted numbers at rural and urban levels.

Table 7.16 Percentage of currently married women who received information about specific family planning methods from their fieldworkers by specific contraceptive method according to rural-urban residence, Bangladesh, 1991									
Contra- ceptive method	National			Residence					
				Rural			Urban		
	Spontaneously reported discussing	Reported discussing after probing	Total	Spontaneously reported discussing	Reported discussing after probing	Total	Spontaneously reported discussing	Reported discussing after probing	Total
Pill	31.5	2.3	33.8	31.6	2.1	33.9	31.0	2.8	33.8
Condom	10.7	8.5	19.2	10.3	8.6	18.9	13.2	8.3	21.5
Injectable	13.3	10.5	23.8	13.5	10.6	24.1	12.3	10.1	22.4
IUD	12.4	9.0	21.4	12.3	9.0	21.3	12.6	8.8	21.4
Tubectomy	13.9	8.0	21.9	14.3	8.1	22.4	12.1	7.2	19.3
Vasectomy	1.0	6.2	7.2	1.0	6.4	7.4	1.0	5.1	6.1
Any modern method	35.1	0.9	36.0	35.2	0.9	36.1	35.0	0.9	35.9

Note: Percentages calculated from the weighted number of currently married women at the national level and unweighted numbers at rural and urban levels.

Table 7.17 Percentage of currently married women who were visited by a fieldworker during the last six months who spontaneously reported having discussed contraceptive methods by their residential and social characteristics according to the specific contraceptive method discussed, Bangladesh, 1991

Residential and demographic characteristics	Percent of women visited by their fieldworkers during the past six months spontaneously discussing:						Number of women
	Pill	Condom	Injectable	IUD	Tubectomy	Vasectomy	
Residence							
Rural	83.5	27.5	35.2	32.3	37.1	2.4	2985
Urban	82.5	35.4	32.8	33.7	31.8	2.5	1021
Division							
Dhaka	85.1	27.4	33.2	31.4	39.0	2.3	1166
Chittagong	81.8	19.1	33.0	23.9	33.6	1.6	585
Rajshahi	90.7	29.3	30.9	33.0	38.9	3.7	1024
Khulna	85.6	37.4	44.2	40.3	30.4	1.4	740
Age							
< 15-19	85.1	29.4	32.0	29.2	16.2	1.2	414
20-29	85.0	30.8	35.7	34.5	34.4	2.2	1752
30-39	82.4	27.6	35.9	31.6	43.9	3.4	1048
40-49	75.0	19.1	29.8	28.8	47.8	2.0	302
Number of living children							
None	82.4	38.0	25.5	19.2	9.7	1.5	201
1-2	84.8	30.7	32.8	33.5	24.9	1.8	1368
3-4	82.5	29.3	37.3	34.0	44.8	3.1	1191
5+	82.4	21.6	37.1	31.8	50.5	2.6	756
Sex composition of children							
No children	82.4	38.0	25.5	19.2	9.7	1.5	201
More sons	81.7	27.1	36.1	34.2	39.5	2.6	1404
More daughters	85.3	28.4	35.0	32.1	37.1	2.1	1208
Same number	83.6	29.6	34.6	33.6	35.8	2.7	703
Total	83.4	28.7	34.8	32.5	36.3	2.4	3516

Note: Rural-urban numbers of women are unweighted.

Table 7.16 Percentage of currently married women who were visited by a fieldworker during the past six months who spontaneously reported having discussed contraceptive methods by their social and economic characteristics according to the specific contraceptive method discussed, Bangladesh, 1991

Social and economic characteristics	Percent of women visited by a fieldworker during the past six months spontaneously discussing						Number of women
	Pill	Condom	Injectable	IUD	Tubectomy	Vasectomy	
Religion							
Muslim	83.9	28.6	35.5	32.9	36.4	2.5	3094
Non-Muslim	79.7	29.7	29.8	29.8	35.1	1.4	422
Educational level							
Not attended	83.2	23.8	35.4	30.4	39.0	2.0	1917
< Primary	82.2	28.3	37.1	34.1	37.8	2.2	711
Primary	86.2	34.8	36.1	38.5	34.5	3.3	335
Secondary +	83.7	42.3	29.1	34.2	25.8	3.7	553
Employment status							
Paid employment	82.0	25.5	34.1	33.7	41.5	3.0	547
Unpaid or no employment	83.6	29.3	35.0	32.3	35.3	2.3	2968
Landownership status							
Owens land	83.1	29.9	34.6	33.1	34.9	2.2	2172
Does not own land	83.7	26.7	35.2	31.5	38.4	2.7	1344
Household wealth scale							
Low	83.4	23.0	37.4	32.2	39.0	2.5	818
Medium	85.3	24.9	35.3	33.0	39.1	1.5	981
High	82.2	33.6	33.3	32.3	33.3	2.9	1717
Total	83.4	28.7	34.8	32.5	36.3	2.4	3516

7.9 Summary and Conclusions

Fieldworker delivery is an important and growing source of non-clinical method supply in Bangladesh. Pharmacies and shops supply roughly the same percentage of currently married women under age fifty with contraception in 1991 as they did in 1986. Nevertheless, their relative share of the market declined rapidly over the same period. This suggests that fieldworkers were mainly responsible for the recent surge in contraceptive use. The decline in market share for pharmacies and shops is reflected in a similar decline in Social Marketing Company and commercial sector brands, especially in rural areas.

The social marketing and commercial sectors have historically played important roles in the promotion and use of family planning, but this drop in market share suggests that both the price of commercial products and the extent to which government and NGO outreach workers supply free contraceptive products strongly affect the level of commercial contraceptive use in Bangladesh. Between 1989 and 1991, three important developments may have contributed to the cross-over from SMC/commercial sector to BDG/NGO sector distribution. First, the Social Marketing Company raised prices on its pills and condoms in 1990. Second, the government recruited a substantial number of additional fieldworkers and family planning NGOs expanded into rural areas during this time. Third, starting in the mid-1980s the government shifted the focus of its fieldworkers from referring clients for sterilization to providing them with non-clinical methods. Thus, during a time when SMC inputs remained relatively steady, the government boosted its field force and shifted its activities toward distribution of non-clinical methods.

It is important to emphasize, however, that although the market share of SMC pills and condoms declined between 1989 and 1991, the absolute percent of currently married women who reported using these products remained unchanged.

Events over the past decade suggest that in Bangladesh contraceptive market shares have fluctuated considerably and that they will probably continue to fluctuate in the future. SMC sales reports show that after the company returned to its original low pill and condom prices in 1992, sales of these products surged to historically high levels. Part of this increase was undoubtedly triggered by the price change, but part may also have been caused by supply shortages among government fieldworkers. The mechanisms and dynamics affecting relative market share of free vs. priced contraceptive products is an area which bears thorough investigation.

Most tubectomies and vasectomies were performed in clinics and hospitals, and the majority of IUD insertions and injectables occurred in the same facilities. Nevertheless, one-sixth of IUDs and one-third of injectables were supplied by fieldworkers. The Ministry of Health and Family Welfare has not given fieldworkers an official mandate or the formal training to perform either procedure. Reports from the field suggest three possible reasons for the field provision of injectables and IUDs. First, Family Welfare Visitors (FWVs), government-employed female paramedics who work in union-level health centers, may provide some home-delivered IUD and injectable services to clients. Second, FWAs may have been provided injectables by FWVs to give during their house-to-house visits. Third, FWAs may give family planning injections along with their immunization injections in the EPI outreach sites. Because field provision of IUDs and injectables is not currently an official part of the government program, further information is clearly needed in this area.

Government/NGO and SMC brands appeal to different gender audiences. Government/NGO brands are supplied by home delivery and are thus handed directly to wives, many of whom are still confined to the household by *purdah* regulations. Husbands, who are generally mobile and who have discretionary use over money, tend to purchase SMC brands. This finding has definite implications for program policy, given a possible market share decline for commercial sector products and current government and donor agency interest about long-term program sustainability through cost containment and recovery.

Chittagong Division is the exception among Bangladesh's four divisions, having considerably lower proportions of supply through fieldworkers, fieldworker visits, and fieldworker discussions about condoms and IUDs than the other three divisions. This differential pattern can plausibly be explained by the relative difficulty of recruiting fieldworkers in Chittagong Division and by conservative attitudes about the role of women in the area.

Brand market shares were volatile between 1989 and 1991. Ovral and Combination-5, the two major government pill brands, are composed of the same ingredients. Combination-5, however, has had wider distribution than Ovral, and as a result, has generated greater consumer demand. Growth in government/NGO brands, such as Combination-5 pills and Sultan condoms, can generally be ascribed to increasing popularity of government/NGO products. The decline in the Majestic condoms can be explained by its recall by SMC in 1989.

Substantial increases in fieldworker visits over the past two years occurred primarily in the rural areas where the government has placed most of its family planning resources. The leveling off of fieldworker visit rates in urban areas bears further investigation, but three plausible explanations for it include the inability of family planning NGOs to increase the range of their coverage, variation in the quality of these NGOs, and the rapid influx of poor migrants to the urban areas.

Although it is to the Program's credit that fieldworker visitation has increased substantially over the past year, only slightly more than one-third of eligible women were visited in a six month period, far below the complete coverage that should be given to women every two months. Beyond that, fieldworkers did not discuss any method except for pills with three-quarters or more of all eligible women. Fieldworkers were much more likely to discuss pills with older women and women with high numbers of living children than more appropriate methods such as IUDs, tubectomy and vasectomy. In fact, fieldworkers were far more likely to discuss pills with their clients than any other method, although some preference was given to discussing tubectomy with poorer and less educated clients and condoms with more wealthy and educated ones.

Despite its "cafeteria" approach, the National Family Planning Program appears to have become heavily oriented toward the supply of pills -- a method characterized by being largely free of cost, geared toward women, and suitable for mass distribution through domiciliary visits. This method, while generally appropriate for women desiring to space their births, is not considered appropriate for women desiring to limit their births, especially under conditions of poor use compliance.

Furthermore, less than one-third of non-pregnant, fertile women not using contraception were approached by fieldworkers during a six month period. Although some of these women undoubtedly wanted to become pregnant or did not want to use contraception for other reasons, many probably did not use contraception for the very reason that they were not contacted. Despite their generally low visitation, however, the evidence does not suggest that fieldworkers favor segments of the population on the basis of social and economic characteristics or alternatively that certain segments of the population are disproportionately receptive toward service provision by family planning fieldworkers.

CHAPTER 8

FERTILITY PREFERENCES

Fertility preferences are important because they indicate women's attitudes toward their future fertility. Although these attitudes may not perfectly presage actual future behavior, they can demonstrate prevailing social norms about family size. Because one of the goals of the National Family Planning Program is to promote a small family norm, these preferences may provide answers about the degree to which the Program is accomplishing its objectives.

On a micro level, fertility preferences also reflect the degree to which women and their husbands feel that they exercise control over their reproduction. When couples desire to space or limit their births and either take or consider taking steps which lead to those results, they come to make an important decision about their own destinies. This decision to assume control over their own childbearing moves them away from a fatalistic dependence on God's will to a more active stance toward life.

Currently married women, including pregnant women, were asked if they desired to have more children, and, if so, whether they wanted to have their next child within two years or after two years. Women, including those who were sterilized, who indicated that they no longer desired to have children were considered potential or actual birth limiters. Women, excluding those who were sterilized, who indicated that they desired to have additional children but wanted to wait two years or more for them were considered potential or actual birth spacers. Birth intervals of less than two years increase the risk of both maternal and child mortality, and one important indicator of possible future progress in maternal and child health may thus be a significant proportion of women intending to space their births.

Based on fertility intentions, it is possible to estimate the unmet need for contraception or the proportion of women who do not use contraception despite their desire to space or limit their childbearing. Calculating unmet need enables an estimation of the total demand for contraception and the percentage of the demand satisfied -- measures of women's desire for family planning and National Family Planning Program success in meeting this desire.

8.1 Desire for More Children

Table 8.1 shows that thirty-seven percent of currently married Bangladeshi women under age fifty desired to have at least one more child in the future and that forty percent did not want to have another child. Less than four percent of these women were undecided or unsure about their desire for additional children. In addition, ten percent of women or their spouses had already made a definite decision not to have another child by being sterilized and an additional ten percent could not have children, even if they desired them, by being infecund or menopausal¹.

¹Following standard *Demographic and Health Survey* definitions, infecund women are currently married women in their first marriage of five or more years duration, never having used contraception, who did not have a birth in the five years preceding the survey and who are not pregnant. Menopausal women are non-pregnant, non-postpartum amenorrheic currently married women whose last menstrual cycle occurred six or more months preceding the survey.

Seventy-seven percent of childless women desired children and twenty percent of them were infecund. Most women with only one child wanted a second child, but the desire for additional children progressively dropped as family size grew. Bangladeshi women who had exactly two children were almost evenly divided between those who definitely wanted to have more children and those, either sterilized or not sterilized, who did not. At least two-thirds of women with three or more children either definitely did not want to have more children or had been sterilized. Among women with children, infecundity and menopause, biological mechanisms limiting childbearing, assumed increasingly greater importance after the birth of a third child.

Desire for more children	Number of living children						Total
	None	1	2	3	4	5+	
Want another							
Definitely	76.6	65.9	43.7	21.2	11.6	3.0	36.9
Not sure	1.0	0.5	1.1	0.5	0.3	0.3	0.6
Missing	1.7	0.2
Undecided	..	0.9	2.6	2.5	2.2	1.5	1.7
Want no more							
Definitely	0.1	4.6	37.0	52.6	59.1	64.1	39.5
Not sure	..	0.3	1.9	2.2	1.1	1.5	1.3
Ineligible							
Sterilized	0.9	2.2	9.1	15.4	17.6	13.4	10.3
Infecund	19.6	5.5	4.6	4.9	7.1	11.9	8.3
Menopausal	0.1	0.1	0.0	0.5	1.0	4.3	1.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	933	1755	1833	1652	1329	2242	9745

.. Less than .05 percent
 Note: Number of living children includes current pregnancy
 Note: Infecund women refer to currently married women in their first marriage of five or more years duration, never having used contraception, who did not have a birth in the five years preceding the survey and who are not pregnant
 Note: Menopausal women are non-pregnant, non-postpartum amenorrheic currently married women whose last menstrual cycle occurred six or more months preceding the survey

Table 8.1 also suggests that eight percent of married Bangladeshi women of reproductive age are infecund. Infecundity can be decomposed into primary and secondary sterility. Primary sterility is indicated when women are unable to bear children at all, generally because of physiological causes. Secondary sterility is indicated when women are unable to bear children after the birth of at least one child, generally because of non-physiological causes such as infectious disease. According to these definitions, twenty-three percent of all sterile women or 1.9 percent of all currently married women of reproductive age

exhibited primary sterility² and seventy-seven percent of all sterile women or 6.4 percent of all currently married women of reproductive age exhibited secondary sterility.

Table 8.2 considers only women who desired to have more children. Overall, sixty-five percent of currently married women who desired more children wanted to wait at least two years before having them. Although only one-third of women with no children wanted to wait this long, around three-quarters of women with between one and three children wanted to do so. Thirty-nine percent of women with five or more children desired a birth interval of less than two years, but seventeen percent were also unsure about their desire for an additional birth, a far higher proportion than women with smaller numbers of children. At any rate, women with five or more children only composed a small proportion of the women who wanted more children.

Desire for children	Number of living children						Total
	None	1	2	3	4	5+	
Want more children							
< Two years	62.0	20.7	19.6	16.4	20.8	38.7	28.6
Two years +	33.3	74.1	74.2	75.8	66.7	44.0	65.2
Unsure	4.7	5.2	6.2	7.8	12.5	17.3	6.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	741	1515	821	359	159	75	3675

Note: Number of living children includes current pregnancy.
 Note: Women who desire more children exclude sterilized, infecund, and menopausal women. For definitions of infecund and menopausal, see Table 8.1.

Table 8.3 shows the birth spacing preferences of women who gave birth in the last year and who want to have more children. It indicates that eighty-one percent of these women wanted to wait a minimum of two years before having another child. The only exceptions to this strong preference for birth spacing were childless women who had given birth in the previous year but whose babies had died.

8.2 Differentials in Birth Termination

Table 8.4 shows differences in the desire of women to end their childbearing by subgroup of the population. The desire to limit childbearing was more pronounced for urban than for rural women, although differences between the two groups were small. Higher proportions of urban than rural women with two or three children desired to stop their childbearing, but virtually identical proportions of rural and urban women with four or more children wanted to stop.

²This estimate of primary sterility may be slightly biased upward because the first column in Table 8.1 refers to no living children rather than to no children ever born. Some proportion of childless women who fit the infecundity criteria may have had children who died.

Table 8.3 Percent distribution of currently married women who gave birth in the twelve months prior to the survey and who want to have more children by the timing of their next desired child according to their number of living children, Bangladesh, 1991							
Desire for children	Number of living children						Total
	None	1	2	3	4	5+	
Want more children							
< Two years	78.8	7.7	11.8	9.0	13.2	18.2	12.4
Two years +	18.6	86.5	82.9	82.0	79.2	72.9	81.4
Unsure	2.6	5.7	5.3	9.0	7.6	9.1	6.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	38	465	262	111	53	22	952
Note: Number of living children includes current pregnancy. Note: Women who desire more children exclude sterilized, infertile, and menopausal women. For definitions of infertile and menopausal, see Table 8.1							

8.3 Differentials in Birth Spacing

Attitudes toward birth spacing were measured by desire to wait at least two years before the next birth. Table 8.6 shows variations in the desire to space children by population subgroups. Residential differences in the desire to space births were not pronounced, although higher proportions of urban than rural women with between two and four children wanted to wait at least two years before the next birth.

Regionally, a lower proportion of Chittagong Division women wanted to space their births than women from the other three divisions. In particular, Chittagong Division women with two or three children were less likely to want to space their births than women from the other three divisions with a similar number of children. Among women with no children, a desire to space births was relatively high among those from Khulna Division.

Women with secondary level education or above were most likely to want to wait at least two years before the birth of their next child, followed by women with complete and partial primary level schooling. The birth spacing differential between relatively educated and uneducated women was especially marked among women with no children.

Higher proportions of Rajshahi, Khulna, and Dhaka Division women than Chittagong Division women desired to limit their childbearing. Rajshahi and Khulna Division women, in particular, wanted to limit their childbearing after two or three children. For example, the proportion of Rajshahi and Khulna Division women with two children who wanted no more children was almost twice that of Chittagong Division women.

Age and family size had a similar impact on the desire of women for additional children. As age increased so did the desire to limit childbearing. Likewise, as the number of children increased so did the desire to limit childbearing. For example, ninety percent of women 40-49 years of age with two children desired to limit their childbearing. Similarly, ninety percent of women 20-29 years of age with five or more children desired to limit their childbearing.

Table 8.4 Percentage of currently married women who desire no more children by their residential and demographic characteristics according to their number of living children, Bangladesh, 1991							
Residential and demographic characteristics	Number of living children						Total
	None	1	2	3	4	5+	
Residence							
Rural	0.1	6.6	48.5	73.3	84.3	94.0	55.7
Urban	0.2	8.3	56.3	81.9	85.1	94.9	58.6
Division							
Dhaka	0.5	8.4	50.4	73.0	84.2	95.0	56.6
Chittagong	..	2.2	31.5	62.0	72.0	89.2	49.0
Rajshahi	..	8.4	59.7	83.1	91.3	97.0	60.5
Khulna	..	7.7	56.2	80.8	91.1	95.5	58.6
Age							
<15-19	0.2	2.5	37.2	**	**	**	6.7
20-29	.	7.2	45.6	69.2	76.7	89.9	48.4
30-39		48.2	74.4	84.1	88.5	93.3	86.7
40-49	..	**	90.2	93.0	97.7	97.9	96.6
Total	0.1	6.8	49.9	74.6	84.4	94.1	56.2
N	750	1656	1749	1563	1221	1879	8818
.. Less than .05 percent							
** Less than 25 cases							
Note: Number of living children includes current pregnancy							
Note: Women who desire no more children, include sterilized women but exclude infertile and menopausal women. For definitions of infertile and menopausal, see Table 8.1							

A higher proportion of non-Muslim than Muslim women wanted no more children (Table 8.5). This greater desire of the part of non-Muslim women to terminate their childbearing held true across all family size groups, but was particularly pronounced among those with only two children.

The desire to terminate childbearing was more evident among less educated than more educated women. However, this difference appeared primarily caused by higher proportions of younger women or women with fewer children in the more educated groups, as evidenced by the relatively high proportions of the most educated women with two or three children who did not want to have more children.

A higher proportion of women with paid employment than women with unpaid or no employment desired to limit their childbearing, a difference especially apparent among employed women with one to three children. A slightly higher proportion of women whose households did not own land than did own land desired to terminate their childbearing, a pattern particularly marked for women with two children. A slightly higher proportion of women from poorer than wealthier households also did not want to have additional children.

Table 8.5 Percentage of currently married women who desire no more children by their social and economic characteristics according to their number of living children, Bangladesh, 1991							
Social and economic characteristics	Number of living children						Total
	None	1	2	3	4	5+	
Religion							
Muslim	0.2	6.4	48.2	73.4	82.9	93.6	55.2
Non-Muslim	..	10.4	61.2	81.7	93.7	98.8	62.9
Educational level							
Not attended	0.3	7.9	49.1	70.6	82.7	93.1	58.4
< Primary	..	5.7	47.5	79.4	89.7	96.1	59.3
Primary	..	4.8	44.0	76.5	83.3	95.5	52.7
Secondary +	..	6.1	58.1	83.7	86.3	93.1	44.7
Employment status							
Paid employment	..	15.8	64.1	81.3	86.0	98.6	69.8
Unpaid or no employment	0.1	5.8	47.2	72.5	84.1	93.7	53.8
Landownership status							
Owens land	0.2	5.9	46.9	74.1	84.5	93.8	55.1
Does not own land	..	8.1	53.6	75.2	84.3	94.6	57.7
Household wealth scale							
Low	0.6	9.2	52.1	77.3	85.1	93.8	58.5
Medium	..	7.2	46.4	68.7	63.7	93.5	56.0
High	..	5.4	50.5	76.7	84.5	94.7	54.9
Total	0.1	6.8	49.9	74.6	84.4	94.1	56.2
N	750	1656	1749	1563	1221	1879	8818
.. Less than .05 percent							
Note: Number of living children includes current pregnancy.							
Note: Women who desire no more children include sterilized women but exclude infecund and menopausal women. For definitions of infecund and menopausal, see Table 8.1.							

A slightly higher proportion of women with no employment or with unpaid employment than women with paid employment desired to space their births. Likewise, a slightly higher proportion of women whose households owned land than did not own land desired to space their births. In both cases, the birth spacing differential was striking among women with no children. Women from the wealthiest households were more likely to want to wait at least two years before their next birth than women from poorer households. This differential was most evident among women with no children or only one child.

Table 8.6 Of currently married women who want more children or who are undecided, the percentage who want to wait at least two years before the next child by selected characteristics according to their number of living children, Bangladesh, 1991							
Selected characteristics	Number of living children						Total
	None	1	2	3	4	5+	
Residence							
Rural	32.9	73.7	71.5	69.6	58.3	33.4	62.9
Urban	35.9	74.9	80.0	78.3	68.1	32.0	68.0
Division							
Dhaka	29.5	77.9	73.5	73.6	63.5	48.1	66.5
Chittagong	28.6	67.6	64.4	63.7	57.3	29.6	57.4
Rajshahi	32.7	74.1	77.4	78.1	54.6	28.0	64.1
Khulna	44.0	75.2	80.8	70.2	65.9	35.9	68.1
Educational level							
Not attended	23.9	69.2	69.6	70.4	60.8	32.0	60.3
< Primary	33.5	77.0	75.5	70.7	60.0	**	65.8
Primary	38.7	76.8	80.9	76.5	51.4	**	67.2
Secondary +	47.2	82.2	76.4	64.8	**	**	70.0
Employment status							
Paid employment	21.3	72.1	72.4	67.6	62.8	**	63.0
Unpaid or no employment	34.1	74.1	72.9	70.9	59.2	37.4	63.7
Landownership status							
Owens land	37.6	75.5	73.6	68.9	63.6	34.5	64.8
Does not own land	25.6	71.5	71.7	72.7	54.3	33.3	61.9
Household wealth scale							
Low	21.6	70.7	72.3	69.5	57.4	37.0	61.0
Medium	30.2	70.8	70.8	69.9	59.7	21.1	61.6
High	39.5	77.3	74.3	71.7	61.3	38.2	66.2
Total	33.3	73.9	72.8	70.5	59.8	34.1	63.7
N	741	1532	868	401	188	109	3840
** Less than 25 cases							
Note: Number of living children includes current pregnancy.							
Note: Women who desire to wait at least two more years before their next child exclude sterilized, infecund, and menopausal women. For definitions of infecund and menopausal, see Table 8.1.							

A slightly higher proportion of women with no employment or with unpaid employment than women with paid employment desired to space their births. Likewise, a slightly higher proportion of women whose households owned land than did not own land desired to space their births. In both cases, the birth spacing differential was striking among women with no children. Women from the wealthiest households were more likely to want to wait at least two years before their next birth than women from poorer households. This differential was most evident among women with no children or only one child.

8.4 Levels of Unmet and Met Need for Family Planning

Table 8.7 and Table 8.8 present estimates of unmet need for family planning, met need for family planning, total demand for family planning, and the percentage of the demand for family planning satisfied. Twenty-eight percent of eligible women who expressed a desire to space or limit childbearing did not use contraception -- fourteen percent of potential spacers and fourteen percent of potential limiters. On the other hand, nine percent of eligible women who wanted to space their births used contraception and thirty-three percent who wanted to limit their childbearing used contraception for a total met need of forty-two percent³. Sixty-nine percent of Bangladeshi eligible women were either actual or potential users of contraception. The percentage of the demand satisfied (total met need divided by the total demand) was only sixty percent. Assuming that women stated their desired use of contraception correctly, the National Family Planning Program may therefore have missed as high as forty percent of its potential clients in 1991.

8.5 Differentials in Unmet and Met Need for Family Planning

Table 8.8 and 8.9 also show the unmet need for family planning, met need for family planning, total demand for family planning, and percentage of the demand for family planning satisfied among various subgroups of the population. A higher proportion of urban than rural women demanded family planning and a higher percentage of their demand was satisfied. There was a higher percentage of unmet need for spacing among rural women than among urban women.

Eligible women in Chittagong Division had both a lower demand for family planning and a lower percentage of their demand satisfied compared to women from the other three divisions. Only sixty percent of Chittagong Division desired family planning compared to seventy-one to seventy-four percent of women from the other three divisions. Moreover, only forty-nine percent of this desire was satisfied compared to sixty to sixty-six percent in the other divisions. In particular, there was a higher percentage of unmet need for limiting among Chittagong Division women than women from the other divisions.

The demand for family planning was almost universal among women 40-49 years of age. This demand was also quite high among other age groups -- eight-five percent among women 30-39 years of age, sixty-four percent among women 20-29 years of age, and forty-four percent of women <15-19 years of age. A much higher percentage of the demand was satisfied among women at least thirty years old, primarily because of their use of contraception to limit their childbearing. However, there was still relatively high unmet need for limiting among older women and also relatively high unmet need for spacing among younger women.

Both the demand by women for family planning and the percentage of this demand satisfied increased with family size. A unmet need for spacing was relatively high among women with no children or fewer than three children, whereas an unmet need for limiting was relatively high among women with three or more children.

The sex composition of children did not influence the unmet need for contraception, but it did seem to influence the met need. Thus, the actual contraceptive behavior of women was more affected by the sex composition of their children than their stated need for contraception. Women with equal numbers of sons and daughters were the most likely to use contraception, followed by women with more sons. The total demand of women with a majority of daughters was lower than for women with a majority of sons and their demand satisfied was also slightly lower.

³ Because infecund or menopausal women were excluded from the analysis, the total met need for contraception (41.9 percent) was higher than the contraceptive prevalence rate (39.9 percent).

Table 8.7 Percentage of currently married women with unmet need for family planning, with met need for family planning and with total demand for family planning services by their residential and demographic characteristics according to their "need" status, Bangladesh, 1991

Residential and demographic characteristics	Unmet Need for Family Planning			Met Need for Family Planning (currently using)			Total demand for family planning			Percentage of Demand Satisfied	Number of Women
	Unmet Need for Spacing	Unmet Need for Limiting	Total Unmet Need	Met Need for Spacing	Met Need for Limiting	Total Met Need	Demand for Spacing	Demand for Limiting	Total Demand		
Residence											
Rural	14.3	13.0	20.1	0.0	12.5	40.5	22.3	46.3	60.6	50.0	7482
Urban	10.0	13.4	24.2	11.0	37.5	49.3	22.6	50.0	73.5	67.1	2570
Division											
Dhaka	14.7	13.5	20.2	0.1	34.0	43.1	23.8	47.5	71.3	60.4	2006
Chittagong	14.7	16.0	30.7	5.0	23.2	29.1	20.6	30.2	50.8	48.7	2140
Rajshahi	13.0	11.0	24.0	9.0	39.1	48.1	22.0	51.0	73.0	65.0	2334
Khulna	12.5	13.0	26.3	10.6	36.0	47.4	23.1	50.6	73.7	64.3	1730
Age											
< 15-10	27.1	0.6	27.7	14.3	2.1	16.4	41.4	2.7	44.1	37.2	1553
20-20	17.1	0.5	26.6	12.1	25.5	37.6	29.2	35.0	64.2	58.6	3980
30-30	4.4	23.2	27.6	1.9	55.4	57.3	6.3	70.8	84.0	87.5	2400
40-40	0.0	31.1	31.0	0.3	64.4	64.7	1.1	65.5	68.6	67.0	786
Number of living children											
None	21.0	0.1	22.0	7.0	..	7.0	26.0	0.1	20.0	24.1	1007
1-2	10.6	5.0	24.6	16.6	10.1	35.0	38.4	24.1	60.5	50.3	3235
3-4	10.3	16.0	27.2	4.0	49.5	54.3	15.1	66.4	81.5	66.6	2693
5+	3.0	32.0	36.6	0.3	54.5	54.8	4.1	67.3	81.4	60.0	1003
Sex composition of children											
None	21.0	0.1	22.0	7.0	..	7.0	26.0	0.1	20.0	24.1	1007
More sons	12.6	16.1	20.7	8.7	30.9	47.8	21.3	55.0	76.3	62.4	2303
More daughters	13.6	14.7	20.3	10.1	32.6	42.7	23.7	47.3	71.0	60.1	2660
Same number	11.2	16.4	27.6	6.6	45.7	52.3	17.5	62.1	70.0	65.5	1560
Total	13.8	13.7	27.5	8.6	33.3	41.0	22.4	47.0	60.4	60.4	8818

.. Less than 0.5 percent

Note: Unmet need for spacing refers to pregnant women whose pregnancy was mistimed, amenorrheic women whose last birth was mistimed, and women who are neither pregnant nor amenorrheic and who are not using any method of family planning and who say they want to wait two or more years for their next birth. Unmet need for limiting refers to pregnant women whose pregnancy was unwanted, amenorrheic women whose last child was unwanted, and women who are neither pregnant nor amenorrheic and who are not using any method of family planning and who want no more children. Excluded from the category of unmet need are menopausal and infertile women.

Note: Met need for spacing refers to women who are using a family planning method who say they want to wait two years or more for their next child. Met need for limiting refers to women who are using a family planning method who do want to have more children.

Note: For definitions of infertile and menopausal, see Table 0.1

Note: These definitions are the standard ones used in the Demographic and Health Surveys

A higher proportion of Muslim women than non-Muslim women had an unmet need for family planning -- an unmet need not only for spacing but for limiting (Table 8.8). A much higher proportion of non-Muslim women than Muslim women used contraception for limiting, although the met need for family planning for spacing was the same between the two groups. Whereas total demand was similar between the groups, Muslims had a considerably lower percentage of their demand satisfied than non-Muslims.

Women with a secondary education and above had a lower unmet need for limiting and a higher met need for spacing than women with lower levels of education. Although the total demand for family planning was virtually the same among all four educational groups, women with at least a secondary level education were best able to satisfy their demand. There was little variation in the percentage of the demand satisfied among women with less than a secondary level education.

Table 8.8 Percentage of currently married women with unmet need for family planning, met need for family planning, and their total demand for family planning services by their social and economic characteristics according to their need status, Bangladesh, 1991

Social and economic characteristics	Unmet Need for Family Planning			Met Need for Family Planning (currently using)			Total demand for family planning			Percentage of demand satisfied	Number of Women
	Unmet Need for Spacing	Unmet Need for Limiting	Total Unmet Need	Met Need for Spacing	Met Need for Limiting	Total Met Need	Demand for Spacing	Demand for Limiting	Total Demand		
Religion											
Muslim	14.5	14.1	28.6	8.6	32.0	40.6	23.1	46.1	69.2	58.7	7730
Non-Muslim	9.1	11.2	20.3	8.6	42.7	51.3	17.7	53.0	71.6	71.6	1079
Educational level											
Not attended	13.6	14.8	28.4	6.3	33.4	39.7	10.0	48.2	58.2	58.3	5121
< Primary	13.7	15.1	28.8	8.4	34.5	42.9	22.1	40.6	62.7	50.8	1864
Primary	15.0	13.8	28.8	0.0	32.1	32.1	24.9	45.0	70.8	50.3	632
Secondary +	14.2	7.0	21.2	17.4	32.1	49.5	31.6	30.1	61.7	70.0	1200
Employment status											
Paid employment	9.7	15.2	24.9	7.1	47.7	54.8	16.8	62.0	78.8	60.8	1257
Unpaid or no employment	14.5	13.5	28.0	8.8	30.9	39.7	23.7	44.4	67.7	58.8	7560
Landownership status											
Owens land	14.4	13.9	28.3	8.3	32.4	40.7	23.7	46.3	70.0	58.6	5185
Does not own land	12.9	13.6	26.5	7.5	34.5	42.0	20.4	40.1	60.5	61.3	3851
Household wealth scale											
Low	14.6	13.0	27.6	6.7	32.3	39.0	21.3	46.2	67.5	57.8	2258
Medium	13.4	14.3	27.7	7.4	32.7	40.1	20.8	47.0	67.8	59.1	2528
High	13.6	13.3	26.9	10.3	34.2	44.5	23.0	47.5	70.5	82.3	4035
Total	13.8	13.7	27.5	8.6	33.3	41.9	22.4	47.0	69.4	60.4	8818

Note: Unmet need for spacing refers to pregnant women whose pregnancy was mistimed, amenorrheic women whose last birth was mistimed, and women who are neither pregnant nor amenorrheic and who are not using any method of family planning and who say they want to wait two or more years for their next birth. Unmet need for limiting refers to pregnant women whose pregnancy was unwanted, amenorrheic women whose last child was unwanted, and women who are neither pregnant nor amenorrheic and who are not using any method of family planning and who want no more children. Excluded from the category of unmet need are menopausal and infertile women.
Note: Met need for spacing refers to women who are using a family planning method who say they want to wait two years or more for their next child. Met need for limiting refers to women who are using a family planning method who do want to have more children.
Note: For definitions of infertile and menopausal, see Table 8.1.
Note: These definitions are the standard ones used in the Demographic and Health Surveys.

Women with unpaid or no employment had both a higher unmet need for spacing and a lower met need for limiting than women with paid employment. Lower proportions of women with unpaid or no employment than women with paid employment demanded family planning or had their demand satisfied. Landownership and household wealth, by contrast, had little effect on the demand for family planning.

8.6 Summary and Conclusions

Of all currently married women below age fifty, only thirty-seven percent definitely desired to have an additional child. Forty percent were capable of giving birth but did not want to continue their childbearing and the rest had either been sterilized or were infertile or menopausal. Only a minuscule proportion of women were unsure about their future fertility intentions. Because twenty percent of currently married women of reproductive age were not at risk of pregnancy as a result of being sterilized, infertile, or menopausal, the National Family Planning Program had only to serve a potential pool of eighty percent of eligible women.

Nearly all fecund Bangladeshi women want to have children. However, only forty-four percent of women who had two children definitely wanted to continue their childbearing, and virtually no women who had five or more children wanted to continue their childbearing. It would thus appear that Bangladeshi women have already embraced a family size norm of two or three children, and that future efforts should be directed to persuading those who currently want three or four children to limit their family size to one or two children.

Rural-urban residence, education, landowning status, and wealth do not appear to be significant influences in the desire of women to terminate their childbearing in Bangladesh, although the reasons for the desire to terminate may vary considerably by subgroup. For example, virtually identical proportions of women, regardless of their wealth, wanted no more children, but the material and psychological influences which motivate the poorest and wealthiest women to adopt this attitude could be substantially different.

Four factors stand out as most important in affecting the desire to terminate childbearing. The first predictably is life-cycle, with older women and those with larger numbers of children most likely to want to limit their childbearing. The second is regional, with women from Dhaka, Rajshahi, and Khulna Divisions more willing to terminate their childbearing than women from Chittagong Division. The third is religion, with higher proportions of non-Muslims than Muslims desiring to limit their childbearing, and the fourth is employment, with women having paid employment more inclined to limit their childbearing than those with unpaid employment or no employment.

The last three factors highlight cross-cutting conservative and modernizing influences which may now color the attitudes and behavior of Bangladeshi women. Chittagong Division women and Muslim women may be more affected by orthodox beliefs about the traditional role of women as childbearers and fatalistic beliefs about fertility than women from the other three divisions and non-Muslim women. Women with paid employment may find the costs of adequately caring for children higher and the economic returns from having children lower than women with unpaid employment or no employment. However, it is important to note that region, religion, and employment, while of some weight, are not critical impediments to family planning demand, because the majority of Muslim women and women with unpaid or no employment and the near majority of Chittagong Division women now desire to end their childbearing.

Most Bangladeshi women also appear to understand the virtues of birth spacing, because over three-fifths of them want to space their births at least two years apart. The only numerically important group in which a majority do not want to wait at least two years are childless women, a finding which is not surprising given the universality of the desire for children in Bangladesh.

Differences between subgroups of women to space their births are not especially pronounced in Bangladesh. Chittagong Division women are somewhat less willing to wait at least two years between their births than women from the other three divisions, but their attitudes about spacing are more similar to those of other women than their attitudes about limiting. Higher social and economic status also appears to be modestly linked with the desire of women with no children to wait at least two years before giving birth.

There is considerable unmet need in Bangladesh both for spacing and limiting. The unmet need for spacing actually exceeds the met need for it. Most of the met need is for limiting, but as shown in Chapter 6, methods more appropriate for spacing are often used for limiting. Although forty-two percent of fecund, non-menopausal women use contraception, sixty-nine percent desire to do so. Replacement fertility could thus be essentially reached if this total demand were satisfied.

The National Family Planning Program should target those women who have relatively high unmet need for contraception. They include rural women, younger women, women with no children or less than

three children, Muslims, and women with no employment or unpaid employment for methods appropriate for spacing, and Chittagong Division women, older women or women with three or more children, and Muslim women for methods appropriate for limiting.

Chittagong Division women have a low demand for contraception and a low percentage of their demand is satisfied, indicating that there are grounds for improvement for both demand generation and service provision among them. Muslim women, on the other hand, have a high demand for contraception, but a low percentage of their demand is satisfied. Resistance to family planning for both spacing and limiting may be overestimated among Muslims, and greater service provision to them which satisfies their unmet need may greatly boost Bangladesh's contraceptive prevalence rate. Total demand is also high among women with paid employment, and efforts to reach these women through firm-based family planning distribution projects may result in significant pay-offs.

Unmet need for spacing methods runs high among young women and childless women or women with few children, and only a low percentage of their total demand for these methods is satisfied. Activities promoting pills, condoms, and injectables among newly married and low parity women should therefore be quite effective in raising their contraceptive acceptance. Likewise, there is a room to increase limiting methods among older women and women with three or more children, although the demand satisfied among these women is higher than for their younger, lower parity counterparts.

It is important to note that two-thirds or more of women considered resistant to family planning now demand contraception: rural women, Muslim women and uneducated, landless, and poor women. According to conventional wisdom, these were the women who are tethered to traditional cultural and religious norms and who needed a large number of children for physical security and support in old age. However, the advent of employment opportunities for women, increasing economic pressure on families, and an extensive family planning provision have evidently all acted in concert to erode traditional constraints and to create demand for smaller families.

CHAPTER 9

CHILD HEALTH CARE AND CHILD SURVIVAL

Although the 1991 *Contraceptive Prevalence Survey* primarily focused on fertility and family planning, selected questions were asked about issues affecting child health care and child survival. Demographic and health issues are not completely separable. Fertility and contraceptive use influence the health status of mothers and children and are in turn influenced by them. From a program standpoint, both contraceptive and health care services are often provided in the same facilities or outreach programs by the same personnel. Thus, policies affecting one service will often have a strong impact on the other.

Women were asked questions about their breastfeeding and supplemental feeding of their last four births. They were also asked about their length of amenorrhea after the same births. These questions enabled a calculation of the proportion of children who were breastfed after their birth, the duration of the breastfeeding, and the duration of their mother's amenorrhea after their birth. In addition, they allowed a calculation of the mean age at which children were given supplemental foods.

Mothers were also asked child health-related questions covering immunization, diarrhea prevalence, and oral rehydration therapy and Vitamin A Capsule (VAC) use. Questions on mother's age, birth intervals, and parities also enabled an assessment of the mortality risk to mothers and children.

The truncated birth history provided information about infant and child mortality. As described in Chapter 4, the birth history supplied data about births during the eight years previous to the survey date and the survival status of those births. This truncated birth history allowed a calculation of the timing of deaths or the probability of dying over intervals of time after birth. The following probabilities were calculated over the May 1983 to survey date period:

Neonatal mortality:	the probability of dying in the first month of life;
Post-neonatal mortality:	the probability of dying between the first and twelfth months of life;
Infant mortality (${}_1q_0$):	the probability of dying before the first birthday;
Child mortality (${}_4q_1$):	the probability of dying between the first and fifth birthdays;
Under five mortality (${}_5q_0$):	the probability of dying before the fifth birthday.

Note that these are actual probabilities of dying over specific time intervals rather than rates during calendar years. Using standard life table procedures to compute age interval specific probabilities of surviving, deaths in calendar years and exposure during these years were calculated for age intervals 0-1, 1-11, 12-23, 24-35, 36-47, and 48-59 months. The probabilities of mortality for the larger age segments were calculated by multiplying the relevant age interval probabilities together and subtracting the product from one. (See *Pakistan Demographic and Health Survey 1990/91, 1992: 111.*)

The period of exposure is particularly important in computing these probabilities. For each calendar year, virtually all the infants reported by mothers were at least one month old and were therefore subject to dying during this age interval. A neonatal mortality probability could thus be computed for almost all the children. However, children born within the last year would not have been exposed to the full risk of dying during the post-neonatal period and these children were therefore dropped from the denominator. From ages one through five, progressively fewer children would have been exposed to the full risk of dying during the various age intervals. Because mortality probabilities are highly sensitive to the size of the denominator (the number of children at risk of dying during relevant age intervals), only those probabilities are shown where at least three-hundred children were at risk.

9.1 Breastfeeding and Postpartum Amenorrhea Durations

Table 9.1¹ considers durations of breastfeeding and amenorrhea after birth. It shows that a high proportion of babies were breastfed over long durations. Ninety-two percent of children were breastfed up to three months after their birth. Ninety percent, eighty-three percent, and sixty-two percent of children were breastfed one year, two years, and three years respectively after their births. Table 9.1 also shows a high degree of amenorrhea after births. Eighty-two percent of births were followed by up to three months of amenorrhea. Fifty-three percent, fourteen percent, and three percent of births were followed by one year, two years, and three years respectively of amenorrhea.

Months since birth	Breastfeeding	Amenorrheic	Total births
< 2	92.6	89.3	136
2-3	92.4	82.1	245
4-5	92.3	74.2	295
6-7	88.0	64.9	331
8-9	88.0	57.9	365
10-11	89.5	53.0	301
12-13	87.7	44.1	307
14-15	90.5	40.0	247
16-17	88.7	29.0	277
18-19	87.1	21.7	261
20-21	88.8	15.1	289
22-23	82.9	14.4	262
24-25	77.3	6.3	233
26-27	74.0	6.5	186
28-29	74.5	5.4	204
30-31	68.6	1.0	256
32-33	63.9	3.6	219
34-35	62.1	3.2	235

Note: These table includes births 0-35 months before the survey

9.2 Differentials in Breastfeeding and Postpartum Amenorrhea Durations

Use of the prevalence-incidence method² yields an estimated mean duration of breastfeeding of 29.8 months for children under five years of age (Table 9.2). On average, urban children were breastfed three fewer months than rural children, and children in Chittagong Division were breastfed 1½ to four fewer months than children in the other three divisions.

¹Since the breastfeeding and amenorrhea questions were pegged on live births during the preceding thirty-five months rather than on mothers, a mother having more than one live birth over this time was included multiple times. The small number of twin births were counted twice.

²The prevalence/incidence method for estimating mean durations of breastfeeding and amenorrhea is based on the principle that the average duration of an event can be calculated by dividing its prevalence at one time point by its incidence (the average number that starts in a specified time unit). The mean duration of breastfeeding can therefore be calculating by dividing the number of children still breastfeeding at the time of the survey by the average number of babies born per month (Huq and Cleland, 1990: 86). This method, however, underestimates the mean duration of breastfeeding of living children by including in the denominator children who have died.

Residential and demographic characteristics	Births		Breastfeeding		Amenorrhea	
	Number of births in last 5 years	Mean number of births per month	Number of children still breastfeeding	Estimated mean duration of breastfeeding	Number of births for which mothers are still amenorrheic	Estimated mean duration of amenorrhea
Residence						
Rural	7633	129.4	3914	30.2	1572	12.1
Urban	2293	38.9	1049	27.0	380	9.8
Division						
Dhaka	2527	42.8	1241	29.0	501	11.7
Chittagong	2458	41.7	1141	27.4	526	12.8
Rajshahi	2273	38.5	1208	31.4	423	11.0
Khulna	1567	26.6	870	32.7	320	12.0
Age of mother at birth of index child						
< 15-19	2741	46.5	1305	28.1	477	10.2
20-24	4464	75.7	2287	30.2	949	12.5
30-39	1437	24.3	760	31.3	299	12.3
40-49	183	3.1	107	34.5	44	14.2
Number of children ever born at birth of index child						
None	1863	33.3	953	28.6	326	9.8
1-2	3168	53.7	1612	30.0	645	12.0
3-4	1957	33.2	1001	30.2	449	13.5
5+	1737	29.4	893	30.4	349	11.9
N or Total	8825	149.6	4459	29.8	1770	11.8

Note: This table includes births 0-59 months before the survey

Mean breastfeeding durations increased with the age of the mother, with children whose mothers were 40-49 years old at the time of their birth breastfeeding on average 6½ months longer than children whose mothers were only <15-19 years old. There was little variation in the length of breastfeeding by number of siblings.

Non-Muslim children were breastfed longer than Muslim children (Table 9.3). There was little appreciable difference in duration of breastfeeding patterns by mother's education, employment status, landownership status, or household wealth.

Table 9.3 Mean durations of breastfeeding and postpartum amenorrhea of births 0-59 months before the survey (prevalence-incidence method) by social and economic characteristics, Bangladesh, 1991

Social and economic characteristics	Births		Breastfeeding		Amenorrhea	
	Number of births in last 5 years	Mean number of births per month	Number of children still breastfeeding	Estimated mean duration of breastfeeding	Number of births for which mothers are still amenorrheic	Estimated mean duration of amenorrhea
Religion						
Muslim	7914	134.1	3954	29.5	1568	11.7
Non-Muslim	911	15.4	505	32.8	202	13.1
Educational level						
Not attended	5660	94.9	2846	30.0	1184	12.5
< Primary	1624	27.5	832	30.3	330	12.0
Primary	725	12.3	347	28.2	125	10.1
Secondary +	875	14.8	433	29.3	129	8.7
Employment status						
Paid employment	1253	21.2	611	28.8	235	11.1
Unpaid or no employment	7571	128.3	3848	30.0	1535	12.0
Landownership status						
Owens land	5000	84.7	2535	29.9	947	11.2
Does not own land	3825	64.8	1924	29.7	822	12.7
Household wealth scale						
Low	2538	43.9	1338	30.5	598	13.6
Medium	2855	45.0	1356	30.1	561	12.5
High	3583	60.7	1766	29.1	510	10.0
N or Total	8825	149.6	4459	29.8	1770	11.8

Note: This table includes births 0-59 months before the survey.

Returning to Table 9.2, births in Bangladesh were followed by an average of 11.8 months of postpartum amenorrhea. Births were followed by twelve months of amenorrhea in rural areas and ten months of amenorrhea in urban areas. Differences in length of amenorrhea were negligible between regions.

Births of mothers who were 40-49 years old at the time of birth were followed by a longer average duration of postpartum amenorrhea than births of mothers who were <15-19 years old. Similarly, births of children with siblings were followed by a longer duration of amenorrhea than births of children without siblings.

Births of non-Muslim women were followed by a longer length of postpartum amenorrhea than births of Muslim women. Likewise, births of less educated women were followed by a longer duration of amenorrhea than births of more educated women. The difference in average duration between the least educated and most educated mothers was almost four months. Length of amenorrhea varied little by mother's employment status or landownership status. Finally, births of women from poor or medium wealth households were followed by a longer duration of amenorrhea than births of women from the wealthiest households. The difference in duration between the poorest and wealthiest households was almost four months.

9.3 Differentials in Supplemental Feeding

Table 9.4 and Table 9.5 consider the mean age at which children under the age of three first received supplemental food on a daily basis. Children were on average 3.7 months old when they were first given *suji* (sweetened semolina) or cow, goat, or water buffalo milk and 11.9 months old when they were first given solid food. Supplemental feeding varied little by the characteristics of mothers or children. Notably, the mean age of supplemental feeding did not vary by the sex of the child.

Table 9.4 Mean age in months for births 0-35 months before the survey at which children were fed with <i>suji</i> /milk or solid food by residential and demographic characteristics, Bangladesh, 1991				
Residential and demographic characteristics	<i>Suji</i> /Milk		Solid food	
	Mean age	Number of births	Mean age	Number of births
Residence				
Rural	3.7	2593	11.8	2767
Urban	3.3	871	12.0	807
Division				
Dhaka	3.1	994	11.8	899
Chittagong	3.5	795	12.9	825
Rajshahi	4.8	769	11.3	879
Khulna	3.3	488	11.4	588
Age of mother at birth of index child				
< 15-19	3.9	942	12.0	983
20-29	3.7	1555	11.8	1624
30-39	3.2	486	11.9	523
40-49	3.4	62	12.9	60
Sex of the index child				
Male	3.6	1678	12.0	1635
Female	3.8	1368	11.8	1556
Number of living children at birth of index child				
None	3.8	737	12.0	688
1-2	3.8	1108	11.8	1190
3-4	3.5	636	11.7	709
5+	3.2	564	12.0	604
Total	3.7	3046	11.9	3191
<p>Note: This table includes births 0-35 months before the survey.</p> <p>Note: The mean age in months is calculated using the prevalence-incidence method.</p> <p>Note: <i>Suji</i> is sweet semolina.</p> <p>Note: Unweighted numbers are given for rural/urban residence.</p>				

Table 9.5 Mean age in months for births 0-35 months before the survey at which children were fed with suji/milk or solid food by social and economic characteristics, Bangladesh, 1991				
Social and economic characteristics	Suji/Milk		Solid food	
	Mean age	Number of births	Mean age	Number of births
Religion				
Muslim	3.7	2629	11.9	2860
Non-muslim	3.4	356	11.5	330
Educational level				
Not attended	3.7	1776	11.8	2018
< Primary	4.0	555	12.0	598
Primary	3.3	294	12.5	260
Secondary +	3.3	420	11.7	315
Employment status				
Paid employment	4.1	386	11.4	443
Unpaid or no employment	3.6	2659	11.9	2748
Landownership status				
Owms land	3.7	1807	11.8	1810
Does not own land	3.6	1239	11.9	1380
Household wealth scale				
Low	3.6	789	11.5	961
Medlum	3.6	869	11.9	945
High	3.7	1388	12.1	1284
Total	3.7	3046	11.9	3191

Note: This table includes births 0-35 months before the survey.
Note: The mean age in months is calculated using the prevalence-incidence method.
Note: Suji is sweet semolina.

9.4 Differentials in Diarrhea Prevalence and Oral Rehydration Therapy

According to Table 9.6, fifteen percent of children under the age of five had diarrhea or "loose motions" during the twenty-four hours preceding the interview and thirty-four percent had diarrhea which started during the two weeks preceding the interview. These diarrhea prevalence rates varied little by rural or urban residence. They were slightly higher among Khulna Division children than among children from the other three divisions. Diarrhea prevalence among children did not vary by the age of their mothers.

Children 6-11 months old were most likely to have had diarrhea, followed by children 12-17 months. There was little appreciable variation in diarrhea prevalence rates according to the sex of the children or their number of siblings.

A lower proportion of non-Muslim children than Muslim children had diarrhea, and a lower proportion of children with highly educated mothers than less educated mothers had diarrhea (Table 9.7). Differences in diarrhea prevalence among children varied little according to either the employment or landownership status of their mothers. A higher proportion of children from poorer households than wealthier households had diarrhea.

Table 9.6 Percentage of children 0-59 months of age reported by their mothers to have had diarrhea in the past twenty-four hours and two weeks by residential and demographic characteristics, Bangladesh, 1991			
Residential and demographic characteristics	Diarrhea prevalence rates		Number of children 0-59 months of age
	24-hour	2-week	
Residence			
Rural	15.0	34.2	6849
Urban	14.1	33.7	2102
Division			
Dhaka	13.2	31.9	2247
Chittagong	15.5	34.9	2225
Rajshahi	14.1	32.8	2052
Khulna	17.6	38.5	1420
Age of Mother			
<15-19	15.5	36.5	902
20-29	14.9	33.5	4694
30-39	14.6	34.4	1990
40-49	15.5	35.7	358
Age of Child in Months			
<6	13.2	25.9	649
6-11	22.0	43.7	914
12-17	19.8	40.5	778
18-23	15.7	36.2	794
24-59	12.8	32.1	4810
Sex of Child			
Male	15.6	34.7	4075
Female	14.2	33.6	3870
Number of living children			
1-2	14.2	33.7	3376
3-4	15.5	33.7	2791
5+	15.2	35.7	1778
Total	14.9	34.2	7945

Note: Unweighted numbers given for rural/urban residence.

Table 9.8 and Table 9.9 show the percentage of children under five years old who experienced diarrhea in the previous two weeks and who were treated with some form of oral rehydration therapy (ORT). Thirteen percent of children with diarrhea were given packet oral rehydration salts (ORS) and nine percent were given homemade solution³. This treatment was more likely to be given to urban than rural children. Children from all four divisions were almost equally likely to have received ORT.

³Defined as *lobon-gur* or other sugar-salt solution. *Lobon-gur* is a solution made from salt and sugar cane molasses.

Table 9.7 Percentage of children 0-59 months of age reported by their mothers to have had diarrhea in the past twenty-four hours and two weeks by social and economic characteristics, Bangladesh, 1991			
Social and economic characteristics	Diarrhea prevalence rates		Number of children 0-59 months of age
	24-hour	2-week	
Religion			
Muslim	15.5	35.1	7115
Non-Muslim	9.5	26.1	830
Educational level			
Not attended	15.9	35.6	4988
< Primary	15.9	35.3	1456
Primary	13.6	33.6	666
Secondary +	8.5	24.0	835
Employment status			
Paid employment	16.1	34.3	1109
Unpaid or no employment	14.7	34.1	6635
Landownership status			
Owens land	13.9	32.1	4537
Does not own land	16.2	36.9	3407
Household wealth scale			
Low	16.8	37.4	2286
Medium	15.4	35.5	2369
High	13.3	30.9	3290
Total	14.9	34.2	7945

Children with younger mothers were more likely to have received ORT than children with older mothers. Older children were more likely to have received ORT than younger ones. Male and female children were equally likely to have received ORT. Children with relatively few siblings were more likely to have received ORT than children with relatively many siblings.

A higher proportion of non-Muslim children than Muslim children received ORT, and a higher proportion of children whose mothers had a secondary level education and above than children whose mothers had lower levels of education received ORT, especially packet ORS. Children's treatment with ORT varied little by the employment or landownership status of their mothers. Finally, children from wealthier households were more likely to receive ORT, particularly packet ORS, than children from less wealthy households.

9.5 Differentials in Immunization and Vitamin A Capsule Use

Immunization of children 12-23 months old and Vitamin A Capsule (VAC) use by children less than five years of age are presented in Table 9.10 and Table 9.11. Eighty-three percent of children 12-23 months old had received at least one vaccination⁴. Eighty-nine percent of urban children had received at least one vaccination compared to eighty-two percent of rural children. Around ninety percent of Rajshahi and

⁴This information was given by mothers, with no attempt by the interviewers for verification by requesting an EPI card.

Khulna Division children also had received at least one vaccination, followed by over eighty percent of Dhaka Division children, and only seventy-three percent of Chittagong Division children.

Table 9.8 Percentage of children 0-59 months of age reported by their mothers to have had diarrhea in the past twenty-four hours and two weeks who were given oral rehydration salt packets or homemade solution by residential and demographic characteristics, Bangladesh, 1991			
Residential and demographic characteristics	Percent receiving:		Number of children 0-59 months of age having diarrhea in the past two weeks
	Oral rehydration salt packets	Homemade solution	
Residence			
Rural	12.3	8.6	2348
Urban	17.6	9.2	709
Division			
Dhaka	12.6	10.4	718
Chittagong	13.7	6.3	778
Rajshahi	13.7	14.0	674
Khulna	11.6	3.2	546
Age of mother			
< 15-19	13.7	8.9	330
20-29	14.1	9.0	1574
30-39	10.6	7.6	685
40-49	11.0	9.8	128
Age of child in months			
< 6	4.5	3.6	168
6-11	9.9	8.8	399
12-17	14.1	9.9	315
18-23	14.9	7.3	288
24-59	14.1	9.2	1547
Sex of child			
Male	12.9	9.0	1414
Female	13.1	8.3	1302
Number of living children			
1-2	15.2	9.1	1139
3-4	13.1	8.9	941
5+	8.9	7.6	636
Total	13.0	8.7	2717

Note: Unweighted numbers given for rural/urban residence.

Children with younger mothers were more likely to have received at least one vaccination than children with older mothers. The age of the children within the 12-23 month interval did not affect their likelihood of having been vaccinated. Male children were more likely to have received at least one vaccination than female children, and children with few numbers of siblings were more likely to have been vaccinated than those with many siblings.

Table 8.9 Percentage of children 0-59 months of age reported by their mothers to have had diarrhea in the past twenty-four hours and two weeks who were given oral rehydration salt packets or homemade solution by social and economic characteristics, Bangladesh, 1991			
Social and economic characteristics	Percent receiving:		Number of children 0-59 months of age having diarrhea in the past two weeks
	Oral rehydration salt packets	Homemade solution	
Religion			
Muslim	12.5	8.4	2499
Non-Muslim	18.6	12.3	217
Educational level			
Not attended	11.5	8.2	1778
< Primary	12.0	8.3	514
Primary	13.7	10.2	224
Secondary +	28.2	12.1	201
Employment status			
Paid employment	11.6	11.6	
Unpaid or no employment	13.2	8.2	381
			2535
Landownership status			
Owns land	12.9	7.8	1459
Does not own land	13.1	9.6	1258
Household wealth scale			
Low	10.9	8.4	858
Medium	11.3	7.7	841
High	16.1	9.7	1018
Total	13.0	8.7	2717

Immunization differences were negligible by religion and by the employment and landownership status of mothers. A higher proportion of children whose mothers had secondary level education and above had been vaccinated, followed by children whose mothers had received a complete primary level education. Finally, a higher proportion of children from wealthier households had been vaccinated compared to children from less wealthy households.

Forty-four percent of children under the age of five had received a Vitamin A Capsule during the previous six months. Similar percentages of urban and rural children had received Vitamin A during this time. Regionally, however, there were large differences, with around fifty percent of Rajshahi and Khulna Division children receiving VAC compared to forty-three percent of Dhaka Division children and only thirty-five percent of Chittagong Division children.

Children whose mothers were 20-29 or 30-39 years old were slightly more likely to have received Vitamin A than children whose mothers were either <15-19 or 40-49 years old. Children above the age of twelve months were most likely to have received VAC, followed by children 6-11 months. Males and females were equally likely to have received VAC, and children from middle-sized families were more likely to have received VAC than children from either small or large families.

A higher proportion of non-Muslim than Muslim children received VAC during the previous six months. There was no consistent pattern to the relationship between education and VAC. A slightly higher

proportion of children whose mothers had paid employment than unpaid or no employment received VAC. Landownership status did not affect the likelihood of children receiving VAC. Finally, children from wealthier households were more likely to have received VAC than children from less wealthy households.

Table 9.10 Percentage of children 12-23 months of age reported by their mothers to have received at least one vaccination and percentage of children 0-59 months of age reported by their mothers to have received a Vitamin A capsule within the last six months by residential and demographic characteristics, Bangladesh, 1991				
Residential and demographic characteristic	Vaccinations		Vitamin A	
	Percent receiving at least one vaccination	Number of children 12-23 months of age	Percent receiving Vitamin A capsule	Number of children 0-59 months of age
Residence				
Rural	81.9	1363	43.8	6849
Urban	89.3	402	42.5	2102
Division				
Dhaka	82.8	434	42.5	2247
Chittagong	73.3	479	34.8	2225
Rajshahi	91.2	400	50.8	2052
Khulna	87.8	259	49.0	1420
Age of mother				
< 15-19	87.7	257	38.6	902
20-29	83.8	924	45.6	4694
30-39	78.9	337	42.3	1990
40-49	69.5	54	37.9	358
Age of child in months				
< 6	NA	NA	13.0	649
6-11	NA	NA	39.2	914
12-17	82.3	778	47.3	778
18-23	83.4	794	48.3	794
24-59	NA	NA	47.2	4810
Sex of child				
Male	85.1	829	44.0	4075
Female	80.4	743	43.2	3870
Number of living children				
1-2	85.3	766	42.7	3376
3-4	91.8	506	46.3	2791
5+	78.4	360	41.1	1778
Total	82.9	1572	43.6	7945

NA = Not applicable
Note: Unweighted numbers given for rural/urban residence.

Table 9.11 Percentage of children 12-23 months of age reported by their mothers to have received at least one vaccination and percentage of children 0-59 months of age reported by their mothers to have received a Vitamin A capsule within the last six months by social and economic characteristics, Bangladesh, 1991				
Social and economic characteristics	Vaccinations		Vitamin A	
	Percent receiving at least one vaccination	Number of children 12-23 months of age	Percent receiving Vitamin A capsule	Number of children 0-59 months of age
Religion				
Muslim	82.6	1405	43.2	7115
Non-Muslim	85.3	167	47.2	830
Educational level				
Not attended	80.4	1007	42.2	4989
< Primary	82.2	259	47.4	1458
Primary	89.4	133	41.0	666
Secondary +	93.0	173	47.5	835
Employment status				
Paid employment	85.5	205	47.6	1109
Unpaid or no employment	82.5	1367	43.0	6835
Landownership status				
Owns land	84.4	885	43.9	4537
Does not own land	80.9	687	43.3	3407
Household wealth scale				
Low	79.7	482	42.5	2286
Medium	80.7	455	42.9	2399
High	86.8	635	45.0	3290
Total	82.9	1572	43.6	7945

9.6 Risk Categories

Table 9.12 considers mortality risk categories for both mothers and children. The risk of both maternal and child mortality rises for adolescent and older women and for short-interval and high-parity births. Nine percent of all currently married women were under age eighteen and twenty-five percent were age thirty-five and older. Eleven percent had given birth within twenty-four months of a previous birth, and thirty-three percent had five or more children. Over half of all the currently married women were at risk from at least one factor, and slightly less than one-quarter of these women were at risk from two or more factors.

Even though only nine percent of currently married women were under age eighteen, they gave birth to twenty-two percent of all children born during the previous twelve months. Six percent of these children were born to women age thirty-five and older. Twenty-one percent of all recent births were in short birth succession, and fourteen percent were in a fifth or higher birth order. Sixteen percent of all recently born children were at risk from at least one factor and nine percent from two or more factors.

9.7 Cumulative Mortality

Table 9.13 shows the cumulative mortality of children by the age of mothers. On average, 1.84 of the 7.38 children ever born or twenty-five percent of births had died among women by the end of their reproductive careers. The proportion of children dead among mothers declined rapidly between 1986 and

1989. However, no such trend can be discerned between 1989 and 1991. On the contrary, cumulative child mortality among younger mothers rose during these years, particularly among those 15-19 years old.

Risk category	Percentage of:	
	Currently married women	Infants born within the last 12 months
Under age 18	9.3	22.2
Age 35 or older	25.3	6.0
Last birth within 24 months of previous birth	10.9	20.9
Fifth or higher birth order	33.1	14.2
In at least one category	54.0	15.6
In two or more categories	23.0	8.8
N	9745	1792

Age of woman	Mean number of children			Number of ever married women	Proportion dead			
	Ever born	Surviving	Dead		1983	1986	1989	1991
15-19	0.74	0.61	0.10	1475	.197	.165	.064	.135
20-24	1.88	1.61	0.27	2340	.197	.188	.117	.144
25-29	3.28	2.75	0.53	2054	.207	.197	.148	.162
30-34	4.49	3.61	0.88	1658	.230	.229	.173	.196
35-39	5.69	4.53	1.16	1281	.249	.250	.206	.204
40-44	6.72	5.17	1.55	909	.282	.265	.270	.231
45-49	7.38	5.55	1.84	692	.286	.287	.240	.249

9.8 Infant, Neonatal, and Post-Neonatal Mortality

During the twelfth through twenty-third month before the survey, the infant mortality rate was seventy-five deaths per thousand births during the first year of life. During the twelfth through fifty-ninth month before the survey, it was eighty-one deaths per thousand births (*Table 9.14*). During the period one to eleven months before the survey, the neonatal mortality rate was fifty-four deaths per thousand births during the first month of life. During the first through fifty-ninth month before the survey, it was fifty. During the twelfth through twenty-third month before the survey, the post-neonatal mortality rate was twenty-eight deaths per thousand births from the first through eleventh month of life. It was thirty-two during the twelfth through fifty-ninth month before the survey.

Male neonatal mortality rates were higher than female rates, but female post-neonatal mortality rates were higher than male rates. The male infant mortality rate was slightly higher than the female infant mortality rate.

Even with Bangladesh's relatively high infant mortality rates, deaths were infrequent enough events among ever-married women in a sample survey to render mortality rate estimation difficult. As shown in Table 9.14, there were significant annual fluctuations in the infant, neonatal, and postneonatal mortality rates. Summing deaths over fifty-nine months, however, should reduce the bias associated with small numbers.

Mortality rates in months before the survey	Both sexes	Sex of infant	
		Male	Female
Infant mortality			
12-23	75	71	80
24-35	88	90	88
36-47	88	97	78
48-59	73	72	75
12-59	81	82	81
Neonatal mortality			
1-11	54	54	55
12-23	48	48	47
24-35	57	63	51
36-47	51	57	44
48-59	43	49	39
1-59	50	54	47
Post-neonatal mortality			
12-23	28	23	33
24-35	32	27	37
36-47	37	40	34
48-59	30	23	36
12-59	32	29	35

9.9 Trends in Infant Mortality

Data fluctuations are also apparent in Table 9.15 which shows trends in infant mortality rates from several different surveys or data collection systems. In general, however, the trend was in a downward direction. The infant mortality rates were in the vicinity of 120 to 130 early in the 1980s decade and declined to a range of roughly 90 to 100 later in the decade. *Per annum* rates of decline between 1986 and 1990 using the two CPSs and the VRS were 6.4 percent and 4.6 percent respectively.

Table 9.15 Infant mortality rates (q ₀) computed retrospectively from CPS and BFS birth histories and from the Bangladesh Bureau of Statistics Vital Registration System											
Data source	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
1991 CPS	-	-	-	-	-	-	73	80	88	75	-
1989 CPS	-	-	-	-	107	99	90	102	-	-	-
1989 BFS	-	129	136	134	111	113	84(120)	-	-	-	-
VRS	129	122	110	122	112	116	113	116	98	94	81

Note:
 * Adjusted estimate for 1987 allowing for underenumeration of infant deaths
 CPS = Contraceptive Prevalence Survey; BFS = Bangladesh Fertility Survey; VRS = Vital Registration System.

9.10 Differentials in Infant, Child, and Under-Five Mortality

Table 9.16 shows differentials of infant, child, and under-five mortality for 1986-9 by subgroups of the population. Infant mortality was substantially higher and child mortality was slightly higher in rural than in urban areas. Mortality was also higher among infants but lower among children in Dhaka Division than in the other three divisions. Child mortality was high in Chittagong Division compared to the other three divisions.

Mortality was highest among infants whose mothers were <15-19 and 40-49 years of age compared to infants whose mothers were between 20 and 39 years old. Infant mortality by sex varied little, although child mortality was slightly higher among female children than among male children. Infant mortality was highest among infants who either had no siblings or who had five or more siblings, and child mortality was highest among children who had five or more siblings.

Mortality was substantially higher among both infants and children whose mothers did not attend school than whose mothers attended school. Wealth was also related to infant and child mortality, with mortality highest among infants and children from comparatively poor mothers and lowest among infants and children from comparatively wealthy mothers.

9.11 Summary and Conclusions

The duration of breastfeeding is high in Bangladesh by international standards and does not appear to be declining in any appreciable way over time. In 1991, the mean duration of breastfeeding in Bangladesh was 29.8 months compared with 20.3 months in Pakistan and 22.5 months in Indonesia (*Pakistan Demographic and Health Survey 1990/91, 1992; Indonesia Demographic and Health Survey 1991, 1992*). In 1989, the mean duration of breastfeeding in Bangladesh was 30.6 months according to the CPS (Mitra, *et al.*, 1990) or 28.6 months according to the BFS (Huq and Cleland, 1990). Moreover, the duration of breastfeeding varies little across most subgroups of the population.

The mean duration of postpartum amenorrhea is also high in Bangladesh in 1991 by international standards, being 11.8 months in Bangladesh, 9.2 months in Pakistan, and 10.1 months in Indonesia (*Pakistan Demographic and Health Survey 1990/91, 1992; Indonesia Demographic and Health Survey 1991, 1992*). The duration of postpartum amenorrhea in Bangladesh in 1989 was 11.9 months (Huq and Cleland, 1990).

Table 9.16 Infant and child mortality rates (probability of dying) by selected characteristics according to type of mortality rate, Bangladesh, 1986-1991			
Selected characteristics	Mortality rates		
	Infant mortality (‰) 1986-1991	Child mortality (‰) 1986-1991	Under five mortality (‰) 1986-1991
Residence			
Rural	84	34	115
Urban	69	30	97
Division			
Dhaka	95	29	121
Chittagong	79	42	118
Rajshahi	73	33	104
Khulna	78	28	104
Mother's age at birth of child			
< 15-19	94	34	125
20-29	73	28	99
30-39	85	**	**
40-49	96	**	**
Sex of child			
Male	82	32	111
Female	81	35	113
Number of children ever born at birth of index child			
None	101	28	126
1-2	70	33	101
3-4	63	32	93
5+	101	43	140
Educational level			
Not attended	92	40	128
Attended	64	23	86
Household wealth scale			
Low	100	46	141
Medium	85	41	123
High	65	19	84
Total	82	34	116
Notes			
** Denominator less than three hundred births			

The relatively long duration of postpartum amenorrhoea reduces the susceptibility of Bangladeshi women to become pregnant. The long duration of breastfeeding practiced by Bangladeshi women, regardless of their demographic or socioeconomic characteristics, suggests that the promotion of breastfeeding *per se* need not be a top priority for the National Family Planning Program. Encouraging greater frequency of breastfeeding, however, may be worthwhile. The mean duration of postpartum amenorrhoea was four months shorter for comparatively educated and wealthy women, despite their duration of breastfeeding being the same as that of less educated and wealthy women. Because the mean age at

which children are given *suji/milk* or solid food did not vary by education or wealth, the difference in postpartum amenorrhea durations between the subgroups may be explained by differences in breastfeeding frequencies. Differential reporting could also explain the difference. At any rate, the lack of match between durations of breastfeeding and postpartum amenorrhea by various subgroups of the population warrants further investigation.

The prevalence of diarrhea is still high in Bangladesh. The thirty-four percent two-week diarrhea prevalence rate can be compared to the thirty-one percent one-month prevalence rate found in the 1989 CPS (Mitra et. al., 1990) and the twenty-three percent two-week diarrhea prevalence rate found in the *1987/88 Diarrheal Morbidity and Treatment Survey* (Mitra and Associates, 1988). Outbreaks of diarrhea can be seasonal and idiosyncratic, but nevertheless, the data suggest that the prevalence of diarrhea may not be declining in Bangladesh. As shown in Table 3.9, a substantial proportion of sanitary facilities are unhygienic. The 1991 CPS did not ask about sanitary facilities used by children, but in all probability children are far less likely to use sanitary facilities than adults, even when these facilities are readily available.

The use of oral rehydration therapy also remains low in Bangladesh, with only twenty-two percent of children who had diarrhea receiving it. The 1989 CPS found that sixty-one percent of mothers gave ORT to their children who had diarrhea during the previous month, and the *1987/88 Diarrheal Morbidity and Treatment Survey* found that thirty percent of children who had diarrhea during the previous two weeks had received ORT. Use of ORT probably varies with the availability of packet ORS and the ingredients to make homemade solution and also with the type and duration of the diarrhea. Evidence from the 1991 CPS, however, does not suggest that use of ORT to treat diarrhea has risen in Bangladesh during recent years.

A high proportion of Bangladeshi children, regardless of the demographic or socioeconomic characteristics of their mothers, have received at least one vaccination. The Expanded Program for Immunization has received wide government support and media attention in Bangladesh, and its coverage has grown rapidly over recent years. It is therefore not surprising that such large percentages of Bangladeshi children 12-23 months old have been at least partially immunized. Vitamin A Capsule distribution has also been promoted by the Government of Bangladesh and non-governmental organizations over recent years. The 1991 CPS found that forty-four percent of children had received VAC compared to thirty-five percent found in the 1989 CPS.

A major risk factor for infant mortality appears to be adolescent childbearing. Currently married adolescents, despite being only nine percent of all currently married women, account for twenty-two percent of all infant births. In addition, twenty-one percent of all births occurred within twenty-four months of a previous birth. As shown in Chapter 8, there is considerable unmet demand for child spacing among adolescent women, and the National Family Planning Program should deem providing these women with appropriate contraceptive information and supplies a top priority.

Infant mortality rates appear to be declining rapidly in Bangladesh, although the exact level and magnitude of the decline are unknown. There are wide fluctuations in the data between surveys and also between years. Why do infant mortality rates vary so much over time? Reasons include high sampling errors associated with low numbers of infant deaths, omission of infant deaths, misstatement of dates of infant deaths, and changes in data reporting systems.

The authors of the *Bangladesh Fertility Survey* argued that rapid declines in infant mortality calculated from BFS birth histories were probably caused by errors in the data (Huq and Cleland, 1990). They asserted that 111 per thousand births in 1985 and 113 in 1986 should be taken as lower bounds and that 120 was a reasonable estimate for 1987. However, there is no reason to believe that reported rapid mortality declines are caused by a greater likelihood of mothers omitting current deaths than past deaths. If anything, the reverse is true, because women are probably more likely to omit past deaths than recent

deaths in a birth history and also improved reporting in vital registration and survey systems is more likely to capture recent than past deaths. The problems of retrospective reporting of deaths would only apply to the birth histories, not to vital registration systems, and in any case, computing IMRs over multiple year periods reduces this bias. Sampling error therefore appears to be the factor most responsible for fluctuations in the data.

The most reasonable direct estimate for the 1990 IMR is between eighty-five and ninety-five deaths per thousand live births. There are two important developments which may have led to rapid mortality decline among infants in Bangladesh over recent years. First, complete immunization coverage among children 12-23 months old increased from two percent in 1985 to sixty-five percent in 1992. Tetanus immunization has been shown to be an important factor in reducing infant mortality, and measles immunization has been shown to be an important factor in reducing child mortality (Koenig *et al.*, 1991).

Second, as shown in Chapter 6, there has been a rapid increase in contraceptive prevalence in Bangladesh. Contraception used for limiting births would reduce infant mortality associated with maternal mortality, and contraception used for spacing births would reduce infant mortality associated with maternal depletion and the competition among children over scarce resources. Other factors associated with a decline in infant mortality include widespread availability of antibiotics (effective against acute respiratory infection and dysentery) and ORT (effective against persistent diarrhea). Finally, there is a greater distribution of Vitamin A capsules which would reduce the incidence of xerophthalmia and related morbidity and mortality.

The evidence suggests that both demographic, and socioeconomic characteristics influence morbidity and mortality in Bangladesh. Women with comparatively high education and wealth are less likely to have children suffering from diarrhea and are more likely to use packet ORS to treat their children's diarrhea than women with comparatively low education and wealth. They are also more likely to have children who have received at least one vaccination and a Vitamin A capsule within the past six months. One consequence is that their infants and children are less likely to die than the infants and children of less educated and wealthy women.

Non-Muslims are more likely than Muslims to engage in behavior which should reduce infant and child mortality. Compared to Muslims, they breastfeed their children longer and are more likely to use ORT and have their children provided with VAC. Because of low numbers of births, infant and child mortality rates could not be calculated by religious groups, but the evidence suggests that mortality will be lower for non-Muslims than Muslims.

Postneonatal and child mortality rates are higher for females than for males, which suggests greater relative parental neglect of female children. The only evidence which supports preferential health treatment of male over female children, however, is the marginally higher likelihood of male children receiving at least one vaccination. There is little variation by sex in the introduction of supplemental feeding with *sujji*/milk or solid food or the provision of ORT and VAC. Female children, however, may be disadvantaged in terms of variables not investigated in this report such as their intake of nutritious food or their ability to receive antibiotics in the case of serious illness. Future nationally-representative surveys should investigate these kinds of variables.

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**BANGLADESH CONTRACEPTIVE
PREVALENCE SURVEY-1991**

**Interview Schedule
(For Females)**

Mitra and Associates
2/17, Iqbal Road, Mohammadpur
Dhaka-7, Bangladesh

HOUSEHOLD PART

SAMPLE IDENTIFICATION

NAME OF HOUSEHOLD HEAD _____

OCCUPATION OF HOUSEHOLD HEAD _____

SAMPLE H.H.NO. | | | | CONVERTED H.H.NO. | | | | |

District _____ Upazila/Thana _____

Union _____ Village/Mohalla/Block _____

Stratum | | | | PSU | | | |

INTERVIEW INFORMATION

Interview call	1	2	3	4
Date				
Result Code*				

Interviewer Code | | | | No. of ER's _____

***RESULT CODE:**

- | | | | |
|---|---|----------------------|---|
| Completed | 1 | Dwelling vacant | 5 |
| No competent Respondent | 2 | Address not found | 6 |
| Interview interrupted (interviewer to return later) | 3 | Address not existing | 7 |
| Refused | 4 | Others (Specify) | 8 |

Scrutinized | | |

Reinterviewed | | |
or spot checked

By | | | |

By | | | |

Date _____

Date _____

Batch No. _____

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HOUSEHOLD MEMBERS

Please tell the names of people who usually live in your household and any guests/visitors who are staying with you now. I would like you to tell first the names of females and then the names of males.

Females

Line No.	Name of woman	Does she usually live here?	Did she sleep here last night?	How old is she (completed year)?	Has she ever been married? Yes/No	Interview eligibility (Please Tick)
F01						
F02						
F03						
F04						
F05						
F06						
F07						
F08						
F09						
F10						

NUMBER OF ELIGIBLE WOMEN: _____

Males

Line No.	Name of man	Does he usually live here?	Did he sleep here last night?	How old is he (completed year)?	Has he ever been married? Yes/No
M01					
M02					
M03					
M04					
M05					
M06					
M07					
M08					
M09					
M10					

INDIVIDUAL PART

Village or Mohalla _____ Time Started _____

Line No. of Respondent

Converted H.H. Serial No.

INTERVIEW INFORMATION

Interview Call	1	2	3	4
Date				
Result Code*				
Interviewer's Code Number	<u> </u>	<u> </u>	<u> </u>	<u> </u>

*INTERVIEWER: For each call, enter the appropriate result code as follows.

Completed	1
Incomplete	2
Respondent not available	3
Interview interrupted interviewer to return later	4
Refused	5
Others (Specify)	8 _____

Scrutinized Reinterviewed Edited Coded
 ----- or spot checked -----

By By By By

Date _____ Date _____ Date _____ Date _____

SECTION - I

BACKGROUND CHARACTERISTICS

101. How old are you? (PROBE)

Age _____(completed years)

102. Did you ever attend school?

 | 2 | Yes

 | 1 | No

(SKIP TO 105)

103. Was it a primary school, madrasa, secondary school or higher that you attended last?

 | 2 | Primary
----- school

 | 3 | High school

 | 4 | College/
----- University

 | 5 | Madrasa

 | 8 | Other _____
----- (Specify)

104. What was the highest class you passed?

_____ Class

105. What is your religion?

 | 1 | Islam

 | 2 | Christianity

 | 3 | Hinduism

 | 4 | Buddhism

 | 8 | Other _____
----- (Specify)

106a. Aside from doing normal household work, do you do any other work on a regular basis for which you are paid in cash or in kind?

 1 Yes

 2 No

(SKIP TO 106c)

106b. Just to make sure, did you any of these activities for which you earned cash or in kind payment:

Activities	Yes	No
Raising poultry, cattle, goats		
Agricultural labour in your house		
Agricultural labour away from home		
Domestic labour away from home (non-agricultural)		
Manufacturing home-based (e.g. handicrafts, food products, fishnets)		
Manufacturing-away from home		
Construction-brick breaking, road building		
Trading		
Others _____ (Specify)		

(SKIP TO 107)

106c. What activities do you do? (List all activities).

107. INTERVIEWER: CHECK RESPONSES IN 106a AND 106b AND TICK THE APPROPRIATE BOX BELOW.

1 Employed

2 Not employed

108. Do you belong to any women's group (multiple responses permitted)

1 Grameen Bank

2 BRAC

3 BRDP

4 Mothers' Club

5 Other group _____
(Specify)

7 Not a member of any group

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SECTION-II

REPRODUCTION, PREGNANCY STATUS, BREASTFEEDING, MARRIAGE,
CHILD CARE, AND FERTILITY PREFERENCE

Reproduction

201. Now I would like to ask about all the births you have had during your life. Have you ever given birth?

 1 Yes

 2 No

(SKIP TO 204a)

202a. Do you have any sons or daughters you have given birth to who are now living with you?

 1 Yes

 2 No

(SKIP TO 203a)

202b. How many sons live with you? And how many daughters live with you?

Sons at home |__|__|

Daughters at home |__|__|

IF NONE ENTER '00'

203a. Do you have any sons or daughters you have given birth to who are alive but do not live with you?

 1 Yes

 2 No

(SKIP TO 204a)

203b. How many sons are alive but do not live with you? And how many daughters are alive but do not live with you?

Sons elsewhere |__|__|

Daughters elsewhere |__|__|

IF NONE ENTER '00'

204a. Have you ever given birth to a boy or a girl who was born alive but later died? IF NO, PROBE: Any (other) boy or girl who cried or showed any sign of life but only survived a few hours or days?

| 1 | Yes

| 2 | No

(SKIP TO 205)

204b. How many boys have died? And how many girls have died?

Boys dead |__|__|

Girls dead |__|__|

IF NONE ENTER '00'

205. SUM ANSWERS TO 202b, 203b, 204b, AND ENTER TOTAL.

_____ Total

IF NONE ENTER '00'

206a. CHECK 205:

Just to make sure that I have this right: you have had in total _____ live births during your life. Is that correct?

| 1 | Yes

| 2 | No

(Correct the responses)

206b. ! INTERVIEWER: CHECK 205 AND TICK THE APPROPRIATE BOX !

| 1 | At least one
----- live birth

| 2 | No live birth

(SKIP TO 209)

207. Now I would like to ask you some specific questions about your births, whether still alive or not, starting with the last one you had.

208a. Please think back to the time you last gave birth to a child that cried or moved after birth. In what month and year did that birth occur?

Month (B) |__|__|

Month (E) |__|__|

Year (B) |__|__|

Year (E) |__|__|

208b. What name was given to the child?

_____ Name

208c. INTERVIEWERS: Probe for any other live births after birth in 208a, specially births to infants who died shortly after birth. If any later births correct 208a and recheck total number of child ever born.

208d. SKIP TO the first row of Birth History Table and enter the date of birth from 208a and name from 208b.

Truncated Birth History Exclude children born before
May 1983 or Baishakh 1390

Name	Years	Eng-lish year	Beng-ali year	Month of birth	Sex	Still alive	If dead, age at death in months
	00	1991	1398	B/E	Boy 1	Yes 1	
				Girl 2	No 2		
		1990	1397	B/E	Boy 1	Yes 1	
				Girl 2	No 2		
	01	1990	1396	B/E	Boy 1	Yes 1	
				Girl 2	No 2		
	02	1989	1395	B/E	Boy 1	Yes 1	
				Girl 2	No 2		
	03	1988	1394	B/E	Boy 1	Yes 1	
				Girl 2	No 2		
	04	1987	1393	B/E	Boy 1	Yes 1	
				Girl 2	No 2		
	05	1986	1392	B/E	Boy 1	Yes 1	
				Girl 2	No 2		
	06	1985	1391	B/E	Boy 1	Yes 1	
				Girl 2	No 2		
	07	1984	1390	B/E	Boy 1	Yes 1	
				Girl 2	No 2		
		1983			Girl 2	No 2	

208e. Total number of live births recorded in birth history

Pregnancy status

209. Have you had a menstrual period within the last four or five weeks?

 1 Yes

 2 No

(Tick No in 211 and
SKIP TO 212a)

210. How many months have passed since your last menstrual period?

 1 Months _____

 2 Not returned
----- since last birth

211. Are you pregnant? I mean, are you carrying a baby now?

 1 Yes

 2 No

 3 Unsure

Marriage

212a. When did you have your first menses? Was it before your first marriage or was it afterwards?

 1 Before

 2 After

212b. How old were you when you (first) married?

_____ Age at marriage

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213. Are you now married, widowed, divorced?

 1 Married (SKIP TO 215a)

 2 Widowed

 3 Divorced

 4 Deserted

214. How many years ago did you stop living with your husband/did your husband die?

 Years

(IF LESS THAN ONE YEAR CODE 00)
(SKIP TO 216)

215a. Does your husband ordinarily live here or does he ordinarily live somewhere else?

 1 Ordinarily
----- lives here

 2 Ordinarily lives
----- somewhere else

215b. Did he stay here last night?

 2 Away

 1 Not away

(SKIP TO 216)

215c. How long have you and he been apart? (If less than one month code 00.)

Months

215d. When do you expect to see him again? (If less than one month, code 00.)

Months

--	--	--

--	--

 Never

(Recode 213 as deserted)

216. | INTERVIEWER: CHECK 205 AND TICK THE APPROPRIATE BOX |

	1	
--	---	--

 One live birth
----- or more

	2	
--	---	--

 No live birth

(SKIP TO 301)

217. | INTERVIEWER: ENTER THE NAME, LINE NUMBER, AND SURVIVAL
| STATUS OF EACH BIRTH SINCE MAY 1986. BEGIN WITH THE
| LAST BIRTH. THE HEADINGS IN BREASTFEEDING AND WEANING
| TABLE SHOULD BE EXACTLY THE SAME BIRTH HISTORY TABLE |

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Breastfeeding and weaning table

	LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST	THIRD-FROM-LAST
	NAME _____	NAME _____	NAME _____	NAME _____
	DATE OF BIRTH |__|__| |__|__|	DATE OF BIRTH |__|__| |__|__|	DATE OF BIRTH |__|__| |__|__|	DATE OF BIRTH |__|__| |__|__|
	SEX:BOY .....1 GIRL.....2	SEX:BOY.....1 GIRL.....2	SEX:BOY.....1 GIRL.....2	SEX:BOY.....1 GIRL.....2
218. How many months after the birth of (Name) did your period return? FOR LAST BIRTH PROBE, have they returned?	MONTHS |__|__| ----- Not yet returned 98			
219a. Did you ever breastfeed (Name) If yes, for how many months (If dead, did you breast-feed his/her until his/her death)	Still _____ (SKIP TO 220a) Months |__|__| Breastfed upto death _____ Never _____	Still _____ (SKIP TO 220a) Months |__|__| Breastfed upto death _____ Never _____	Still _____ (SKIP TO 220a) Months |__|__| Breastfed upto death _____ Never _____	Still _____ (SKIP TO 220a) Months |__|__| Breastfed upto death _____ Never _____
219b. Filter (check the Birth History Table)	Alive __ (SKIP TO 221a) Dead __ GO TO NEXT COL.	Alive __ (SKIP TO 221a) Dead __ GO TO NEXT COL.	Alive __ (SKIP TO 221a) Dead __ GO TO NEXT COL.	Alive __ (SKIP TO 221a) Dead __ (SKIP TO 224)

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220a. How many times did you give your child the breast last night?	Number of times _ _ Fed when the child demanded _	Number of times _ _ Fed when the child demanded _	Number of times _ _ Fed when the child demanded _	Number of times _ _ Fed when the child demanded _
220b. Do you give your child anything other than breastmilk, even water or a piece of fruit or a biscuit?	Yes 1 No 2 (GO TO NEXT COL)	Yes 1 No 2 (GO TO NEXT COL)	Yes 1 No 2 (GO TO NEXT COL)	Yes 1 No 2 (SKIP TO 224)
221a. Has (NAME) ever received 'suji' or milk [other than breastmilk] such as cow milk, goat milk or buffalo milk or milk made from powder milk?	Yes 1 No 2 (SKIP TO 222)			
221b. How many months old was (NAME) when you gave him/her suji or milk [other than breastmilk] for the first time?	Age in months |_|_|	Age in months |_|_|	Age in months |_|_|	Age in months |_|_|

222. Has (NAME) begun eating some normal food such as rice or bread on a daily basis?	Yes 1	Yes 1	Yes 1	Yes 1
	No 2 (GO TO NEXT COL.)	No 2 (GO TO NEXT COL.)	No 2 (GO TO NEXT COL.)	No 2 (SKIP TO 224)

223. How many months old was (NAME) when she/he started to eat some normal food such as rice or bread on a daily basis?	Age in months |_|_|_|_|	Age in months |_|_|_|_|	Age in months |_|_|_|_|	Age in months |_|_|_|_|
	(GO TO NEXT COL.)	(GO TO NEXT COL.)	(GO TO NEXT COL.)	(SKIP TO 224)

224. INTERVIEWER: ENTER THE NAME, LINE NUMBER, AND SURVIVAL STATUS OF EACH BIRTH SINCE MAY 1986. BEGIN WITH THE LAST BIRTH. THE HEADINGS IN CHILD HEALTH CARE TABLE SHOULD BE EXACTLY THE SAME AS BIRTH HISTORY TABLE. ASK THE QUESTIONS ONLY FOR LIVING CHILDREN.

Child Health Care

	LAST BIRTH NAME _____ DATE OF BIRTH [][] [][] SEX: BOY 1 GIRL 2 ALIVE _____ (SKIP TO 225) DEAD _____ (GO TO NEXT BIRTH)	NEXT-TO-LAST BIRTH NAME _____ DATE OF BIRTH [][] [][] SEX: BOY 1 GIRL 2 ALIVE _____ (SKIP TO 225) DEAD _____ (GO TO NEXT BIRTH)	SECOND-FROM- LAST NAME _____ DATE OF BIRTH [][] [][] SEX: BOY 1 GIRL 2 ALIVE _____ (SKIP TO 225) DEAD _____ (GO TO NEXT BIRTH)	THIRD-FROM LAST NAME _____ DATE OF BIRTH [][] [][] SEX: BOY 1 GIRL 2 ALIVE _____ (GO TO 225) DEAD _____ (SKIP TO 301)
225. Has (NAME) ever had vaccination to prevent him/her from getting disease?	Yes 1 No 2 (SKIP TO 226b) DK 7 (SKIP TO 226b)	Yes 1 No 2 (SKIP TO 226b) DK 7 (SKIP TO 226b)	Yes 1 No 2 (SKIP TO 226b) DK 7 (SKIP TO 226b)	Yes 1 No 2 (SKIP TO 226b) DK 7 (SKIP TO 226b)
226a. Think -ing back to the most recent vaccination (NAME) had where did you go to get the shot?	(Specify, then code) Health centre 1 Temporary centre 2 Private doctor/ pharmacy/ dispensary 3 Other 4	(Specify, then code) Health centre 1 Temporary centre 2 Private doctor/ pharmacy/ dispensary 3 Other 4	(Specify, then code) Health centre 1 Temporary centre 2 Private doctor/ pharmacy/ dispensary 3 Other 4	(Specify, then code) Health centre 1 Temporary centre 2 Private doctor/ pharmacy/ dispensary 3 Other 4

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	(1)	(2)	(3)	(4)
226b. Has (NAME) taken a Vitamin A capsule since [=six months ago]?	Yes.....1 No.....2 DK.....7	Yes.....1 No.....2 DK.....7	Yes.....1 No.....2 DK.....7	Yes.....1 No.....2 DK.....7
227. Did (NAME) have 'loose motion' in the last 24 hours-- I mean, since yesterday at the same time as now did (NAME) have thinner or more frequent stools than usual?	Yes.....1 No.....2 (SKIP TO 229)	Yes.....1 No.....2 (SKIP TO 229)	Yes.....1 No.....2 (SKIP TO 229)	Yes.....1 No.....2 (SKIP TO 229)
228a. Did you give (NAME) any special kinds of food, drink or any type of treatment to treat the 'loose motion'?	Yes.....1 No.....2 (SKIP TO 232)	Yes.....1 No.....2 (SKIP TO 232)	Yes.....1 No.....2 (SKIP TO 232)	Yes.....1 No.....2 (SKIP TO 232)

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	(1)	(2)	(3)	(4)
228b. What did you give?	Labon-gur saline.....1 Saline with other sugar and salt.....2 Packet saline.3 Others_____ (Specify) Others_____ (Specify) (ALL SKIP TO 231a)	Labon-gur saline.....1 Saline with other sugar and salt.....2 Packet saline.3 Others_____ (Specify) Others_____ (Specify) (ALL SKIP TO 231a)	Labon-gur saline.....1 Saline with other sugar and salt.....2 Packet saline.3 Others_____ (Specify) Others_____ (Specify) (ALL SKIP TO 231a)	Labon-gur saline.....1 Saline with other sugar and salt.....2 Packet saline.3 Others_____ (Specify) Others_____ (Specify) (ALL SKIP TO 231a)
229. Since _____ [in the last 14 days was there one day or more when (NAME) was having 'loose motion'... I mean, thinner and more frequent stools than usual?	Yes.....1 No.....2 (SKIP TO 232)	Yes.....1 No.....2 (SKIP TO 232)	Yes.....1 No.....2 (SKIP TO 232)	Yes.....1 No.....2 (SKIP TO 232)
230a. The last time (NAME) had 'loose motion' was he/she given any special kind of food drink or any type of treatment to treat the 'loose motion'?	Yes.....1 No.....2 (SKIP TO 232)	Yes.....1 No.....2 (SKIP TO 232)	Yes.....1 No.....2 (SKIP TO 232)	Yes.....1 No.....2 (SKIP TO 232)

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	(1)	(2)	(3)	(4)
230b. Which such foods or drinks did you give (NAME)?	Labon-gur saline.....1 Saline with other sugar and salt.....2 Packet saline.3 Others_____ (Specify) Others_____ (Specify)	Labon-gur saline.....1 Saline with other sugar and salt.....2 Packet saline.3 Others_____ (Specify) Others_____ (Specify)	Labon-gur saline.....1 Saline with other sugar and salt.....2 Packet saline.3 Others_____ (Specify) Others_____ (Specify)	Labon-gur saline.....1 Saline with other sugar and salt.....2 Packet saline.3 Others_____ (Specify) Others_____ (Specify)
231a. FILTER	If not packet saline (SKIP TO 232)			
231b. Who obtained the packet(s) that you gave to (NAME)?	Self.....1 Husband2 Son/daughter..3 Female relative.....4 Male relative.5 Other_____6 (specify)			
231c. Where did the packet come from?	Field worker..1 Pharmacy.....2 Shop.....3 Clinic/hospital.....4 Traditional doctor.....5 Qualified doctor.....6 Other_____7 (specify) Don't know....8			
232. With 'R's permission, examine the child's arm and leg and record if there is vaccina-mark.	Yes.....1 No.....2 Child Not seen3			

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SECTION - III

CONTRACEPTION

301. Now I would like to talk about a different topic. There are various ways or methods that a couple can use to delay or avoid a pregnancy. Which of these ways or methods do you know of or have you heard about? CIRCLE CODE 1 IN 302 FOR EACH METHOD MENTIONED SPONTANEOUSLY. THEN PROCEED DOWN THE COLUMN, READING THE NAME OF EACH METHOD NOT MENTIONED SPONTANEOUSLY. CIRCLE CODE 2 IF METHOD IS RECOGNIZED, AND CODE 3 IF NOT RECOGNIZED. THEN, FOR EACH METHOD WITH CODE 1 OR 2 CIRCLED IN 302, ASK 303 BEFORE PROCEEDING TO THE NEXT METHOD.

TABLE-1

Methods	302. Have you ever heard of (METHOD)?	303. Have you (has your husband) ever used (METHOD)
(1)	(2)	(3)
01. PILL	Yes/SPONT.....1 Yes/PROBED.....2 No.....3	Yes.....1 No.....2
02. CONDOM	Yes/SPONT.....1 Yes/PROBED.....2 No.....3	Yes.....1 No.....2
03. FOAM TABLET/JELLY/EMKO/ CREAM/DIAPHRAGM	Yes/SPONT.....1 Yes/PROBED.....2 No.....3	Yes.....1 No.....2
04. INJECTION	Yes/SPONT.....1 Yes/PROBED.....2 No.....3	Yes.....1 No.....2
05. I.U.D	Yes/SPONT.....1 Yes/PROBED.....2 No.....3	Yes.....1 No.....2
06. FEMALE STERILI- ZATION	Yes/SPONT.....1 Yes/PROBED.....2 No.....3	Yes.....1 No.....2

Contd...

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Table-1 (Contd.)

07. MALE STERILIZATION	Yes/SPONT.....1 Yes/PROBED.....2 No.....3	Yes.....1 No.....2
08. M.R.	Yes/SPONT.....1 Yes/PROBED.....2 No.....3	Yes.....1 No.....2
09. SAFE PERIOD	Yes/SPONT.....1 Yes/PROBED.....2 No.....3	Yes.....1 No.....2
10. WITHDRAWAL	Yes/SPONT.....1 Yes/PROBED.....2 No.....3	Yes.....1 No.....2
11. ABSTINENCE	Yes/SPONT.....1 Yes/PROBED.....2 No.....3	Yes.....1 No.....2
12. OTHER a. _____ (Specify) b. _____ (Specify) c. _____ (Specify)	Yes/SPONT.....1 Yes/PROBED.....2 No.....3	Yes.....1 No.....2 Yes.....1 No.....2 Yes.....1 No.....2

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304. | INTERVIEWER: CHECK 303 AND TICK THE APPROPRIATE BOX |

| 1 | Not a single
----- "Yes" circled
 (Never user)

| 2 | At least one
----- "Yes" circled
 (Ever user)

(SKIP TO 307)

305. Just to be sure, have you or has your husband ever used anything or tried in any way to delay or avoid getting pregnant?

| 1 | Yes

| 2 | No

(SKIP TO 307)

306. What have you used or done? (CORRECT 302, 303 and 304, THEN START WITH 307).

307. | INTERVIEWER: CHECK 213 AND TICK THE APPROPRIATE BOX |

| 1 | Currently
----- married

| 2 | Not currently
----- married

(SKIP TO 312c)

308. | INTERVIEWER: CHECK 211 AND TICK THE APPROPRIATE BOX |

| 1 | Not currently
----- pregnant or
 don't know

| 2 | Currently
----- pregnant

(SKIP TO 312c)

309. Are you (or is your husband) currently using some family planning method or doing something to avoid a pregnancy ?

| 1 | Yes

| 2 | No

(SKIP TO 312c)

310. What is that method ?

! CIRCLE BELOW THE METHOD THE RESPONDENT HAS MENTIONED !

- 01 Pill
 - 02 Condom
 - 03 Vaginal methods(a)
 - 04 Injection
 - 05 IUD
 - 06 Female sterilization
 - 07 Male sterilization
 - 09 Safe period
 - 10 Withdrawal
 - 11 Abstinence
 - 12 Other _____
(Specify)
- : SKIP TO 311b

311a. For how long have you been using _____
continuously. (CURRENT METHOD)

Months _____ Years _____
(SKIP TO 312a)

311b. How long ago did you (your husband) have the operation?

Months _____ Years _____

312a. At any time during the same month, do you regularly use any method other than (CURRENT METHOD) ?

1 Yes 2 No

(SKIP TO 312c)

312b. Which method is that ?

Additional method _____

312c. INTERVIEWER: CHECK 303 AND TICK THE APPROPRIATE BOX
BELOW.

1 Ever user 2 Never user

(SKIP TO 313a)

312d. INTERVIEWER: TICK IF THE LAST PREGNANCY WAS SINCE
MAY 1986/BAISHAKH 1393 OR BEFORE

1 Since May 1986/
Baishakh 1393 2 Before May 1986/
Baishakh 1393

(SKIP TO 313a)

312e. Have you used any contraceptive method since _____ (last
live birth) was born? (Name)

1 Yes 2 No

(SKIP TO 313a)

312f. What was the first method you used after the birth?

_____ Method

312g. How many months after _____ was born did you start
using the method? (Name)

Months

312h. Had your periods started again when you began the method?

 1 Yes

 2 No

(SKIP TO 313a)

312i. How many menstrual cycles did you have before you started the method?

 Number

313a. | INTERVIEWER: Check 211 and tick the appropriate box below. |

 1 Currently
----- pregnant

 2 Not currently pregnant/
----- Not sure

(SKIP TO LAST PREGNANCY TABLE)

313b. Since your last live birth (marriage, if no live birth) have you had a pregnancy which miscarried or in which the baby was born dead?

 1 Yes

 2 No

(SKIP TO 313f)

313c. When did you become pregnant that time?

B/E

 Month

 Year

313d. For how many months were you pregnant?

Number of months _____

313e. | INTERVIEWER: TICK IF THE LAST PREGNANCY WAS SINCE MAY |
1986/BAISHAKH 1393 OR BEFORE.

| 1 | Since May 1986/
----- Baishakh 1393

| 2 | Before May 1986/
----- Baishakh 1393

(SKIP TO LAST PREGNANCY
TABLE)

(SKIP TO 314a)

313f. | INTERVIEWER: CHECK BIRTH HISTORY TABLE AND TICK THE |
APPROPRIATE BOX BELOW.

| 1 | Birth since last
----- May 1986/
Baishakh 1393

| 2 | Before May 1986/
----- Baishakh 1393 or No
live birth

(SKIP TO 314a)

Last Pregnancy Table

Interviewer: Check 209 and 211 and tick the appropriate box	Currently pregnant Yes <input type="checkbox"/> No <input type="checkbox"/> ->	Last pregnancy/birth since July 1985/ Ashar 1392 Yes <input type="checkbox"/> No <input type="checkbox"/> (SKIP TO 314a)
Check 304 and tick appropriate box	Ever user <input type="checkbox"/> Never user <input type="checkbox"/> (SKIP TO 313n)	Ever user <input type="checkbox"/> Never user <input type="checkbox"/> (SKIP TO 313n)
313g. Before you became pregnant had you ever used a family planning method?	Yes <input type="checkbox"/> No <input type="checkbox"/> (SKIP TO 313n)	Yes <input type="checkbox"/> No <input type="checkbox"/> (SKIP TO 313n)
313h. Which was the last method you used before becoming pregnant?	_____ (method)	_____ (method)
313j. Were you using [METHOD] when you became pregnant?	Yes <input type="checkbox"/> No <input type="checkbox"/> (SKIP TO 313l)	Yes <input type="checkbox"/> No <input type="checkbox"/> (SKIP TO 313l)
313k. When you became pregnant had you wanted to become pregnant then, later or not at all?	Then (clarify 313j) <input type="checkbox"/> Later <input type="checkbox"/> Never <input type="checkbox"/> (SKIP TO 314a)	Then (clarify 313j) <input type="checkbox"/> Later <input type="checkbox"/> Never <input type="checkbox"/> (SKIP TO 314a)
313l. How long before you became pregnant did you stop (Method)?	Months _____ (If less than one month code '00')	Months _____ (If less than one month code '00')

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313m. Why did you stop using method?	Became pregnant (clarify 313j)	<input type="checkbox"/>	Became pregnant (clarify 313j)	<input type="checkbox"/>
	Wanted to become pregnant	<input type="checkbox"/>	Wanted to become pregnant	<input type="checkbox"/>
	Method made 'R' sick	<input type="checkbox"/>	Method made 'R' sick	<input type="checkbox"/>
	'R' in poor health	<input type="checkbox"/>	'R' is poor health	<input type="checkbox"/>
	Menstrual problems	<input type="checkbox"/>	Menstrual problems	<input type="checkbox"/>
	Temporarily separated from husband	<input type="checkbox"/>	Temporarily separated from husband	<input type="checkbox"/>
	Husband in-laws objected	<input type="checkbox"/>	Husband in-laws objected	<input type="checkbox"/>
	No supplies	<input type="checkbox"/>	No supplies	<input type="checkbox"/>
	Did not think she could become pregnant	<input type="checkbox"/>	Did not think she could become pregnant	<input type="checkbox"/>
	Religious reasons	<input type="checkbox"/>	Religious reasons	<input type="checkbox"/>
	Other _____ (specify)	<input type="checkbox"/>	Other _____ (specify)	<input type="checkbox"/>
Don't know	<input type="checkbox"/>	Don't know	<input type="checkbox"/>	

313n. Think back to when you became pregnant. At that time did you want to become pregnant or did you want delay until later becoming pregnant or did you want never to become pregnant?	Then	<input type="checkbox"/>	Then	<input type="checkbox"/>
	Later	<input type="checkbox"/>	Later	<input type="checkbox"/>
	Never	<input type="checkbox"/>	Never	<input type="checkbox"/>
	Other _____ (specify)	<input type="checkbox"/>	Other _____ (specify)	<input type="checkbox"/>
	Don't know	<input type="checkbox"/>	Don't know	<input type="checkbox"/>

314a. | INTERVIEWER: CHECK 213 AND TICK THE APPROPRIATE BOX BELOW |

Currently married

Not currently married

(SKIP TO 315)

10/11

314b. |INTERVIEWER: Check 310 and tick the appropriate box below. |

| | Current user | | Not current user

(SKIP TO 315)

314c. Do you intend to use a method to avoid pregnancy at anytime
in the future?

| 1 | Yes | | 2 | No

(SKIP TO 315)

| 3 | Other _____
----- (specify)

(SKIP TO 315)

314d. What method do you think you will use?

| | Pill | | Female sterilization

| | Condom | | Male sterilization

| | Vaginal method | | Safe period

| | Injection | | Withdrawal

| | IUD | | Abstinece

| | Not sure

| | Other _____
----- (Specify)

315. In your opinion, should a young couple who have recently
become married, adopt family planning?

| 1 | Yes | | 2 | No

316. | INTERVIEWER: CHECK 213 AND TICK APPROPRIATE BOX |

| 1 | Currently
----- married

| 2 | Not currently
----- married

(SKIP TO 601)

317. Do you think that your husband is in favour or not in favour of using methods to avoid pregnancy?

| 1 | In favour

| 2 | Not in favour

| 3 | Don't know

318a. | INTERVIEWER: CHECK 211 AND TICK THE APPROPRIATE BOX |
BELOW

| 1 | Currently
----- pregnant

| 2 | Not
----- currently
pregnant

(SKIP TO 318c)

| 3 | Unsure

(SKIP TO 318c)

318b. Would you like to have more children in the future in addition to the one you are now expecting? (Tick the response in 318e)

318c. Interviewer: Check 202b and 203b tick the appropriate box.

| 1 | Has at least one
----- living child

| 2 | No living child

(SKIP TO 318g)

318d. Would you like to have more children in future? (Tick the response in 318e)

318e. Desire for children

1 | Yes

(SKIP TO 318g)

2 | No

3 | Not decided

(SKIP TO 318h)

4 | Other _____
----- (specify)

(SKIP TO 318h)

318f. Would you say that you definitely do not want to have (more) children, or are you not sure?

1 | Definitely no more

2 | Not sure

3 | Other _____
----- (Specify)

SKIP TO 401

318g. Would you say that you definitely want a (another) child or are you not sure?

1 | Definitely more

2 | Not sure

3 | Other _____
----- (Specify)

318h. How long would you like to wait from now before the birth of a (another) child?

_____ (Years)

_____ (Months)

Other _____
(specify)

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SECTION - IV

SOURCE OF SUPPLIES/SERVICES

401. | INTERVIEWER: CHECK 309 AND TICK THE APPROPRIATE BOX BELOW |

| 1 | Currently
----- using

| 2 | Not currently
----- using

(SKIP TO 501)

402. Check 310 and circle the appropriate code below, then follow the SKIP instructions.

- 01 Pill
- 02 Condom
- 03 Vaginal methods(a) (SKIP TO 406)
- 04 IUD
- 05 Injection
- 06 Female sterilization (SKIP TO 407)
- 07 Male sterilization
- 09 Safe period
- 10 Withdrawal
- 11 Abstinence (SKIP TO 501)
- 12 Other _____
(Specify)

403. Have you any _____ in your house now?
method

| 1 | Yes

| 2 | No

(SKIP TO 405a)

404. Can you show them to me?

| 1 | Shown

| 2 | Not shown

(SKIP TO 405b)

405a. | INTERVIEWER: Show samples and then ask this question; is
it one of these? (PROBE)

| 1 | Yes

| 2 | No

(SKIP TO 406)

| 3 | Don't know

(SKIP TO 406)

405b. | INTERVIEWER: Write down the brand name below ;
|-----|

Brand

406. Thinking back to the last new cycle of pills, new condoms or foam tablet you have had, who got the supply?

01 Respondent

02 Husband

03 Son daughter

04 Other _____
(specify)

407. Thinking back to the last time you got (a new cycle of pills, new condoms, IUD inserted, etc.), from where do (did) you (your husband) obtain the supply/service?

| | Pharmacy

| | Shop (specify the type below)

| | Traditional doctor

(SKIP TO 501)

1	Qualified doctor	
2	Mobile camp	
3	Depot-holders	
4	Satellite clinic	
5	Clinic/hospital (_____) Name	
6	Field worker	(SKIP TO 408)
7	Other source _____ (specify)	(SKIP TO 501)
8	Don't know	(SKIP TO 501)

408. Was the worker male or female?

1	Male	2	Female
3	Don't know		

409. The last time you (your husband) got supplies did you (your husband) collect the supply from the worker's house or did this worker come to your house to give you the supply?

1	Worker came to the house to give the supply	2	Collected the supply from the worker's house
---	---	---	--

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SECTION - V

FIELDWORKER VISITS

501. | INTERVIEWER: CHECK 213 AND TICK THE APPROPRIATE BOX |

 1 | Currently
----- | married

 2 | Not currently
----- | married

(SKIP TO 601)

502a. During the last six months, has any one visited you in your home to talk to you about family planning or to give you any family planning method?

 1 | Yes

 2 | No

(SKIP TO 503a)

502b. Has a family planning worker visited you in the last six months for another reason?

 1 | Yes

 2 | No

(SKIP TO 601)

503a. How many times did a family planning worker visit you in the last six months?

_____ Times visited

503b. When was the last visit?

_____ Months ago

(Code '00' if in the last month)

504. Did you receive any family planning supplies from the worker during that visit?

 1 | Yes

 2 | No

(SKIP TO 506)

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505. What did you receive? Pills
 Condoms
 Other
 (Specify)

506. How many cycles/condoms?

507. Thinking back to all of the visits you have ever had from family planning workers, which methods of avoiding pregnancy have you ever discussed during those visits?

Method	Spontaneously reported discussing	Reported discussing after probing	Did not discuss
Pill	1	2	3
Condom	1	2	3
Injectable	1	2	3
IUD	1	2	3
Female sterilization	1	2	3
Male sterilization	1	2	3

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SECTION VI

MATERNAL CARE

601. INTERVIEWER: CHECK THE BIRTH HISTORY TABLE AND TICK THE APPROPRIATE BOX

<u> 1 </u>	At least one live birth since May 1986/Baiṣhakh 1393	<u> 2 </u>	No live birth since May 1986/since Baishakh 1393
--------------	--	--------------	--

(SKIP TO 604)

602. Have you ever received a shot to protect you and any babies you might have against tetanus?

<u> 1 </u>	Yes	<u> 2 </u>	No
--------------	-----	--------------	----

(SKIP TO 608)

603. How many shots against tetanus have you received?

(SKIP TO 608)

604. (INTERVIEWER: Write down the name of the last live birth, then ask.

Thinking back to when you gave birth to _____
(name of last live birth), had you received any shots to protect you and your baby from tetanus at anytime before that birth? I mean, even before you were pregnant with _____?
(name of the last live birth)

<u> 1 </u>	Yes	<u> 2 </u>	No
--------------	-----	--------------	----

(SKIP TO 607)

605. How many shots for tetanus had you had at anytime before your last live birth, that is, before you had given birth to _____?
(name of last live birth)

_____ Number of shots taken

606. PROBE: Does this include all of the shots you have had for tetanus including shots that you had during other pregnancies? (If respondent remembers other shots, correct the number recorded in Q.605)

607. Since _____ was born have you had a shot
(name of last live birth)
to protect you or the next baby you have from tetanus?

_____ Number of shots since last live birth

Maternal mortality questions

608. Excluding yourself, how many sisters (same mother) do you have who have ever been married and who are living?

_____ Number

609. Do you have any sisters born to your mother, who died after they were married? If yes, how many?

_____ Number

610. So you have a total of _____ sisters who have married (If no, correct responses)

IF 609 is 00, SKIP TO 701

611. Did any of your sisters who died after they married die while they were pregnant or giving birth or within 40 days of delivery? If yes, how many?

_____ Number

SECTION-VII

HUSBAND'S BACKGROUND AND HOUSEHOLD ASSETS

701. (Interviewer: Check 213 and Tick the appropriate box).

 1 | |
-----| |
 Currently
 married

 2 | | |
-----| | |
 Not currently
 married

(SKIP TO 703)

702. How old is your husband?

 | | | |
-----| | |
 Years

703. Did your husband ever attend school ?

 | | |
-----| |
 Yes

 1 | |
-----| |
 No

(SKIP TO 706)

704. Was it a primary school, madrasa, secondary school or higher that he attended last?

<u> 2 </u> | | -----| | Primary school	<u> 3 </u> | | -----| | High school
<u> 4 </u> | | -----| | College/ University	<u> 5 </u> | | -----| | Madrasa
<u> 6 </u> ----- Don't know	<u> 8 </u> ----- _____ (Specify)

(SKIP TO 706)

705. What was the highest class he passed ?

_____ Class

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706. What is (was) the principal occupation of your husband ?
(PROBE)

707. Now I wish to ask you about any agricultural land that your household owns or uses. Do you have any land which is owned (and worked) by household members ?

 1 Yes 2 No

How much? _____

708. Interviewer: record the construction materials of the dwelling structure under the given categories.

Categories	Concrete	Tin	Katcha	Other (specify)
Roof				
Wall				
Floor		XXXXXXX		

709. Does your household (or any member of the household) have the following items ?

Yes	No		Yes	No	
<u> </u>	<u> </u>	Almirah	<u> </u>	<u> </u>	Cot
<u> </u>	<u> </u>	Table/Chair Bench	<u> </u>	<u> </u>	Radio
<u> </u>	<u> </u>	Watch/ clock	<u> </u>	<u> </u>	Cycles/boat

710. Does your household own its homestead, that is, the land on which your house is built?

 1 Yes 2 No

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711. Since you have been married, how frequently do you do the following things alone?

	Once a month or more	More than once a year	Once a year or less	Never
Go to another part of your village/town/city?	1	2	3	4
Go shopping/marketing?	1	2	3	4
Go to a health center or hospital?	1	2	3	4

712. Where do the adult members of your household usually defecate?

Flush toilet

Slab latrine

Pukka latrine

Other latrine

Outdoors

713. What is the usual source of drinking water for members of this household?

Piped inside dwelling

Piped outside dwelling

Tubewell

Pond/tank/river/canal

Other _____
(Specify)

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714.

TERMINATE THE INTERVIEW. WHEN YOU TERMINATE THE INTERVIEW (AND BEFORE YOU LEAVE THE RESPONDENT):

CHECK BACK OVER THE SCHEDULE AND MAKE SURE THERE IS AN ANSWER TO ALL APPLICABLE QUESTIONS, SKIP INSTRUCTIONS ARE CORRECTLY FOLLOWED AND THAT THE RESPONSES ARE ENTERED ELEGIBLY AND IN THE CORRECT FORM.

THANK THE RESPONDENT FOR HER TIME AND COOPERATION

TIME ENDED _____

INTERVIEWER'S COMMENTS:

SUPERVISOR'S COMMENTS:

HOUSEHOLD WEALTH SCALE

Household wealth was measured creating a wealth scale based on household characteristics and commodity ownership. Almirah (Wardrobe), table/chair/bench, watch/clock, cot, radio were treated as indices of household wealth in the survey. For each of those items, a respondent was assigned a wealth score if her household owned it. The score was assigned independently between the rural and urban respondents. For the i th item, it was calculated as

$S_i = 1 - R_i$ for the rural respondent
and

$S_i = 1 - U_i$ for the urban respondent;

where S_i = the assigned score for the i th item
 R_i = the proportion of households owning the
item in the rural area
 U_i = the proportion of households owning the
item in the urban area

Four household characteristics were employed for scoring -- two for the rural respondent and another two for the urban respondent. The ownership of agricultural land and the type of roof on the main dwelling house were considered as discriminating indices of household wealth for the rural area, and the ownership of homestead and the type of walls of the main dwelling house for the urban area. Thus, a rural respondent was assigned one score if her household owned agricultural land and one score if her household had the main dwelling house built with tin roof. Similarly, an urban respondent received one score if her household owned a homestead and one score if her household had the main dwelling house built with concrete walls. The scores for the household characteristics were calculated in the way the item scores were done.

Finally, the sum of all scores received by a respondent for both the household characteristics and the commodity ownership was used as the scale measuring her household wealth status. Table 1b gives the distribution of ever-married women by their household wealth status levels as assessed by the scale.

Table 1b Percent distribution of ever-married women by assessed wealth status levels			
Sum of wealth scores	Wealth status levels	Areas	
		Rural	Urban
< 0.50	Low	26.8	22.7
1.50 - 1.49	Medium	29.1	66.6
1.50 or over	High	44.0	50.7
N		8973	3077

Note: Unweighted number of ever-married women.

In the rural area, 26.8 percent of ever married women fell at the low level of the wealth scale, receiving a total score less than 0.50; 29.1 percent at the medium level (0.50 - 1.49); and 44.0 percent at the high level (41.50 or above). For the urban area the corresponding percentages were 22.7 percent for the low level, 26.6 percent for the medium level, and 50.7 percent for the high level.

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