Bangladesh

Demographic and Health Survey 1993-1994

National Institute of Population Research and Training (NIPORT)
Ministry of Health and Family Welfare

Mitra and Associates

Demographic and Health Surveys
Macro International Inc.

Bangladesh Demographic and Health Survey 1993-1994

S. N. Mitra
M. Nawab Ali
Shahidul Islam
Anne R. Cross
Tulshi Saha

National Institute of Population Research and Training (NIPORT)
Dhaka, Bangladesh

Mitra and Associates
Dhaka, Bangladesh

Macro International Inc.
Calverton, Maryland USA

December 1994

This report summarizes the findings of the 1993-94 Bangladesh Demographic and Health Survey (BDHS) conducted by Mitra and Associates under the authority of the National Institute of Population Research and Training (NIPORT) under the Ministry of Health and Family Welfare, Government of Bangladesh. Macro International Inc. provided technical assistance. Funding was provided by the U.S. Agency for International Development office in Dhaka (USAID/Bangladesh) and the Government of Bangladesh.

The BDHS is part of the worldwide Demographic and Health Surveys (DHS) program, which is designed to collect data on fertility, family planning, and maternal and child health. Additional information about the Bangladesh survey may be obtained from Mitra and Associates at 2/17 Iqbal Road, Block A, Mohammadpur, Dhaka, Bangladesh (Telephone: 818-065; Fax: c/o 832-915) or from NIPORT, Azimpur, Dhaka, Bangladesh (Telephone: 507-866; Fax: 863-362). Additional information about the DHS program may be obtained by writing to: DHS, Macro International Inc., 11785 Beltsville Drive, Suite 300, Calverton, MD 20705 (Telephone: 301-572-0200; Fax: 301-572-0999).

Recommended citation:

Mitra, S.N., M. Nawab Ali, Shahidul Islam, Anne R. Cross, and Tulshi Saha. 1994. *Bangladesh Demographic and Health Survey, 1993-1994.* Calverton, Maryland: National Institute of Population Research and Training (NIPORT), Mitra and Associates, and Macro International Inc.

CONTENTS

Page

Page

TABLES

FIGURES

Page

Secretary,
Ministry of Health & Family Welfare
Government of the People's Republic of Bangladesh

FOREWORD

The Contraceptive Prevalence Surveys conducted during the period from 1979 to 1991 provided rapid feedback to policymakers and program managers on the status of implementation of programs. This information helped to formulate corrective measures on current program issues and to develop future policies and plans.

A more comprehensive study, the Bangladesh Demographic and Health Survey (BDHS) was conducted in 1993-94. This study provides information on basic national indicators of social progress, including fertility, mortality, contraceptive behavior, and maternal and child health.

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

Mitra and Associates, a private Bangladeshi research firm, was given the responsibility for conducting the Demographic and Health Survey 1993-94 under the auspices of the National Institute of Population Research and Training (NIPORT). I am happy to note that they have completed the task with professional excellence.

A Technical Review Committee was constituted by the Government of Bangladesh through NIPORT. The Technical Review Committee included representatives from the Government, nongovernmental organizations (NGOs), USAID/Bangladesh, and prominent Bangladeshi researchers—another example of the close cooperation between the Government, NGOs, donors and research communities in the health and family planning sector.

I thank all parties for this excellent report, the findings of which will be useful in setting the direction and priorities of future programs.

S. Ahmed

(Syed Ahmed)

PREFACE

I am pleased to introduce the final report of the Bangladesh Demographic and Health Survey (BDHS), 1993-94.

The BDHS is the first of this kind of study conducted in Bangladesh. It provides rapid feedback on key demographic and programmatic indicators to monitor the strengths and weaknesses of the national family planning/MCH program. The wealth of information collected through the 1993-94 BDHS will be of immense value to the policymakers and program managers in order to strengthen future program policies and strategies.

The Technical Review Committee (TRC) was composed of members with professional expertise in the field of population/family planning research. Its membership was drawn from the Government, non-governmental organizations, donor agencies and individual researchers. The professional contribution of the TRC members in major phases of the study helped to ensure the collection of relevant information that is needed to highlight the present status of programs and to provide future program directions.

The preliminary results of the 1993-94 BDHS, with its major findings, were released in a dissemination seminar held in July 1994. This final report contains more detailed information about both demographic and programmatic issues.

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

A.K.M. Rafiquz-Zaman
Director General
National Institute of Population Research
and Training (NIPORT)
Ministry of Health and Family Welfare

October 1994

1993-94 BDHS TECHNICAL REVIEW COMMITTEE

Mr. A.K.M. Rafiquz-Zaman, Director General, NIPORT

Mr. B.R. Chaudhury, Ex-Director General, NIPORT

Mr. Khairuzzaman Chowdhury, Director General, Directorate of Family Planning

Mr. Muhd. Azizul Karim, Joint Chief, Ministry of Health and Family Welfare

Mr. M. Nawab Ali, Director (Administration), Directorate of Family Planning

Dr. Ahmed Al-Sabir, Director (Research), NIPORT

Mrs. Farkunda Akhter, Director (MIS), Directorate of Family Planning

Mr. Md. Bazlur Rahman, Director (PDEU), IMED, Planning Commission

Mr. Md. Shahadat Hossain, Director, HDS, BBS

Dr. Syed Jahangeer Haider, Executive Director, READ

Dr. Barkat-e-Khuda, Director, MCH-FP Extension Project, ICDDR,B

Dr. M. Alauddin, Country Representative, Pathfinder International

Dr. Abbas Bhuiyan, Demographer, ICDDR,B

Dr. M. Kabir, Professor, Department of Statistics, Jahangeernagar University

Dr. Lokky Wai, Director, Monitoring Unit, CIDA

Mr. S.N. Mitra, Executive Director, Mitra & Associates

Mr. SK. Ali Noor, Head, Research Division, OPH, USAID/Bangladesh

Mr. J.S. Kang, Population Specialist, World Bank

Dr. Kanta Jamil, Demographer, OPH, USAID/Bangladesh

Dr. Aye Aye Thwin, Research Adviser, GTZ

ACKNOWLEDGMENTS

The authors of this report would like to thank Mr. Keith Purvis for writing the computer programs, setting up the data processing operation, and producing the tabulations, and Ms. Thanh Lê for her work in designing and selecting the sample. They would also like to acknowledge the following reviewers: Dr. Ann Blanc, Ms. Kaye Mitchell, Dr. Sidney Moore, Dr. Shea Rutstein, and Dr. Kate Stewart. It is also important to acknowledge the contribution of the following BDHS staff: Mr. A.B. Siddique Mozumder, Mr. N.C. Barman, Mr. Jahangir Hossain Sharif, Mr. Marful Alam, Ms. Sayera Banu, Mr. Shishir Paul, Mr. Haradhan Sen, and Mr. Suyeb Hussain. Chapter 11 was written by Dr. Kim Streatfield, Dr. S. Jahangeer Haider, and Mr. S.R. Chowdhury.

SUMMARY OF FINDINGS

The 1993-94 Bangladesh Demographic and Health Survey (BDHS) is a nationally-representative survey of 9,640 ever-married women age 10-49 and 3,284 of their husbands. The BDHS was designed to provide information on levels and trends of fertility, family planning knowledge and use, infant and child mortality, and maternal and child health. Fieldwork for the BDHS took place from mid-November 1993 to mid-March 1994.

Survey data show that significant progress has been made toward achieving the goals of reducing fertility, increasing contraceptive use, and reducing childhood mortality; however, many challenges still await.

FERTILITY

Fertility Decline. BDHS data indicate that the previously documented rapid decline in fertility in Bangladesh is not only continuing, but probably accelerating. The total fertility rate has declined from 6.3 births per woman in the mid-70s to 3.4 births for the period 1991-93. Since 1989-91, fertility has declined from 4.3 to 3.4 births per woman, a drop of 21 percent in a two-year period. This is the most dramatic drop in fertility ever recorded in Bangladesh. BDHS data indicate that the decline in fertility has occurred among all age groups of women and in all five administrative divisions of the country at almost the same rate.

Fertility Differentials. Although the *rate* of fertility decline has been generally uniform across groups, significant differences in fertility *levels* still exist. For example, fertility is considerably higher in Chittagong Division, with a total fertility rate of 4.0 births per woman, than in Rajshahi and Khulna Divisions, with a rate of around 3.0 births per woman. Barishal and Dhaka Divisions have intermediate levels of fertility (3.5 births per woman). Moreover, fertility is about 30 percent higher in rural areas than in urban areas, a pattern that has persisted in various censuses and demographic surveys that have been carried out in the country.

Fertility levels are closely related to women's education. Women with no formal education give birth to an average of 3.8 children in their lifetime, compared to 2.6 for women with at least some secondary education, a difference of 33 percent. Women with either incomplete primary or complete primary education have intermediate fertility rates.

Age at First Birth. Although increased contraceptive use undoubtedly accounts for most of the decline in fertility, increasing age at first birth has also had an impact. The age at which Bangladeshi women have their first child has been increasing steadily, paralleling increases in age at marriage. For example, in 1975, the median age at first birth among women age 20-24 was 16.8; in 1989, it had risen to 18.0 and, by 1993-94, to 18.3. Increases of similar magnitude have occurred for other age cohorts.

Despite the trend toward later age at first birth, childbearing still begins early in Bangladesh, with the large majority of women becoming mothers before they reach the age of 20. One in three teenage women (age 15-19) is already a mother or pregnant with her first child. Although data from 1991 indicate that there has been a slight decline over time, early childbearing in Bangladesh remains a challenge to policymakers. BDHS data shows that children born to young mothers suffer higher rates of morbidity and mortality.

Small Family Norm. BDHS data indicate that Bangladeshi couples have accepted the small family norm. Fifty-six percent of ever-married women prefer a two-child family, and another 24 percent consider a three-child family ideal, while only one percent of respondents said they would choose to have six or more children. Overall, the mean ideal family size among currently married women is 2.5 children, which is a

decline from 2.9 in 1989. BDHS data also indicate a high degree of agreement between husbands and wives as to fertility preferences.

The proportion of women who want to stop childbearing has increased substantially in Bangladesh over the past decade. For example, the percentage of women with two children who want no more children has risen from only 39 percent in 1991 to 50 percent in 1993-94. Half of all currently married women age 10-49 in Bangladesh say they want no more children and 12 percent either have been sterilized or say that they cannot have any more children. An additional 22 percent say they would like to wait two or more years before having their next birth. Thus, the vast majority of women want either to space their next birth or to limit childbearing altogether. These women can be considered to be potentially in need of family planning services.

Unplanned Fertility. Despite the relatively high and increasing level of contraceptive use, BDHS data indicate that unplanned pregnancies are still common. Overall, about one-third of births in the three years prior to the survey were reported to be unplanned; 20 percent were mistimed (wanted later) and 13 percent were unwanted. If unwanted births could be eliminated altogether, the total fertility rate in Bangladesh would reach the replacement level of 2.1 births per woman instead of the actual level of 3.4.

FAMILY PLANNING

Increasing Use of Contraception. A major cause of declining fertility in Bangladesh has been the steady increase in contraceptive use over the last two decades. The contraceptive prevalence rate has increased almost sixfold since 1975, from 8 to 45 percent of married women. Use of modern methods has grown even faster. Between 1991 and 1993-94, contraceptive use increased from 40 to 45 percent of married women and use of modern methods rose from 31 to 36 percent. Overall, there has been a steady growth in the contraceptive prevalence rate with an average increase of about two percentage points a year.

Pill Dominated Method Mix. In terms of "method mix," the dominant change since the late 1980s has been the large increase in the number of couples using oral contraception. The proportion of married women relying on the pill almost doubled in the last four years, from 9 in 1989 to 17 percent in 1993-94 and the pill now accounts for 40 percent of all contraceptive use. Conversely, use of female and male sterilization has stagnated or declined slightly since 1989 and now accounts for only 20 percent of all contraceptive use. This shift away from permanent methods to modern reversible methods has important implications for the family planning program in terms of cost, supply logistics, and method efficacy and is especially important given the increasing proportion of women who say they want no more children.

Aside from the pill and sterilization, use of injection, condoms, the IUD, periodic abstinence (rhythm method) and withdrawal have increased slightly since 1991, but none is used by more than 5 percent of married women.

Differentials in Family Planning Use. Differentials in current use of family planning by the five administrative divisions of the country are large and indicate that Chittagong Division is still lagging. More than half of the married women in Khulna (55 percent) and Rajshahi (55 percent) Divisions and slightly less than half in Barisal Division (48 percent) are current users. In contrast, less than one-third (29 percent) of the married women in Chittagong Division are using a method of contraception. Intermediate is Dhaka Division with a contraceptive prevalence rate of 44 percent. Over the past decade, surveys have consistently shown a significantly lower rate of contraceptive use among women in Chittagong Division and a generally higher rate among women in Rajshahi Division.

Knowledge of Contraception. Knowledge of contraceptive methods and supply sources has been

almost universal in Bangladesh for some time and the BDHS results confirm this fact. For example, results indicate that just slightly less than 100 percent of currently married women age 10-49 know at least one method of family planning. Knowledge of the pill, female sterilization, and injection is almost universal, while more than 4 out of 5 married women know the IUD, condom, and male sterilization. Considering traditional methods, periodic abstinence is more widely known than withdrawal (65 vs. 50 percent of currently married women).

Knowledge about sources of supply for family planning methods is also widespread in Bangladesh. Almost all currently married women are aware of a source of a modern method. Moreover, BDHS data reveal that there are no significant differences in knowledge of methods and their sources of supply by background characteristics of currently married women. Knowledge of at least one method, particularly a modern method, is universal among both urban and rural women, among women in all five divisions, and across all categories of educational attainment. These results regarding family planning knowledge imply that little more can be done to improve general awareness of methods and sources and that further education and communication activities should focus on either increasing motivation to use and/or increasing the depth of knowledge of methods and dispelling rumors that may inhibit their wider use.

Family Planning Messages. One reason for the high level of contraceptive awareness is that family planning messages are prevalent. Almost half of the women interviewed reported that they had heard or seen a family planning message in the month prior to the survey. Radio is a more effective medium than television, billboards or posters, which is related to the limited electrical coverage and low female literacy in Bangladesh. Two in five women had heard a family planning message on the radio in the month before the interview, compared with less than one in five who had seen a message on television. Moreover, almost all women who had seen a family planning message on television had also heard a radio message. Less than one in ten women saw a family planning message on a billboard or poster in the month before the interview.

Initiation of Contraceptive Use. There is evidence that the family planning program has been successful in encouraging women to initiate contraceptive use earlier in their reproductive lives. BDHS data indicate that over 40 percent of married teenage women have already used a family planning method at some time. Moreover, survey results show that younger women are much more likely than older women to have started using contraception before having any children. These two findings imply that young women are more likely to use contraception to space births, while older women use it to limit births.

Unmet Need for Family Planning. Unmet need for family planning services has declined considerably since 1991. Data from 1991 show that 28 percent of currently married women were in need of services, compared with 19 percent in the 1993-94 BDHS. Just over half of the unmet need is comprised of women who want to space their next birth, while just under half is for women who want do not want any more children (limiters). If all women who say they want to space or limit their children were to use methods, the contraceptive prevalence rate could be increased from 45 percent to 65 percent of married women. Currently, 70 percent of this "total demand" for family planning is being met.

Correct Use of Pill. Pill users are generally complying with accepted standards for use. All but a small fraction were able to show interviewers a pill packet, almost all of which indicated that the pills were being taken in sequence. Moreover, almost all pill users said they had taken a pill in the last two days and two-thirds knew what to do if they forgot to take a pill for two days.

Discontinuation Rates. One challenge for the family planning program is to reduce the high levels of contraceptive discontinuation. BDHS data indicate that half of contraceptive users in Bangladesh stop using within 12 months of starting; one-fifth of those who stop do so as a result of side effects or health concerns with the method. Discontinuation rates vary by method. Not surprisingly, the rates for the condom

(72 percent) and withdrawal (55 percent) are considerably higher than for the IUD (37 percent) and the pill (45 percent). However, discontinuation rates for injection are relatively high, considering that one dose is usually effective for three months. Fifty-eight percent of injection users discontinue within one year of starting, a rate that is higher than for the pill.

A sizeable proportion of women using injection, female sterilization, the IUD and the pill reported having health problems with their methods. Common complaints were feeling weak or tired and having headaches.

Availability of Services. Health and family planning services are widely available in Bangladesh. BDHS data indicate that 97 percent of ever-married women live in areas covered by family planning field workers and the vast majority also have health workers and satellite clinics available.

Social Marketing. After a decline between 1989 and 1991 in the proportion of both pill and condom users supplied through the Social Marketing Company, market share has been increasing slightly for pills and substantially for condoms. In 1993-94, 14 percent of pill users were using social marketing brands, up slightly from 1991. The proportion of condom users using social marketing brands dropped from 62 percent in 1989 to 41 percent in 1991 and then rebounded to 52 percent in 1993-94.

Family Planning Field Workers. Field workers are providing a slightly larger share of family planning services now than in 1991—42 percent of modern method users in 1993-94 vs. 38 percent in the 1991 CPS. This no doubt reflects the fact that most of the increase in modern method use since 1991 is due to increased use of the pill, which is distributed primarily by field workers. The proportion of services provided through either pharmacies or shops has remained steady since 1991. Although still not a major source of family planning services, satellite clinics have gained slightly in importance, due almost entirely to an increase in the proportion of injection users who obtain services there.

Field Worker Visitation. Despite the impressive coverage in placement of family planning field workers, survey data show only a slight increase in field worker visitation rates over time. In 1993-94, 38 percent of currently married women said they had been visited by a family planning field worker in the previous six months, up from 36 percent in 1991. Some women are more likely than others to have been visited by a field worker. Younger and older women are less likely to have been visited, presumably because they are either more likely to want to get pregnant or to be either infecund or sterilized. Women in Chittagong and Dhaka Divisions are less likely and those in Khulna Division more likely to have been visited by a field worker than women in Barisal or Rajshahi Divisions.

MATERNAL AND CHILD HEALTH

Declining Childhood Mortality. Survey results indicate an improvement in child survival since the early 1980s. Under-five mortality has declined from 180 deaths per 1,000 births in the period 10-14 years before the survey (approximately 1979-82) to 133 for the period 0-4 years before the survey, a decline of 26 percent. The infant mortality rate declined by 25 percent over the same period (from 117 to 87 per 1,000 births). Further evidence of a decline in childhood mortality comes from a comparison of data from the 1993-94 BDHS with previous data sources, which shows a general downward trend. Under-five mortality has declined from almost 190 deaths per 1,000 births in 1979-83 to 133 for the period 1989-93. Although encouraging, the BDHS rates show that almost one in seven children born in Bangladesh dies before reaching the fifth birthday, an indication that there is still much improvement to be made.

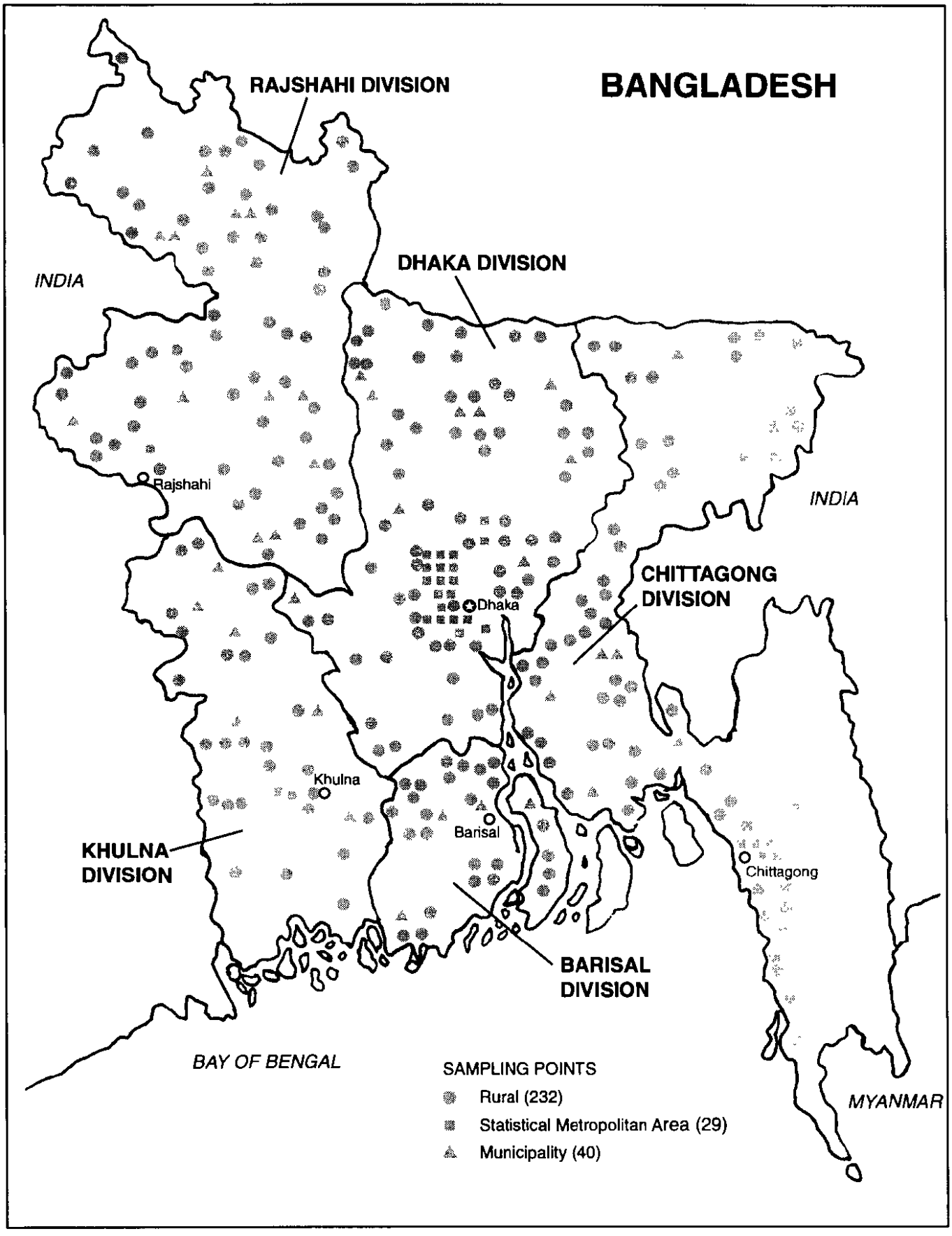
Childhood Vaccination Coverage. One possible reason for the declining mortality is improvement in childhood vaccination coverage. The BDHS results show that 59 percent of children 12-23 months are

fully vaccinated, a vast improvement from less than 20 percent in a 1989 survey. Nonetheless, a large proportion of children obtain one or two vaccinations but fail to complete the full course. If dropout rates could be reduced, the level of full coverage could be improved still further.

Childhood Health. The BDHS provides some data on childhood illness and treatment. Approximately one in four children under age three had a respiratory illness in the two weeks before the survey. Of these, over one-fourth were taken to a health facility for treatment. Thirteen percent of children under three were reported to have had diarrhea in the two weeks preceeding the survey. The fact that almost three-quarters of children with diarrhea received some sort of oral rehydration treatment (fluid made from an ORS packet, recommended home fluid, or increased fluids) is encouraging. Also notable is the fact that half of children under age three received a Vitamin A capsule in the six months prior to the survey.

Breastfeeding Practices. The BDHS results document an exceptionally long duration of breastfeeding, with a median duration of over 35 months. Although breastfeeding has beneficial effects on both the child and the mother, BDHS data indicate that supplementation of breastfeeding with other liquids and foods occurs too early in Bangladesh. For example, among newborns less than two months of age, one-quarter were already receiving supplemental foods or liquids. One in ten of these very young babies are given infant formula. Among children age 2-3 months, about half were exclusively breastfed and half were being given supplements.

Maternal Health Care. BDHS data point to several areas regarding maternal health care in which improvements could be made. Results show that most Bangladeshi mothers do not receive antenatal care. Among births that occurred in the three years before the survey, almost three-quarters (73 percent) received no antenatal care during pregnancy. Moreover, 96 percent of births in Bangladesh are delivered at home and 60 percent are assisted by traditional birth attendants. Less than 10 percent of births are assisted by medically trained personnel. Proper medical attention during pregnancy and hygienic conditions during delivery can reduce the risk of complications and infections that can cause death or serious illness for either the mother or the newborn. Somewhat more encouraging is the fact that tetanus toxoid coverage is relatively widespread in Bangladesh. For two-thirds of births, the mothers received a tetanus toxoid injection during pregnancy.


BANGLADESH
RAJSHAHI DIVISION
DHAKA DIVISION
CHITTAGONG DIVISION
KHULNA DIVISION
BARISAL DIVISION
INDIA
INDIA
MYANMAR
BAY OF BENGAL
Rajshahi
Dhaka
Khulna
Barisal
Chittagong
SAMPLING POINTS
Rural (232)
Statistical Metropolitan Area (29)
Municipality (40)

CHAPTER 1

INTRODUCTION

1.1 Geography and Economy

Geography

Bangladesh, a small country of 147,570 square kilometers, and 111.4 million people, emerged on March 26, 1941 as an independent country on the world's map following a war of liberation. It is almost entirely surrounded by India, except for a short southeastern frontier with Myanmar and a south deltaic coastline on the Bay of Bengal. It stretches between 20° 34′ and 26° 38′ north latitude and 88° 01′ and 92° 41′ east longitude.

The most significant feature of the landscape is the extensive network of large and small rivers that are of primary importance in the socioeconomic life of the nation. Chief among these, and lying like a fan on the face of the land are the Ganges-Padma, Brahmaputra-Jamuna, and the Megna.

The climate of Bangladesh is dominated by seasonally reversing monsoons. It experiences a hot summer season with high humidity from March to June, a somewhat cooler but still hot and humid monsoon season from July through early October, and a cool, dry winter from November to the end of February. The fertile delta is frequented by natural calamities such as flood, cyclone, tidal-bore and drought.

For administrative purposes, the country is divided into five divisions,[1] 64 districts, and 489 *thanas* (subdistricts) (BBS, 1993:3). Muslims constitute about 85 percent of the population of Bangladesh, Hindus about 14 percent, and Christians and others less than one percent.

A small fraction of the population consists of several ethnic groups which are distinct in terms of language, race, religion, and customs. The national language of Bangladesh is Bangla, which is spoken and understood by all.

Economy

Agriculture is the most important sector of the nation's economy. It accounts for nearly 34 percent of the gross domestic product (GDP) and provides employment to about 66 percent of the workforce (BBS, 1993:224,104). Jute is the main non-food crop and the main cash crop of Bangladesh. About 15 percent of the cultivated land is used for crops other than jute and rice. Industry, though small, is increasing in importance as a result of foreign investments. Prospects for mineral resources, gas, coal, oil, appear to be bright in the near future. The per capita income is only US$210 (GB, 1994:2). Unemployment/underemployment is a serious problem, and pressure on the land in rural areas has led to a constant influx of people from rural to urban areas.

[1] The fifth division, Barisal, was created in 1992 by subdividing the former Khulna Division.

1.2 Population

Demographic Situation

The population size and growth rate of the country have undergone significant changes over the past few decades. The population of the area which now constitutes Bangladesh was about 42 million in 1941. Since then, Bangladesh has experienced relatively high rates of population growth. The total population of Bangladesh grew from 76 million in 1974 to 90 million in 1981 and to 111 million in 1991 (BBS, 1993:92). The intercensal growth rate of population peaked in the mid-1970s at around 2.5 percent per annum, followed by a continuing decline to 2.2 percent in 1991 (BBS, 1993:92). The 1991 census indicated that 45 percent of the population is below 15 years of age, 52 percent are between 15 and 64 years and 3 percent are age 65 or over (BBS, 1993:84). The relatively young age structure of the population indicates continued rapid population growth in the future. From 1975 to 1990, the elderly population (age 65 and above) increased from 2 to 3.1 million, and it is expected to increase to 4.3 million by the year 2005 (GB, 1994:17).

There has been a substantial rise in the age at marriage. The mean age at first marriage for women has increased from 16.6 years in 1974 to 18.2 years in 1991; it increased from 23.9 to 25.3 years for men during the same period (BBS, 1993:86).

The total fertility rate has decreased from about 6.3 in the mid-1970s (MHPC, 1978:73) to 4.2 in 1990 (Mitra et al., 1993:35). There has been a substantial decline in the crude birth rate in Bangladesh. It was 34.4 births per 1,000 population in 1986, declined to 32.8 in 1990, and then to 30.8 in 1992 (BBS, 1993:87).

Striking changes in the fertility preferences of married Bangladeshi women have been observed. In 1975, the mean desired family size was 4.1 children. In 1989, the desired family size, on average, dropped to 2.9 children, leaving the way open for further fertility decline (Huq and Cleland, 1990:53,54). Young women desired even smaller families, 2.5 children on average, a level close to replacement fertility.

The crude death rate has fallen dramatically in Bangladesh from about 19 per 1,000 population in 1975 to 11.3 in 1990 (GB, 1994:4). Although infant and under-five mortality rates are declining, they are still high. The infant mortality rate was 150 deaths per 1,000 live births in 1975, and fell to about 110 in 1988 and 88 in 1992 (GB, 1994:5). Under-five child mortality, estimated at 24 per 1,000 births in 1982, declined to 19 in 1989 and to 14 in 1990 (GB, 1994:5). Maternal mortality has come down from 620 deaths per 100,000 births in 1982 to 470 in 1992. This small but important decline is mainly attributed to increased availability of family planning and immunization services, improved antenatal and delivery care, and a reduction in the number of births to high-risk mothers.

There is evidence of modest improvement in life expectancy during the past decade. Life expectancy at birth was 46 years for males and 47 years for females in 1974 (U.N., 1981:60). It increased to 57.4 years for men and 56.8 years for women in 1992 (GB, 1994:5).

Demographic Transition

It can now be safely said that the demographic transition has started in Bangladesh. The country has passed through two phases of the classic demographic transition. It is now in the third phase when birth rates decline, but remain significantly higher than the death rates, resulting in continued but slower population growth. The decline in the population growth rate would have been even greater had it not been for the decline in mortality.

Fertility in Bangladesh is declining, yet the growth rate of the population is still high and its consequences have adverse effects on various development efforts. One significant consequence of high fertility and the declining mortality trend is a built-in "population momentum," which will continue to generate population increases well into the future, even in the face of rapid fertility decline.

In 1992, Bangladesh had around 22 million married women in the reproductive ages; by the year 2001, this number is projected to rise to 31 million (GB, 1994:8). The government has set a goal of reaching replacement level fertility by the year 2005 (GB, 1994:6). Even if this occurs, the population will continue to grow for the next 40 to 60 years after 2005. One projection suggests that the population of Bangladesh may stabilize at 211 million by 2056. By the year 2010, Bangladesh is likely to have a population of about 150 million. The demographic goal is difficult but not impossible to achieve, in view of the trends already established in the success of family planning, maternal and child health, and other socioeconomic development programs.

1.3 Population, Family Planning and Maternal and Child Health Policies and Programs

Family planning was introduced in the early 1950s through the voluntary efforts of social and medical workers. The government, recognizing the urgency of moderating population growth, adopted family planning as a government sector program in 1965. The present family planning infrastructure of Bangladesh has evolved in a process of development over the last 35 years.

The policy to reduce fertility rates has been repeatedly reaffirmed since liberation in 1971. The First Five-Year Plan (1973-78) of Bangladesh amplified "the necessity of immediate adoption of drastic steps to slow down the population growth" and reiterated that, "no civilized measure would be too drastic to keep the population of Bangladesh on the smaller side of fifteen crore (i.e., 150 million) for sheer ecological viability of the nation" (GB, 1994:7). Through three five-year plans, successive population programs contained new strategies to streamline administrative structures and reformulate program goals and objectives.

From mid-1972, the family planning program received virtually unanimous, high-level political support. All subsequent governments that have come into power in Bangladesh have identified population control as the top priority for government action. This political commitment is crucial in understanding the fertility decline in Bangladesh. The national policy went through several phases of evolution in response to emerging needs and circumstances. In 1976, accelerated growth of population was declared the country's number one problem; a population policy was outlined, operational strategies were worked out, specific field programs were developed, and organizational and management arrangements were made for implementing the programs. Population planning was seen as an integral part of the total development process, and was incorporated into successive five-year plans. The population policy is formulated by the National Population Council (NPC), chaired by the Prime Minister and including about 350 members comprising eminent personalities from different walks of life.

Development of Program Approach

Bangladesh population policy and programs have evolved through a series of development phases and have undergone changes in terms of strategies, structure, contents, and goals. The five distinct and broad phases may be identified as: (a) private and voluntary clinic-based programs (1953-60), (b) family planning services through limited government health care facilities (1960-65), (c) large-scale field-based government family planning programs (1965-75), (d) maternal and child health (MCH)-supported multi-sectoral family planning programs (1975-80), and (e) functionally integrated health and family planning programs with emphasis on MCH, primary health care, and family planning as a package, since 1980. The latest approach has been a shift towards launching a family planning social movement to raise and sustain awareness and interest in all segments of society about fertility reduction as a strategy for sustainable development.

The current policy and programs emphasize strategies that have an integrated approach to population planning and development. These are:

- Turning the family planning program into a social movement to increase social acceptance of family planning;
- Integrating the delivery of family planning and maternal and child health services;
- Promoting education (especially for girls);
- Improving the status of women;
- Mobilizing community participation;
- Ensuring voluntarism and enhancing method choice through a cafeteria approach;
- Enhancing a multi-/intersectoral approach to family planning education and service delivery;
- Involving nongovernmental organizations (NGOs) and the private sector to complement government efforts;
- Expanding the number of service outlets;
- Improving the quality of services; and
- Promoting program sustainability by enhancing in-country production of contraceptives and maximizing human and organizational resources (GB, 1994:10).

Program Achievement

The national family planning/MCH program is being implemented with a contingent of about 30,000 female fieldworkers at the village level and a network of service outlets for easy availability of family planning/MCH services at the client's doorstep.

These efforts have led to impressive achievements for the Bangladesh national family planning program, while operating in an unfavorable socioeconomic environment. General awareness about family planning is universal in Bangladesh; virtually all married women of reproductive age know at least one modern family planning method. Between 1975 and 1991, the use of contraceptives increased fivefold, from 8 to 40 percent of married women (Cleland et al., 1994:32). Between 1981 and 1991, the use of modern methods increased from 11 to 31 percent of married women, while use of traditional methods increased only slightly, from 8 to 9 percent of married women (Larson and Mitra, 1992:126; Mitra et al., 1993:53). Since 1981, the growth in use of reversible methods has outpaced gains by permanent methods, a reflection of the fact that family planning has become more widespread among younger women wishing to space births and the fact that reversible methods have been more strongly promoted by the supply system.

Factors for Program Success

Numerous factors have contributed to the increase in contraceptive use over the past 10 years. The elements identified as having contributed to the success of the program are: (1) strong political commitment to family planning programs by successive governments, (2) successful promotion of a small family norm through information and education activities and other multi-sectoral programs, (3) establishment of a widespread infrastructure for delivering family planning and health services down to the village level, (4) increased involvement of nongovernmental organizations to supplement and complement government's efforts, (5) flexibility to make policy and programmatic adjustments in response to emerging needs, and (6) strong support of the program by the international aid community (GB, 1994:36).

The success achieved so far in the national family planning program is encouraging and has increased the confidence that it is possible to achieve further progress. But there remain several issues of concern, such as the tremendous growth potential built into the age structure as a consequence of past high fertility. Due to the increasing population entering childbearing age, the program will have to increase efforts substantially just to maintain the current level of contraceptive use. If demand for family planning also increases, that will put even more strain on the program. Other concerns are lack of a steady supply of contraceptives from external sources, which affects program performance; the need for further improvement in access to and quality of facilities and services; and the need for men to participate more actively in family planning acceptance.

Despite these constraints, there exists a substantial demand for family planning services in Bangladesh and there is a need to assign priority to meeting that demand by improving the quality and supervision of outreach services.

1.4 Objectives of the 1993-94 Bangladesh Demographic and Health Survey

The BDHS is intended to serve as a source of population and health data for policymakers and the research community. In general, the objectives of the BDHS are to:

- assess the overall demographic situation in Bangladesh,
- assist in the evaluation of the population and health programs in Bangladesh, and
- advance survey methodology.

More specifically, the BDHS was designed to:

- provide data on the family planning and fertility behavior of the Bangladeshi population to evaluate the national family planning program,
- measure changes in fertility and contraceptive prevalence and, at the same time, study the factors which affect these changes, such as marriage patterns, urban/rural residence, availability of contraception, breastfeeding patterns, and other socioeconomic factors, and
- examine the basic indicators of maternal and child health in Bangladesh.

1.5 Survey Organization

The 1993-94 BDHS was conducted under the authority of the National Institute of Population Research and Training (NIPORT) of the Ministry of Health and Family Welfare. The survey was implemented by Mitra and Associates, a private research firm located in Dhaka. Macro International Inc. of Calverton, Maryland provided technical assistance to the project as part of the international Demographic and Health Surveys program. Financial assistance was provided by the U.S. Agency for International Development (USAID)/Dhaka.

Sample Design

Bangladesh is divided into five administrative divisions, 64 districts (*zillas*), and 489 *thanas*. In rural areas, *thanas* are divided into unions and then *mauzas*, an administrative land unit. Urban areas are divided into wards and then *mahallas*. The 1993-94 BDHS employed a nationally-representative, two-stage sample. It was selected from the Integrated Multi-Purpose Master Sample (IMPS), newly created by the Bangladesh Bureau of Statistics. The IMPS is based on 1991 census data. Each of the five divisions was stratified into three groups: 1) statistical metropolitan areas (SMAs)[2], 2) municipalities (other urban areas), and 3) rural areas. In rural areas, the primary sampling unit was the *mauza*, while in urban areas, it was the *mahalla*. Because the primary sampling units in the IMPS were selected with probability proportional to size from the 1991 census frame, the units for the BDHS were subselected from the IMPS with equal probability to make the BDHS selection equivalent to selection with probability proportional to size. A total of 304 primary sampling units were selected for the BDHS (30 in SMAs, 40 in municipalities, and 234 in rural areas), out of the 372 in the IMPS. Fieldwork in three sample points was not possible, so a total of 301 points were covered in the survey.

Since one objective of the BDHS is to provide separate survey estimates for each division as well as for urban and rural areas separately, it was necessary to increase the sampling rate for Barisal Division and for municipalities relative to the other divisions, SMAs, and rural areas. Thus, the BDHS sample is not self-weighting and weighting factors have been applied to the data in this report.

After the selection of the BDHS sample points, field staff were trained by Mitra and Associates and conducted a household listing operation in September and October 1993. A systematic sample of households was then selected from these lists, with an average "take" of 25 households in the urban clusters and 37 households in rural clusters. Every second household was identified as selected for the husband's survey, meaning that, in addition to interviewing all ever-married women age 10-49, interviewers also interviewed the husband of any woman who was successfully interviewed. It was expected that the sample would yield interviews with approximately 10,000 ever-married women age 10-49 and 4,200 of their husbands.[3]

Questionnaires

Four types of questionnaires were used for the BDHS: a Household Questionnaire, a Women's Questionnaire, a Husbands' Questionnaire, and a Service Availability Questionnaire. The contents of these questionnaires were based on the DHS Model A Questionnaire, which is designed for use in countries with relatively high levels of contraceptive use. Additions and modifications to the model questionnaires were made during a series of meetings with representatives of various organizations, including the Asia

[2] SMAs are extensions of the division headquarters and include rural areas.

[3] Not all ever-married women were currently married, and some of the eligible husbands could not be interviewed for various reasons.

Foundation, the Bangladesh Bureau of Statistics, the Cambridge Consulting Corporation, the Family Planning Association of Bangladesh, GTZ, the International Centre for Diarrhoeal Disease Research (ICDDR,B), Pathfinder International, Population Communications Services, the Population Council, the Social Marketing Company, UNFPA, UNICEF, University Research Corporation/Bangladesh, and the World Bank. The questionnaires were developed in English and then translated into and printed in Bangla.

The Household Questionnaire was used to list all the usual members and visitors of selected households. Some basic information was collected on the characteristics of each person listed, including his/her age, sex, education, and relationship to the head of the household. The main purpose of the Household Questionnaire was to identify women and men who were eligible for individual interview. In addition, information was collected about the dwelling itself, such as the source of water, type of toilet facilities, materials used to construct the house, and ownership of various consumer goods.

The Women's Questionnaire was used to collect information from ever-married women age 10-49. These women were asked questions on the following topics:

- Background characteristics (age, education, religion, etc.),
- Reproductive history,
- Knowledge and use of family planning methods,
- Antenatal and delivery care,
- Breastfeeding and weaning practices,
- Vaccinations and health of children under age three,
- Marriage,
- Fertility preferences, and
- Husband's background and respondent's work.

The Husbands' Questionnaire was used to interview the husbands of a subsample of women who were interviewed. The questionnaire included many of the same questions as the Women's Questionnaire, except that it omitted the detailed birth history, as well as the sections on maternal care, breastfeeding and child health.

The Service Availability Questionnaire was used to collect information on the family planning and health services available in and near the sampled areas. It consisted of a set of three questionnaires: one to collect data on characteristics of the community, one for interviewing family welfare visitors and one for interviewing family planning field workers, whether government or nongovernment supported. One set of service availability questionnaires was to be completed in each cluster (sample point).

Fieldwork

The BDHS questionnaires were pretested in July 1993. Male and female interviewers were trained for 10 days at the office of Mitra and Associates. Many of the interviewers had participated in prior surveys. After training, the teams spent nine days in the field conducting interviews under the observation of staff from Mitra and Associates. Altogether, 209 women's and 57 husbands' questionnaires were completed. The field teams then spent three days in Dhaka in debriefing meetings, discussing the fieldwork and suggesting modifications to the questionnaires. On the basis of these suggestions, revisions in the wording and translations of the questionnaires were made.

In October 1993, candidates for field staff positions for the main survey were recruited. Recruitment criteria included educational attainment, maturity, ability to spend one month in training and at least four months in the field, and experience in other surveys. A total of 102 trainees were recruited.

Training for the main survey was conducted at Mitra and Associates offices for four weeks (from 18 October to 15 November 1993). Initially, training consisted of lectures on how to fill in the questionnaires, with mock interviews between participants to gain practice in asking questions. Towards the end of the training, participants spent several days in field practice interviewing in various parts of Dhaka and Chittagong cities, as well as in some rural areas of the Tangail and Gazipur Districts. Trainees whose performance was considered superior were selected to be supervisors and field editors.

Fieldwork for the BDHS was carried out by 12 interviewing teams. Each consisted of 1 male supervisor, 1 female field editor, 4 female interviewers, and 2 male interviewers, for a total of 96 field staff. In addition, each team included one person who was responsible for completing the Service Availability Questionnaire. Finally, Mitra and Associates fielded four quality control teams of two people each to check on the field teams. Fieldwork commenced on 17 November 1993 and was completed on 12 March 1994. The distribution of individual interviews with women was roughly: November (12 percent); December (25 percent); January (27 percent); February (26 percent); and March (10 percent).

Data Processing

All questionnaires for the BDHS were returned to Dhaka for data processing at Mitra and Associates. The processing operation consisted of office editing, coding of open-ended questions, data entry, and editing inconsistencies found by the computer programs. One senior staff member, 1 data processing supervisor, 1 questionnaire administrator, 2 office editors, and 5 data entry operators were responsible for the data processing operation. The data were processed on five microcomputers. The DHS data entry and editing programs were written in ISSA (Integrated System for Survey Analysis). Data processing commenced in early February and was completed by late April 1994.

Table 1.1 Results of the household and individual interviews

Number of households, number of interviews and response rates, Bangladesh 1993-94

Result	Residence		Total
	Urban	Rural	
Household interviews			
Households sampled	1495	8186	9681
Households found	1401	7854	9255
Households interviewed	1376	7798	9174
Household response rate	98.2	99.3	99.1
Individual interviews			
Number of eligible women	1510	8390	9900
Number of eligible women interviewed	1466	8174	9640
Eligible woman response rate	97.1	97.4	97.4
Number of eligible husbands	589	3285	3874
Number of eligible husbands interviewed	500	2784	3284
Eligible husband response rate	84.9	84.7	84.8

Response Rates

Table 1.1 shows response rates for the survey and reasons for nonresponse. A total of 9,681 households were selected for the sample, of which 9,174 were successfully interviewed. The shortfall is primarily due to dwellings that were vacant, or in which the inhabitants had left for an extended period at the time they were visited by the interviewing teams. Of the 9,255 households that were occupied, 99 percent were successfully interviewed. In these households, 9,900 women were identified as eligible for the individual interview and interviews were completed for 9,640 or 97 percent of these. In one-half of the households that were selected for inclusion in the husbands' survey, 3,874 eligible husbands were identified, of which 3,284 or 85 percent were interviewed.

The principal reason for nonresponse among eligible women and men was failure to find them at home despite repeated visits to the household. The refusal rate was very low (less than one-tenth of one percent among women and husbands). Since the main reason for interviewing husbands was to match the information with that from their wives, survey procedures called for interviewers not to interview husbands of women who were not interviewed. Such cases account for about one-third of the non-response among husbands. Where husbands and wives were both interviewed, they were interviewed simultaneously but separately.

CHAPTER 2

CHARACTERISTICS OF HOUSEHOLDS AND RESPONDENTS

The purpose of this chapter is to provide a short descriptive summary of some socioeconomic characteristics of the household population and the individual survey respondents, such as: age, sex, residence and educational level. Also examined are environmental conditions such as housing facilities and household characteristics. This information on the characteristics of the households and the individual women interviewed is essential for the interpretation of survey findings and can provide an approximate indication of the representativeness of the survey.

2.1 Characteristics of the Household Population

In the BDHS, information was collected about all usual residents and visitors who had spent the previous night in the selected household. This approach makes it possible to distinguish between the *de jure* population (those usually resident in the household) from the *de facto* population (those who spent the night before the interview in the household). A household was defined as a person or group of people who live together and share food.

Age and Sex

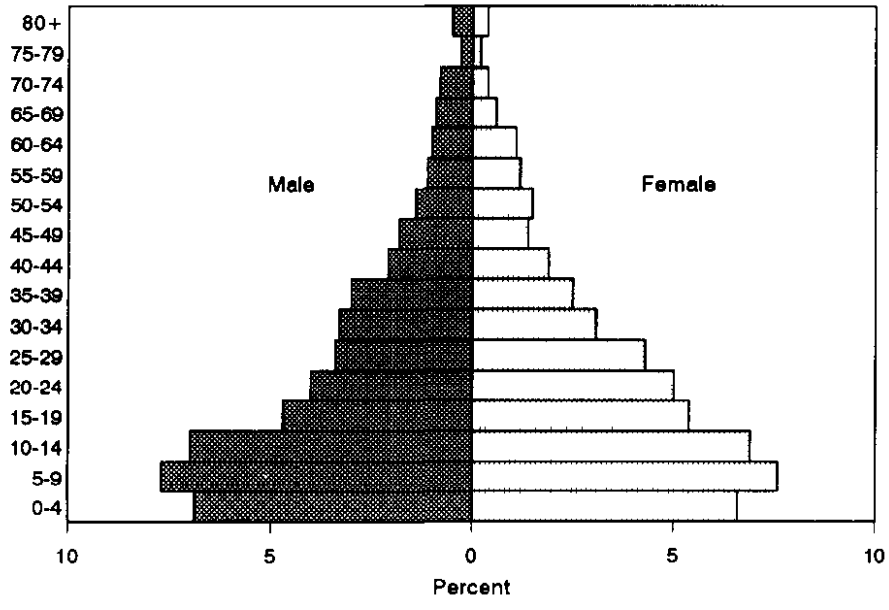
The distribution of the household population in the BDHS is shown in Table 2.1 by five-year age groups, according to sex and urban-rural residence. Because of relatively high levels of fertility in the past, Bangladesh has a larger proportion of its population in the younger age groups than in the older age groups,

Table 2.1 Household population by age, residence and sex

Percent distribution of the de facto household population and sex ratios by five-year age groups, according to urban-rural residence and sex, Bangladesh 1993-94

Age group	Urban				Rural				Total			
	Male	Female	Total	Sex ratio	Male	Female	Total	Sex ratio	Male	Female	Total	Sex ratio
0-4	11.5	11.7	11.6	99.4	14.1	13.4	13.7	105.1	13.8	13.2	13.5	104.5
5-9	13.0	13.3	13.1	99.6	15.7	15.5	15.6	101.1	15.4	15.2	15.3	100.9
10-14	14.4	14.7	14.6	99.3	13.9	13.6	13.8	101.8	14.0	13.8	13.9	101.5
15-19	9.7	11.9	10.8	82.3	9.4	10.6	10.0	88.3	9.4	10.7	10.1	87.5
20-24	9.9	11.9	10.9	84.9	7.8	9.7	8.8	80.4	8.1	10.0	9.0	81.1
25-29	8.8	9.3	9.0	96.0	6.6	8.5	7.6	78.4	6.9	8.6	7.7	80.5
30-34	7.3	6.5	6.9	114.9	6.5	6.1	6.3	106.1	6.6	6.2	6.4	107.2
35-39	7.3	5.4	6.4	135.9	5.9	5.0	5.5	117.2	6.1	5.1	5.6	119.5
40-44	4.6	4.3	4.4	108.1	4.2	3.6	3.9	114.1	4.2	3.7	4.0	113.3
45-49	3.4	3.0	3.2	116.0	3.7	2.7	3.2	134.8	3.7	2.8	3.2	132.5
50-54	3.3	2.3	2.8	147.0	2.8	3.1	3.0	87.5	2.8	3.1	2.9	92.6
55-59	2.3	1.8	2.0	134.2	2.2	2.4	2.3	90.5	2.2	2.3	2.3	94.2
60-64	1.8	1.5	1.6	119.2	2.1	2.4	2.3	87.6	2.1	2.3	2.2	89.9
65-69	1.1	1.0	1.1	111.1	1.8	1.2	1.5	151.8	1.7	1.2	1.4	147.7
70-74	0.8	0.6	0.7	135.9	1.7	0.9	1.3	193.5	1.6	0.8	1.2	188.7
75-79	0.4	0.3	0.3	105.5	0.7	0.4	0.6	174.0	0.7	0.4	0.5	167.4
80+	0.6	0.4	0.5	128.5	1.0	0.8	0.9	127.1	0.9	0.7	0.8	127.2
Total	100.0	100.0	100.0	101.7	100.0	100.0	100.0	99.8	100.0	100.0	100.0	100.0
Number	2830	2783	5612	5612	21608	21646	43254	43254	24438	24428	48866	48866

Figure 2.1
Population Pyramid, Bangladesh, 1993-94



with one exception. There is a a smaller proportion of children under age five than age 5 to 9, which confirms recent declines in fertility (see Figure 2.1).

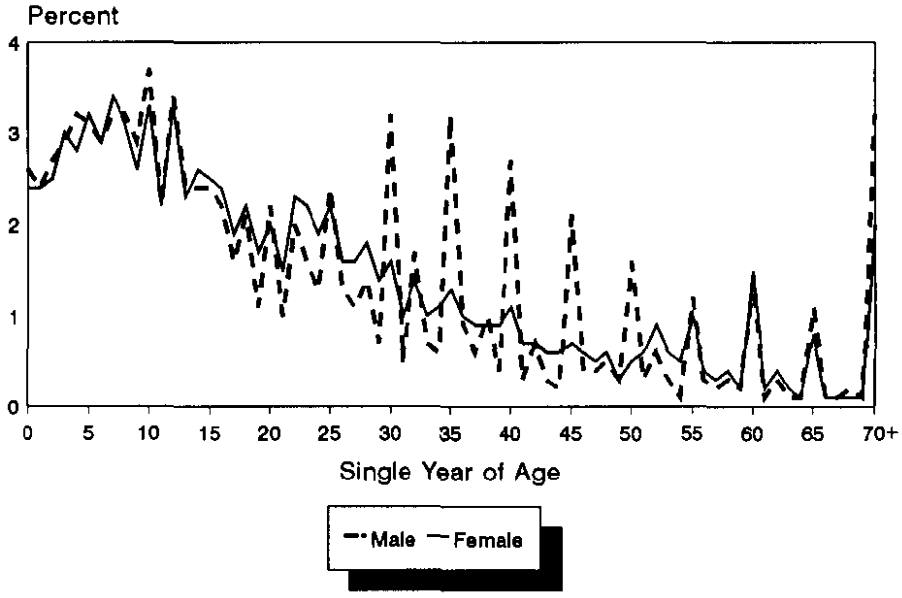
Urban areas have relatively fewer people under age 15 than rural areas (39 vs. 43 percent). Also, the shift to lower proportions of total population begins at age group 5-9 in urban areas, instead of at age group 0-4 as in rural areas. These differences support the supposition that fertility declines in Bangladesh, as in many other countries, began with the urban population.

The sex ratio, the number of males per 100 females, is 105 for the age group 0-4 years, while it is about 101 for ages 5-14 years. However, there is an excess of females over males at ages 15-29, followed by a reversal at ages 30-49 years; the pattern is repeated between the age ranges 50-64 years and 65 years and above. The 1991 BCPS documented a similar age-sex structure for the household population (Mitra et al., 1993). Migration of young men to other countries for work most likely contributes to the low sex ratios at ages 15-29. Overreporting of ages of men and/or underreporting of ages of women may also be an underlying cause of the observed irregular age-sex structure.

The irregular bulge of women at ages 50-54 years suggests that, in addition to possible heaping on age 50, women may have been pushed from age 45-49 to 50-54, perhaps to reduce the workload of the interviewer. This pattern has been observed in other DHS surveys (Rutstein and Bicego, 1990). The pattern is more pronounced among women in rural than in urban areas. The impact of these irregularities on the quality of the data is probably small, since there are relatively few women at these ages.

Figure 2.2 presents the distribution of the male and female household population by single year of age (see also Appendix Table C.1). The data show evidence of a preference for reporting ages that end in zero or five (age "heaping" or digit preference) that is common in countries where ages are not well known.

Figure 2.2
Distribution of De Facto Household Population by Single Year of Age and Sex



Digit preference is considerably more pronounced for men than for women. This is most probably due to the fact that many of the women were individually interviewed and their ages probed in detail, while many of the men's ages were provided by proxy.

Table 2.2 compares the broad age structure of the population from the 1989 Bangladesh Fertility Survey (BFS), the 1989 and 1991 Contraceptive Prevalence Surveys (CPSs), and the 1993-94 BDHS. There has been a slight decline in the proportion of population less than 15 years of age.

Table 2.2 Population by age from selected sources

Percent distribution of the de facto population by age group, selected sources, Bangladesh, 1989-1994

Age group	1989 BFS	1989 CPS	1991 CPS	1993-94 BDHS
<15	43.2	43.2	42.7	42.6
15-59	50.9	50.9	51.2	51.2
60+	5.9	5.9	6.0	6.2
Total	100.0	100.0	100.0	100.0
Median age	U	U	U	18.4

U = Unknown (not available)

Source: Huq and Cleland, 1990:28; Mitra et al., 1993:14

Household Composition

Table 2.3 shows that a small minority of households in Bangladesh are headed by females (9 percent), with more than 90 percent headed by males. Female-headed households are equally uncommon in rural and urban areas. The average household size in Bangladesh is 5.4 persons, with almost no variation between rural and urban areas. Single person households are rare in both rural and urban areas.

Fewer than five percent of Bangladeshi households consist of only one adult, either with or without children. About two-fifths of households contain two related adults of opposite sex (presumably most of which are married couples); one-half of households consist of three or more related adults. Households of three or more related adults are more common in rural (50 percent) than urban (46 percent) areas. Categorized as other, about 9 percent of households in urban areas are made up of unrelated persons. However, such households are much less common in the rural area (3 percent).

Table 2.3 Household composition

Percent distribution of households by sex of head of household, household size, and kinship structure, according to urban-rural residence, Bangladesh 1993-94

Characteristic	Residence		
	Urban	Rural	Total
Household headship			
Male	90.8	91.3	91.3
Female	9.2	8.7	8.7
Total	100.0	100.0	100.0
Number of usual members			
1	0.8	1.2	1.2
2	6.6	6.5	6.5
3	12.4	13.5	13.4
4	18.4	18.8	18.8
5	19.8	17.8	18.0
6	15.2	15.6	15.6
7	10.5	10.0	10.1
8	5.2	6.4	6.3
9+	11.1	10.1	10.2
Total	100.0	100.0	100.0
Mean size	5.5	5.4	5.4
Kinship structure			
One adult	3.2	4.8	4.6
Two related adults:			
Of opposite sex	40.6	41.1	41.0
Of same sex	1.2	1.8	1.7
Three or more related adults	46.3	49.7	49.3
Other	8.6	2.6	3.3
Total	100.0	100.0	100.0

Note: Table is based on de jure members; i.e., usual residents.

Education

Education is a key determinant of the life style and status an individual enjoys in a society. It affects almost all aspects of human life, including demographic and health behavior. Studies have consistently shown that educational attainment has strong effects on reproductive behavior, contraceptive use, fertility, infant and child mortality, morbidity and issues related to family health and hygiene. Tables 2.4.1 and 2.4.2 provide data on educational attainment of the household population in the BDHS.

Table 2.4.1 Educational level of the male household population

Percent distribution of the de facto male household population age six and over by highest level of education attended, and median number of years of schooling, according to selected background characteristics, Bangladesh 1993-94

Background characteristic	No education	Primary incomplete	Primary complete	Secondary/ Higher	Missing	Total	Number	Median years of schooling
Age[1]								
6-9	23.5	76.1	0.3	0.0	0.0	100.0	2987	0.8
10-14	20.9	61.2	17.9	0.0	0.0	100.0	3410	2.8
15-19	26.4	30.3	37.4	5.9	0.0	100.0	2298	5.2
20-24	33.0	24.9	26.4	15.6	0.1	100.0	1974	5.0
25-29	40.8	23.6	21.1	14.5	0.0	100.0	1683	3.2
30-34	43.4	26.4	21.3	9.0	0.0	100 0	1619	2.6
35-39	42.6	23.0	23.6	10.5	0.2	100.0	1484	3.0
40-44	42.1	23.0	22.0	12.6	0.3	100.0	1027	3.1
45-49	44.3	25.6	20.5	9.3	0.2	100.0	897	2.5
50-54	47.5	25.4	18.7	8.3	0.0	100.0	690	1.0
55-59	49.8	25.8	19.2	5.3	0.0	100.0	539	1.0
60-64	52.5	25.7	17.9	3.8	0.2	100.0	505	0.0
65+	53.7	28 5	15.3	1.9	0.6	100.0	1190	0.0
Residence								
Urban	20.0	31 5	28.0	20.5	0.0	100.0	2432	5.8
Rural	36.6	40.3	18.4	4.7	0.1	100.0	17873	1.7
Division								
Barisal	22.2	46.1	24.0	7.5	0.1	100.0	1311	3.4
Chittagong	34.6	41.0	19.2	5.1	0.1	100.0	5636	2.1
Dhaka	35.6	36.3	19.4	8.6	0.1	100 0	6099	2.1
Khulna	32.2	40.3	21.3	6.2	0.0	100.0	2584	2.6
Rajshahi	38.2	38.3	17.8	5.6	0.1	100 0	4674	1.6
Total	34.6	39.2	19.5	6.6	0.1	100.0	20305	2.1

[1]Excludes 4 men for whom an age was not reported.

Education has become more widespread over time in Bangladesh. This is apparent from the differences in levels of educational attainment by age groups. A steadily decreasing percentage of both males and females have never attended school in each younger age group. For men, the proportion who have never attended school decreases from 54 percent in the oldest age group (65 years or more) to 21 percent among those age 10-14; for women the decline is more striking: from 90 percent to 22 percent (see Figure 2.3).

Despite considerable improvement in the spread of education, levels of educational attainment still remain discernibly low among people in Bangladesh, with a strong differential persisting between males and females. About one-third of men (35 percent) and about half of women (48 percent) age six years and above, have not received any formal education. The median number of years of schooling is 2.1 for men and less than one full year for women. In almost every age group there are smaller proportions of men than women

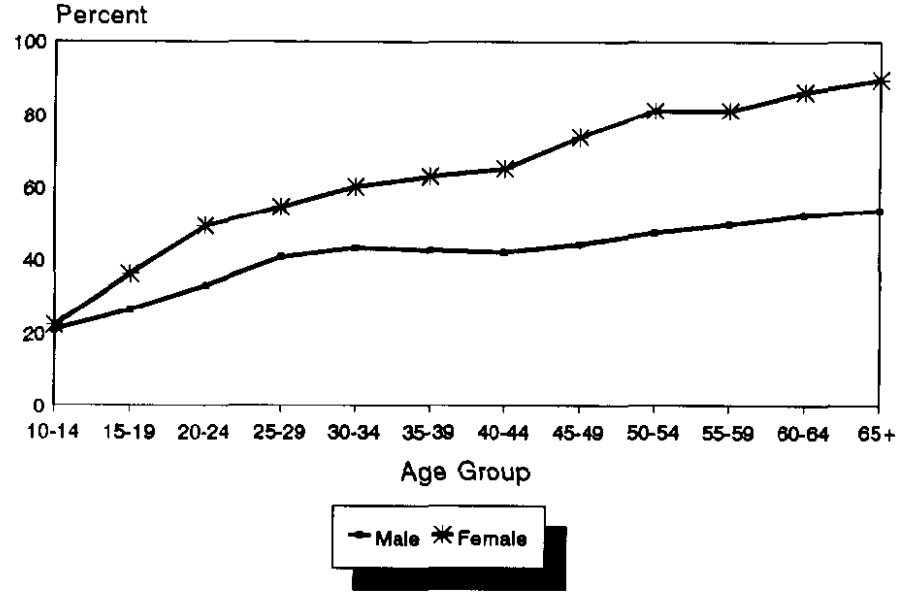
Table 2.4.2 Educational level of the female household population

Percent distribution of the de facto female household population age six and over by highest level of education attended, and median number of years of schooling, according to selected background characteristics, Bangladesh 1993-94

Background characteristic	No education	Primary incomplete	Primary complete	Secondary/ Higher	Missing	Total	Number	Median years of schooling
Age[1]								
6-9	26.4	73.4	0.2	0.0	0.0	100.0	2924	0.8
10-14	22.2	59.8	18.0	0.1	0.0	100.0	3361	2.9
15-19	36.2	30.8	28.4	4.7	0.0	100.0	2625	4.0
20-24	49.4	27.1	17.0	6.4	0.1	100.0	2435	1.0
25-29	54.6	26.1	15.7	3.5	0.0	100.0	2090	0.0
30-34	60.1	26.0	12.0	1.8	0.1	100.0	1511	0.0
35-39	63.0	25.5	9.7	1.9	0.0	100.0	1242	0.0
40-44	65.1	25.6	7.8	1.6	0.0	100.0	906	0.0
45-49	73.7	20.4	4.6	1.3	0.0	100.0	677	0.0
50-54	81.2	15.5	2.8	0.5	0.0	100.0	745	0.0
55-59	81.2	15.7	2.8	0.3	0.0	100.0	572	0.0
60-64	86.4	10.8	2.9	0.0	0.0	100.0	561	0.0
65+	89.7	9.3	0.6	0.0	0.3	100.0	762	0.0
Residence								
Urban	34.0	31.0	25.3	9.6	0.1	100.0	2389	3.3
Rural	50.0	38.0	10.8	1.1	0.0	100.0	18023	0.0
Division								
Barisal	30.7	50.4	16.5	2.4	0.0	100.0	1345	2.4
Chittagong	50.6	34.9	12.8	1.6	0.0	100.0	5971	0.0
Dhaka	49.7	34 3	13.0	3.0	0.1	100.0	6060	0.9
Khulna	41.9	42 5	13.3	2 3	0.0	100 0	2427	1.0
Rajshahi	51.4	37.1	10.1	1.5	0.0	100.0	4608	0.0
Total	48.2	37.2	12.5	2.1	0.0	100.0	20412	0.9

[1]Excludes 1 woman for whom an age was not reported.

Figure 2.3
Percentage of Males and Females Who Have No Formal Education by Age Group



BDHS 1993-94

with no education and more men than women with secondary education. However, over time, the sex differential is narrowing; differences in educational attainment between school-age boys and girls have become almost insignificant (see Figure 2.3).

Substantial urban-rural gaps in educational attainment persist. Over one-third of rural men (37 percent) have never attended school—compared to only one-fifth of urban men (20 percent). The differences are also striking for women—50 percent of rural women have never attended school, compared to only 34 percent of urban women. Urban-rural gaps are much larger at the secondary and higher level of education. Only about 5 percent of men and 1 percent of women in rural areas have received some secondary education; for urban areas the rates are 21 percent for men and 10 percent for women.

As for differences by division, both men and women in Barisal and Khulna Divisions have higher education attainment than residents of other divisions. The proportion of population with no education is lower and the mean number of years of schooling is higher in both these divisions than in the other divisons.

Table 2.5 presents enrollment rates by age, sex and residence of the population age 6-24 years. Of every ten children age 6-15 years, almost seven (68 percent) are enrolled in school. But enrollment drops substantially after age 15; only about three out of ten older teenagers (29 percent) are still in school and only one out of eight in their early 20s (13 percent) are still in school. The substantial decline after age 15 may be partly due to the fact that many families need their grown children (age 16-24) for work or do not have the means to bear their educational expenses.

It is encouraging that urban-rural gaps in enrollment of children have become virtually non-existent, with 68 percent of both urban and rural children age 6-15 currently enrolled in school. In fact, rural areas have a slightly higher proportion than urban areas of children 6-10 years enrolled in school. The increased rural enrollment of children may be a result of the recently launched 'Food For Education' program designed to encourage rural residents to send their children to school. However, rural enrollment rates still lag far behind urban rates among children older than 15. At ages 16-20 years, only 26 percent of adolescents are still in school in rural areas, compared to 45 percent in urban areas; at ages 21-24 years, only 10 percent of rural young adults are in school, compared to 26 percent in urban areas.

The sex differential in school enrollment also seems to be disappearing, at least among younger children. At ages 6-15, only a slightly higher percentage of boys than girls are enrolled (69 vs. 66 percent). However, by ages 16-20 years, men are much more likely than women to be enrolled (38 vs. 21 percent), presumably due to early marriage or social seclusion, which cause young women to drop out of school.

Table 2.5 School enrollment

Percentage of the de facto household population age 6-24 years enrolled in school, by age group, sex, and urban-rural residence, Bangladesh 1993-94

	Male			Female			Total		
Age group	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
6-10	72.1	75.1	74.8	71.0	72.7	72.5	71.5	73.9	73.7
11-15	67.1	62.1	62.7	62.7	57.9	58.5	64.9	59.9	60.6
6-15	69.6	69.4	69.4	66.9	65.9	66.0	68.2	67.7	67.8
16-20	51.4	36.0	37.9	40.2	17.7	20.7	45.3	26.4	28.8
21-24	34.2	19.6	21.7	19.6	3.7	5.8	26.2	10.4	12.6

Employment

The BDHS Household Questionnaire included a question as to whether each person age eight and above was working for money. The resulting information is shown in Table 2.6 for males and females by age group according to urban-rural residence. As expected, men are much more likely than women to be employed, regardless of age group or residence. Overall, almost 60 percent of men are employed, compared to only about 10 percent of women. Not surprisingly, employment rates are higher among both men and women in their 20s and 30s and decline among men and women in their late 50s and 60s. Paid employment begins early in Bangladesh; at ages 10-14, 17 percent of boys and 6 percent of girls are working for money. By ages 15-19, almost half of boys and 10 percent of girls are engaged in paid employment.

Table 2.6 Employment status

Percentage of males and females who are working for money by age group and urban-rural residence, Bangladesh 1993-94

Age group	Males			Females		
	Urban	Rural	Total	Urban	Rural	Total
8-9	2.1	1.1	1.2	3.6	0.7	1.0
10-14	17.1	17.2	17.2	17.6	4.0	5.7
15-19	38.8	48.2	47.1	15.9	8.1	9.1
20-24	57.5	74.0	71.7	18.7	12.9	13.7
25-29	80.3	90.2	88.8	20.9	17.9	18.3
30-34	94.7	97.1	96.8	24.5	19.5	20.1
35-39	97.3	97.6	97.6	19.3	20.1	20.0
40-44	95.5	98.1	97.8	25.9	15.7	17.0
45-49	98.3	98.0	98.0	11.9	13.1	12.9
50-54	92.7	96.1	95.6	24.4	9.3	10.6
55-59	91.1	91.4	91.4	7.3	8.9	8.8
60-64	67.8	79.4	78.3	18.1	4.9	5.9
65+	47.7	52.2	51.9	2.4	4.3	4.1
Total	56.6	57.7	57.5	16.5	9.8	10.6
Number	2,432	17,873	20,305	2,432	17,873	20,305

2.2 Housing Characteristics

Socioeconomic conditions were assessed by asking respondents questions about their household environment. This information is summarized in Table 2.7.

As the table shows, only 18 percent of households in Bangladesh have electricity. Electricity is much more common in urban areas; three-quarters of urban households have electricity, compared to only 10 percent of rural households.

Tubewells are the major source of drinking water in Bangladesh. Overall, about nine out of ten households (88 percent) obtain their drinking water from tubewells. Only 8 percent remain dependent on surface water such as surface wells (4 percent), ponds (3 percent) and rivers/streams (1 percent). Piped water is available mostly in urban areas. Among urban households, 27 percent have water piped into the residence, 10 percent obtain drinking water from taps (public or private) outside the residence, and 62 percent get their drinking water from tubewells. In rural areas, tubewells are the only major source of drinking water; more than 9 in 10 rural households obtain their drinking water from tubewells. Similar levels of use of tubewells for drinking water in rural areas were also documented in the 1991 National Survey on Status of Rural Water Supply and Sanitation.

The majority (69 percent) of households in Bangladesh have sanitation facilities; however, only 41 percent have a hygienic toilet, while 30 pecent have no facility at all. Hygienic toilets include septic tank/modern toilets, water-sealed/slab latrines and pit toilets. As expected, sanitary facilities vary between rural and urban areas. In rural areas, only 36 percent of households have hygienic toilets, compared to 81 percent of urban households. Moreover, one-third of rural households have no facility at all, compared to only 5 percent of urban households. There are also urban-rural differences in the types of hygienic toilets. Septic tank/modern toilets are the most common hygienic toilet in urban areas (49 percent), while in rural areas, pit latrines (17 percent) and water-sealed/slab toilets (15 percent) are the most common hygienic toilets.

Tin is the most common roofing material in Bangladesh, accounting for over half of both rural and urban households. However, urban and rural households vary widely in the use of other types of roofs. In urban areas, 29 percent of households live in dwellings with cement, concrete or tiled roofs, while in rural areas, bamboo or thatch (40 percent) is the most common roofing material after tin.

Almost three out of four households in Bangladesh live in structures with walls made of natural materials such as jute, bamboo or mud. About 10 percent live in houses with brick or cement walls and almost the same proportion live in houses with tin walls (9 percent). Urban households live in more solid dwellings than rural households. Half of urban households live in structures with brick or cement walls, compared to only 6 percent of rural households.

Overall, nine out of ten households in Bangladesh live in residences with floors made of earth (90 percent). However, more than half of urban households have cement or concrete flooring in their residences. Earth flooring is almost universal in rural areas (96 percent).

As a way of estimating the extent of crowding, information was gathered in the BDHS on the number of rooms households use for sleeping. Evidence of crowding in Bangladeshi households is apparent in the estimates furnished in Table 2.7. Two-thirds of the households (65 percent) have three or more persons per sleeping room, with a mean number of 3.5 persons. There are only slight differences between urban and rural households in the extent of crowding.

Table 2.7 Housing characteristics

Percent distribution of households by housing characteristics, according to urban-rural residence, Bangladesh 1993-94

Characteristic	Residence		
	Urban	Rural	Total
Electricity			
Yes	75.2	10.4	17.8
No	24.8	89.6	82.2
Total	100.0	100.0	100.0
Source of drinking water			
Piped into residence	26.7	0.3	3.3
Piped outside residence	10.1	0.2	1.3
Tubewell	62.0	91.0	87.7
Surface/other well	0.8	4.4	4.0
River/stream	0.1	0.8	0.7
Lake/pond	0.4	3.1	2.8
Other	0.0	0.1	0.1
Missing/Don't know	0.0	0.1	0.1
Total	100.0	100.0	100.0
Sanitation facility			
Septic tank/Modern toilet	49.4	4.2	9.3
Water/slab latrine	22.8	14.8	15.7
Pit latrine	8.4	16.6	15.7
Open latrine	9.1	20.7	19.3
Hanging latrine	4.9	10.0	9.4
No facility/bush	4.8	33.4	30.2
Other	0.6	0.4	0.4
Total	100.0	100.0	100.0
Roof material			
Bamboo/thatch (Katcha)	10.7	40.2	36.8
Tin	55.7	52.3	52.7
Cement/concrete/tile	29.4	1.7	4.8
Other	4.1	5.8	5.6
Total	100.0	100.0	100.0
Wall material			
Jute/bamboo/mud (Katcha)	38.6	77.0	72.7
Wood	1.7	3.2	3.1
Brick/cement	50.5	5.6	10.7
Tin	7.7	9.7	9.4
Other	1.3	4.4	4.1
Total	100.0	100.0	100.0
Floor material			
Earth (Katcha)	45.2	96.0	90.2
Wood	2.1	0.2	0.4
Cement/concrete	52.6	3.7	9.3
Missing/Don't know	0.0	0.1	0.1
Total	100.0	100.0	100.0
Persons per sleeping room			
1-2	39.5	34.2	34.8
3-4	38.2	42.2	41.8
5-6	17.1	17.8	17.8
7 +	5.2	5.6	5.6
Missing/Don't know	0.0	0.1	0.1
Total	100.0	100.0	100.0
Mean persons per room	3.4	3.6	3.5
Number of households	1038	8136	9174

Household Possessions

Respondents were asked about ownership of selected durable goods and agricultural land. The information was collected primarily as socioeconomic indicators of the population. Results are shown in Table 2.8.

Possession of household durable goods is not very common in Bangladesh, since many of the families here cannot afford them. Nationally, 72 percent of households own a cot or bed, 49 percent a table, chair, or bench, 35 percent a watch or clock and only 22 percent an *almirah* (wardrobe). As for the more valuable items, 25 percent of households possess working radios, 16 percent own bicycles, and only 7 percent possess televisions in working condition. A higher proportion of urban than rural households possess every durable good asked about except bicycles, which reflects, among other things, the relatively better economic conditions in urban areas.

Table 2.8 Household durable goods and agricultural land

Percentage of households possessing various durable goods and agricultural land, by urban-rural residence, Bangladesh 1993-94

Characteristic	Residence		
	Urban	Rural	Total
Almirah (wardrobe)	53.9	18.0	22.1
Table/chair/bench	68.2	46.1	48.6
Watch/clock	64.7	31.5	35.2
Cot/bed	89.4	70.0	72.2
Working radio	42.3	22.3	24.6
Working television	37.6	3.4	7.2
Bicycle	15.7	16.0	15.9
Agricultural land	33.9	59.4	56.6
Number of households	1038	8136	9174

Just over half of households in Bangladesh own agricultural land. This indicates that a large number of Bangladeshi families live in poverty, given that Bangladesh's economy is largely dependent on agriculture. Two-fifths of households in rural areas are without agricultural land (41 percent), while, as expected, households without agricultural land are more common in urban areas (66 percent).

2.3 Background Characteristics of Women Respondents

General Characteristics

Table 2.9 shows the distribution of female respondents by selected background characteristics. To assess their age, women were asked two questions in the individual interview: "In what month and year were you born?" and "How old were you at your last birthday?" Interviewers were trained to probe in situations in which respondents did not know their age or date of birth, and they were instructed as a last resort to record their best estimate of the respondent's age.

The age distribution of ever-married women in the BDHS is very similar to that found in the 1991 CPS, with 42 percent in their 20s. The majority (57 percent) of ever-married women are age 15-29 years, compared to only 16 percent in the oldest age groups, 40-44 amd 45-49 years. The distribution of currently married women is similar to that of ever-married women.

Among ever-married women, more than nine in ten are currently married (93 percent). Only 4 percent have been widowed, and 3 percent are divorced or separated. A similar distribution of ever-married women by current marital status was reported in the 1991 CPS.

The majority (58 percent) of ever-married and currently married women have never attended school. Only one-quarter have completed primary school and only about 15 percent have secondary education. Nevertheless, the data show some improvement since 1991, when 61 percent of ever-married women had had no formal education (Mitra et al., 1993:18).

Table 2.9 Background characteristics of respondents

Percent distribution of ever-married women and currently married women by selected background characteristics, Bangladesh 1993-94

Background characteristic	Ever-married women			Currently married women		
		Number of women			Number of women	
	Weighted percent	Weighted	Un-weighted	Weighted percent	Weighted	Un-weighted
Age						
<15	1.5	145	147	1.6	140	143
15-19	13.2	1271	1268	13.6	1224	1225
20-24	21.1	2033	2038	21.9	1964	1971
25-29	20.9	2012	1993	21.3	1911	1892
30-34	15.1	1456	1483	15.1	1353	1377
35-39	12.4	1197	1197	12.0	1079	1084
40-44	9.0	871	870	8.5	767	768
45-49	6.8	655	644	6.0	541	529
Marital status						
Married	93.2	8980	8989	100.0	8980	8989
Widowed	4.0	389	384	NA	NA	NA
Divorced/Deserted	2.8	271	267	NA	NA	NA
Residence						
Urban	11.5	1108	1466	11.3	1013	1351
Rural	88.5	8532	8174	88.7	7967	7638
Division						
Barisal	6.3	606	1006	6.3	567	942
Chittagong	26.2	2527	2002	26.0	2334	1849
Dhaka	30.7	2963	2774	30.7	2756	2583
Khulna	12.6	1217	1258	12.8	1145	1182
Rajshahi	24.1	2326	2600	24.3	2178	2433
Education						
No education	58.1	5598	5431	56.7	5093	4939
Primary incomplete	17.4	1681	1756	17.8	1601	1672
Primary complete	9.6	921	937	10.0	894	908
Secondary/Higher	14.9	1439	1516	15.5	1392	1470
Religion						
Islam	87.8	8468	8430	87.7	7880	7853
Hinduism	11.6	1121	1163	11.7	1051	1090
Christianity	0.4	36	32	0.4	35	31
Buddhism	0.1	13	13	0.1	13	13
Other	0.0	2	2	0.0	2	2
Total	100.0	9640	9640	100.0	8980	8989

NA = Not applicable

In 1993-94, 12 percent of ever-married women live in urban areas. This is lower than the proportion urban reported in the 1991 CPS (15 percent) and is most probably due to definitional changes. In the 1991 CPS, thana headquarters were considered urban, as were the rural areas of the SMAs. A stricter definition of urban was employed in the IMPS sampling frame, from which the BDHS sample was drawn.

Dhaka Division contains the largest proportion of ever-married women (31 percent), with roughly one-quarter living in each of Chittagong and Rajshahi Divisions. About 13 percent of women live in Khulna Division, and only 6 percent are in the new division, Barisal. The distribution of women by division is similar to that in the 1991 CPS, except that the proportion in Dhaka Division has increased slightly from 29 to 31 percent and the proportion in Rajshahi Division has decreased slightly from 26 to 24 percent (Mitra et al., 1993:14).

Almost nine out of ten ever-married women are Muslim; most of the remainder are Hindu. The composition by religion is similar to that reported in the 1991 CPS (Mitra et al., 1993:17).

Differential Education

Table 2.10 presents the distribution of female respondents by education, according to selected characteristics. Education is inversely related to age, that is, older women are less educated than younger women. For instance, 48 percent of women age 15-19 years have never attended school, compared to 75 percent of those age 45-49.

Table 2.10 Level of education

Percent distribution of ever-married women by the highest level of education attended, according to selected background characteristics, Bangladesh 1993-94

Background characteristic	Highest level of education				Total	Number of women
	No education	Primary incomplete	Primary complete	Secondary/ Higher		
Age						
<15	48 1	23.1	18.9	10 0	100.0	145
15-19	48.7	21.2	11.8	18.3	100.0	1271
20-24	53.3	18.1	10.0	18.6	100.0	2033
25-29	55.4	16.8	9.3	18.5	100.0	2012
30-34	60.3	17.0	9.3	13.5	100.0	1456
35-39	64.2	14.7	10.0	11.0	100.0	1197
40-44	65.8	18.6	6.6	9.0	100.0	871
45-49	75.2	13.2	6.3	5.3	100.0	655
Residence						
Urban	39.5	13.5	8.1	39.0	100.0	1108
Rural	60.5	17.9	9.8	11.8	100.0	8532
Division						
Barisal	34.2	29.3	16.9	19.6	100.0	606
Chittagong	61.4	13.4	10.3	14.9	100.0	2527
Dhaka	59.8	14.6	9.1	16 4	100.0	2963
Khulna	51.2	22.6	9.9	16.4	100.0	1217
Rajshahi	62.0	19.6	7.2	11.2	100.0	2326
Total	58.1	17.4	9.6	14.9	100.0	9640

Sixty percent of rural women have had no education at all, compared to 40 percent of urban women. In contrast, while about 4 in 10 urban women (39 percent) have attended secondary school, only 12 percent of rural women have done so.

Both Barisal and Khulna Divisions appear to be educationally more advantageous for women. For example, only 34 percent of women in Barisal Division and 51 percent in Khulna Division have never attended formal school, compared to 60 percent or more in the other divisions. Women in Barisal are also more likely than women in the other divisions to complete primary school and to attend secondary school.

Access to Media

Women were asked if they usually read a newspaper, listen to the radio or watch television at least once a week. This information is of use in planning the dissemination of family planning messages. Table 2.11 shows that about two-fifths (39 percent) of women listen to the radio weekly. Only 18 percent watch television at least once a week, while not even one in ten reads a newspaper. Younger women are somewhat more likely than older women to listen to the radio. The higher the level of education a woman has, the more likely she is to have access to media; while only 10 percent of women with no education watch television once a week, half of those with secondary education do so.

Women in rural areas are more disadvantaged in access to media. While 53 percent of women in urban areas listen to the radio weekly, only 37 percent of rural women do so. Similarly, 26 percent of women in urban areas read a newspaper once a week, compared to only 5 percent of women in rural areas. Women in Dhaka Division have greater access to media than women in the other divisions, especially with regard to television viewing.

Table 2.11 Access to mass media

Percentage of ever-married women who usually read a newspaper once a week, watch television once a week, or listen to radio once a week, by selected background characteristics, Bangladesh 1993-94

Background characteristic	Read newspaper weekly	Watch television weekly	Listen to radio weekly	Number of women
Age				
<15	6.9	15.3	44.0	145
15-19	7.3	16.9	42.4	1271
20-24	7.7	18.5	42.2	2033
25-29	7.9	20.7	40.5	2012
30-34	7.3	17.1	35.9	1456
35-39	7.1	17.3	34.9	1197
40-44	5.2	15.3	34.1	871
45-49	4.2	14.3	32.6	655
Education				
No education	0.1	9.5	28.7	5598
Primary incomplete	2.8	15.8	43.8	1681
Primary complete	8.2	20.7	48.9	921
Secondary/Higher	38.7	50.5	65.0	1439
Residence				
Urban	25.9	61.2	52.6	1108
Rural	4.6	12.1	36.8	8532
Division				
Barisal	6.5	9.8	36.9	606
Chittagong	6.6	17.2	35.5	2527
Dhaka	9.4	24.6	41.7	2963
Khulna	5.5	14.4	36.1	1217
Rajshahi	5.6	13.6	40.0	2326
Total	7.1	17.8	38.7	9640

CHAPTER 3

FERTILITY

3.1 Introduction

The measurement of fertility levels, differentials and determinants was a major objective of the 1993-94 Bangladesh Demographic and Health Survey (BDHS). As one of the most densely populated countries in the world, Bangladesh takes enormous interest in measuring the rate of growth of its population. Previous surveys had indicated that the level of fertility was declining rapidly and there was considerable interest to see if the trend had continued.

The fertility indicators presented in this chapter are based on reports provided by ever-married women age 15-49 years regarding their reproductive histories. Each woman was asked to provide information on the total number of sons and daughters to whom she had given birth who were living with her, the number living elsewhere, and the number who had died. The women were also asked for a history of all live births, including such information as: name, month and year of birth, sex and survival status. For children who had died, information on age at death was solicited.

The above information is analyzed in the following sections to provide fertility levels and trends; fertility differentials by residence, division, and education; information on length of intervals between births; age at first birth; and the extent of childbearing among adolescents. A brief discussion of the quality of the BDHS fertility data appears in Appendix C.2.

3.2 Fertility Levels

Table 3.1 gives the reported age-specific fertility rates for the three-year period preceding the survey per 1,000 women.[1] The sum of the age-specific fertility rates (known as the total fertility rate) is a useful means of summarizing the level of fertility. It can be interpreted as the number of children a woman would have by the end of her childbearing years if she were to pass through those years bearing children at the currently observed age-specific rates. The general fertility rate represents the annual number of births in a population per 1,000 women age 15-44. The crude birth rate is the annual number of births in a population per 1,000 people. Both these measures are calculated using the birth history data for the three-year period before the survey and the age and sex distribution of the household population.

The total fertility rate for the three years before the survey (approximately 1991 through 1993) is 3.4 children per woman. This represents a huge decline in fertility over the recent past (see section 3.4). The age pattern of fertility indicates that Bangladeshi women have children early in the childbearing period; by age 30, a woman will have given birth to over 70 percent of the children she will ever have. The crude birth rate

[1] Numerators of the age-specific fertility rates are calculated by summing the number of live births that occurred in the period 1-36 months preceding the survey (determined by the date of interview and the date of birth of the child), and classifying them by the age (in five-year groups) of the mother at the time of birth (determined by the mother's date of birth). The denominators of the rates are the number of woman-years lived in each of the specified five-year age groups during the 1-36 months preceding the survey. Since only women who had ever married were interviewed in the BDHS, the number of women in the denominators of the rates were inflated by factors calculated from information in the household questionnaire on proportions ever-married in order to produce a count of all women. Never-married women are presumed not to have given birth.

for the whole country is 29 births per 1,000 population. This is somewhat lower than the rate of 31 reported by the government's sample vital registration system for 1992 (BBS, 1993:87), but is slightly higher than the rate of 28 per 1,000 reported for a 1994 survey (BBS, 1994:5).

Fertility is higher in rural areas than in urban areas (see Figure 3.1), a pattern that has persisted in various censuses and demographic surveys that have been carried out in Bangladesh (Huq and Cleland, 1990:106; Mitra et al., 1993:36). The difference is especially large at ages 15-19, which reflects longer education and later marriage of women in urban areas. The total fertility rate is estimated at 3.5 in rural areas, about 30 percent higher than that in the urban areas (2.7).

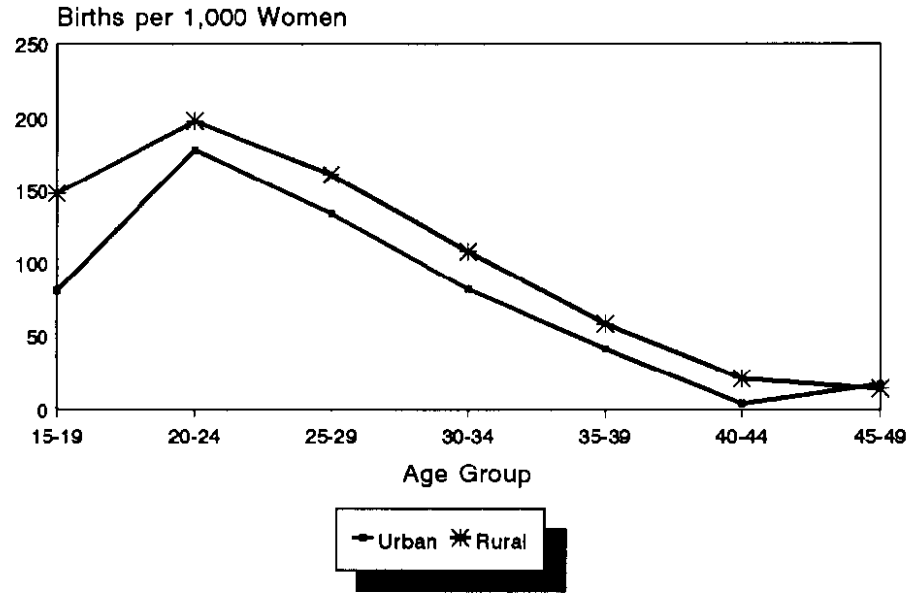
Table 3.1 Current fertility

Age-specific and cumulative fertility rates and the crude birth rate for the three years preceding the survey, by urban-rural residence, Bangladesh 1993-94

	Residence		
Age group	Urban	Rural	Total
15-19	81	148	140
20-24	178	198	196
25-29	134	161	158
30-34	82	108	105
35-39	41	58	56
40-44	4	21	19
45-49	(17)	14	14
TFR 15-49	2.69	3.54	3.44
TFR 15-44	2.60	3.47	3.37
GFR	106	140	136
CBR	25.3	29.5	29.1

Note: Rates are for the period 1-36 months preceding the survey. Rates for age group 45-49 may be slightly biased due to truncation. Rates in parentheses are based on 125 to 249 woman-years of exposure.
TFR: Total fertility rate, expressed per woman
GFR: General fertility rate (births divided by number of women 15-44), expressed per 1,000 women
CBR: Crude birth rate, expressed per 1,000 population

Figure 3.1
Age-Specific Fertility Rates
By Urban-Rural Residence



BDHS 1993-94

3.3 Fertility Differentials

Table 3.2 and Figure 3.2 show differentials in fertility by division of residence and education. Fertility is highest in Chittagong Division, with a total fertility rate of 4.0 children per woman, and lowest in Rajshahi (3.0) and Khulna (3.1) Divisions. Barisal and Dhaka Divisions have intermediate levels of fertility, both having total fertility rates of 3.5 children per woman.

Female education is strongly related to fertility levels. At current rates, women with no formal education would give birth to an average of 3.8 children in their lifetime, compared to 2.6 for women with at least some secondary education, a difference of 33 percent. Women with either incomplete primary or complete primary education have intermediate fertility rates between these two extremes.

One way of examining trends in fertility over time is to compare the total fertility rates for the three years preceding the survey with the average number of children ever born to women who are now at the end of their childbearing period, age 40-49. The former is a measure of current fertility, while the latter is a measure of past or completed fertility. The data in Table 3.2 indicate that there has been a decline of about three children over the past 10 to 20 years in Bangladesh, from 6.6 to 3.4 births per woman. The decline has occurred across all divisions and all education levels. The decline has been greater for rural (3.2 children) than urban women (2.8 children). Among the divisions, women in Rajshahi Division have apparently experienced the greatest decline in fertility, with a current total fertility rate that is less than half the average number of children ever born to women now in their 40s. Fertility declines have also been large among women in all education groups.

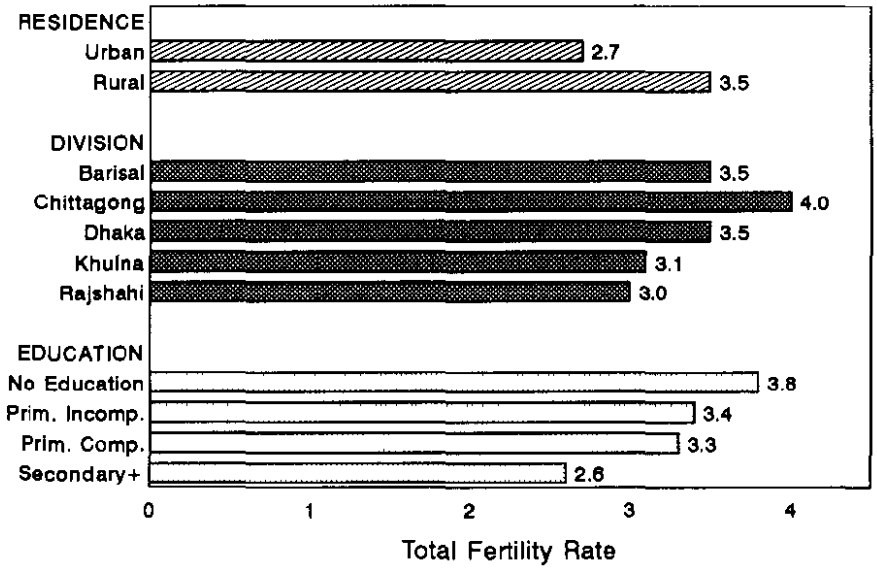
Table 3.2 Fertility by background characteristics

Total fertility rate for the three years preceding the survey for women age 15-49 and mean number of children ever born to women age 40-49, by selected background characteristics, Bangladesh 1993-94

Background characteristic	Total fertility rate[1]	Mean number of children ever born to women age 40-49
Residence		
Urban	(2.69)	5.45
Rural	3.54	6.73
Division		
Barisal	(3.47)	6.46
Chittagong	3.95	6.76
Dhaka	3.45	6.51
Khulna	(3.05)	6.20
Rajshahi	3.03	6.66
Education		
No education	3.83	6.77
Primary incomplete	(3.43)	6.55
Primary complete	(3.26)	6.47
Secondary/Higher	(2.58)	4.87
Total	3.44	6.57

Note: Rates in parentheses indicate that one or more of the component age-specific rates is based on fewer than 250 woman-years of exposure.
[1]Women age 15-49 years

Figure 3.2
Total Fertility Rates by Selected Background Characteristics



BDHS 1993-94

3.4 Fertility Trends

Fertility rates reported in the BDHS reflect an extremely steep decline over the past 20 years when compared against previous estimates. Fertility has declined from 6.3 births per woman in the mid-1970s to 3.4 births for the period 1991-93 (Table 3.3). Since the period 1989-91, fertility has declined from 4.3 to 3.4 births per woman, a drop of 21 percent in a two-year period. This is by far the most dramatic drop in fertility ever recorded in Bangladesh. As Figure 3.3 indicates, the decline since the mid-1980s has been generally uniform over all age groups of women except those 45-49, for whom there has been no change.

Table 3.3 Trends in current fertility rates

Age-specific rates and total fertility rates, selected sources, Bangladesh, 1975-1994

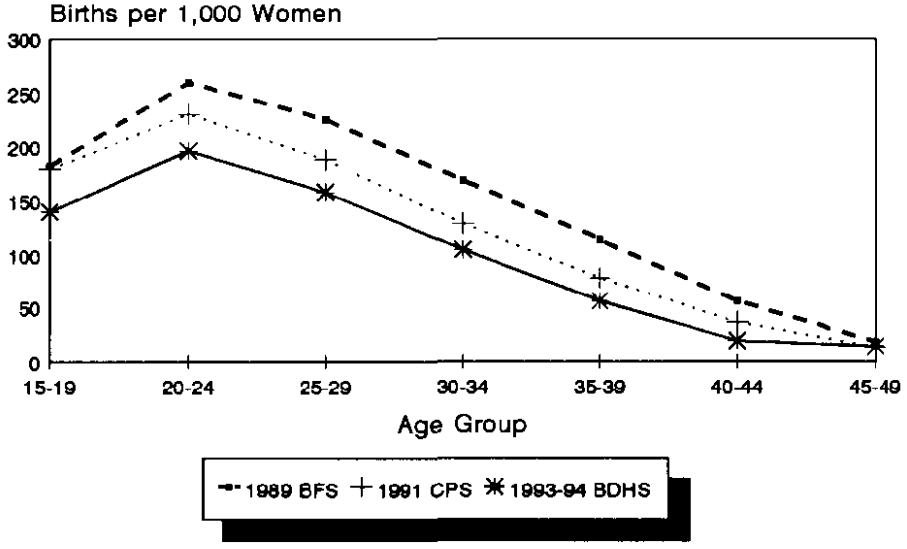
	Survey and approximate time period				
	1975 BFS	1989 BFS	1989 CPS	1991 CPS	1993-94 BDHS
Age group	1971-75	1984-88	1986-88	1989-91	1991-93
15-19	109	182	171	179	140
20-24	289	260	241	230	196
25-29	291	225	217	188	158
30-34	250	169	160	129	105
35-39	185	114	109	78	56
40-44	107	56	53	36	19
45-49	35	18	14	13	14
Total fertility rate	6.3	5.1	4.8	4.3	3.4

Note: For the 1975 and 1989 BFSs, the rates refer to the 5-year period preceding the survey; for the other surveys, the rates refer to the 3-year period preceding the survey. The two BFSs and the BDHS utilized full birth histories, while the 1989 and 1991 CPSs used 5-year and 8-year truncated birth histories, respectively.

Source: 1975 BFS (MHPC, 1978:73); 1989 BFS (Huq and Cleland, 1990:103); 1989 CPS (Mitra et al., 1990:74); 1991 CPS (Mitra et al., 1993:34).

Table 3.4 presents total fertility rates by single calendar year for 1980 to 1993 from various sources. The data, depicted in Figure 3.4, show the steep decline in fertility that has occurred in Bangladesh. The rates from the 1989 BFS and the 1989 and 1991 CPSs are generally consistent, while the data from the Bangladesh Bureau of Statistics' sample registration system are initially implausibly low and therefore show a more moderate decline over time. The steepest decline is shown by the data from the 1993-94 BDHS; the total fertility rates are higher than the other sources from 1984 to 1990, and then fall below those reported by the BBS.

Figure 3.3
Age-Specific Fertility Rates
1989, 1991, and 1993-94



Note: 1989 rates are for a 5-year period before the survey and 1993-93 rates are for a 3-year period before the survey.
Source: Mitra et al., 1993:34

Table 3.4 Trends in total fertility rates

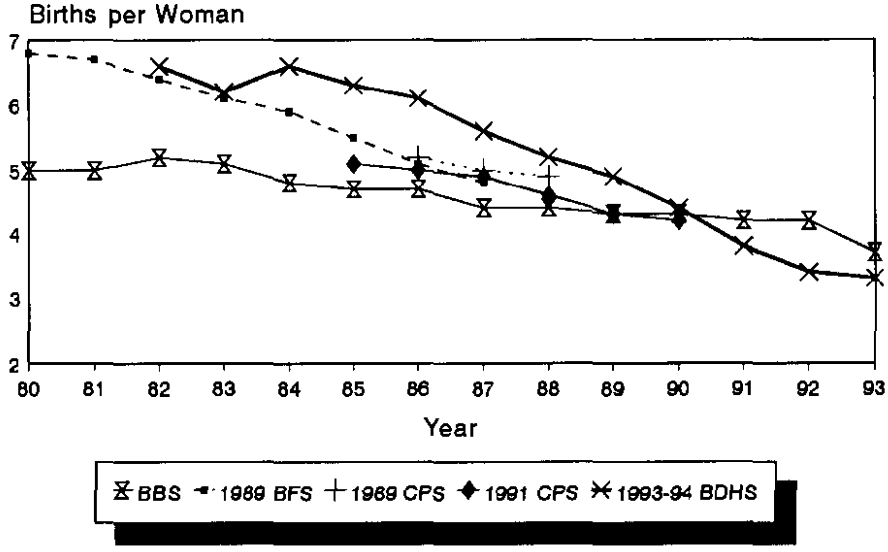
Annual total fertility rates, selected sources, Bangladesh, 1980-1993

Year	Bangladesh Bureau of Statistics[1]	1989 BFS	1989 CPS	1991 CPS	1993-94 BDHS	Matlab[2] Treatment area	Matlab[2] Comparison area
80	5.0	6.8					
81	5.0	6.7					
82	5.2	6.4			6.6	5.0	6.3
83	5.1	6.1			6.2	4.5	6.1
84	4.8	5.9			6.6	4.0	5.1
85	4.7	5.5		5.1	6.3	4.5	6.0
86	4.7	5.1	5.2	5.0	6.1	4.3	5.5
87	4.4	4.8	5.0	4.9	5.6	4.1	5.2
88	4.4		4.9	4.6	5.2	3.8	5.4
89	4.3			4.3	4.9	3.4	4.9
90	4.3			4.2	4.4	3.4	5.0
91	4.2				3.8	3.0	4.3
92	4.2				3.4	2.9	3.8
93	3.7				3.3	2.9	3.9

Note: Rates from the surveys are 3-year moving averages except the most recent rate which is based on a two-year average.
[1]Rates are from the sample vital registration system except for 1993 which is from the BBS' Health and Demographic Survey.
[2]Rates are from a demographic surveillance system in one rural district (Matlab).

Source: BBS (Cleland, et al., 1994:15 and BBS, 1994:5); 1989 BFS (Huq and Cleland, 1990:104); 1989 CPS and 1991 CPS (Mitra, et al., 1993:35); Matlab (ICDDR, B, 1994:3).

Figure 3.4
Trends in the Total Fertility Rate From Selected Sources, Bangladesh, 1980-1993

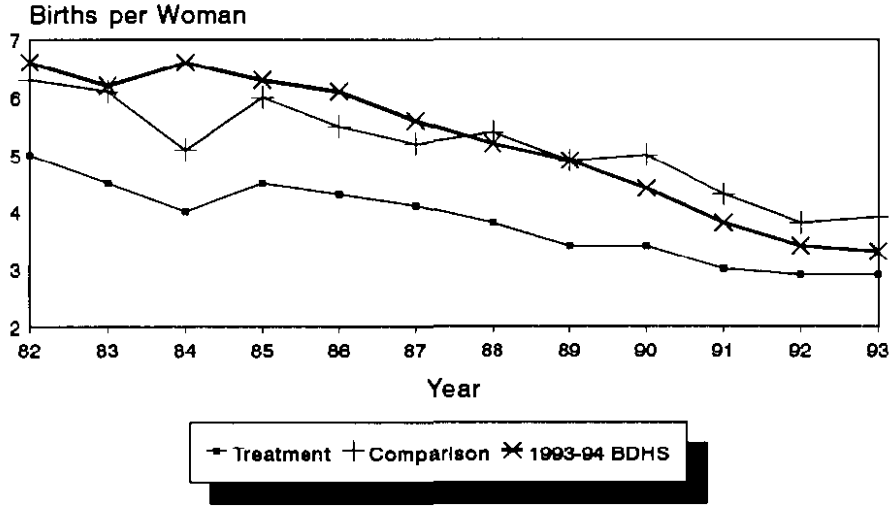


Note: All survey rates are based on 3-year moving averages, except most recent year (2-year average)
Source: Table 3.4

Unlike survey data, the data from the Matlab district (Table 3.4, last two columns) are collected in a surveillance system in which women are interviewed by field workers every two weeks. Thus, the data are less likely than survey data to suffer from recall error or problems in remembering or reporting dates. The demographic surveillance system covers a population of approximately 100,000 each in a "treatment" area, in which an intensive maternal and child health and family planning program has been in effect and a "comparison" area in which the residents receive the normal government and private health care (ICDDR,B, 1994:2). Although data from Matlab are not nationally representative and therefore not comparable to data from the other sources, they do provide evidence of the unprecedented decline in fertility that has taken place in Bangladesh. Figure 3.5 shows the total fertility rates for the Matlab study area and the 1993-94 BDHS fertility rates for the period 1982 to 1993. The data from the BDHS and the Matlab comparison area show roughly comparable rates of decline over time, although, once again, the decline depicted from the BDHS is steeper than that from the surveillance system.

The fact that the low fertility rates reported in the BDHS for the years immediately preceding the survey are not accompanied by a proportionately large increase in contraceptive use, in age at marriage, or in another of the major fertility determinants, invites an investigation into data quality. A review of the data reveals no obvious systematic errors such as omission or displacement of births that are often found in survey data (see Appendix C.2). Moreover, a recent study in which data from a BDHS-type survey in the Matlab area were compared with those from the ICDDR, B surveillance system, showed almost identical fertility rates in the two sources, thus lending support to the BDHS fertilty data (see Appendix C.2). Some researchers hypothesize that Bangladeshi surveys routinely underestimate recent fertility because women tend to overreport the ages of their young children (Cleland et al., 1993:14; Cleland et al., 1994:17,18). To the extent that such age overreporting is random—that is, not selective of women with certain characteristics—it would not be readily detectable in the data. However, if age overreporting is a widespread cultural phenomenon, it would presumably have also affected the fertility rates reported in prior surveys. Thus, although the *level* of the total fertility rate reported in the BDHS for the years immediately preceding the survey may be underestimated, if rates from previous surveys were similarly affected, the data nonetheless indicate an extremely rapid *decline* in fertility in Bangladesh over the past two decades.

Figure 3.5
Trends in the Total Fertility Rate from Matlab (Treatment and Comparison Areas) and the BDHS, 1982-1993



Note: BDHS rates are based on 3-year moving averages, except 1993 (2-year average)
Source: ICDDR,B, 1994:3

Table 3.5 shows that all divisions in Bangladesh experienced recent declines in fertility of almost identical magnitude. Although Chittagong Division had the highest fertility in the mid-1980s and still does today, the rate of decline in fertility is almost identical with that of the other divisions.

Table 3.6 shows the proportion of currently married women who reported that they were pregnant at the time of survey, according to age group. These data are useful because, while fertility rates depend to some extent on accurate reporting of dates of events, the proportion pregnant is a "current status" indicator. Change over time in the percent pregnant is an independent indicator of fertility change. In Bangladesh, the proportion pregnant has generally declined over time, although not in a steady fashion. In the 1975 BFS, 13 percent of currently married women were reported to be pregnant at the time of the survey. By 1989, this proportion had declined to 9 percent; it then increased to 11 percent in 1991, and again declined to 9 percent in the 1993-94 BDHS. Although it is entirely possible that such fluctuations are real, misreporting may also be a factor.

Table 3.5 Trends in fertility by division

Total fertility rates by division and percent of change from the period 1984-88 to 1991-93, Bangladesh, 1989 BFS and 1993-94 BDHS

Division	1989 BFS 1984-88	1993-94 BDHS 1991-93	Percent change
Chittagong	5.94	3.95	-34
Dhaka	5.18	3.45	-33
Khulna[1]	4.71	3.20	-32
Rajshahi	4.60	3.03	-34

Note: Rates for the 1989 BFS refer to the 5-year period preceding the survey, while those for the 1993-94 BDHS refer to the 3-year period preceding the survey. Rates are calculated for women age 15-49.
[1]Refers to the former boundaries prior to the creation of Barisal Division.

Source: Huq and Cleland, 1990:106

Table 3.6 Percent pregnant

Percentage of currently married women who were pregnant at the time of interview, by age group, selected sources, Bangladesh, 1975-1994

Age group	1975 BFS	1989 BFS	1991 CPS	1993-94 BDHS
15-19	15.2[a]	14.7[a]	19.6	17.1
20-24	15.5	13.3	16.2	13.0
25-29	14.9	10.4	11.2	9.0
30-34	11.2	8.3	7.1	7.0
35-39	10.7	4.8	4.2	2.7
40-44	U	U	1.5	0.8
45-49	U	U	0.2	0.0
Total	12.5	9.3	10.7	8.7

U = Unknown (not available)
[a]Currently married women less than 20 years

Source: 1975 BFS and 1989 BFS (Cleland et al., 1994:21); 1991 CPS (Mitra et al., 1993:39)

Table 3.7 provides further insights into the fertility decline discussed above. The table gives the age-specific fertility rates for five-year periods preceding the survey, using data from respondents' birth histories. Figures in brackets represent partial fertility rates due to truncation; women 50 years of age and older were not included in the survey and the further back into time rates are calculated, the more severe is the truncation. For example, rates cannot be calculated for women age 45-49 for the period 5-9 years before the survey, because those women would have been over age 50 at the time of the survey and thus were not interviewed. The data show generally declining fertility experienced by women in most age groups during the last two decades. The decline from the period 5-9 to 0-4 years before the survey was much larger than the decline from 10-14 to 5-9 years before the survey, implying that the fertility decline has increased substantially in recent years. Alternatively, if, as discussed above, the ages of young children are routinely overstated in Bangladeshi surveys, the result could mimic a more rapid decline in fertility in the five years preceding the survey.

Table 3.7 Age-specific fertility rates

Age-specific fertility rates for five-year periods preceding the survey, by mother's age at the time of birth, Bangladesh 1993-94

Mother's age	Number of years preceding the survey			
	0-4	5-9	10-14	15-19
15-19	159	207	234	225
20-24	216	290	296	309
25-29	172	242	294	275
30-34	122	191	237	[239]
35-39	70	141	[208]	-
40-44	30	[80]	-	-
45-49	[16]	-	-	-

Note: Age-specific fertility rates are per 1,000 women. Estimates in brackets are truncated.

Table 3.8 presents fertility rates for ever-married women by duration since first marriage for five-year periods preceding the survey. It is analogous to Table 3.7, but is confined to ever-married women and replaces age with duration since first marriage. The data confirm that the decline in fertility is apparent for all marriage durations in the past 10-14 years preceding the survey, with the exception of those married 0-4 years, as expected, since newly married couples are having their first children.

Table 3.8 Fertility by marital duration

Fertility rates for ever-married women by duration (years) since first marriage for five-year periods preceding the survey, Bangladesh 1993-94

Marriage duration at birth	Number of years preceding the survey			
	0-4	5-9	10-14	15-19
0-4	258	256	247	216
5-9	234	306	312	306
10-14	171	247	292	297
15-19	129	208	270	[241]
20-24	84	160	[215]	-
25-29	43	[105]	-	-

Note: Duration-specific fertility rates are per 1,000 women. Estimates in brackets are truncated.

3.5 Children Ever Born

The distribution of all women and currently married women by age and number of children ever born is presented in Table 3.9. The table also shows the mean number of children ever born to women in each five-year age group, an indicator of the momentum of childbearing. The data indicate that more than one-quarter (27 percent) of all women age 15-19 years have given birth to a child.

On average, women have given birth to three children by their late twenties, five children by their late thirties, and almost seven children by the end of their childbearing years. This same pattern is reflected by currently married women, with the exception that the percentage of currently married women age 15-19 who have had children is much higher than the percentage among all women age 15-19.

The percentage of women age 45-49 who have never had children provides an indicator of the level of *primary infertility*—the proportion of women who are unable to bear children at all. Since voluntary childlessness is rare in Bangladesh, it is likely that married women with no births are unable to bear children. The BDHS results suggest that primary infertility is low, less than one percent. It should be noted that this estimate of primary infertility does not include women who may have had one or more births but who are unable to have more (*secondary infertility*).

Table 3.9 Children ever born and living

Percent distribution of all women and of currently married women age 15-49 by number of children ever born (CEB) and mean number ever born and living, according to five-year age groups, Bangladesh 1993-94

Age group	Number of children ever born (CEB)											Total	Number of women	Mean no. of CEB	Mean no. of living children
	0	1	2	3	4	5	6	7	8	9	10+				
ALL WOMEN															
15-19	72.6	21.0	5.9	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	2566	0.34	0.30
20-24	22.3	25.8	28.7	16.4	5.5	0.8	0.4	0.1	0.0	0.0	0.0	100.0	2321	1.62	1.39
25-29	6.0	11.8	23.4	25.6	18.3	8.8	4.5	1.2	0.3	0.1	0.0	100.0	2057	2.91	2.47
30-34	3.8	5.4	11.6	19.0	20.4	16.2	12.2	6.5	3.5	1.4	0.2	100.0	1460	4.09	3.34
35-39	2.2	2.8	7.3	11.5	15.4	18.3	14.9	12.1	8.1	4.3	3.2	100.0	1200	5.16	4.15
40-44	1.8	1.6	4.3	5.9	9.2	14.5	15.5	15.2	12.4	7.5	12.1	100.0	878	6.36	4.94
45-49	0.7	1.4	3.5	4.8	8.1	11.3	13.7	16.1	13.6	11.4	15.6	100.0	656	6.86	5.22
Total	23.4	13.6	14.5	12.7	10.1	7.7	6.1	4.5	3.20	1.90	2.2	100.0	11138	2.95	2.40
CURRENTLY MARRIED WOMEN															
15-19	44.5	42.2	12.3	1.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	100.0	1224	0.70	0.62
20-24	10.5	28.8	33.4	19.3	6.4	1.0	0.5	0.1	0.0	0.0	0.0	100.0	1964	1.88	1.62
25-29	3.5	10.6	23.7	27.2	19.3	9.3	4.7	1.3	0.3	0.1	0.0	100.0	1911	3.04	2.59
30-34	2.7	3.7	11.5	19.3	20.9	16.9	12.8	6.9	3.7	1.5	0.2	100.0	1353	4.22	3.46
35-39	1.7	1.8	6.1	10.8	15.3	19.1	15.5	12.9	8.8	4.5	3.5	100.0	1079	5.34	4.32
40-44	0.7	1.2	3.9	4.9	8.5	14.2	15.4	16.2	13.1	8.3	13.6	100.0	767	6.62	5.17
45-49	0.4	0.9	2.2	4.8	7.1	10.2	13 7	16.1	14.3	12.8	17.3	100.0	541	7.11	5.47
Total	9.9	15.5	17.3	15.3	11.9	9.0	7.2	5.3	3.7	2.3	2.7	100.0	8840	3.48	2.85

A comparison of the mean number of children ever born reported in the 1993-94 BDHS and various other surveys is presented in Table 3.10. Despite the fluctuations between surveys, the data generally show only modest declines until the mid-1980s. Between 1985 and 1989, the decline in mean number of children ever born was substantial in all but the youngest and oldest age groups. Although there was then little change between 1989 and 1991, the rates again decline considerably between 1991 and 1993-94, especially among women age 25 and above.

Table 3.10 Trends in children ever born

Mean number of children ever born by age group, selected sources, Bangladesh, 1975-1994

Age group	1975 BFS	1981 CPS	1983 CPS	1985 CPS	1989 BFS	1989 CPS	1991 CPS	1993-94 BDHS
15-19	0.6	0.5	0.6	0.4	0.4	0.4	0.4	0.3
20-24	2.3	2.0	2.2	2.0	1.7	1.8	1.7	1.6
25-29	4.2	3.7	3.8	3.6	3.1	3.3	3.2	2.9
30-34	5.7	5.4	5.5	5.1	4.7	4.7	4.5	4.1
35-39	6.7	6.4	6.5	6.5	5.9	5.9	5.7	5.2
40-44	7.1	7.3	7.4	7.4	6.6	7.0	6.7	6.4
45-49	6.7	7.6	7.5	7.2	7.3	7.5	7.4	6.9
Total	U	U	U	U	U	U	3.5	3.0

U = Unknown (not available)

Source: 1983 and 1985 CPSs (Kantner and Frankenberg, 1988:21); 1991 CPS (Mitra et al., 1993:31); all others (Cleland et al., 1994:11)

3.6 Birth Intervals

Information on birth intervals provides insight into birth-spacing patterns which have far-reaching impact on both fertility and child mortality levels. Research has shown that children born too soon after a previous birth are at increased risk of dying at an early age. Table 3.11 shows the percent distribution of births of order two or greater that occurred in the five years before the BDHS by the number of months since the previous birth.

Table 3.11 Birth intervals

Percent distribution of non-first births in the five years preceding the survey by number of months since previous birth, according to demographic and socioeconomic characteristics, Bangladesh 1993-94

Characteristic	Number of months since previous birth					Total	Median number of months since previous birth	Number of births
	7-17	18-23	24-35	36-47	48+			
Age of mother								
15-19	17.6	21.7	36.1	18.6	6.0	100.0	26.0	175
20-29	8.9	12.1	35.5	22.1	21.5	100.0	33.9	3311
30-39	6.2	11.5	30.1	22.9	29.3	100.0	36.6	1616
40 +	7.3	8.9	28.7	21.2	33.9	100.0	37.5	307
Birth order								
2-3	8.2	11.8	31.9	21.9	26.1	100.0	35.4	2751
4-6	7.8	11.6	34.5	22.4	23.7	100.0	34.6	1884
7 +	9.7	13.6	36.8	22.8	17.1	100.0	31.5	774
Sex of prior birth								
Male	8.4	10.9	33.2	22.2	25.4	100.0	35.2	2707
Female	8.1	13.2	33.8	22.2	22.6	100.0	34.3	2701
Survival of prior birth								
Living	5.5	11.3	33.8	23.5	25.9	100.0	35.8	4533
Dead	22.6	15.9	32.0	15.4	14.1	100.0	26.4	875
Residence								
Urban	7.2	12.2	25.6	21.8	33.2	100.0	37.4	497
Rural	8.4	12.0	34.3	22.2	23.1	100.0	34.4	4912
Division								
Barisal	8.6	11.7	28.7	25.1	25.9	100.0	36.3	350
Chittagong	8.7	12.9	36.5	22.4	19.4	100.0	33.4	1751
Dhaka	8.7	12.0	33.4	21.1	24.8	100.0	34.4	1633
Khulna	7.1	10.1	28.2	22.2	32.5	100.0	37.7	531
Rajshahi	7.6	11.7	33.0	22.4	25.3	100.0	35.3	1144
Education								
No education	8.1	12.0	35.2	22.5	22.3	100.0	34.3	3432
Primary incomplete	7.7	12.9	32.6	22.6	24.3	100.0	34.9	915
Primary complete	11.1	10.7	29.7	23.0	25.5	100.0	35.0	498
Secondary/Higher	8.0	12.3	27.9	18.8	33.0	100.0	36.9	563
Total	8.3	12.0	33.5	22.2	24.0	100.0	34.7	5409

Note: The interval for multiple births is the number of months since the preceding pregnancy that ended in a live birth.

The data show that birth intervals are generally long in Bangladesh. Almost one-half (46 percent) of non-first births occur three or more years after the previous birth, while one-third take place 24-35 months after the previous birth. Only one in five births occurs after an interval of less than 24 months. The median birth interval is 35 months. This is considerably longer than the median birth interval of 30 months reported in the 1991 CPS (Mitra et al., 1993:37). Differences in the methods used to calculate the medians may account for some of the difference in the two medians.

Younger women have shorter birth intervals than older women. The median birth interval for women age 15-19 is 26 months, compared to 38 months for women over age 40. A shorter median interval also prevails for children whose preceding sibling is dead, compared to those whose prior sibling is alive. This pattern presumably reflects early resumption of sexual intercourse, a shortened breastfeeding period, and minimal use of contraceptives.

3.7 Age at First Birth

The age at which childbearing begins has important demographic consequences for society as a whole as well as for the health and welfare of mother and child. In many countries, postponement of first births, reflecting an increase in the age at marriage, has contributed greatly to overall fertility decline. Early initiation into childbearing is generally a major determinant of large family size and rapid population growth, particularly in countries where family planning is not widely practiced. Moreover, bearing children at a young age involves substantial risks to the health of both the mother and child. Early childbearing also tends to restrict educational and economic opportunities for women.

Table 3.12 presents the percent distribution of women by age at first birth according to current age.[2] For women age 20 and over, the median age at first birth is presented in the last column of the table. Childbearing begins early in Bangladesh, with the large majority of women becoming mothers before they reach the age of 20. The median age at first birth is around 18. Moreover, the data show that median age at first birth has increased slightly from around 17 for older women to around 18 for women in their 20s and early 30s. This slight change to later age at first birth is reflected in the smaller proportion of younger women whose first births occurred before age 15; about 16 percent of women in their 40s report having had their first birth before age 15, compared to only 5 percent of women age 15-19.

Table 3.12 Age at first birth

Percent distribution of women 15-49 by age at first birth, according to current age, Bangladesh 1993-94

Current age	Women with no births	Age at first birth						Total	Number of women	Median age at first birth
		<15	15-17	18-19	20-21	22-24	25+			
15-19	72.6	5.4	18.8	3.2	NA	NA	NA	100.0	2566	a
20-24	22.3	10.5	36.3	19.2	9.1	2.7	NA	100.0	2321	18.3
25-29	6.0	12.3	39.6	19.4	12.9	7.7	2.1	100.0	2057	17.9
30-34	3.8	12.9	40.7	19.9	10.6	8.3	3.8	100.0	1460	17.7
35-39	2.2	14.9	44.2	18.8	10.7	6.3	2.9	100.0	1200	17.3
40-44	1.8	16.6	49.6	18.5	8.2	2.7	2.5	100.0	878	16.9
45-49	0.7	16.3	44.3	18.7	9.3	7.3	3.5	100.0	656	17.3

NA = Not applicable
[a]Less than 50 percent of the women in the age group x to $x+4$ have had a birth by age x

[2] The data are based on all women, including those who have never married (see Footnote 1 for a description of the inflation factors used to estimate the total number of women).

The age at which women in Bangladesh have their first child is steadily increasing, in line with increases in age at marriage. For example, in 1975, the median age at first birth among women age 20-24 was 16.8; in 1989, it had risen to 18.0 and by 1993-94, to 18.3 (Huq and Cleland, 1990:92). Increases of similar magnitude have occurred for women of other age groups.

Differentials in median age at first birth as reported in the 1993-94 BDHS are shown in Table 3.13. Urban women start childbearing later than rural women; the median age at first birth is 18.5 for urban women and 17.6 for rural women age 20-49. Women in Chittagong Division generally have higher median ages at first birth than women in the other divisions, while women in Rajshahi generally have the lowest median ages at first birth. Women with secondary education start childbearing later than those with less or no education. Among women age 20-49, the median age at first birth is 17.3 for women with no education and 19.9 for women with at least some secondary education.

Table 3.13 Median age at first birth

Median age at first birth among women age 20-49 years, by current age and selected background characteristics, Bangladesh 1993-94

Background characteristic	Current age						Ages 20-49	Ages 25-49
	20-24	25-29	30-34	35-39	40-44	45-49		
Residence								
Urban	a	18.3	18.0	17.6	17.7	17.9	18.5	18.0
Rural	18.1	17.8	17.6	17.3	16.8	17.2	17.6	17.4
Division								
Barisal	18.4	17.8	18.2	17.1	17.0	17.0	17.7	17.6
Chittagong	18.9	18.2	17.8	17.9	17.2	18.1	18.1	17.9
Dhaka	18.2	17.9	17.6	17.1	16.9	17.1	17.6	17.4
Khulna	18.5	17.7	18.3	16.8	16.7	16.9	17.7	17.3
Rajshahi	17.7	17.6	17.2	17.2	16.4	17.0	17.3	17.2
Education								
No education	17.5	17.5	17.7	17.2	16.7	17.2	17.3	17.3
Primary incomplete	17.5	17.4	17.4	16.7	16.9	17.2	17.3	17.2
Primary complete	18.4	18.3	17.0	17.3	16.7	(17.4)	17.7	17.5
Secondary/Higher	a	19.5	18.4	18.7	18.5	(18.9)	19.9	18.9
Total	18.3	17.9	17.7	17.3	16.9	17.3	17.7	17.5

Note: The medians for cohort 15-19 could not be determined because half the women have not yet had a birth.
[a]Medians were not calculated for these cohorts because less than 50 percent of women in the age group x to $x+4$ had had a birth by age x. Figures in parentheses are based on 25 to 49 women.

3.8 Teenage Fertility

Early childbearing, particularly among teenagers (those under 20 years of age) has negative demographic, socioeconomic and sociocultural consequences. Teenage mothers suffer particularly from severe complications during delivery, which result in higher morbidity and mortality for both themselves and their children. In addition, the socioeconomic advancement of teenage mothers, in the areas of educational attainment and accessibility to job opportunities, may be curtailed.

Table 3.14 shows the percentage of teenagers age 15-19 who are mothers or pregnant with their first child, according to various background characteristics. Twenty-seven percent of teenage women in Bangladesh are mothers and another 6 percent are pregnant with their first child. Thus, one in three teenage women has begun childbearing. There has been a slight decline in this proportion over time; data from the 1991 CPS indicate that in that year 36 percent of teenage women had either given birth or were pregnant with their first child (Mitra et al., 1993:38).

As expected, the proportion of women who have begun childbearing rises rapidly with age, from 11 percent of those age 15 to 59 percent of those age 19 (see Table 3.14). Those residing in rural areas, those residing in Rajshahi Division, and those with no education are also more likely than others to have begun childbearing. These differentials parallel the differentials documented earlier about patterns in current and cumulative fertility.

Table 3.14 Teenage pregnancy and motherhood

Percentage of teenagers 15-19 who are mothers or pregnant with their first child, by selected background characteristics, Bangladesh 1993-94

Background characteristic	Percentage who are: Mothers	Pregnant with first child	Percentage who have begun child-bearing	Number of teenagers
Age				
15	6.8	3.8	10.6	615
16	17.1	6.2	23.4	566
17	32.1	6.5	38.7	463
18	38.5	6.5	45.1	539
19	54.4	4.7	59.2	382
Residence				
Urban	16.0	4.2	20.3	321
Rural	29.0	5.7	34.8	2246
Division				
Barisal	27.4	6.2	33.6	159
Chittagong	18.0	7.1	25.1	797
Dhaka	30.2	3.4	33.7	727
Khulna	29.0	5.9	34.9	320
Rajshahi	35.4	5.6	41.0	575
Education				
No education	39.2	5.6	44.8	913
Primary incomplete	29.1	6.8	35.9	541
Primary complete	26.7	7.7	34.4	302
Secondary/Higher	12.6	3.7	16.3	849
Total	27.4	5.6	33.0	2566

Note: Numbers may not add to total due to slight differences in the factors used to inflate ever-married to all women by background characteristics.

Whereas most teenage women who have begun childbearing have given birth only once, a small proportion have had two births. As shown in Table 3.15, only 6 percent of women age 15-19 have had two or more births. The proportion is highest for women age 19 (24 percent).

Table 3.15 Children born to teenagers

Percent distribution of teenagers 15-19 by number of children ever born (CEB), Bangladesh 1993-94

Age	Number of children ever born			Total	Mean number of CEB	Number of teenagers
	0	1	2+			
15	93.2	6.7	0.1	100.0	0.07	615
16	82.9	16.4	0.7	100.0	0.18	566
17	67.9	28.0	4.2	100.0	0.37	463
18	61.5	29.5	9.0	100.0	0.48	539
19	45.6	30.3	24.1	100.0	0.81	382
Total	72.6	21.0	6.4	100.0	0.34	2566

CHAPTER 4

FERTILITY REGULATION

4.1 Knowledge of Contraception and Sources

Respondents' knowledge of contraceptive methods was assessed in the BDHS through a series of questions combining spontaneous recall and prompting procedures. The ability to name or recognize the name of a family planning method is a nominal test of a respondent's knowledge and not a measure of how much she may know about the method. However, knowledge of specific methods and of places where they can be obtained is a precondition for their use.

Respondents were first asked to name the ways or methods by which a couple could delay or avoid pregnancy. Interviewers then asked about specific methods not mentioned spontaneously by the respondent. Information was sought about six modern methods—the pill, IUD, injection, condom, female and male sterilization, as well as two traditional methods—periodic abstinence (safe period or rhythm method) and withdrawal. Other methods mentioned by the respondent, such as herbs or breastfeeding, were also recorded. For each method recognized, the respondent was asked if she knew of a source or a person from whom she could obtain the method.

Knowledge of contraceptive methods and supply sources has been almost universal in Bangladesh for many years and the BDHS results confirm this fact. For example, results indicate that just slightly less than 100 percent of both ever-married and currently married women age 10-49 know at least one method of family planning (Table 4.1).

Table 4.1 Knowledge of contraceptive methods and source for methods

Percentage of ever-married women and currently married women age 10-49 who know specific contraceptive methods and who know a source (for information or services), by specific methods, Bangladesh 1993-94

Contraceptive method	Know method		Know a source[1]	
	Ever-married women	Currently married women	Ever-married women	Currently married women
Any method	99.7	99.8	98.0	98.2
Any modern method	99.7	99.8	97.8	98.0
Pill	99.5	99.5	95.6	96.0
IUD	89.4	90.0	78.7	79.4
Injection	96.3	96.6	88.8	89.3
Condom	86.6	87.4	78.5	79.4
Female sterilization	98.8	99.0	92.6	92.9
Male sterilization	82.9	83.1	75.1	75.4
Any traditional method	75.0	76.1	42.9	43.7
Periodic abstinence	64.0	65.0	42.9	43.7
Withdrawal	49.0	50.0	NA	NA
Other traditional methods	17.0	17.4	NA	NA
Number of women	9640	8980	9640	8980

NA = Not applicable
[1]For modern methods, source refers to a place where the method or procedure can be obtained. For rhythm and natural family planning, source refers to a place or person from whom advice can be obtained on practicing these methods.

A greater proportion of currently married women (100 percent) reported knowing a modern method than a traditional method (76 percent). This may be due in part to the fact that traditional methods are not included in the organized family planning efforts. In addition, learning of these methods through informal channels is not easy in a society such as Bangladesh where matters relating to sex are not freely discussed. Knowledge of the pill (100 percent), female sterilization (99 percent), and injection (97 percent) is almost universal, while more than 4 out of 5 married women know the IUD (90 percent), condom (87 percent) and

male sterilization (83 percent). Considering the traditional methods included in the questionnaire, periodic abstinence is more widely known than withdrawal (65 vs. 50 percent of currently married women).

Knowledge about sources of supply for family planning methods is also widespread in Bangladesh. Almost all currently married women (98 percent) are aware of a source for a modern method of contraception. The great majority of women (96 percent) know a source where the pill is available; 93 percent know where to go for female sterilization; 89 percent know a source for injection; and 79 percent know about sources for IUDs and condoms. It is encouraging to note that 75 percent of women know a source for male sterilization.

Trends in Knowledge of Family Planning Methods

As mentioned above, the proportion of women of reproductive age who know of at least one family planning method has been extremely high for some time in Bangladesh. However, as shown in Table 4.2, knowledge of *specific* methods has become more widespread. For example, the proportion of ever-married women who have heard of the IUD doubled over the past decade, from 42 percent in 1983 to 89 percent in 1993-94. Knowledge of injection and especially the condom has also increased. The largest increases in knowledge levels occurred between 1975 and 1983 for most modern methods, however, knowledge of the IUD increased greatly between 1983 and 1989.

Table 4.2 Trends in knowledge of family planning methods

Percentage of ever-married women age 10-49 who know specific family planning methods, selected sources, Bangladesh, 1975-1994

Method	1975 BFS	1983 CPS	1985 CPS	1989 CPS	1989 BFS[1]	1991 CPS	1993-94 BDHS
Any method	81.8	98.6	99.6	99.9	100.0	99.9	99.7
Any modern method	80.0	98.4	99.5	99.9	99.0	99.8	99.7
Pill	63.9	94.1	98.6	99.0	99.0	99.7	99.5
IUD	40.1	41.6	65.4	80.4	78.0	88.9	89.4
Injection	U	61.8	74.1	87.5	81.0	95.2	96.3
Vaginal methods	10.0	19.4	26.3	25.8	24.0	U	U
Condom	21.1	59.0	75.5	76.9	83.0	85.6	86.6
Female sterilization	53.1	95.5	97.8	99.2	98.0	99.4	98.8
Male sterilization	51.4	72.9	84.3	84.0	87.0	87.4	82.9
Any traditional method	49.0	54.8	62.8	71.7	U	83.3	75.0
Periodic abstinence	28.0	26.4	41.2	40.1	46.0	68.0	64.0
Withdrawal	15.1	19.8	20.8	14.4	30.0	48.6	49.0
Number of women	6515	8523	8541	10293	11907	10573	9640

U = Unknown (no information)
[1]Published data were presented in whole numbers; the decimal was added to balance the table.

Source: 1975 BFS (MHPC, 1978:A245 and Vaessen, 1980:16); 1983 CPS (Mitra and Kamal, 1985:85, 89); 1985 CPS (Mitra, 1987:67, 70); 1989 CPS (Mitra et al., 1990:81, 84); 1989 BFS (Huq and Cleland, 1990:60); 1991 CPS (Mitra et al., 1993:42)

Differentials in Knowledge of Methods and Sources

BDHS data reveal that there are no significant differences in knowledge of methods and their sources of supply by background characteristics of currently married women (Table 4.3). Knowledge of at least one method, particularly a modern method, is universal among both urban and rural women, among women in all five divisions, and across all categories of educational attainment.

Table 4.3 Differentials in knowledge of contraceptive methods and source for methods

Percentage of currently married women age 10-49 who know at least one contraceptive method and one modern contraceptive method and who know a source for a modern method and mean number of methods known (for information or services), by selected background characteristics, Bangladesh 1993-94

Background characteristic	Know any method	Mean no. of methods known	Know a modern method[1]	Mean no. of modern methods known	Know a source for modern method	Number of women
Age						
10-14	99.2	5.8	99.2	5.0	96.3	140
15-19	99.5	6.5	99.5	5.4	97.1	1224
20-24	99.7	6.9	99.7	5.6	98.2	1964
25-29	99.9	7.1	99.9	5.7	98.5	1911
30-34	99.9	7.1	99.9	5.6	98.6	1353
35-39	99.8	7.0	99.8	5.6	98.1	1079
40-44	99.4	6.9	99.4	5.5	97.9	767
45-49	100.0	6.5	100.0	5.3	97.0	541
Residence						
Urban	99.9	7.2	99.9	5.7	99.2	1013
Rural	99.7	6.9	99.7	5.6	97.9	7967
Division						
Barisal	100.0	7.2	100.0	5.8	99.4	567
Chittagong	99.3	6.4	99.3	5.3	94.8	2334
Dhaka	100.0	7.0	100.0	5.6	99.0	2756
Khulna	100.0	7.2	100.0	5.8	99.7	1145
Rajshahi	99.8	7.1	99.8	5.7	99.1	2178
Education						
No education	99.6	6.6	99.6	5.4	96.9	5093
Primary incomplete	99.9	7.1	99.9	5.7	99.1	1601
Primary complete	100.0	7.2	100.0	5.7	99.4	894
Secondary/Higher	100.0	7.6	100.0	5.8	99.9	1392
Total	99.8	6.9	99.8	5.6	98.0	8980

[1]Includes pill, IUD, injection, condom, female sterilization, and male sterilization

Married women reported that they knew an average of seven family planning methods, six of which were modern methods. There are no significant differentials in the mean number of methods known by background characteristics, except that, on average, very young married women know fewer methods and women with more education know more methods. The high level of knowledge found in every sub-group indicates the success of efforts to disseminate contraceptive information to all eligible couples. However, there is still scope to increase the amount of information that is known about specific methods of contraception.

4.2 Ever Use of Family Planning

All women interviewed in the BDHS who said that they had heard of a method of family planning were asked if they had ever used used it. Ever use of family planning methods thus refers to use of a method at any time without making a distinction between past and current use. Collection and analysis of ever-use data

has special significance for family planning programs. These data indicate the proportion of the population having exposure to contraceptive use at least once. Therefore, data on ever use reveal the success of programs in promoting use of family planning among eligible couples. In addition, data on ever use, together with data on current use are valuable for studying couples who discontinue using a method.

While almost all currently married women reported knowing at least one method (particularly a modern method), only 66 percent of women report ever having used any method and 59 percent report having used a modern method (Table 4.4). This gap between knowledge and use may be due in part to the fact that only the most rudimentary aspects of knowledge were assessed in the BDHS; many women may lack the more detailed familiarity with methods that might lead to use. On the other hand, some women are either pregnant, or trying to get pregnant and thus have not yet had the need to use family planning.

Table 4.4 Ever use of contraception

Among ever-married women and currently married women age 10-49, the percentage who have ever used a contraceptive method, by specific method and age, Bangladesh 1993-94

		Modern method							Traditional method				
Age	Any method	Any modern method	Pill	IUD	Injection	Condom	Female sterilization	Male sterilization	Any trad. method	Periodic abstinence	Withdrawal	Other	Number of women
EVER-MARRIED WOMEN													
10-14	32.8	22.5	17.9	0.0	1.1	6.0	0.0	0.0	16.2	10.5	9.9	0.0	145
15-19	42.0	35.3	28.0	2.8	4.6	11.0	0.1	0.4	14.6	9.8	7.0	0.5	1271
20-24	63.4	57.0	47.4	6.0	9.9	17.7	2.0	0.6	22.3	16.0	9.5	1.9	2033
25-29	72.6	67.2	53.9	10.9	15.8	16.7	6.5	1.2	27.4	18.3	12.5	3.6	2012
30-34	72 8	67.2	47.3	9.4	14.7	15.5	11.9	2.3	27.5	18.0	12.6	5 4	1456
35-39	72.6	66.0	43.0	9.4	13.1	13.4	17.6	2.0	27.9	18.3	10.8	5.7	1197
40-44	60.5	51.8	32.1	6.3	9.4	8.9	15.7	2.3	26.8	20.0	8.9	4.5	871
45-49	44.6	34.8	20.0	3.7	5.0	5.7	11.5	2.4	20 7	15 1	5 3	3 9	655
Total	63.1	56 4	42 0	7.3	11.0	13.9	7.9	1.4	24 0	16 5	10.1	3 4	9640
CURRENTLY MARRIED WOMEN													
10-14	33.9	23.3	18.5	0.0	1.1	6.2	0.0	0.0	16.8	10.9	10.2	0.0	140
15-19	43.3	36.3	28.7	2.9	4.8	11.3	0.1	0.4	15.1	10.1	7.2	0.5	1224
20-24	64.7	58.3	48.5	6.2	10.1	18.2	2.0	0.6	22.7	16.3	9.8	1.9	1964
25-29	74.5	69.1	55.6	11.4	16.4	17.2	6.6	1.3	28.3	18.8	13.0	3 7	1911
30-34	76.2	70.8	50.0	9.9	15.5	16.3	12.4	2.4	28.5	18 7	13 2	5 8	1353
35-39	76.5	69.6	45.7	10.0	14.2	14.1	18.4	2.0	29.6	19 2	11.7	6.1	1079
40-44	65.7	56.8	35.9	6.8	10.4	10.1	16.6	2.4	29.3	21.7	9.7	5.2	767
45-49	49.3	38.4	22.9	4.1	5 4	6.3	12.0	2.6	23.3	16.6	6.0	4.7	541
Total	65.7	59.0	44.1	7.7	11.6	14.7	8.1	1.4	25.1	17.1	10 6	3.6	8980

One outstanding feature of the data on ever use is the large proportion of currently married women (44 percent) who have ever used the pill. Experience with this method far exceeds that with any other method. Periodic abstinence is the second most widely used method, having been used by 17 percent of currently married women. One possible future research priority is to find out exactly how this method is used by Bangladeshi women and the extent of its success in preventing pregnancies. Fifteen percent of married women have used condoms at some time, and 12 percent have used injection. The level of use of male sterilization is relatively low; only 1 percent of women reported that their husbands had had an operation to avoid having any more children.

Ever-use rates vary with the age of women. Ever use is lowest among the youngest women. However, the fact that one-third of currently married women age 10-14 have used a contraceptive method at least once and one-quarter have used a modern method indicates that women in Bangladesh are now willing to try methods early in their reproductive lives. The level of ever use rises to a high of 77 percent for those age 35-39, then declines, reaching 49 percent among those who are age 45-49. Ever use of any modern method follows a similar pattern by age of women.

There has been a steady increase in the level of ever use of family planning over the past 15-20 years in Bangladesh. In 1975, only 14 percent of ever-married women of reproductive age had ever used a family planning method, compared to 63 percent in 1993-94 (Table 4.5). For use of any modern method, the increase has been even steeper. Although ever use of all methods has increased over time, ever use of the pill has increased the most rapidly. Ever use of both female and male sterilization, as well as of periodic abstinence and withdrawal, appears to have either reached a plateau or declined in recent years.

Table 4.5 Trends in ever use of family planning methods

Percentage of ever-married women age 10-49 who have ever used specific family planning methods, selected sources, Bangladesh, 1975-1994

Method	1975 BFS	1983 CPS	1985 CPS	1989 CPS	1989 BFS[1]	1991 CPS	1993-94 BDHS
Any method	13.6	33.4	32.5	44.2	45.0	59.0	63.1
Any modern method	U	23.8	25.9	37.5	U	49.2	56.4
Pill	5.0	14.1	14.3	23.3	22.0	34.1	42.0
IUD	0.9	2.2	2.7	4.6	4.0	6.2	7.3
Injection	U	1.2	1.3	2.8	2.0	6.6	11.0
Vaginal methods	0.5	2.2	1.6	2.4	1.0	2.9	U
Condom	4.8	7.1	5.7	9.3	6.0	13.4	13.9
Female sterilization	0.3	5.8	7.4	8.7	9.0	8.0	7.9
Male sterilization	0.4	1.4	1.6	1.6	1.0	1.4	1.4
Any traditional method	U	17.3	11.9	15.3	U	29.6	24.0
Periodic abstinence	4.5	11.0	7.8	9.7	13.0	21.5	16.5
Withdrawal	2.6	5.3	2.9	3.6	7.0	11.1	10.1
Number of women	6515	8523	8541	10293	11907	10573	9640

U = Unknown (no information)
[1]Published data were presented in whole numbers; the decimal was added to balance the table.

Source: 1975 BFS (MHPC, 1978:A275); 1983 CPS (Mitra and Kamal, 1985:117, 122); 1985 CPS (Mitra, 1987:108, 112); 1989 CPS (Mitra et al., 1990:88, 92); 1989 BFS (Huq and Cleland, 1990:61); 1991 CPS (Mitra et al., 1993:52)

4.3 Current Use of Contraception

Current use of contraception is defined as the proportion of women who reported they were using a family planning method at the time of interview. In the BDHS, only women who were married at the time of the survey were asked questions about current use of family planning. Table 4.6 shows the percent distribution of currently married women by current contraceptive use status, according to age group.

The findings show that 45 percent of married women age 10-49 are currently using contraception. Many more women are using modern methods (36 percent) than traditional methods (8 percent). Thus, modern methods account for 80 percent of overall use.

Table 4.6 Current use of family planning

Percent distribution of currently married women by contraceptive method currently used, according to age, Bangladesh 1993-94

		Modern method							Traditional method						
Age	Any method	Any modern method	Pill	IUD	Injection	Condom	Female sterilization	Male sterilization	Any trad. method	Periodic abstinence	Withdrawal	Other	Not currently using	Total	Number of women
10-14	22.1	10.5	7.2	0.0	1.1	2.1	0.0	0.0	11.6	6.5	5.2	0.0	77.9	100.0	140
15-19	24.7	19.6	12.4	1.8	2.3	2.9	0.1	0.2	5.1	3.3	1.7	0.1	75.3	100.0	1224
20-24	37.6	32.0	19.7	2.2	4.2	3.5	2.0	0.4	5.6	3.6	1.4	0.6	62.4	100.0	1964
25-29	50.6	43.5	23.5	3.0	6.0	3.6	6.6	0.9	7.1	3.8	2.6	0.7	49.4	100.0	1911
30-34	57.2	46.1	20.3	2.7	6.0	2.6	12.4	2.2	11.1	5.9	3.2	2.0	42.8	100.0	1353
35-39	58.5	46.7	15.7	2.2	5.7	3.3	18.4	1.4	11.8	6.2	3.7	1.9	41.5	100.0	1079
40-44	51.9	38.2	12.1	1.6	3.7	2.1	16.6	2.0	13.7	9.1	3.2	1.4	48.1	100.0	767
45-49	29.3	21.3	4.7	0.1	1.2	1.2	12.0	2.1	8.0	4.5	1.2	2.3	70.7	100.0	541
Total	44.6	36.2	17.4	2.2	4.5	3.0	8.1	1.1	8.4	4.8	2.5	1.1	55.4	100.0	8980

The most popular method by far is the pill, which is used by 17 percent of married women. Use of the pill accounts for almost 40 percent of all contraceptive use in Bangladesh. Other commonly used methods are female sterilization (8 percent), periodic abstinence (5 percent), and injection (5 percent). Only 3 percent of married women reported that they rely on condoms as a contraceptive method, while another 3 percent said they use withdrawal as a method. The proportion of women who use the IUD or whose husbands are sterilized is 2 percent or less.

The pattern of current use by age shows a peak at ages 30-39. The drop in contraceptive use among older women may reflect declining fecundity, while lower levels among women under 25 are to be expected since many may not yet have reached their desired family size. However, it is notable that one in five married women (22 percent) age 10-14 are deliberately controlling their fertility early in marriage. Similarly, women in age group 15-19 report a contraceptive use rate of 25 percent.

The methods that women use vary by age. The pill and periodic abstinence are the most commonly used methods among women age 10-19. Among women in their early 20s, injection is the second most popular method after the pill. There is a gradual shift to longer-term methods among older women, so that by age 25-29, female sterilization is second to the pill; by age 35-39, it is the most widely used method. One in six married women (16 percent) in their late 30s and 40s has been sterilized.

Trends in Current Use of Family Planning

The level of contraceptive use in Bangladesh has risen steadily over the last two decades. The contraceptive prevalence rate for any method has increased fivefold since 1975, from 8 to 45 percent of married women (see Table 4.7 and Figure 4.1). Use of modern methods has grown even faster. In the roughly two and one-half years since the 1991 CPS was conducted, contraceptive use has increased from 40 to 45 percent among married women and use of modern methods has risen from 31 to 36 percent. Overall, there has been a steady rise in the contraceptive prevalence rate since 1975, with an average increase of about two percentage points a year.

Table 4.7 Trends in current use of family planning methods

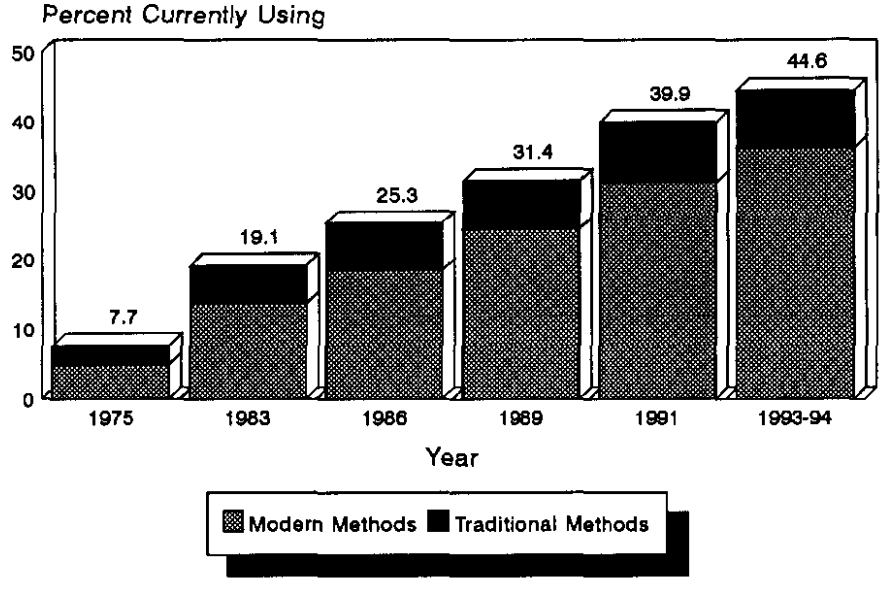
Percentage of currently married women age 10-49 who are currently using specific family planning methods, selected sources, Bangladesh, 1975-1994

Method	1975 BFS	1983 CPS	1985 CPS	1989 CPS	1989 BFS	1991 CPS	1993-94 BDHS
Any method	7.7	19.1	25.3	31.4	30.8	39.9	44.6
Any modern method	5.0	13.8	18.4	24.4	23.2	31.2	36.2
Pill	2.7	3.3	5.1	9.1	9.6	13.9	17.4
IUD	0.5	1.0	1.4	1.7	1.4	1.8	2.2
Injection	U	0.2	0.5	1.1	0.6	2.6	4.5
Vaginal methods	0.0	0.3	0.2	0.2	0.1	U	U
Condom	0.7	1.5	1.8	1.9	1.8	2.5	3.0
Female sterilization	0.6	6.2	7.9	9.0	8.5	9.1	8.1
Male sterilization	0.5	1.2	1.5	1.5	1.2	1.2	1.1
Any traditional method	2.7	5.4	6.9	7.0	7.6	8.7	8.4
Periodic abstinence	0.9	2.4	3.8	3.8	4.0	4.7	4.8
Withdrawal	0.5	1.3	0.9	1.2	1.8	2.0	2.5
Other traditional methods	1.3	1.8	2.2	2.0	1.8	2.0	1.1
Number of women	U	7662	7822	9318	10907	9745	8980

U = Unknown (no information)

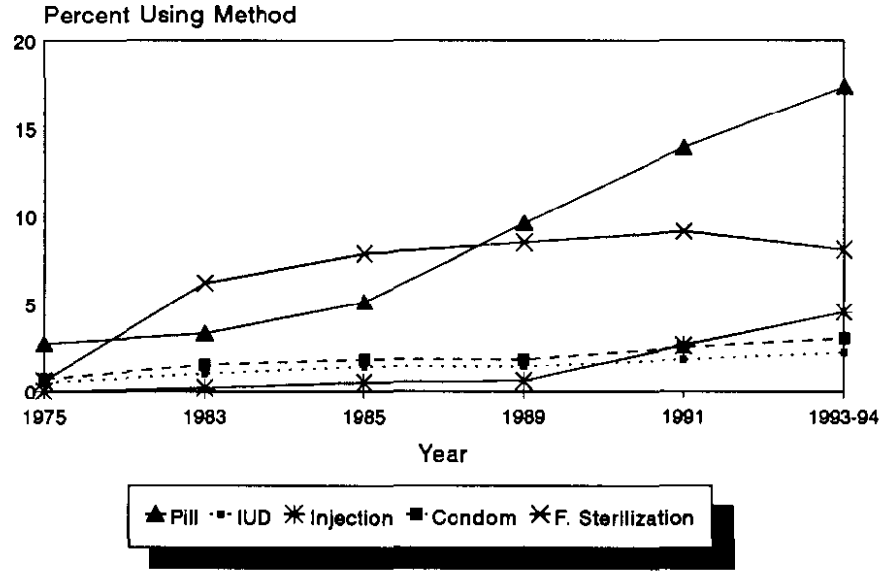
Source: 1975 BFS (Islam and Islam, 1993:43); 1983 CPS (Mitra and Kamal, 1985:159); 1985 CPS (Mitra, 1987:147); 1989 CPS (Mitra et al., 1990:96); 1989 BFS (Huq and Cleland, 1990:64); 1991 CPS (Mitra et al., 1993:53)

Figure 4.1
Trends in Contraceptive Use among Currently Married Women 10-49, from Selected Sources, Bangladesh, 1975 to 1993-94



In terms of specific family planning methods, the dominant change in Bangladesh since the late 1980s has been a large increase in the number of couples using the pill. The proportion of married women relying on the pill almost doubled in the last four years, from 9 percent in 1989 to 17 percent in 1993-94 (see Figure 4.2). Use of injection, condoms, and the IUD have also increased slightly since 1989, while use of female and male sterilization has declined slightly. Use of periodic abstinence and of withdrawal have increased slightly since 1991.

Figure 4.2
Trends in Modern Contraceptive Use among Currently Married Women 10-49, from Selected Sources, Bangladesh, 1975 to 1993-94



The 1993-94 BDHS data indicate that a majority of modern method users are using reversible methods as opposed to permanent methods. The shift towards modern reversible methods is largely due to a significant increase in use of the pill from 1985 to 1993, as well as to the decline in popularity of female and male sterilization.

Differentials in Current Use of Family Planning

BDHS data indicate that some women are much more likely to be using contraception than others (see Table 4.8 and Figure 4.3). The level of current contraceptive use is higher in urban areas (54 percent) than in rural areas (43 percent). The pill is the most popular method among both urban and rural women. The condom is the next most widely used method among urban couples, while female sterilization is the second most popular method for rural women. There is a sharp difference in condom use between urban (8 percent) and rural (2 percent) couples. This may be due to the fact that female field workers, who provide a substantial part of family planning services in rural areas, are shy about discussing condoms with men. Appropriate motivational strategies need to be developed to involve men in taking an active part in the adoption of family planning methods.

Table 4.8 Current use of family planning by background characteristics

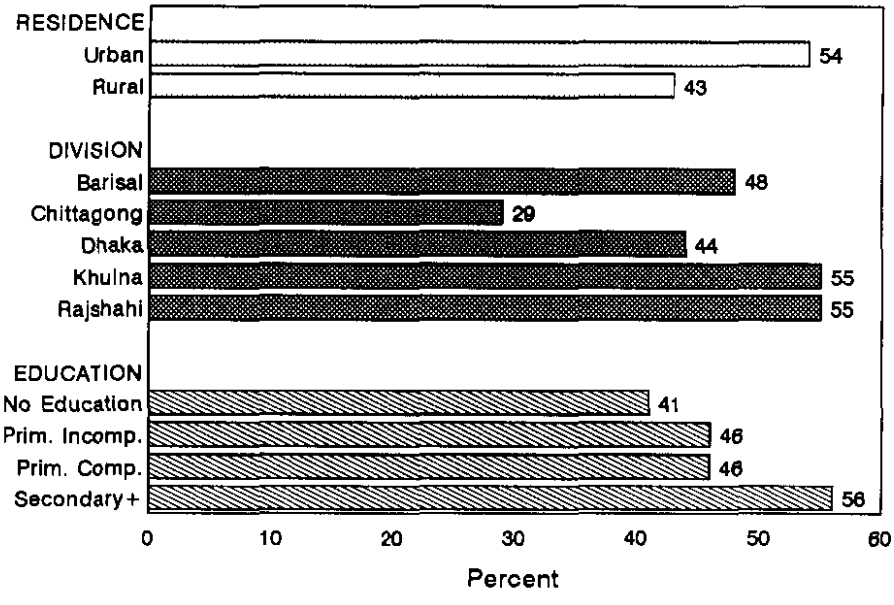
Percent distribution of currently married women age 10-49 by contraceptive method currently used, according to selected background characteristics, Bangladesh 1993-94

Background characteristic	Any method	Modern method: Any modern method	Pill	IUD	Injection	Condom	Female sterilization	Male sterilization	Traditional method: Any trad. method	Periodic abstinence	Withdrawal	Other	Not currently using	Total	Number of women
Residence															
Urban	54.4	44.6	20.9	3.7	4.4	8.3	6.4	0.7	9.8	5.5	3.8	0.5	45.6	100.0	1013
Rural	43.3	35.1	16.9	2.0	4.5	2.3	8.3	1.1	8.2	4.8	2.3	1.1	56.7	100.0	7967
Division															
Barisal	47.7	37.8	18.2	2.4	4.7	2.8	8.2	1.4	10.0	5.1	3.0	1.8	52.3	100.0	567
Chittagong	29.3	23.4	9.1	2.0	4.4	2.1	5.5	0.3	5.9	3.3	1.6	1.0	70.7	100.0	2334
Dhaka	44.3	36.3	18.2	1.9	4.4	3.0	8.2	0.7	8.0	4.6	2.4	1.0	55.7	100.0	2756
Khulna	55.3	42.8	20.1	3.1	5.4	4.4	8.5	1.3	12.5	7.1	4.3	1.0	44.7	100.0	1146
Rajshahi	54.8	45.9	23.5	2.1	4.2	3.3	10.4	2.3	8.9	5.5	2.3	1.1	45.2	100.0	2178
Education															
No education	41.0	34.3	14.7	1.5	5.0	1.2	10.4	1.5	6.7	3.9	1.4	1.3	59.0	100.0	5094
Primary incomplete	45.5	36.8	19.0	2.6	4.9	2.4	6.9	0.9	8.7	5.6	2.3	0.8	54.5	100.0	1601
Primary complete	45.6	34.1	19.8	2.5	3.6	4.0	4.0	0.3	11.4	6.7	4.0	0.7	54.4	100.0	894
Secondary/Higher	56.1	43.9	23.8	3.9	2.7	9.7	3.5	0.4	12.1	6.2	5.4	0.6	43.9	100.0	1392
Number of living children															
0	14.3	9.0	4.7	0.1	0.2	2.8	0.6	0.7	5.3	3.7	1.6	0.0	85.7	100.0	1149
1	34.5	29.1	17.4	2.4	3.3	3.3	1.8	1.0	5.4	3.2	2.0	0.1	65.5	100.0	1604
2	50.1	42.3	22.7	2.8	4.4	3.5	7.2	1.6	7.8	4.5	2.7	0.6	49.9	100.0	1821
3	57.6	48.2	20.6	3.6	6.4	3.2	13.4	1.1	9.3	5.0	3.2	1.1	42.4	100.0	1502
4+	51.9	40.8	17.4	1.8	6.0	2.4	12.2	1.0	11.1	6.3	2.5	2.2	48.1	100.0	2904
Total	44.6	36.2	17.4	2.2	4.5	3.0	8.1	1.1	8.4	4.8	2.5	1.1	55.4	100.0	8980

Differentials in current use of family planning by the five administrative divisions of the country are large. More than half of the married women in Khulna (55 percent) and Rajshahi (55 percent) Divisions and slightly less than half in Barisal Division (48 percent) are current users. In contrast, less than one-third (29 percent) of the married women in Chittagong Division are using a method of contraception. Dhaka Division is intermediate with a contraceptive prevalence rate of 44 percent. In all divisions, the use of modern methods accounts for about 80 percent of all use.

Large differentials in current use are found for different educational groups. Forty-one percent of married women with no formal education are currently using a method, compared to 46 percent of women with either incomplete or complete primary school, and 56 percent of those with at least some secondary education. Looking only at *modern* method use, however, it is of interest that there are no significant differences by education until the secondary school level. The pill is the most commonly used method among women in all education categories. The second most popular method among women who have no education or who did not complete primary school is female sterilization; among those who completed primary school it is periodic abstinence; and among those with secondary school the condom is the second most widely used method. It is interesting that more educated women are more likely to use traditional methods. These patterns are no doubt influenced by the fact that uneducated women tend to be older and of higher parity than more educated women.

Figure 4.3
Current Use of Contraception among Currently Married Women 10-49 by Selected Background Characteristics



The number of living children, or parity, is an indicator of actual reproductive behavior. The relationship between parity and contraceptive use provides an indication of the effect of actual reproductive behavior on use and/or the opposite—the effect of contraceptive use on the number of children. As shown in Table 4.8, current use demonstrates a curvilinear relationship with the number of living children. The proportion using any contraceptive method rises from a low of 14 percent of currently married women with no children to 58 percent for those with three children and then declines to 52 percent of women with four or more children. This decline may be due in part to women's actual or perceived infecundity at higher parities.

Two issues emerge from this analysis of family planning use. First, contraceptive use among married women under age 25 and among those with less than two children is no longer negligible. Although the rates for these groups are still low relative to other groups, they are high enough to indicate that young couples are willing to use family planning methods early in marriage.

The second issue is the continuing low level of contraceptive use in Chittagong Division. This is examined in more detail in Table 4.9 which shows trends in the use of contraception since 1983 by division. It is clear that even in 1983, Chittagong Division lagged well behind the other three divisions in levels of use. Thus, although prevalence rates in Chittagong Division increased between 1983 and 1993-94 at roughly the same rate as in the other divisions (more than doubling), the initial discrepancy remains. This disparity requires further study to assist in designing program interventions to bring Chittagong Division in line with the rest of the country.

Table 4.9 Trends in current use of family planning methods by division

Percentage of currently married women age 10-49 who are currently using any method, any modern method or any traditonal method of family planning, by division, selected sources, Bangladesh, 1983-1994

Type of *method*/ Division	1983 CPS	1985 CPS	1989 CPS	1989 BFS[1]	1991 CPS	1993-94 BDHS
Any method						
Chittagong	12.6	16.1	19.8	21.0	27.1	29.3
Dhaka	20.5	26.0	34.5	32.0	41.7	44.3
Khulna	20.7	28.2	36.6	35.0	45.7	52.8
Rajshahi	22.6	30.3	34.7	38.0	46.1	54.8
Any modern method						
Chittagong	8.7	11.5	15.3	U	20.5	23.4
Dhaka	15.5	19.9	27.6	U	32.9	36.3
Khulna	14.2	20.0	27.9	U	34.6	41.1
Rajshahi	16.1	21.5	26.7	U	37.2	45.9
Any traditional method						
Chittagong	3.9	4.7	4.5	U	6.6	5.9
Dhaka	5.0	6.1	6.9	U	8.9	8.0
Khulna	6.5	8.2	8.7	U	11.1	11.7
Rajshahi	6.5	8.8	8.0	U	8.8	8.9

Note: Data from the 1993-94 BDHS were recategorized to represent the previous four divisions.
U = Unknown (no information)
[1]Published data were presented in whole numbers; the decimal was added to balance the table.

Source: 1983 CPS (Mitra and Kamal, 1985:188); 1985 CPS (Mitra, 1987:166); 1989 CPS (Mitra et al., 1990:113); 1989 BFS (Huq and Cleland, 1990:68); 1991 CPS (Mitra et al., 1993:56)

4.4 Number of Children at First Use of Family Planning

In order to investigate when during the family building process couples become motivated to initiate family planning use, the BDHS included a question for all women who had ever used a method as to how many living children they had when they first used a method. Table 4.10 shows the distribution of ever-

Table 4.10 Number of children at first use of contraception

Percent distribution of ever-married women age 10-49 by number of living children at the time of first use of contraception, according to current age, Bangladesh 1993-94

Current age	Never used contraception	Number of living children at time of first use of contraception						Total	Number of women
		0	1	2	3	4+	Missing		
10-14	67.2	31.4	1.4	0.0	0.0	0.0	0.0	100.0	145
15-19	58.0	22.9	17.3	1.7	0.0	0.0	0.2	100.0	1271
20-24	36.6	18.0	27.7	12.3	4.2	1.0	0.2	100.0	2033
25-29	27.4	11.3	22.0	19.0	12.1	7.8	0.3	100.0	2012
30-34	27.2	5.5	12.8	15.0	16.6	22.7	0.2	100.0	1456
35-39	27.4	2.7	8.4	12.6	13.7	34.9	0.3	100.0	1197
40-44	39.5	1.7	4.7	4.7	9.4	39.9	0.1	100.0	871
45-49	55.4	1.5	2.8	3.4	7.3	29.3	0.3	100.0	655
Total	36.9	11.1	16.3	11.3	9.0	15.2	0.2	100.0	9640

married women by the number of living children they had when they first used a method. Overall, two-fifths (39 percent) of women initiated contraceptive use when they had fewer than three living children and 11 percent initiated use when they had no children. There is a tendency for younger women to have initiated family planning use at lower parities than older women. For example, 28 percent of women age 20-24 started using contraception after their first child, compared to only 3 percent of women 45-49. This probably reflects the fact that young women are more likely to use contraception to space births, while older women use it to limit births.

4.5 Family Planning Decisionmaking

Discussion between spouses and the process of making decisions that affect the family are important issues in determining the extent of acceptance of use of family planning. In the BDHS, ever-married women who had ever used family planning were asked whether they or their husbands had more influence in making the decision to use family planning for the first time.[1] Table 4.11 presents the results from this question.

Table 4.11 Family planning decisionmaking

Percent distribution of ever-married women who have ever used modern family planning by whether respondent or her husband had more influence in the decision to first use family planning, according to selected background characteristics, Bangladesh 1993-94

Background characteristic	Respondent had more influence	Husband had more influence	Husband and wife had equal influence	Other relative had more influence	Other	Not stated/ Missing	Total	Number of women
Age								
10-14	9.8	59.3	16.3	8.2	0.0	6.4	100.0	33
15-19	19.4	34.2	39.9	3.2	1.1	2.3	100.0	448
20-24	25.7	25.8	42.5	2.4	0.6	3.1	100.0	1159
25-29	29.7	19.9	43.4	1.9	1.0	4.1	100.0	1353
30-34	32.5	20.5	38.6	1.3	0.4	6.6	100.0	979
35-39	35.2	16.6	39.7	1.9	0.9	5.6	100.0	790
40-44	32.3	17.8	39.0	2.1	1.2	7.6	100.0	452
45-49	35.9	17.2	36.3	4.5	1.5	4.5	100.0	228
Residence								
Urban	29.2	18.6	43.6	1.4	0.7	6.5	100.0	787
Rural	29.7	22.5	40.2	2.3	0.9	4.4	100.0	4654
Division								
Barisal	30.7	22.2	40.1	1.9	0.4	4.7	100.0	374
Chittagong	35.3	21.8	35.5	2.0	1.4	4.0	100.0	1028
Dhaka	30.7	21.5	38.8	3.2	1.2	4.7	100.0	1755
Khulna	29.3	23.3	37.6	1.5	0.7	7.7	100.0	811
Rajshahi	24.5	21.7	48.5	1.4	0.2	3.7	100.0	1473
Education								
No education	33.9	21.0	37.6	2.7	1.1	3.7	100.0	2803
Primary incomplete	29.7	23.0	40.4	1.9	0.9	4.2	100.0	1018
Primary complete	26.8	23.2	42.4	1.2	1.0	5.4	100.0	564
Secondary/Higher	19.9	22.7	48.2	1.4	0.1	7.7	100.0	1057
Total	29.7	21.9	40.7	2.2	0.8	4.7	100.0	5442

[1] Due to an error in the questionnaire, current users of periodic abstinence and withdrawal were not asked this question.

Overall, 41 percent of respondents said that they and their husbands had equal influence in the decision to use family planning for the first time, while 30 percent said that they had more influence, and 22 percent said their husbands did. Younger women are more likely than older women to say that their husbands had more influence in the decision. Differences by urban-rural residence and by division are small, except that couples in Rajshahi Division appear to be more egalitarian than most, with a larger proportion of women reporting equal influence. Interestingly, a larger proportion of uneducated than educated women say that they had more influence in the decision to use family planning, while those with more education are likely to report equal influence of husband and wife in family planning decisionmaking.

4.6 Problems with Current Method of Family Planning

An understanding of the problems that users experience is important in efforts to improve family planning service delivery in Bangladesh. Table 4.12 presents information from the BDHS on the main problems reported by women who were currently using family planning methods. A sizeable proportion of women using injection, female sterilization, the IUD, and the pill reported having health problems with their methods. Common complaints were feeling weak or tired and having headaches. The most common problem reported by injection users is amenorrhea (no menstruation), while IUD users complain of excessive bleeding. Health problems were rare or nonexistent among users of condoms, male sterilization, periodic abstinence, and withdrawal, presumably because all of these methods are either used by men or, in the case of periodic abstinence, by mutual consent of the couple. Non-health problems were rarely reported for any method.

Table 4.12 Problems with current method of family planning

Percentage of current users of family planning who are having problems with their method, by specific method and type of problem, Bangladesh 1993-94

	Contraceptive method									
Problem	Pill	IUD	Injection	Condom	Female sterili-zation	Male sterili-zation	Periodic abstinence	With-drawal	Other	Total
Any health problem	32.7	35.9	47.7	4.3	47.2	14.5	0.0	1.2	13.0	29.1
Weight gain	1.4	0.6	0.6	0.0	1.0	0.0	0.0	0.0	0.0	0.8
Weight loss	2.7	5.3	3.5	0.0	12.8	2.0	0.0	0.3	3.6	4.2
Excessive bleeding	2.0	13.1	4.2	0.0	6.6	0.0	0.0	0.0	4.4	3.2
Hypertension	0.3	2.2	1.3	0.0	1.4	0.0	0.0	0.0	1.0	0.7
Headache	21.6	8.8	15.4	0.0	15.7	1.9	0.0	0.4	2.9	13.4
Nausea	6.3	1.0	1.5	0.0	1.8	0.0	0.0	0.0	0.0	3.0
No menstruation	1.0	1.1	23.6	0.4	2.9	0.0	0.0	0.0	0.0	3.4
Weak/tired	15.7	15.7	18.9	0.4	29.3	9.9	0.0	0.4	5.5	14.7
Dizziness	4.5	1.2	5.9	0.8	10.4	0.0	0.0	0.0	2.4	4.5
Other	7.3	15.8	10.6	3.1	20.5	9.0	0.0	0.9	5.4	9.1
Non-health problem	1.2	2.1	1.2	1.7	2.4	6.1	0.6	0.0	1.3	1.5
Number of users	1560	196	404	269	766	98	434	220	96	4045

4.7 Reasons for Selecting Family Planning Methods

It is useful to understand why couples choose to use a particular method as opposed to another. Is it because they have little knowledge about methods or limited access to them? This question is of particular importance in Bangladesh, where women have at least heard about most of the methods (see Table 4.3) and thus are more able to make informed choices. It is also useful to understand why the pill has become the predominant method in recent years. Table 4.13 shows the distribution of current users of specific methods by the main reason they decided to use that method.

Table 4.13 Reason for using current method of family planning

Percent distribution of current users of family planning by main reason they decided to use the method, according to specific methods, Bangladesh 1993-94

Reason	Contraceptive method									
	Pill	IUD	Injection	Condom	Female sterilization	Male sterilization	Periodic abstinence	Withdrawal	Other	Total
Family planning worker recommended	3.0	8.3	5.6	1.8	3.1	1.1	1.5	0.9	0.0	3.1
Friend, relative recommended	3.8	6.2	1.6	3.1	2.9	10.8	3.9	2.9	9.7	3.7
Side effects of other methods	26.5	40.2	41.4	55.5	4.8	0.0	53.0	51.7	43.1	30.4
Method easy to use	39.7	28.9	36.4	15.6	1.3	0.0	21.8	11.0	7.3	24.7
Access/Availability	13.2	1.5	2.9	3.1	0.8	1.0	1.1	0.9	6.2	6.2
Cost	0.2	0.5	0.0	0.0	0.1	0.0	0.0	0.0	2.1	0.2
Wanted permanent method	0.4	3.0	2.3	0.0	74.2	45.1	0.1	0.0	15.1	16.0
Husband preferred	10.4	6.0	5.5	18.6	8.5	36.6	13.5	27.0	8.9	11.7
Wanted more effective method	1.1	3.3	2.6	0.5	1.2	0.0	0.2	1.0	3.2	1.3
Other	1.4	2.2	1.7	1.8	2.6	4.5	4.8	4.1	3.5	2.4
Don't know/Missing	0.3	0.0	0.0	0.2	0.4	1.0	0.1	0.5	1.0	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of users	1560	196	404	269	766	98	434	220	96	4045

Reasons for selecting methods vary by method. As expected, pill users are most likely to say that they chose the pill because it was easy to use (40 percent), although one-quarter say that side effects of other methods led them to choose the pill. Other reasons cited by pill users are availability of the method (13 percent) and husband's preference for the method (10 percent). The main reasons that users of the IUD, injection, and periodic abstinence selected their methods are side effects of other methods and the ease of using their methods. Not surprisingly, women who have been sterilized and those whose husbands have been sterilized are most likely to say they chose the method because it was permanent. Over one-third of women whose husbands were sterilized said that their husband's preference for the operation was the main reason for choosing it. Although the majority of condom and withdrawal users said that the possible side effects of other methods influenced them to use their current method, husband's preference was also an important reason.

It is interesting to note that substantial proportions of contraceptive users choose their method not so much because of the advantages of that method, but because of the perceived problems with using other methods. For these women, selection of a method becomes a process of eliminating the less desirable options. Ease of use, is of course, another major criterion in method selection. The fact that husband's preference is also commonly cited indicates that husbands are often involved in making decisions about use of family planning.

4.8 Pill Use

Use of the pill has increased tremendously over the past decade. It now accounts for 40 percent of all use and half of all modern method use. Because of the importance of the pill, the BDHS included a number of special questions about pill use including the brand of pill used, the quality of pill use, and the cost of pills.

Use of Social Marketing Brands

Bangladesh has an active contraceptive social marketing program that distributes pills, condoms, and oral rehydration salts through a network of some 140,000 retail outlets (pharmacies, small shops, and kiosks) throughout the country. The Social Marketing Company carries several brands of oral contraceptives, namely *Maya, Norquest,* and *Ovacon.* To obtain information on the number of users purchasing the social marketing brands, BDHS interviewers asked all respondents who were current pill users to show them their pill packet. If the user had the packet available, the interviewer recorded the brand on the questionnaire. If not, the interviewer showed the woman a chart depicting all the major pill brands and asked the user to identify which brand she was currently using.

Table 4.14 Use of pill brands

Percent distribution of current pill users by brand of pill used, according to urban-rural residence, Bangladesh 1993-94

Pill brand	Residence		Total
	Urban	Rural	
Government/NGO			
Combination-5	57.1	79.2	76.2
Noriday	0.1	0.1	0.1
Ovral	1.5	1.1	1.2
Social marketing			
Maya	4.5	2.0	2.3
Norquest	6.1	3.4	3.7
Ovacon	10.6	7.8	8.2
Private			
Marvelon	2.4	1.0	1.2
Ovostat	12.3	3.0	4.3
Other			
Lyndiol	0.2	0.1	0.2
Nordette	2.2	0.5	0.8
Other brand	0.5	0.2	0.3
Don't know/Missing	2.4	1.5	1.6
Total	100.0	100.0	100.0
Number of pill users	212	1348	1560

Overall, 14 percent of pill users were using social marketing brands (Table 4.14). Over three-quarters of pill users were using the government-supplied brand, *Combination-5,* which is provided free of charge through government field workers and clinics. Urban pill users are somewhat less likely to use the government brand and somewhat more likely to use one of the social marketing brands than rural users. As shown in Table 4.15, social marketing brands account for a greater market share of pill use in Barisal and Khulna Divisions than in the other three divisions.

Table 4.15 Use of social marketing brand pills

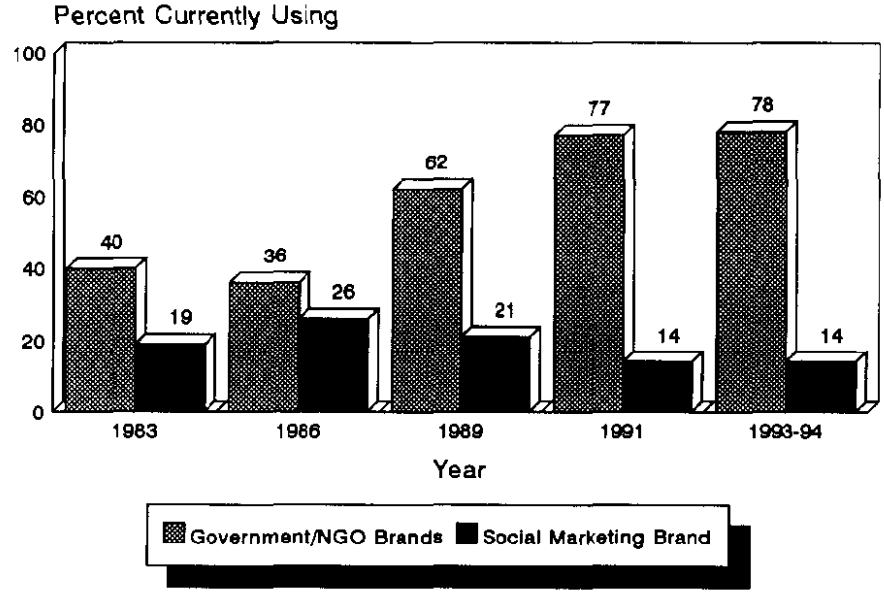
Percentage of pill users who are using a social marketing brand, by urban-rural residence and division, Bangladesh 1993-94

Division	Residence		Total
	Urban	Rural	
Barisal	*	16.8	18.1
Chittagong	(14.3)	11.9	12.3
Dhaka	23.1	10.1	13.2
Khulna	*	16.9	17.5
Rajshahi	(16.2)	13.7	13.8
Total	21.2	13.1	14.2

Note: Maya, Norquest and Ovacon are considered social marketing brands. Figures in parentheses are based on 25 to 49 women.
* Fewer than 25 unweighted women

The percentage of pill users using a brand provided by government or non-governmental organizations (NGOs) has increased substantially over time, from only 40 percent in 1983 to 78 percent in 1993-94 (Figure 4.4). The social marketing program's market share increased in the late 1980s, decreased between 1989 and 1991 and has held steady in recent years. The private sector has accounted for a steadily diminishing share of pill use over time.

Figure 4.4
Trends in Market Share of Specific Pill Brands among Current Pill Users, Selected Sources, 1975 to 1993-94



Source: Mitra et al., 1993:72

Quality of Pill Use

The BDHS collected information on a number of indicators that measure the "quality of use" of the pill. Among these are the proportion of women who said they were currently using the pill but were unable to show a packet of pills to the interviewer, the proportion of users whose packet of pills showed evidence of pills being taken out of sequence or not at all, the proportion of users who said they had not taken a pill in the last two days, and responses to a question on what users do when they forget to take a pill. Tables 4.16 and 4.17 present the results.

The fact that 95 percent of current pill users were able to show a packet of pills to the interviewer indicates a high level of compliance. When asked the reasons for not having the packet available, half of the women said that they had "run out" of pills (data not shown). Since all of the major brands of pills in Bangladesh contain 28 pills in a packet and are meant to be taken without any break, many of the women who "ran out" of pills may in fact not be protected against pregnancy. However, they account for a small proportion of total pill users.

Table 4.16 Quality of pill use

Percentage of current pill users who were unable to show a pill packet, who had taken pills out of sequence or who last took a pill three or more days before the survey, by selected background characteristics, Bangladesh 1993-94

Background characteristic	Unable to show packet	Pills taken out of sequence	Last pill taken 3+ days	Number of pill users
Age				
10-14	*	*	*	10
15-19	6.1	3.8	10.5	151
20-24	4.3	5.5	9.8	388
25-29	4.1	5.3	9.1	450
30-34	7.9	7.2	11.9	275
35-39	3.1	4.7	10.1	169
40-44	7.4	8.8	12.8	93
45-49	10.8	8.1	28.1	25
Residence				
Urban	5.7	4.2	9.4	212
Rural	5.1	5.9	10.6	1348
Division				
Barisal	6.2	6.2	8.3	103
Chittagong	4.7	4.7	12.6	213
Dhaka	6.7	6.1	12.3	501
Khulna	4.7	8.4	12.3	230
Rajshahi	3.9	4.4	7.4	513
Education				
No education	4.9	7.7	11.0	748
Primary incomplete	4.9	4.4	10.9	304
Primary complete	5.0	4.6	8.5	177
Secondary/Higher	6.1	2.9	9.9	331
Total	5.2	5.7	10.5	100
Number of pill users	81	89	163	1560

* Fewer than 25 unweighted women

Table 4.17 Action taken if forgot to take the pill

Percent distribution of current pill users by action that they would take if they forgot to take two or more pills, Bangladesh 1993-94

Action taken	Total
Start again as usual	8.5
Take extra pills	63.5
Use another method	1.7
Extra pills plus another method	0.8
Other	0.6
Never forgot	24.9
Total	100.0
Number of pill users	1560

Among pill users who were able to show a packet, it appeared that most users took the pills systematically. Only 6 percent of pill users showed the interviewers packets in which pills had apparently been taken out of sequence. Of these women, many reported that either health reasons or ignorance had led them to take pills out of order (data not shown).

Eleven percent of pill users said that the last time they had taken a pill was more than two days before the interview. Although it is possible that most of these women were in the period between packets, it is likely that many were unprotected, since most pills used in Bangladesh are meant to be taken continuously. Of those who had not taken a pill in the past two days, four-fifths said that the reason was that they were menstruating, that they had run out of pills, or that their husbands were away (data not shown). All these indicators of the quality of pill use show only minor variations by background characteristics of the women.

All current pill users were also asked the following question: "Just about everyone forgets to take a pill sometime. What do you do when you forget to take a pill for two days in a row?" As shown in Table 4.17, two-thirds of pill users gave correct responses, i.e., that they would take extra pills, use another method, or both. Most of the remainder declined to answer the question in that they said they never forgot to take a pill. Almost one in ten said they would continue taking the pill as usual, taking only one pill on the day they forgot, and thus possibly leaving themselves exposed to risk of pregnancy.

Prompted by reports that pill users frequently "pause" between pill packets, survey organizers included a question in the BDHS on this topic. One in four (27 percent) of pill users reported that they sometimes waited after finishing one packet before starting the next packet (data not shown). Since there were no subsequent questions on why they waited or how frequently this occurred, there is no way of knowing if such pauses are due to ignorance of correct procedures, difficulties in obtaining supplies, or intentional lapses. Similarly, it is not possible to determine whether pauses are a common occurrence or only occur infrequently.

Cost of Pill Packets

Table 4.18 shows the distribution of pill users by how much they say one packet of pills costs them. Over two-thirds of pill users (68 percent) say they obtain their supplies free of charge. Most of the remainder pay five *taka* or more for a packet.

Table 4.18 Cost of pills

Percent distribution of current pill users by cost of one packet of pills, Bangladesh 1993-94

Cost	Percent
Free	68.2
< 1 taka	1.7
1-2 taka	5.6
3-4 taka	3.5
5+ taka	18.0
Missing/Don't know	2.9
Total	100.0
Number of pill users	1560

4.9 Condom Brands

As mentioned above, 3 percent of currently married women in Bangladesh are using condoms as a method of family planning (see Table 4.6). To measure the impact of the social marketing program on condom use, women who said that they and their husbands used condoms were shown a chart depicting all the major condom brands and were asked which brand of condom they used. Men would presumably be a more reliable source of data on condom brands; however, due to the larger sample of women than of husbands covered in the BDHS, and the fact that a major source of condoms is field workers who may give them to the wife instead of the husband, the data shown in Table 4.19 are derived from women.

It is apparent that condoms sold by the Social Marketing Company enjoy a high market share. The three social marketing brands together account for 52 percent of the condom market, with *Raja* alone accounting for 30 percent and *Panther* for an additional 22 percent. When women who could not name the brand of condom are excluded, the social marketing brands account for 61 percent of the market. The

Table 4.19 Use of condom brands

Percent distribution of current condom users by brand of condom used, according to urban-rural residence, Bangladesh 1993-94

Condom brand	Residence		Total
	Urban	Rural	
Durex	0.0	0.5	0.4
Latex	3.4	2.5	2.8
Majestic[1]	0.0	0.3	0.2
Panther[1]	30.1	17.8	21.6
Raja[1]	24.0	33.2	30.3
Sensation	6.4	3.8	4.7
Sultan	4.7	10.2	8.5
Tahiti	0.5	1.3	1.1
Other brand	19.2	14.8	16.2
Don't know/Missing	11.7	15.5	14.3
Total	100.0	100.0	100.0
Number of condom users	84	185	269

Note: Table is based on women's reports.
[1]Social marketing brands

Panther brand of condom appears to be more popular among urban users, while *Raja* predominates among rural users.

The proportion of overall condom use that is supplied through the Social Marketing Company has fluctuated over time, increasing from 64 percent in 1983 to 73 percent in 1986, then declining to 62 percent in 1989 and to 41 percent in 1991 before climbing again to 61 percent in 1993-94 (Mitra et al., 1993:72-74). The government/NGO *Sultan* brand of condoms plummetted from 57 percent of the market share in 1991 to 10 percent in 1993-94 (omitting the "Don't know/Missing" category).

4.10 Timing of Sterilization

As mentioned above, eight percent of ever-married women of reproductive age in Bangladesh have undergone a sterilization procedure. Table 4.20 shows the distribution of sterilized women by the age at which they had the procedure, according to the number of years prior to the survey the procedure was done. It should be noted that, since data on age at sterilization were derived from a question on the month and year of the operation, it is possible that the data are distorted by some systematic error in reporting the date of the operation or the date of birth and/or age of the woman.

The data show that female sterilization occurs relatively early in women's reproductive lives. Fully two-thirds of the women sterilized had the operation before age 30 and one-third had it before they were age 25. Only a small fraction of sterilized women had the operation when they were in their 40s. The median age at sterilization is 27. There has been little change in the median age at which women have the operation.

Table 4.20 Timing of sterilization

Percent distribution of sterilized women by age at the time of sterilization, according to the number of years since the operation, Bangladesh 1993-94

Years since operation	Age at time of sterilization						Total	Number of women	Median age[1]
	<25	25-29	30-34	35-39	40-44	45-49			
<2	(33.5)	(35.7)	(19.8)	(8.7)	(2.4)	(0.0)	100.0	49	27.4
2-3	38.6	25.6	25.7	7.8	1.6	0.7	100.0	93	25.9
4-5	35.1	29.1	22.6	9.9	3.2	0.0	100.0	104	26.8
6-7	31.0	29.9	25.1	11.7	2.3	0.0	100.0	135	27.5
8-9	33.5	33.2	23.7	6.8	2.8	0.0	100.0	148	27.7
10+	34.1	35.7	20.7	9.5	0.0	0.0	100.0	236	a
Total	34.1	32.1	22.9	9.2	1.7	0.1	100.0	766	27.0

Note: Figures in parentheses are based on 25 to 49 women.
[1]Median age was calculated only for women less than 40 years of age to avoid problems of censoring.
[a]Not calculated due to censoring

4.11 Sterilization Regret

Female and male sterilization together account for approximately 20 percent of contraceptive use in Bangladesh (see Table 4.6). Although some level of regret is expected to occur with any permanent method of contraception, a high level could be viewed as an indication of poor quality of care in the sense that women and men who are sterilized at a young age and/or low parity, or who are not adequately counselled, are more likely to regret having the operation (Loaiza, 1995). In the BDHS, women who had been sterilized or whose husbands had been sterilized were asked if they regretted having had the operation and, if so, why. The results are presented in Table 4.21. Although a similar question was asked of husbands, the data are not included here, due to the smaller sample size.

Overall, one in six women (16 percent) reported that they regretted that they or their husbands had been sterilized. Almost all of these women said the reason for regret was that they or their husbands wanted another child. Sterilization regret is higher among rural than urban women (17 vs. 9 percent), but varies little by division. The more education a woman has, the less likely she is to regret that she or her husband were sterilized. The same is true for the number of children a woman has; as expected, sterilization regret decreases as the number of living children increases. For example, over half of women with fewer than two living children regret having had the operation. Of course, the number of living children refers to the *current* number and not the number at the time of sterilization. Thus, many who regret having been sterilized include those cases in which couples decided on sterilization and subsequently suffered the loss of one or more of their children.

Table 4.21 *Sterilization regret*

Percentage of currently married women who are sterilized or whose husbands are sterilized who regret the operation, by reasons for regret and selected background characteristics, Bangladesh 1993-94

Background characteristic	Percentage who regret the operation	Reason for regretting sterilization				Number of women
		Respondent wants another child	Husband wants child	Side effects	Other reason	
Residence						
Urban	9.3	5.2	1.7	0.0	2.4	73
Rural	16.8	10.9	2.8	2.6	0.5	750
Division						
Barisal	14.7	12.4	1.2	1.2	0.0	54
Chittagong	19.7	9.8	4.9	4.9	0.0	135
Dhaka	15.6	8.8	3.6	2.2	1.0	244
Khulna	13.5	10.4	0.9	0.9	1.3	112
Rajshahi	16.1	11.6	1.7	2.1	0.7	276
Education						
No education	17.1	10.9	2.6	2.7	0.9	604
Primary complete	15.8	11.3	1.9	2.6	0.0	126
Primary incomplete	11.7	8.2	3.5	0.0	0.0	38
Secondary/Higher	8.5	4.3	4.3	0.0	0.0	55
Number of living children						
<2	56.7	49.3	5.3	0.0	2.1	59
2	27.7	18.6	3.0	3.7	2.5	162
3	16.7	9.1	4.2	3.4	0.0	217
4	5.2	2.5	1.4	1.3	0.0	174
5+	4.2	1.1	1.1	1.8	0.2	211
Total	16.1	10.4	2.7	2.4	0.7	822

4.12 Source of Family Planning Services

In the BDHS, all current users of modern methods of family planning were asked to report the source from which they most recently obtained their methods. Since women often do not know exactly into which category the source they use falls (e.g., hospital, thana health complex, family welfare center, private clinic, etc.), interviewers were instructed to write the name of the source in the questionnaire. Supervisors and field editors were instructed to verify that the name and the type of sources were consistent, asking local residents for the names of nearby family planning sources, if necessary. This practice was designed to improve the reporting of data on sources of family planning, although its actual effect is difficult to determine.

Table 4.22 and Figure 4.5 show that field workers (both government and non-government) supply 42 percent of current modern method users. Thirty-eight percent of modern method users obtained their methods from government sources, including government hospitals (10 percent), family welfare centers (13 percent), thana health complexes (13 percent), and satellite clinics (2 percent). Ten percent of modern method users obtained their methods from private medical sources, such as private clinics and doctors (1 percent) and pharmacies (8 percent). Seven percent of users obtain methods from other private sources such as shops and friends.

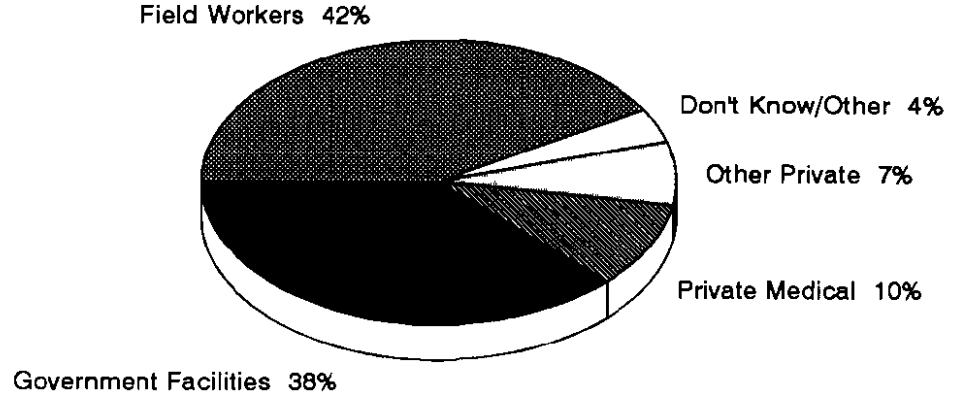
Table 4.22 Source of supply for modern contraceptive methods

Percent distribution of current users of modern contraceptive methods by most recent source of supply or information, according to specific methods, Bangladesh 1993-94

Source of supply	Contraceptive method						
	Pill	IUD	Injec-tion	Con-dom	Female sterili-zation	Male sterili-zation	All modern methods
Public	5.1	79.9	55.5	4.1	91.5	86.0	37.5
Government hospital	0.5	11.4	5.0	0.4	30.7	52.4	10.0
Family welfare center	3.8	46.3	30.9	3.1	18.0	6.4	12.9
Thana health complex	0.7	18.6	7.0	0.6	42.1	27.3	12.6
Satellite clinic	0.1	3.6	12.6	0.0	0.8	0.0	2.0
Medical private	14.2	2.2	4.4	22.9	1.4	1.5	9.7
Private clinic/doctor	0.9	1.7	3.3	0.4	0.9	1.0	1.2
Traditional doctor	0.4	0.0	0.3	0.0	0.4	0.4	0.4
Pharmacy	12.8	0.5	0.8	22.5	0.0	0.0	8.2
Other private	8.4	0.0	0.3	31 0	0.1	1.0	6.7
Shop	6.7	0.0	0.0	30.3	0.0	0.0	5.7
Friends/relatives	1.6	0.0	0.3	0.7	0.1	1.0	0.9
Field worker/FWA[1]	70.0	12.2	36.2	35.1	0.1	0.0	41.8
Other	1.2	5.7	3.5	0.9	6.8	3.9	3.1
Don't know	1.0	0.0	0.1	6.1	0.0	7.6	1.2
Missing	0.1	0.0	0.0	0.0	0.0	0.0	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of users	1560	196	404	269	724	98	3251

[1]FWA = Family Welfare Assistant (Government-sponsored field worker)

Figure 4.5
Percent Distribution of Current Users of Modern Methods by Most Recent Source of Supply



BDHS 1993-94

The source a woman uses to obtain contraceptive methods is related to the type of method she is using. The vast majority (70 percent) of pill users obtain their method from field workers, although 20 percent obtain supplies from pharmacies and shops. On the other hand, most IUD users (80 percent) obtained their method from government facilities, such as family welfare centers and thana health complexes. Most users of injection are served by government facilities, especially the family welfare centers, although field workers supply over one-third of injection users. Half of condom users say their method is obtained from pharmacies and shops, while more than one-third obtain condoms from field workers. As expected, both female and male sterilizations are mainly performed in government facilities.

Field workers are providing a slightly larger share of family planning services now than in 1991—42 percent of modern method users in 1993-94 vs. 38 percent in the 1991 CPS (Mitra et al. 1993:66). This no doubt reflects the fact that most of the increase in modern method use since 1991 is due to increased use of the pill, which is predominantly provided through field workers. The proportion of services provided through either pharmacies or shops has remained steady since 1991, although it has shifted away from pharmacies towards shops (to the extent that respondents can distinguish the two adequately). Although the coding categories are not exactly comparable in the two surveys, it appears that fixed health facilities such as hospitals and clinics account for a smaller share of family planning service provision in 1993-94 than in 1991. Satellite clinics have gained slightly in importance, due almost entirely to an increase in the proportion of injection users who obtain services at these facilities; however, they are still not a major source of family planning services.

4.13 Contraceptive Discontinuation

A key concern for family planning programs is the rate at which users discontinue use of contraception and the reasons for such discontinuation. Life table contraceptive discontinuation rates based on information collected in the 5-year, month-by-month calendar in the BDHS questionnaire are presented in Table 4.23. All episodes of contraceptive use between April 1988 (the first month of the Bengali year 1395) and the date of interview were recorded in the calendar, along with the main reason for any discontinuation of use during this period. Unlike the DHS surveys in some other countries, women in Bangladesh who were using in April 1988 were not asked when they started that period of use. Thus, the discontinuation rates presented here are based on *all* segments of use that started between April 1988 and three months prior to the date of interview.

Table 4.23 Contraceptive discontinuation rates

First-year contraceptive discontinuation rates due to method failure, desire for pregnancy, health reasons, or other reasons, according to specific methods, Bangladesh 1993-94

	Reason for discontinuation				
Method	Method failure	To become pregnant	Side effects/ Health	All other reasons[1]	All reasons
Pill	1.7	7.1	25.6	10.6	45.0
IUD	0.3	1.8	29.9	5.1	37.1
Injection	1.1	4.8	40.0	11.7	57.6
Condom	5.9	13.6	13.8	38.8	72.0
Periodic abstinence	8.6	12.3	2.0	21.8	44.7
Withdrawal	8.8	11.5	5.4	29.3	55.0
Other	16.5	3.2	9.1	17.7	46.6
Total	3.5	7.7	20.8	15.8	47.8

[1]Includes discontinuations with missing reasons

The month of interview and the two preceding months are ignored in order to avoid the bias that might be introduced by an unrecognized pregnancy.

The rates presented in Table 4.23 are cumulative one-year discontinuation rates and represent the proportion of users who discontinue use by 12 months after they start. The rates are calculated by dividing the number of discontinuations at each duration of use in single months by the number of months of exposure at that duration. The single-month rates are then cumulated to produce a one-year rate. In calculating rates, the reasons for discontinuation are treated as competing risks (net rates). For purposes of the table, the reasons are classified into four main categories: method failure (pregnancy), desire to become pregnant, side effects/health reasons, and all other reasons. Switching from one method to another is included in the last category.

The results indicate that half of users in Bangladesh stop using within 12 months of starting use; 4 percent stop due to method failure, 8 percent because they want to become pregnant, 21 percent as a result of side effects or health concerns, and 16 percent because of other reasons. Discontinuation rates vary by method. Not surprisingly, rates for the condom (72 percent) and withdrawal (55 percent) are considerably higher than for the IUD (37 percent) and the pill (45 percent). However, discontinuation rates for injection are relatively high, considering that one dose is usually effective for three months. Fifty-eight percent of injection users discontinue within one year of starting, a rate that is higher than for the pill. Discontinuation rates for periodic abstinence are intermediate (45 percent).

Side effects of the method or other health reasons are by far the most commonly reported reasons for discontinuing the pill, the IUD, and injection. Only a small proportion of users of these methods discontinue within one year because of method failure or to become pregnant. These two reasons account for a larger proportion of women who discontinue use of condoms, periodic abstinence and withdrawal; however, "other reasons" account for the largest share of discontinuers of these methods.

Further information on reasons for contraceptive discontinuation is presented in Table 4.24. This table shows the percent distribution of all discontinuations occurring during the five years preceding the survey, regardless of whether they occurred during the first 12 months of use or not. Taking into account all methods, side effects (34 percent) is the reason given most frequently for discontinuation, followed by the desire to get pregnant (19 percent). Discontinuations of pill use and IUD use are most commonly due to side effects, followed by a desire to become pregnant and health concerns. Side effects is also a major cause of discontinuation of injection. The fact that 1 in 10 segments of injection use is interrupted due to problems in availability or accessibility is notable. The main reasons for discontinuing use of the condom and withdrawal is disapproval of the husband and a desire to become pregnant. As for periodic abstinence, the desire to become pregnant is the main cause of discontinuation. Method failure is an important reason for discontinuation of both periodic abstinence and withdrawal, accounting for 20 percent of discontinuations for both methods. Similarly, the desire to use more effective methods accounted for a not insignificant proportion of discontinuations of periodic abstinence and withdrawal.

Table 4.24 Reasons for discontinuation

Percent distribution of discontinuations of contraceptive methods in the last five years by main reason for discontinuation, according to specific methods, Bangladesh 1993-94

Reason for discontinuation	Method							
	Pill	IUD	Injection	Condom	Periodic abstinence	Withdrawal	Other	Total
Became pregnant	4.1	1.5	1.9	8.6	19.7	19.7	38.4	7.8
To become pregnant	20.0	9.2	8.9	20.1	32.2	20.2	7.2	19.4
Husband disapproved	1.4	1.4	1.3	24.6	12.7	22.8	2.5	7.1
Side effects	43.1	60.9	59.8	12.4	1.4	3.3	11.6	33.8
Health concerns	9.0	7.8	6.9	6.4	2.0	3.4	6.3	7.1
Access/availability	2.7	0.0	9.5	1.0	0.3	0.6	2.7	2.6
More effective method	2.4	1.8	0.9	7.5	14.5	11.1	6.3	4.9
Inconvenient to use	0.5	2.5	0.4	3.6	1.2	1.1	1.8	1.2
Infrequent sex	5.8	1.8	1.0	4.4	6.2	7.8	2.4	5.0
Cost	0.4	0.0	0.4	0.3	0.0	0.0	0.0	0.3
Fatalistic	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.0
Menopause	0.2	0.3	1.1	0.3	0.2	0.0	0.0	0.3
Marital dissolution	0.3	1.0	0.2	0.2	0.2	0.7	0.8	0.3
Other	6.1	8.7	5.2	7.0	4.7	5.8	11.1	6.3
Don't know	0.0	0.0	0.2	0.0	0.2	0.0	0.0	0.1
Missing	4.0	3.0	2.3	3.5	4.5	3.4	8.9	3.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of discontinuations	2623	312	544	693	633	301	115	5225

Note: Total includes 4 discontinuations of male sterilization.

4.14 Nonuse of Family Planning

Future Use

To obtain information about potential demand for family planning services, all currently married women who were not using contraception at the time of the survey were asked if they intended to use a method at any time in the future. Table 4.25 shows the distribution of the women by their intention to use in the future, according to the number of living children.

Two out of three (66 percent) currently married nonusers say that they intend to use family planning in the future; 42 percent intend to use within the next 12 months, 23 percent intend to use later, and 1 percent were not sure when they would start using contraception. Twenty-nine percent of nonusers said that they did not intend to practice family planning in the future, while 4 percent were unsure.

The proportion intending to use family planning peaks at 79 percent among nonusers with one child. The timing of the intention to use also varies with the number of living children. For example, the proportion who intend to use within the next 12 months is considerably lower among childless nonusers than among those with children, while the proportion who intend to use after 12 months is lower among women with four or more children. Among previous users of contraception, one in two women intends to use a method in the next 12 months, compared to one in three among the never users.

Table 4.25 Future use of contraception

Percent distribution of currently married women age 10-49 who are not using a contraceptive method by past experience with contraception and intention to use in the future, according to number of living children, Bangladesh 1993-94

Past experience with contraception and future intentions	Number of living children[1]					Total
	0	1	2	3	4+	
Never used contraception						
Intend to use in next 12 months	19.4	30.7	19.8	20.2	13.2	20.2
Intend to use later	40.4	20.0	12.3	7.5	4.8	15.2
Unsure as to timing	1.8	1.5	0.3	0.6	0.4	0.9
Unsure as to intention	7.6	4.2	3.7	2.2	2.1	3.7
Do not intend to use	13.9	13.3	14.9	20.8	36.6	21.7
Missing	0.3	0.2	0.1	0.2	0.2	0.2
Previously used contraception						
Intend to use in next 12 months	4.6	16.7	32.0	31.8	21.7	21.5
Intend to use later	10.0	10.1	11.0	7.7	4.0	8.1
Unsure as to timing	0.3	0.3	1.0	0.4	0.5	0.5
Unsure as to intention	0.3	0.6	0.8	1.2	0.5	0.6
Do not intend to use	1.3	1.9	4.0	6.6	15.2	6.8
Missing	0.3	0.5	0.3	0.8	0.6	0.5
Total	100.0	100.0	100.0	100.0	100.0	100.0
All currently married nonusers						
Intend to use in next 12 months	24.0	47.4	51.7	52.0	35.0	41.7
Intend to use later	50.3	30.0	23.2	15.2	8.8	23.3
Unsure as to timing	2.1	1.9	1.3	1.1	1.0	1.4
Unsure as to intention	7.9	4.8	4.5	3.4	2.6	4.4
Do not intend to use	15.2	15.2	18.9	27.4	51.8	28.5
Missing	0.5	0.7	0.4	1.0	0.9	0.7
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	741	1082	985	689	1481	4978

[1]Includes current pregnancy

Reasons for Nonuse

Women who were not using family planning at the time of the survey and who said that they did not intend to use it in the future were asked why they were not using. Table 4.26 presents data on the main reasons for not using family planning. Forty-one percent of these women said that they did not intend to use because of infecundity (either "difficult to get pregnant" or "menopausal"). A desire to have children appears to be the next most common reason for nonuse (13 percent of nonusers), followed by religious reasons (11 percent). Other commonly mentioned reasons are: husband's opposition to family planning (8 percent), side effects and other health concerns (6 percent), infrequent sexual relations (6 percent), and a fatalistic attitude (4 percent). Only 3 percent cited lack of knowledge about methods as the main reason for their nonuse.

There are significant differences in reasons for nonuse by age of woman. The major reasons that younger women (under age 30) give for not intending to use contraception in the future are a desire to have children (28 percent), religion (15 percent), and opposition of their husbands to family planning (14 percent). Those age 30 and over are more likely to cite reasons such as being menopausal or infecund (56 percent).

Table 4.26 Reasons for not using contraception

Percent distribution of currently married women age 10-49 who are not using a contraceptive method and who do not intend to use in the future or are unsure, by main reason for not using, according to age, Bangladesh 1993-94

Reason for not using contraception	Age		Total
	<30	30-49	
Want children	28.4	6.6	13.1
Lack of knowledge	4.8	1.9	2.8
Husband opposed	14.4	4.9	7.8
Side effects	2.3	2.3	2.3
Health concerns	3.9	3.6	3.7
Hard to get methods	0.2	0.1	0.1
Religion	15.3	8.4	10.5
Opposed to family planning	1.1	0.4	0.6
Fatalistic	7.4	3.1	4.4
Other people opposed	1.2	0.3	0.6
Infrequent sex	2.7	7.2	5.9
Difficult to get pregnant	5.2	33.4	24.9
Menopausal/Had hysterectomy	1.9	22.7	16.4
Inconvenient	0.5	0.0	0.1
Other	5.0	3.2	3.8
Don't know	2.2	0.3	0.9
Missing	3.4	1.6	2.2
Total	100.0	100.0	100.0
Number of women	501	1170	1670

The fact that husband's opposition is cited as an obstacle to family planning use more frequently by younger than older nonusers suggests that program efforts geared to motivating husbands might be useful.

Preferred Method

Nonusers who said they intended to use family planning in the future were asked which method they preferred to use. Table 4.27 presents information on their method preferences. The pill was the most popular method, with nearly half (47 percent) of nonusers who intended to use in the future stating that they would choose that method. The next most preferred method was injection, accounting for 20 percent of intended use. About one in five women was uncertain which method she would prefer to use. There is little difference in method preference according to timing of intended use, except that women who intend to use after 12 months and those who are unsure as to when they will use are more likely to be unsure of their method preference.

Table 4.27 Preferred method of contraception for future use

Percent distribution of currently married women who are not using a contraceptive method but who intend to use in the future by preferred method, according to whether they intend to use in the next 12 months or later, Bangladesh 1993-94

Preferred method of contraception	Intend to use			Total
	In next 12 months	After 12 months	Unsure as to timing	
Pill	47.8	46.0	39.1	47.0
IUD	2.5	1.4	0.0	2.0
Injection	23.6	15.0	15.5	20.4
Condom	2.8	2.0	0.0	2.5
Female sterilization	2.8	3.6	2.8	3.1
Male sterilization	0.0	0.0	0.0	0.0
Periodic abstinence	2.1	1.3	1.4	1.8
Withdrawal	0.4	0.4	0.0	0.4
Other	1.9	1.4	7.9	1.8
Unsure/Missing	16.1	28.8	33.2	20.9
Total	100.0	100.0	100.0	100.0
Number of women	2076	1161	70	3307

Family Planning Messages

In order to gauge the extent of family planning information and education activities, respondents in the BDHS were asked if they had heard or seen a message about family planning in the media (radio, television, billboard, or poster) in the month before the survey. Table 4.28 presents the percentage of ever-married women who were exposed to such messages, according to background characteristics.

Slightly less than half of the women (47 percent) reported that they had heard or seen a family planning message in one or more of the four media. Radio is a more effective medium than television, billboards or posters, which is hardly surprising in a country with limited electrical coverage and low female literacy. Two in five women had heard a family planning message on the radio in the month before the interview, compared to less than one in five who had seen a message on television. Moreover, almost all women who had seen a family planning message on television, had also heard a radio message. Less than one in ten women reported seeing a family planning message on a billboard or poster in the month prior to the interview.

Recent exposure to family planning messages through the mass media varies between urban and rural areas. Urban women are more likely to have been exposed to media messages than rural women (70 vs. 43 percent, respectively); this is true for all four types of media. Differences in media exposure by division are not large, although television messages are more commonly reported by women in Dhaka Division than by women in the other divisions. Exposure to family planning messages through the mass media is positively correlated with educational level. Only 36 percent of uneducated respondents reported having heard a family planning message, compared to 77 percent of the women with secondary education.

Table 4.28 Exposure to family planning messages

Percentage of ever-married women age 10-49 who heard/saw a message about family planning (FP) in the month preceding the interview, by type of media and selected background characteristics, Bangladesh 1993-94

Background characteristic	Type of media				At least one FP message	Number of women
	Radio	Television	Billboard	Poster		
Residence						
Urban	54.1	55.9	19.5	25.2	70.4	1108
Rural	40.5	12.2	3.5	6.2	43.4	8532
Division						
Barisal	39.2	10.2	7.1	10.5	42.6	606
Chittagong	42.4	17.8	4.3	7.4	45.6	2527
Dhaka	44.4	23.0	7.7	10.8	50.7	2963
Khulna	38.8	14.2	4.8	7.8	42.8	1217
Rajshahi	41.3	12.6	3.4	6.0	45.1	2326
Education						
No education	33.6	9.4	1.8	3.6	36.4	5598
Primary incomplete	45.1	15.0	4.4	7.3	48.6	1681
Primary complete	51.4	20.3	7.0	10.3	56.9	921
Secondary/Higher	65.4	48.5	19.3	27.0	76.9	1439
Total	42.1	17.2	5.4	8.4	46.5	9640

Respondents were further asked whether or not it was acceptable to them for information to be provided on the radio about five specific family planning methods: the pill, condoms, injection, the IUD, and female sterilization. As shown in Table 4.29, almost all ever-married women (95 percent) indicated that it was acceptable to have information on the radio about at least one of the five methods, and more than three-quarters (77 percent) felt that way about all five methods. Older women, rural residents, women with no education, and women in Chittagong Division were less likely than other women to approve of dissemination of information about methods through the radio.

Table 4.29 Acceptability of media messages on family planning

Percent distribution of ever-married women age 10-49 by acceptability of having messages on the radio about the pill, condom, injection, IUD or sterilization, according to age and selected background characteristics, Bangladesh 1993-94

Background characteristic	Acceptability			Total	Number of women
	Acceptable for all methods	Acceptable for at least one	Not acceptable any method		
Age					
10-14	77.9	94.5	5.5	100.0	145
15-19	76.8	96.0	4.0	100.0	1271
20-24	79.2	96.4	3.6	100.0	2033
25-29	77.9	96.1	3.9	100.0	2012
30-34	79.2	94.8	5.2	100.0	1456
35-39	77.5	93.6	6.3	100.0	1197
40-44	73.7	91.7	8.2	100.0	871
45-49	69.5	88.4	11.6	100.0	655
Residence					
Urban	81.2	96.3	3.7	100.0	1108
Rural	76.7	94.5	5.5	100.0	8532
Division					
Barisal	83.4	95.6	4.4	100.0	606
Chittagong	68.8	90.5	9.5	100.0	2527
Dhaka	78.2	96.0	4.0	100.0	2963
Khulna	81.7	96.4	3.6	100.0	1217
Rajshahi	81.1	96.6	3.4	100.0	2326
Education					
No education	72.7	92.8	7.2	100.0	5598
Primary incomplete	79.6	96.7	3.3	100.0	1681
Primary complete	85.1	97.3	2.7	100.0	921
Secondary/Higher	86.8	98.1	1.9	100.0	1439
Total	77.2	94.7	5.3	100.0	9640

4.15 Family Planning Outreach Services

The Bangladesh family planning program is known throughout the world for the coverage of its field worker operations. Some 35,000 village-level field workers—supported by both government and non-governmental organizations—visit couples in their homes to provide contraceptive information and supplies. This approach was necessitated by the fact that many women are restricted by custom to their homes or the

nearby area. Field workers supply both pills and condoms. In part to increase the accessibility of other, more clinical methods, the government implemented a system of satellite clinics. Under this system, staff from the health centers at the union headquarters visit selected villages at prescheduled times to set up a temporary clinic. The clinics include basic health services, such as health and nutrition education, antenatal care, screening for high-risk pregnancies, and family planning advice and supplies. A key staff person in this system is the Family Welfare Visitor (FWV), who is able to give contraceptive injections and to insert IUDs. In order to assess the extent of coverage of both field workers and satellite clinics, the BDHS included questions about both services. Although "satellite clinic" is a simple term in English, there is no equivalent term in Bangla, and interviewers, therefore, had to describe the clinic. Thus, the data depend on the ability of respondents to understand the definition.

Table 4.30 shows the proportion of currently married women who said that they had been visited by a field worker in the six months prior to the survey. The data are shown by whether the visit was to talk about family planning (or to give a method) and whether the respondent received family planning supplies. Thirty-eight percent of women said that in the previous six months someone had visited them in their house to talk about family planning or to give them a family planning method. An additional 5 percent of women said that a family planning field worker had visited them for another reason. The mean number of field worker visits was three. Of those visited, about one-third received family planning supplies.

There has been a slight increase in field worker coverage since 1991, when 36 percent of married women reported having been visited (Mitra et al., 1993:75). However, the fact that only slightly more than one-third of married women are being visited by field workers is cause for concern, since virtually all parts of the country are now covered by field workers (see Table 10.3). Moreover, studies have shown that frequent home visits to all eligible couples, irrespective of their current status, are associated with higher family planning program performance (Bernhart and Kamal, 1994; Phillips et al., 1994).

Some women are more likely than others to have been visited by a field worker. Younger and older women are less likely to have been visited, presumably because they are either more likely to want to get pregnant or more likely to be infecund or sterilized. Urban women are slightly more likely than rural women to have been visited in the previous six months. As for differences by division, women in Chittagong and Dhaka Divisions are less likely, and those in Khulna Division more likely, to have been visited by a field worker. A smaller proportion of uneducated women and those with no children reported that they had been visited by a family planning field worker in the six months before the survey. As might be expected, women who were using contraception were substantially more likely than nonusers to be visited by a field worker. Although field workers are instructed to visit all the households in their assigned area, it is likely that many nonusers are either pregnant, attempting to get pregnant, opposed to family planning, or menopausal, and thus, do not present as urgent a need as others. Among users, coverage is higher for users of the pill, injection, and condoms, while it is understandably low for those who have been sterilized. Among women who were visited by a field worker, there are minimal differences in either the mean number of visits over the six months prior to the survey or in the proportion who received family planning supplies, except that women in Rajshahi Division are more likely to receive supplies than women in other divisions, as are women who are using supply methods such as the pill and condoms.

Table 4.30 Contact with family planning field workers

Percentage of currently married women who reported having been visited by a family planning field worker in the six months prior to the survey, and, of those, the mean number of times visited and the percentage who received supplies, by selected background characteristics and contraceptive use status, Bangladesh 1993-94

Background characteristic/ Contraceptive use status	Percentage of currently married women visited by a field worker in last 6 months:			Among currently married women visited by a family planning field worker:		
	To talk about family planning/ To give method	For some other reason	Number of women	Mean number of visits	Percent who received supplies	Number of women
Age						
10-14	14.8	1.9	140	*	*	23
15-19	29.7	4.3	1224	2.8	27.5	416
20-24	42.3	4.5	1964	3.2	36.7	918
25-29	46.9	4.8	1911	3.2	37.9	988
30-34	42.4	4.7	1353	3.3	37.6	638
35-39	38.4	4.5	1079	3.3	34.8	463
40-44	28.8	5.5	767	3.7	32.6	263
45-49	14.5	5.0	541	3.2	22.4	106
Residence						
Urban	41.8	3.9	1013	2.8	32.9	463
Rural	37.3	4.7	7967	3.3	35.6	3351
Division						
Barisal	41.1	7.3	567	3.3	31.6	274
Chittagong	29.3	4.4	2334	3.3	24.1	785
Dhaka	34.9	4.6	2756	3.0	35.4	1088
Khulna	49.2	5.0	1145	3.3	33.7	621
Rajshahi	43.9	4.1	2178	3.2	45.3	1045
Education						
No education	34.6	4.2	5093	3.3	36.0	1975
Primary complete	41.7	5.4	1601	3.2	38.2	755
Primary incomplete	40.7	4.8	894	3.2	32.2	407
Secondary/Higher	43.4	5.2	1392	3.1	31.6	677
Number of living children						
0	17.4	4.1	1149	2.8	14.7	248
1	41.1	4.7	1604	3.1	35.0	736
2	43.3	4.4	1821	3.2	36.3	869
3	42.6	4.7	1502	3.2	37.8	712
4	40.9	4.3	1095	3.4	40.1	495
5+	36.5	5.2	1809	3.4	35.4	754
Contraceptive use status						
Using any method	52.6	3.6	4002	3.3	52.9	2249
Pill	76.5	1.6	1560	3.2	76.3	1218
IUD	46.5	4.5	196	3.5	5.4	100
Injection	66.7	2.8	404	3.5	39.0	281
Condom	56.3	2.4	269	3.4	57.4	158
Female sterilization	13.1	8.3	724	3.4	1.6	154
Male sterilization	13.1	7.8	98	4.5	9.3	21
Periodic abstinence	38.6	2.9	434	3.3	13.8	180
Withdrawal	44.7	4.9	220	3.0	17.7	109
Other	26.7	2.9	96	2.8	18.4	28
Not using any method	26.0	5.5	4978	3.1	9.9	1565
Total	38.0	5.0	8980	3.0	35.0	3814

* Fewer than 25 unweighted women

Table 4.31 presents data on the extent of recognition of satellite clinics and their coverage. Just over half of ever-married women interviewed said that there was a satellite clinic in their community. Of those reporting a clinic, about half said that they had visited the clinic at some time. Almost all of these women (87 percent) were aware that the clinic provided immunization services for children, however, only 11 percent said that the clinic provided family planning methods and less than 20 percent said it provided child growth monitoring. It is possible that, instead of reporting all the services that the satellite clinic provided, the women mistakenly reported only the service for which they attended the clinic.

Younger women and older women are less likely than women in the middle age groups to know of a satellite clinic in the community and, even among those who did, they are less likely to have visited the facility. Satellite clinics are more common in rural than urban areas, with twice as many rural women reporting a clinic nearby (57 vs. 27 percent). Clinics are more common in Khulna Division and less common in Dhaka Division; however, women in all divisions are about equally likely to visit a clinic if they know about one. There is no clear pattern by education.

Table 4.31 Satellite clinics

Percentage of ever-married women who reported a satellite clinic in their community in the last three months, the percentage who visited a clinic, and the percentage who reported various types of services provided at the clinic, by selected background characteristics, Bangladesh 1993-94

Background characteristic	Percent reporting a clinic in community	Number of women	Of those reporting a clinic: Percent who visited clinic	Number of women	Of those who visited a clinic, percent reporting various services: Family planning methods	Immunization	Child growth	Other	Don't know/ Missing	Number of women
Age										
10-14	36.9	145	21.7	54	*	*	*	*	*	12
15-19	52.2	1271	45.0	663	9.0	88.0	14.9	6.8	0.2	299
20-24	55.9	2033	61.5	1136	9.7	87.5	19.6	4.6	0.2	699
25-29	55.7	2012	58.4	1121	12.1	86.9	19.0	8.5	0.3	654
30-34	55.2	1456	51.4	804	12.4	87.3	18.0	5.8	0.6	413
35-39	54.4	1197	39.5	651	14.9	83.8	14.8	8.7	0.4	257
40-44	49.9	871	32.0	435	11.3	82.6	13.6	10.6	0.7	139
45-49	46.8	655	20.9	307	12.6	81.1	26.3	7.6	0.0	64
Residence										
Urban	26.5	1108	47.8	294	12.7	84.1	19.3	6.8	0.4	140
Rural	57.2	8532	49.1	4880	11.3	86.7	17.9	6.9	0.3	2397
Division										
Barisal	54.9	606	56.5	333	10.9	88.8	26.6	5.8	0.3	188
Chittagong	52.9	2527	45.4	1337	8.1	93.0	18.7	4.2	0.2	607
Dhaka	44.2	2963	44.6	1310	15.6	82.8	13.0	7.1	0.3	584
Khulna	68.4	1217	56.1	832	15.3	82.0	18.5	8.8	0.2	467
Rajshahi	58.3	2326	51.0	1356	8.4	86.4	18.7	8.0	0.6	692
Education										
No education	53.1	5598	47.8	2973	11.3	86.3	18.0	7.0	0.2	1422
Primary complete	59.0	1681	52.9	992	11.3	84.4	19.4	5.6	0.5	525
Primary incomplete	58.3	921	51.9	537	9.6	86.5	16.9	7.3	0.8	279
Secondary/Higher	46.2	1439	46.7	665	13.9	91.4	16.0	7.9	0.2	311
Total	53.6	9640	49.1	5167	11.4	86.5	17.9	6.8	0.3	2537

* Fewer than 25 unweighted women

CHAPTER 5

OTHER PROXIMATE DETERMINANTS OF FERTILITY

5.1 Introduction

This chapter addresses the principal factors other than contraception that affect a woman's risk of becoming pregnant: nuptiality, sexual intercourse, postpartum amenorrhea and abstinence from sexual relations, and termination of exposure to pregnancy. Marriage is a primary indicator of exposure of women to the risk of pregnancy, and is, therefore, important for understanding fertility patterns. Populations in which age at marriage is low also tend to experience early childbearing and high fertility; hence, trends in age at marriage can help to explain trends in fertility levels.

This chapter also includes a more direct measure of the level of exposure to pregnancy: the frequency of intercourse. Measures of other proximate determinants of fertility are the duration of postpartum amenorrhea and postpartum abstinence, which can delay exposure to the risk of pregnancy during the early months after a birth. The chapter concludes with an examination of two indicators of decreasing exposure to the risk of pregnancy with age: menopause and long-term sexual abstinence.

In the BDHS, only women who had ever been married were interviewed with the individual questionnaire. However, a number of the tables presented in this chapter are based on all women, i.e., both ever-married and never-married women. In constructing these tables, the number of ever-married women interviewed in the survey is multiplied by an inflation factor that is equal to the ratio of all women to ever-married women as reported in the household questionnaire. This procedure expands the denominators in the tables so that they represent all women. The inflation factors are calculated by single years of age and, where the results are presented by background characteristics, single-year inflation factors are calculated separately for each category of the characteristic.

It is important to take note of the definition of marriage that was used in the BDHS. In Bangladesh, it is common for a woman to wait several months or even years after formal marriage before going to live with her husband. Since the researchers who designed the BDHS were interested in marriage mainly as it affects exposure to the risk of pregnancy, interviewers were instructed to ask the questions about marriage, not in the sense of formal marriage, but as cohabitation.

5.2 Current Marital Status

Data on the marital status of respondents at the time of the survey are shown in Table 5.1. Overall, 32 percent of women age 10-49 have never married, 63 percent are currently married, and 5 percent are either widowed, divorced or no longer living with a partner. The proportion who have never married falls sharply from 95 percent of women age 10-14 to less than 1 percent of women over age 30. The universality of marriage is evident from the fact that, among women age 30 and over, 99 percent are, or have been, married.

As expected, the proportion widowed increases with age of women; one in ten women age 40-44 and one in six women 45-49 is widowed. The proportion divorced is more even across age groups.

Table 5.1 Current marital status

Percent distribution of women by current marital status, according to age, Bangladesh 1993-94

Age	Marital status				Total	Number of women
	Never married	Married	Widowed	Divorced/ Deserted		
10-14	95.2	4.6	0.0	0.2	100.0	3041
15-19	50.5	47.7	0.2	1.6	100.0	2566
20-24	12.4	84.6	0.6	2.4	100.0	2321
25-29	2.2	92.9	1.6	3.3	100.0	2057
30-34	0.3	92.7	3.6	3.4	100.0	1460
35-39	0.3	90.0	7.3	2.4	100.0	1200
40-44	0.7	87.4	10.4	1.4	100.0	878
45-49	0.2	82.4	15.9	1.5	100.0	656
Total	32.0	63.3	2.7	1.9	100.0	14179

Table 5.2 Trends in proportion never married

Percentage of women who have never married by age group, as reported in various surveys, Bangladesh 1993-94

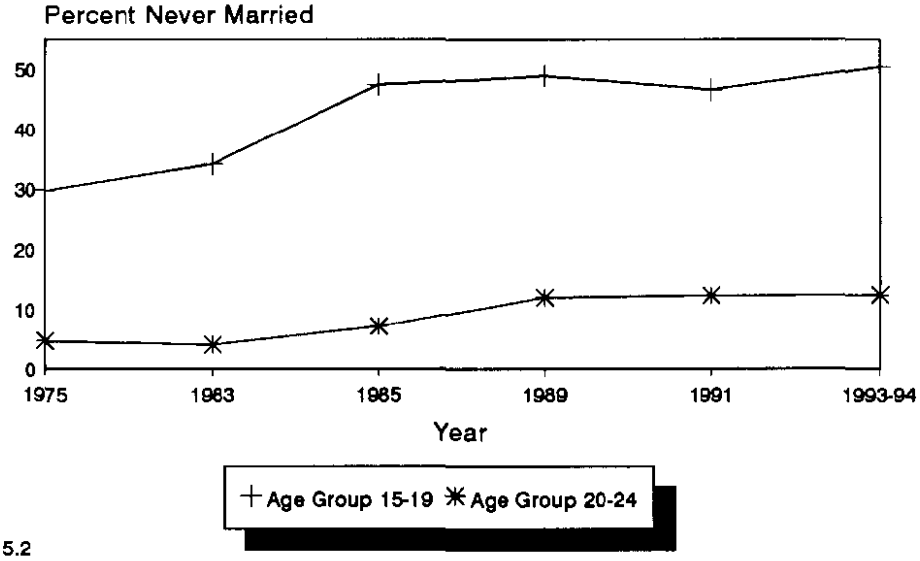
Age	1975 BFS	1983 CPS	1985 CPS	1989 BFS	1989 CPS	1991 CPS	1993-94 BDHS
10-14	91.2	98.0	98.7	96.2	96.4	98.5	95.2
15-19	29.8	34.2	47.5	49.0	45.8	46.7	50.5
20-24	4.6	4.0	7.1	12.0	9.3	12.3	12.4
25-29	1.0	0.7	1.0	2.3	1.6	2.8	2.2
30-34	0.2	0.4	0.1	0.3	0.5	0.5	0.3
35-39	0.4	-	-	0.1	0.5	0.1	0.3
40-44	0.1	0.1	-	0.2	0.2	0.3	0.7
45-49	0.0	0.1	-	0.1	0.1	-	0.2

- = Less than 0.1 percent

Sources: 1975 BFS (MHPC, 1978:49); 1983, 1985, 1989 and 1991 CPSs (Mitra et al., 1993:24); 1989 BFS (Huq and Cleland, 1990:43)

Table 5.2 shows the trend in the proportion of women reported as never married by age group from previous surveys in Bangladesh. It is evident that the proportion of women under age 25 who have never married has been increasing. Since 1975, the proportion of women age 15-19 who have not yet married has increased from 30 to 51 percent (Figure 5.1). The proportion never married at ages 20-24 also rose between 1975 and 1989, but has not increased significantly since then. The proportion never married above age 25 is so small that changes over time are difficult to detect.

Figure 5.1
Trends in Proportion of Women Never Married For Age Groups 15-19 and 20-24, Selected Sources, Bangladesh, 1975 to 1993-94



Source: Table 5.2

5.3 Marital Exposure

Marital *status* refers to the current status of women, while marital *exposure* refers to the proportion of time women spend in marriage. Data on this topic are presented in Table 5.3, which shows the percentage of months in the five years before the survey that women spent in a marital union. The table is based on information collected in the five-year, month-by-month calendar of births, marital status and contraceptive use that was asked of all women interviewed.[1] The percentage of months married incorporates the effects of age at first marriage, marital dissolution through divorce or widowhood, and remarriage.

Overall, women spent 75 percent of time in marriage over the five years prior to the survey. As expected, the proportions are much lower for women age 15-19 (28 percent) and 20-24 (79 percent) than for those in their late 20s and 30s, when women spend over 90 percent of time married. By the time women reach their late 40s, they have spent slightly less time in the previous five years in a marital union (86 percent), probably due to increased widowhood.

There are significant differences in marital exposure by residence and education level, especially among younger women, reflecting the effect of delayed marriage among some subgroups. For example, the proportion of time in the five years before the survey that women 15-19 spent married was almost double in Rajshahi Division (36 percent) what it was in Chittagong Division (19 percent). Similarly, women age 15-19 with no education spent 42 percent of the months in the five years before the survey in a marital union, compared to only 12 percent for women with secondary or higher education. As age increases, differences by background characteristics are reduced, since almost all women are in marriages for most of the time.

[1] Data for women age 10-14 have been excluded, since such a small proportion have married.

Table 5.3 Marital exposure

For all women 15-49, the percentage of months in the five years prior to the survey spent in marital union, by age and selected background characteristics, Bangladesh 1993-94

Background characteristic	Current age							Total
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
Residence								
Urban	17.3	61.5	91.3	93.3	88.3	83.4	84.0	66.6
Rural	29.8	81.0	93.0	94.0	92.9	91.2	86.7	75.6
Division								
Barisal	28.7	77.0	95.6	92.8	93.0	90.3	79.3	74.7
Chittagong	18.9	73.1	91.1	94.4	92.2	89.5	83.8	69.3
Dhaka	30.3	78.5	93.7	94.3	93.4	87.6	87.5	75.9
Khulna	31.0	79.5	93.8	95.6	91.4	94.3	92.2	76.2
Rajshahi	36.4	83.7	93.2	92.0	91 3	92.1	86.2	77.6
Education								
No education	41.6	86.5	92.5	93.0	91.0	88.4	85.8	82.4
Primary incomplete	29.2	86.0	96.1	95.5	95.8	93.9	84.3	74.7
Primary complete	27.2	82.7	95.5	96.8	94.7	97.5	(95.4)	73.7
Secondary/Higher	12.4	55.1	90.3	92.5	95.2	92.3	(87.7)	52.6
Total	28.2	78.5	93.0	94.0	92.5	90.3	86.4	74.5

Note: Figures in parentheses are based on 25 to 49 women.

5.4 Age at First Marriage

Table 5.4 shows the percentage of women who have ever been married by exact ages, as well as the median age at first marriage, according to women's current ages. Although the intention was to obtain information on the age at which the respondent started to live with her husband, it is likely that some women, especially older women, reported the age at which they were formally married, which in many cases is several years before cohabitaion. To the extent that this occurred, it would lead to underestimates of the age at first cohabitation.

Overall, about 60 percent of Bangladeshi women were married by the time they were age 15. The median age at first marriage among women 20-49 is 14.4 years. There has been a slow but steady increase over the past 25 years in the age at which Bangladeshi women first marry. The median age at marriage has increased from 13.6 among women currently age 45-49 to 15.3 for those age 20-24 years. There has been a particularly dramatic decline in the proportion of women marrying in their early teens; the percentage who marry before reaching age 15 has fallen from 77 percent among women age 45-49 to 30 percent among women 15-19.

Table 5.4 Age at first marriage

Percentage of women who were first married by exact age 15, 18, 20, 22, and 25, and median age at first marriage, according to current age, Bangladesh 1993-94

Current age	Percentage of women who were first married by exact age: 12	15	18	20	22	25	Percent never married	Number of women	Median age at first marriage
15-19	2.2	29.8	NA	NA	NA	NA	50.5	2566	a
20-24	7.0	47.2	73.3	82.1	NA	NA	12.4	2321	15.3
25-29	8.1	53.5	80.7	89.2	93.7	97.1	2.2	2057	14.8
30-34	11.3	62.0	85.9	92.9	96.3	98.6	0.3	1460	14.2
35-39	12.0	70.4	91.3	95.5	97.3	99.0	0.3	1200	13.9
40-44	16.9	74.2	92.7	96.7	98.1	98.9	0.7	878	13.6
45-49	18.1	77.3	93.4	95.9	97.9	99.0	0.2	656	13.6
20-49	10.6	59.5	83.3	90.1	93.3	95.4	4.1	8572	14.4
25-49	11.9	64.1	87.0	93.1	96.0	98.3	1.0	6251	14.1

NA = Not applicable
[a]Omitted because less than 50 percent of the women in the age group x to $x+4$ were first married by age x.

Table 5.5 presents the median age at first marriage by selected background characteristics for women age 20-49 years. The table shows large differentials in marriage behavior patterns. It can be seen that in each age group, urban women marry later than their rural counterparts, with an overall difference of more than one year in the median age at marriage among women 20-49 (15.4 vs. 14.3, respectively). Women in Rajshahi and Khulna Divisions have relatively early median ages at marriage, while those in Chittagong Division marry the latest. These findings correspond with those from the 1991 CPS (Mitra et al., 1993:26).

Table 5.5 Median age at first marriage

Median age at first marriage among women age 20-49 years, by current age and selected background characteristics, Bangladesh 1993-94

Background characteristic	Current age 20-24	25-29	30-34	35-39	40-44	45-49	Women age 20-49	Women age 25-49
Residence								
Urban	17.5	15.6	14.9	14.4	14.1	14.6	15.4	14.8
Rural	15.1	14.7	14.1	13.8	13.6	13.5	14.3	14.0
Division								
Barisal	15.3	15.0	14.7	13.8	13.5	13.1	14.4	14.1
Chittagong	16.0	15.4	14.7	14.5	14.1	14.4	15.0	14.7
Dhaka	15.1	14.7	14.3	13.8	13.6	13.5	14.3	14.0
Khulna	15.6	14.4	14.2	13.4	13.0	13.3	14.1	13.7
Rajshahi	14.5	14.3	13.6	13.7	13.5	13.2	13.9	13.8
Education								
No education	14.3	14.3	14.0	13.7	13.4	13.4	13.9	13.8
Primary incomplete	14.7	14.4	14.1	13.6	13.7	13.7	14.1	13.9
Primary complete	15.3	15.3	14.1	14.3	14.1	(14.0)	14.7	14.5
Secondary/Higher	18.9	16.7	15.5	16.0	15.5	(17.3)	17.1	16.1
Total	15.3	14.8	14.2	13.9	13.6	13.6	14.4	14.1

Note: The median for women 15-19 could not be determined because some women may still get married before reaching age 20. Figures in parentheses are based on 25 to 49 women.

A woman's age at marriage is highly correlated with her education level. The median age at marriage increases with the level of education for all age groups of women in Bangladesh. For example, the median age at first marriage for women age 20-49 increases steadily from 13.9 among women with no education to 17.1 for women with some secondary education.

5.5 Recent Sexual Activity

In the absence of contraceptive use, the probability of becoming pregnant is related to the frequency of intercourse. Thus, information on sexual activity can be used to refine measures of exposure to pregnancy. In the BDHS, all currently married women were asked when they last had sexual intercourse. This question has been shown to provide reliable results in Bangladesh (Becker and Begum, 1994). Table 5.6 presents the percent distribution of currently married women by recent sexual activity.

Table 5.6 Recent sexual activity

Percent distribution of currently married women by sexual activity in the four weeks preceding the survey, and among those not sexually active, the length of time they have been abstaining and whether postpartum or not postpartum, according to selected background characteristics and contraceptive method currently used, Bangladesh 1993-94

Background characteristic/ contraceptive method	Sexually active in last 4 weeks	Not sexually active in last 4 weeks: Abstaining (postpartum) 0-1 years	Abstaining (postpartum) 2+ years	Abstaining (not postpartum) 0-1 years	Abstaining (not postpartum) 2+ years	Missing	Total	Number of women
Age								
10-14	83.9	1.5	0.0	8.7	0.9	5.0	100.0	140
15-19	85.9	4.5	0.1	8.1	0.4	0.9	100.0	1224
20-24	84.4	5.3	0.5	8.8	0.8	0.2	100.0	1964
25-29	84.6	3.1	0.1	10.2	1.7	0.2	100.0	1911
30-34	83.2	2.9	0.2	11.7	1.8	0.2	100.0	1353
35-39	80.3	1.8	0.2	15.0	2.2	0.6	100.0	1079
40-44	70.4	0.6	0.5	25.5	2.3	0.6	100.0	767
45-49	57.5	0.4	0.2	35.9	5.3	0.7	100.0	541
Duration of union (years)								
0-4	84.0	4.6	0.2	9.3	0.8	1.0	100.0	1633
5-9	84.3	5.2	0.5	8.6	1.0	0.3	100.0	1735
10-14	85.8	3.1	0.1	9.1	1.6	0.4	100.0	1772
15-19	83.7	2.3	0.2	11.9	1.6	0.3	100.0	1260
20-24	80.5	2.6	0.2	14.7	1.6	0.5	100.0	1082
25+	67.1	0.5	0.3	27.9	3.6	0.5	100.0	1498
Residence								
Urban	82.3	3.3	0.1	12.2	1.7	0.4	100.0	1013
Rural	81.0	3.2	0.3	13.4	1.7	0.5	100.0	7967
Division								
Barisal	77.3	4.0	0.0	17.5	0.8	0.4	100.0	567
Chittagong	74.1	4.2	0.8	17.0	3.5	0.4	100.0	2334
Dhaka	83.2	3.1	0.1	12.0	1.0	0.5	100.0	2755
Khulna	82.5	2.2	0.3	13.9	0.6	0.6	100.0	1147
Rajshahi	86.3	2.6	0.0	9.3	1.3	0.5	100.0	2178
Education								
No education	80.9	2.9	0.3	13.7	1.7	0.4	100.0	5093
Primary incomplete	80.9	3.5	0.2	13.3	1.3	0.8	100.0	1601
Primary complete	80.8	4.0	0.3	12.1	2.2	0.7	100.0	894
Secondary/Higher	82.4	3.4	0.2	12.2	1.5	0.3	100.0	1392
Contraceptive method								
No method	72.9	5.7	0.5	17.7	2.7	0.6	100.0	4978
Pill	95.2	0.0	0.0	4.2	0.1	0.5	100.0	1560
IUD	91.0	0.3	0.0	8.7	0.0	0.0	100.0	196
Sterilization	86.4	0.1	0.0	11.6	1.5	0.3	100.0	822
Periodic abstinence	91.3	0.0	0.0	7.6	0.0	1.1	100.0	220
Other	89.8	0.2	0.0	9.5	0.2	0.2	100.0	1204
Total	81.1	3.2	0.3	13.2	1.7	0.5	100.0	8980

Table 5.6 indicates that a large majority (81 percent) of currently married women interviewed in the BDHS were sexually active in the four weeks prior to the interview. A small proportion (4 percent) had not had sexual relations since delivering a baby (postpartum abstaining) and 15 percent were abstaining for reasons other than having recently given birth. Most of these women had been sexually inactive for less than 2 years; only 2 percent of currently married women had not had sexual intercourse for two years or longer.

The likelihood that a woman has been sexually active in the last four weeks declines with the age of the woman, as well as with marital duration. Married women in Chittagong Division appear to have slightly lower coital frequency than women in other divisions. Not surprisingly, women who are not using contraception are less likely to have had sexual intercourse in the four weeks preceding the interview than women who are using some method. Presumably, one reason why women choose not to use contraception is that they are not sexually active and therefore do not require protection. However, an alternative explanation is that couples that are using a contraceptive method feel less worried about the fear of pregnancy and thus increase their coital frequency.

5.6 Postpartum Amenorrhea and Insusceptibility

The risk of pregnancy following a birth is largely influenced by two factors: breastfeeding and sexual abstinence. Postpartum protection from conception can be prolonged by breastfeeding through its effect on the length of amenorrhea (the period prior to the return of menses). Protection can also be prolonged by delaying the resumption of sexual relations. Women are defined as insusceptible if they are not exposed to the risk of pregnancy, either because they are amenorrheic or abstaining following a birth.

The percentage of children whose mothers are postpartum amenorrheic, abstaining and postpartum insusceptible is shown in Table 5.7 by the number of months since birth. These distributions are based on current status data, i.e., on the proportion of births occurring x months before the survey for which mothers are still amenorrheic, abstaining or insusceptible. The estimates of the median and mean durations shown in Tables 5.7 and 5.8 are calculated from the current status proportions at each time period. The data are grouped in two-month intervals to minimize fluctuations in the estimates.

Table 5.7 Postpartum amenorrhea, abstinence and insusceptibility

Percentage of births in the three years preceding the survey for which mothers are postpartum amenorrheic, abstaining and insusceptible, by number of months since birth, and median and mean durations, Bangladesh 1993-94

Months since birth	Amenorrheic	Abstaining	Insusceptible	Number of births
< 2	97.6	85.1	98.9	175
2-3	81.3	28.9	84.2	273
4-5	62.4	9.1	64.1	224
6-7	62.2	7.3	64.5	197
8-9	57.1	5.2	60.0	229
10-11	48.8	2.5	50.8	196
12-13	43.3	5.7	45.0	267
14-15	31.0	3.3	32.6	286
16-17	26.6	3.0	28.5	203
18-19	15.8	3.4	17.5	158
20-21	15.4	2.9	17.5	149
22-23	9.5	3.1	12.0	195
24-25	4.8	1.5	6.3	243
26-27	5.0	0.9	5.9	280
28-29	2.9	2.4	5.3	231
30-31	3.5	2.2	5.0	197
32-33	5.8	0.9	6.5	193
34-35	1.5	2.3	3.8	204
Total	32.3	8.9	34.2	3899
Median	10.3	2.0	10.8	-
Mean	11.8	3.7	12.4	-
Prevalence/ Incidence mean[1]	11.5	3.2	12.1	-

[1]The prevalence-incidence mean is borrowed from epidemiology and is defined as the number of children whose mothers are amenorrheic (prevalence) divided by the average number of births per month (incidence).

The period of postpartum amenorrhea is considerably longer than the period of postpartum abstinence and is by far the major determinant of the length of postpartum insusceptibility to pregnancy. By 6-7 months following birth, 62 percent of women are still amenorrheic, while only 7 percent are still abstaining. Similarly, at 12-13 months postpartum, 43 percent of women are amenorrheic, compared to 6 percent still

abstaining. The mean duration of postpartum amenorrhea is 12 months; that of postpartum abstinence is 4 months. The combination of these two factors means that Bangladeshi women are insusceptible to the risk of pregnancy—either due to amenorrhea or to abstinence—for an average of 12 months after giving birth. The mean durations of amenorrhea calculated from the 1989 BFS and the 1991 CPS were also 12, indicating no change over time (Huq and Cleland, 1990:87; Mitra et al., 1993:97).

Table 5.8 displays median durations of postpartum amenorrhea, abstinence and insusceptibility by various background characteristics. Differences are small, except that women with more education have shorter durations of postpartum amenorrhea and insusceptibility than women with no education. The median duration of postpartum abstinence is 2 months for all subgroups of women; this finding is compatible with the Muslim tradition of abstaining for 40 days following birth.

Table 5.8 Median duration of postpartum insusceptibility by background characteristics

Median number of months of postpartum amenorrhea, postpartum abstinence, and postpartum insusceptibility, by selected background characteristics, Bangladesh 1993-94

Background characteristic	Postpartum amenorrhea	Postpartum abstinence	Postpartum insusceptibility	Number of women
Age				
<30	9.9	2.0	10.6	3043
30+	(11.8)	(2.3)	(11.9)	856
Residence				
Urban	*	*	*	392
Rural	10.6	2.0	11.0	3508
Division				
Barisal	*	*	*	251
Chittagong	9.7	2.0	(10.7)	1179
Dhaka	10.8	2.0	11.2	1194
Khulna	(8.8)	(1.9)	(8.8)	430
Rajshahi	11.3	2.1	11.3	846
Education				
No education	11.8	2.1	12.0	2242
Primary incomplete	(10.0)	(2.0)	(10.7)	664
Primary complete	*	*	*	396
Secondary/Higher	(6.3)	(1.9)	(8.0)	598
Total	10.3	2.0	10.8	3899

Note: Medians are based on current status. Medians are shown in parentheses when the denominator of the smoothed percent for the group preceding the first group which falls below 50 percent is based on 25 to 49 births. If this denominator is fewer than 25 births an asterisk is shown.

5.7 Termination of Exposure to Pregnancy

The risk of pregnancy declines with age, as increasing proportions of women become infecund. While the onset of infecundity is difficult to determine for an individual woman, there are ways of estimating it for a population. Two indicators of decreasing exposure to the risk of pregnancy for women age 30 and older are displayed in Table 5.9.

The first, an indicator of menopause, is the proportion of currently married women who are neither pregnant nor postpartum amenorrheic, but who have not had a menstrual period in the six months preceding the survey. This proportion increases steadily with age, from 3 percent for women age 30-34 years to 50 percent for women age 48-49.

The second is an indicator of long-term abstinence. This is the proportion of currently married women who did not have sexual intercourse in the three years preceding the survey. As the table shows, long-term abstinence is not a major contributor to lower fertility. The proportion of women who did not have sexual intercourse in the three years preceding the survey is less than 2 percent except among those age 46-49, where it is 3-4 percent.

Table 5.9 Termination of exposure to the risk of pregnancy

Indicators of menopause and long-term abstinence among currently married women age 30-49, by age, Bangladesh 1993-94

Age	Menopause[1]	Long-term abstinence[2]	Number of women
30-34	2.6	0.9	1353
35-39	4.6	1.5	1079
40-41	10.6	1.7	349
42-43	15.2	1.5	288
44-45	25.1	1.6	266
46-47	36.3	2.7	212
48-49	49.8	4.1	194
Total	10.9	1.5	3741

[1]Percentage of currently married women whose last menstrual period occurred six or more months preceding the survey or who report that they are menopausal.
[2]Percentage of currently married women who did not have intercourse in the three years preceding the survey.

CHAPTER 6

FERTILITY PREFERENCES

Several questions were asked in the BDHS concerning women's fertility preferences. The aim of this part of the interview was to determine how many children women would prefer and to establish the extent of unmet need for contraception and the number of unwanted or mistimed births. The BDHS questionnaire included questions on:

1) whether the respondent wanted another child,
2) if so, how long she would like to wait to have the next child, and
3) how many children she would want in total if she could start afresh.

The usefulness of data on fertility preferences has been controversial. Critics consider the data misleading because of the fact that information gathered from women does not take into account the effect of social pressures or attitudes of other family members, particularly the husband, whose opinions on reproductive behavior may be very influential. Another objection expressed by critics is that these preferences are usually held with weak intensity and little conviction and, consequently, change with time. Others maintain that results obtained from these questions are important for assessing the extent to which unwanted or mistimed pregnancies occur and the effect of prevention of such pregnancies.

6.1 Desire for More Children

In the BDHS, currently married women were asked "Would you like to have (a/another) child or would you prefer not to have any (more) children?" Interviewers were instructed to use the words in parentheses depending on whether the respondent had children or not. If the woman was pregnant, she was asked if she wanted another child after the one she was expecting. Women who said they did want to have another child were then asked how long they would like to wait before the birth of the next child.

Table 6.1 shows the percent distribution of currently married women by desire for another child, according to the number of living children. Almost half (48 percent) of currently married women age 10-49 in Bangladesh say they want no more children, and an additional 12 percent either have been sterilized or say that they cannot have any more children (Table 6.1 and Figure 6.1). Thirty-seven percent of women want to have a child at some time in the future; however, the vast majority of these women (22 percent of all married women) say they would like to wait two or more years before having their next birth. Only 14 percent of women say they want to have a child soon and 2 percent are undecided about whether they want another. Thus, the vast majority of women want either to space their next birth or to limit childbearing altogether. These women can be considered to be potentially in need of family planning services.

Not surprisingly, the desire for additional children drops progressively as the number of living children increases (Table 6.1 and Figure 6.2). Sixty-nine percent of married women with no children want to have a child within two years, whereas less than one percent of women with six or more children wants their next child within two years. Conversely, the percentage of women who want no more children or who are sterilized rises from 3 percent for women with no children to 85 percent for those with six or more children.

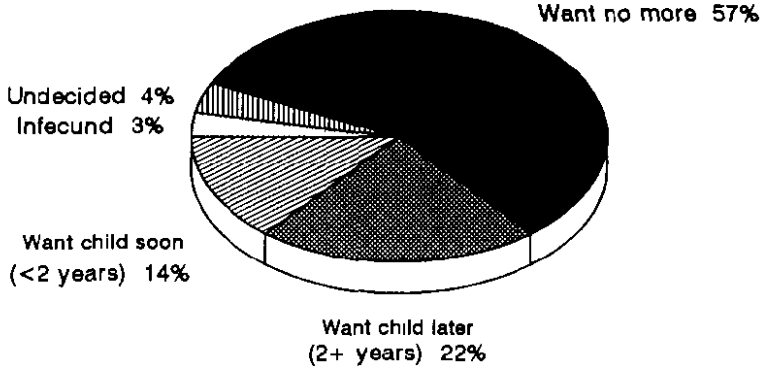
Table 6.1 Fertility preferences by number of living children

Percent distribution of currently married women age 10-49 by desire for more children, according to number of living children, Bangladesh 1993-94

Desire for children	Number of living children[1]							Total
	0	1	2	3	4	5	6+	
Have another soon[2]	68.9	21.0	8.5	3.5	2.4	0.9	0.6	13.6
Have another later[3]	23.3	64.8	25.0	9.7	3.9	1.5	0.8	21.8
Have another, undecided when	2.4	2.9	2.8	2.2	1.2	0.6	0.6	2.0
Undecided	0.9	1.6	3.9	3.0	2.3	1.2	2.2	2.4
Want no more	1.0	6.0	49.8	65.9	70.6	77.3	75.6	47.8
Sterilized	1.6	2.7	8.5	14.0	15.5	14.0	9.3	9.2
Declared infecund	1.8	0.9	1.6	1.6	3.9	4.4	10.9	3.1
Missing	0.1	0.1	0.0	0.2	0.2	0.1	0.0	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	905	1636	1897	1554	1122	792	1074	8980

[1]Includes current pregnancy
[2]Want next birth within 2 years
[3]Want to delay next birth for 2 or more years

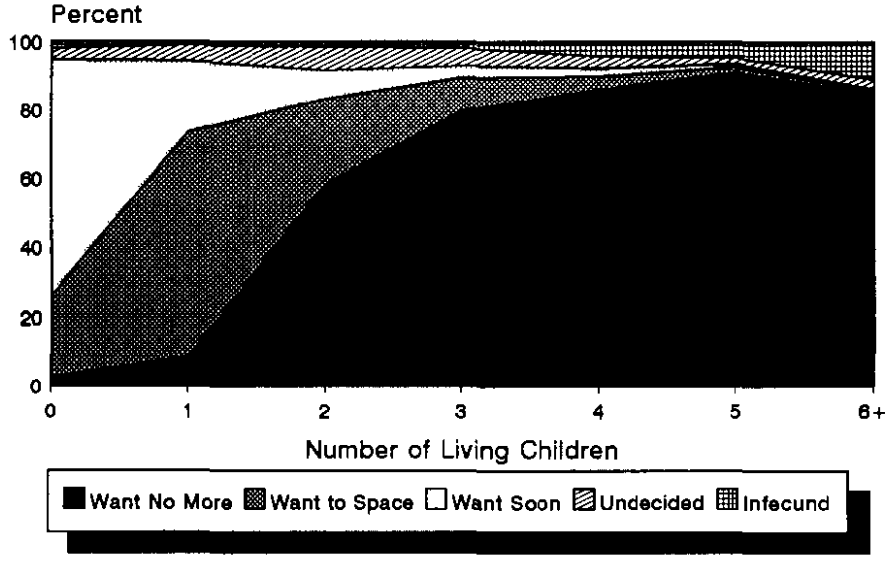
Figure 6.1
Fertility Preferences of
Currently Married Women 10-49



Note: "Want no more" includes sterilized women.

BDHS 1993-94

Figure 6.2
Fertility Preferences of Married Women by Number of Living Children



Note: "Want no more" includes sterilized women

BDHS 1993-94

The desire for additional children declined noticeably in Bangladesh over the past decade. In the 1991 CPS, 45 percent (Mitra et al., 1993:84) of married women with two children wanted to have another child in the future; in the 1993-94 BDHS the proportion was only 36 percent—a decline of 9 percentage points. Conversely, the percentage of women with two children who want no more children or are sterilized rises from only 48 percent in the 1991 CPS to 58 percent in the 1993-94 BDHS. Similar increases in the proportion of women who want to stop childbearing are evident in data from Matlab. In 1977, 37 percent of women in the treatment area said they wanted no more children; by 1990, this proportion had grown to 54 percent (ICDDR, B, 1994:3).

Table 6.2 shows the percent distribution of currently married women by desire for children according to age. The data show that the proportion of women who want no more children increases with age. Nine percent of the women age 15-19 want no more children or have been sterilized, compared to 73 percent of women age 45-49 years. In contrast, the proportion who want to delay their next birth declines with age, as does the proportion of women who want the next birth within two years.

Table 6.2 Fertility preferences by age

Percent distribution of currently married women age 10-49 by desire for more children, according to age, Bangladesh 1993-94

Desire for children	Age of woman								Total
	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
Have another soon[1]	36.1	29.3	19.2	12.8	8.9	4.4	2.4	1.1	13.6
Have another later[2]	57.5	56.3	38.2	18.0	5.6	1.7	0.4	0.0	21.8
Have another, undecided when	3.7	3.2	2.5	2.9	1.1	1.1	0.3	0.4	2.0
Undecided	2.4	2.0	3.4	2.6	2.7	1.8	1.2	0.4	2.4
Want no more	0.0	8.9	34.2	55.6	66.3	67.3	66.0	58.7	47.8
Sterilized	0.0	0.2	2.4	7.4	14.6	19.8	18.6	14.1	9.2
Declared infecund	0.3	0.0	0.1	0.5	0.7	3.8	10.9	25.0	3.1
Missing	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.2	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	140	1224	1964	1911	1353	1079	767	541	8980

[1]Want next birth within 2 years
[2]Want to delay next birth for 2 or more years

The proportion of women who want no more children is the most important measure of fertility preference. Table 6.3 and Figure 6.3 show the percentage of currently married women who want no more children by number of living children and selected background characteristics. Urban women begin to want to limit family size at lower parities than rural women. For example, 71 percent of urban women with two children say that they do not want another child, compared to only 56 percent of rural women. However, virtually identical proportions want to stop childbearing among both urban and rural women with five or more children.

Regionally, women in Chittagong Division appear to be more pronatalist than those in the other divisions. Only 43 percent of women with two children in Chittagong Division want to stop childbearing, while the corresponding rates for women in the other divisions are more than 58 percent.

The negative association between educational level and the proportion wanting no more children among married women is at least partially a result of the concentration of more educated women at younger ages and, thus, lower parities, where women are more likely to express a desire for more children. A positive association between educational level and the proportion wanting no more children is clearly evident for married women who have two or more children. For example, among women with two children, 56 percent of those with no education want to stop childbearing, compared to 66 percent of those with at least some secondary education.

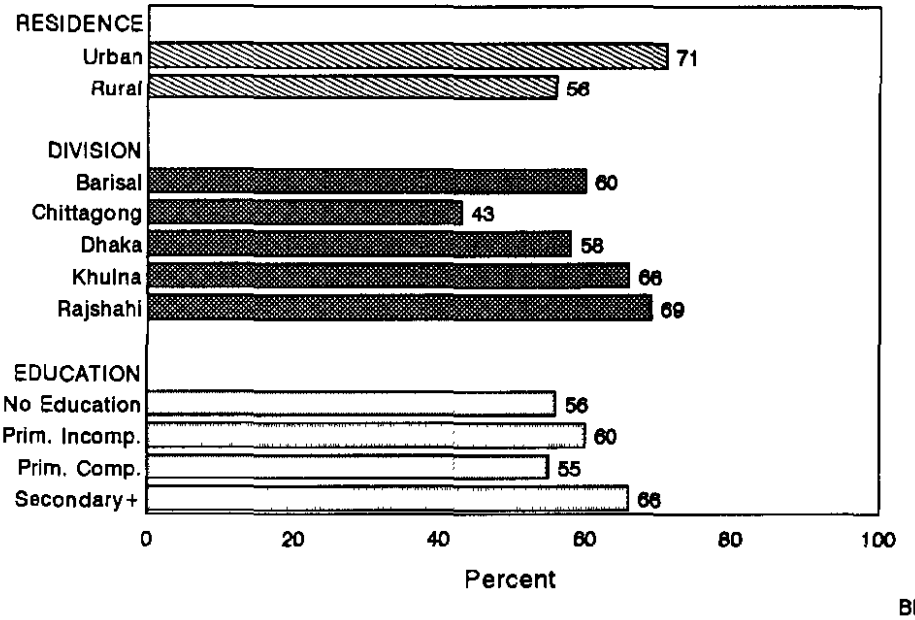
Table 6.3 Desire to limit childbearing

Percentage of currently married women age 10-49 who want no more children, by number of living children and selected background characteristics, Bangladesh 1993-94

Background characteristic	Number of living children[1]							Total
	0	1	2	3	4	5	6+	
Residence								
Urban	4.6	12.6	71.4	92.9	94.0	93.5	86.2	63.3
Rural	2.4	8.2	56.3	78.0	85.1	91.1	84.8	56.1
Division								
Barisal	5.3	11.2	59.7	82.7	94.4	93.1	88.6	61.6
Chittagong	2.8	5.9	43.2	64.9	77.0	91.5	82.1	52.8
Dhaka	3.0	7.7	57.6	82.0	87.8	88.9	85.0	56.4
Khulna	1.0	9.0	65.9	86.6	84.8	94.5	83.2	58.7
Rajshahi	2.1	11.5	68.5	88.0	93.2	91.8	89.8	59.9
Education								
No education	4.0	11.6	55.8	77.6	84.6	90.6	83.3	59.8
Primary incomplete	1.3	5.2	59.5	82.3	84.6	93.0	87.6	57.3
Primary complete	0.0	1.8	55.2	85.4	88.1	90.0	91.1	54.6
Secondary/Higher	1.9	8.6	66.0	82.5	95.6	95.0	86.2	47.6
Total	2.6	8.7	58.3	79.9	86.1	91.3	84.9	57.0

Note: Women who have been sterilized are considered to want no more children.
[1]Includes current pregnancy

Figure 6.3
Percentage of Married Women With 2 Children Who Want No More Children, by Background Characteristics



BDHS 1993-94

6.2 Need for Family Planning Services

Fecund women who are currently married and who say either they do not want any more children or that they want to wait two or more years before having another child, but are not using contraception, are considered to have an *unmet need* for family planning.[1] Women who are using family planning methods are said to have a *met need* for family planning. Women with unmet and met need constitute the *total demand* for family planning. Table 6.4 presents data on unmet need, met need, and total demand for family planning, according to whether the need is for spacing or limiting births.

Table 6.4 Need for family planning services

Percentage of currently married women age 10-49 with unmet need for family planning, and met need for family planning, and the total demand for family planning services, by selected background characteristics, Bangladesh 1993-94

Background characteristic	Unmet need for family planning[1]			Met need for family planning (currently using)[2]			Total demand for family planning[3]			Percentage of demand satisfied	Number of women
	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total		
Age											
10-14	30.3	0.0	30.3	22.1	0.0	22.1	53.2	0.0	53.2	43.0	140
15-19	22.3	0.8	23.1	21.9	2.8	24.7	45.3	3.6	48.8	52.7	1224
20-24	15.8	5.9	21.7	20.8	16.8	37.6	38.4	23.1	61.5	64.7	1964
25-29	10.2	9.3	19.5	11.1	39 5	50.6	22.0	49.8	71.8	72.8	1911
30-34	5.5	15.5	20.9	4.2	53.1	57.2	10.1	69.5	79.6	73.7	1353
35-39	2.8	16.3	19.1	0.8	57.7	58 5	4.2	75.0	79.2	75.9	1079
40-44	0.6	10.6	11.2	0.3	51.6	51.9	1.0	62.3	63.3	82.3	767
45-49	0.5	6.4	7.0	0.4	28.8	29.3	1.0	35.3	36.2	80.8	541
Residence											
Urban	7.1	8.6	15.7	12.4	42.0	54.4	20.5	51.5	72.0	78.2	1013
Rural	10.8	9.0	19.8	10.9	32.5	43.3	22.5	42.0	64.5	69.3	7967
Division											
Barisal	9.7	8.9	18.6	12.4	35.3	47.7	23.5	44.9	68.4	72.8	567
Chittagong	15.0	12.2	27.2	6.7	22.6	29.3	22.2	35.4	57.6	52.8	2334
Dhaka	9.5	9.1	18.6	10.2	34.1	44.3	20.7	43.8	64.5	71.1	2756
Khulna	7.7	6.0	13.7	14.9	40.4	55.3	23.6	46.8	70.4	80.5	1145
Rajshahi	8.2	6.8	15.0	14.4	40.5	54.8	23.2	47.9	71.1	78.9	2178
Education											
No education	9.8	10.1	19.8	7.4	33.5	41.0	17.8	44.1	61.9	68.0	5093
Primary incomplete	10.4	9.5	19.8	12.1	33.3	45.5	23.6	43.6	67.2	70.5	1601
Primary complete	12.3	7.0	19.3	11.7	33.8	45.6	25.4	41.4	66.7	71.1	894
Secondary/Higher	11.5	5.7	17.2	22.4	33.7	56.1	35.0	39.8	74.8	77.0	1392
Total	10.4	9.0	19.4	11.0	33.5	44.6	22.2	43.1	65.3	70.4	8980

[1]Unmet need for *spacing* includes 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 say they want to wait two or more years for their next birth. Also included in unmet need for spacing are women who are unsure whether they want another child or who want another child but are unsure when to have the 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 unmet need category are pregnant and amenorrheic women who became pregnant while using a method (these women are in need of *better contraception*). Also excluded are menopausal or infecund women.

[2]Using for *spacing* is defined as women who are using some method of family planning and say they want to have another child or are undecided whether to have another. Using for *limiting* is defined as women who are using and who want no more children. Note that the specific methods used are not taken into account here.

[3]Total demand includes pregnant or amenorrheic women who became pregnant while using a method (method failure). They account for 1.4 percent of all currently married women.

[1] For an exact description of the calculation, see footnote 1, Table 6.4.

One-fifth of married women in Bangladesh have an unmet need for family planning services (see Table 6.4, column 3)—10 percent for spacing purposes and 9 percent for limiting births. Combined with the 45 percent of married women who are currently using a contraceptive method, the total demand for family planning comprises almost two-thirds of married women in Bangladesh. Therefore, if all women who say they want to space or limit their children were to use methods, the contraceptive prevalence rate would be increased from 45 to 65 percent of married women. Currently, 71 percent of the demand for family planning is being met (see Table 4, next-to-last column).

As expected, unmet need for spacing purposes is higher among younger women, while unmet need for limiting childbearing is higher among older women. The net result is that, except among the very youngest and oldest age groups, unmet need varies little by age. The level of unmet need among rural women is higher than that of urban women. It is highest among women in Chittagong Division (27 percent) and lowest in Khulna and Barisal Divisions (14 and 15 percent, respectively). Unmet need is lower among women with at least some secondary schooling than among less educated or uneducated women.

There has probably been a decline in the level of unmet need for family planning services since 1991. Although data from the 1991 CPS show that 28 percent of currently married women were in need of services, compared with 19 percent in the 1993-94 BDHS (Mitra et al., 1993:91), differences in the definitions used in the two surveys account for much of the apparent decline.

6.3 Ideal Family Size

In order to assess ideal fertility preferences, the BDHS included two questions. Women who had no children were asked, "If you could choose exactly the number of children to have in your whole life, how many would that be?" For women who had children, the question was rephrased as follows: "If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be?" These questions on ideal family size aimed at two things: first, among women who have not started childbearing, the data provide an idea of the total number of children these women will have in the future (to the extent that women are able to realize their fertility desires). Second, among older, higher parity women, these data provide a measure of the level of unwanted fertility. It should be noted that some women, especially those for whom fertility control is an unfamiliar concept, may have had difficulty answering this hypothetical question.

The data in Table 6.5 indicate that the vast majority of women were able to give a numeric answer to this question; only 7 percent of women gave a non-numeric answer such as "it is up to God," "any number," or "does not know." Those who gave numeric responses generally want to have small families. Fifty-six percent of respondents prefer a two-child family, and another 24 percent consider a three-child family ideal, while only one percent of respondents said they would choose to have six or more children. In fact, the data show how widespread the two-child norm has become in Bangladesh. Among women with two or fewer children, two-thirds say they think two children are ideal.

Overall, among women giving numeric responses, the mean ideal family size is 2.5 children. This represents a decline from the level of 4.1 among currently married women in 1975 and 2.9 among currently married women in 1989 (Huq and Cleland, 1990:53). Data from the Matlab area of Bangladesh show that mean ideal family size has declined from 4.4 children in the treatment area and 4.5 children in the comparison area in 1975 to 3.1 and 3.2 children, respectively, in 1990 (ICDDR, B, 1994:3).

As expected, the ideal number of children increases with the number of living children (see Table 6.5). The mean ideal family size increases from 2.2 among childless women to 3.0 among women with six or more children. There are several possible explanations for the relationship between ideal and actual number of children. First, to the extent that they are able to implement their preferences, women who want

Table 6.5 Ideal and actual number of children

Percent distribution of ever-married women by ideal number of children and mean ideal number of children for ever-married women and for currently married women, according to number of living children, Bangladesh 1993-94

Ideal number of children	Number of living children[1]							
	0	1	2	3	4	5	6+	Total
0	0.3	0.0	0.0	0.0	0.0	0.0	0.1	0.0
1	5.1	3.5	1.0	2.1	1.7	0.6	0.5	2.1
2	66.2	71.0	64.8	49.2	50.8	44.5	32.5	56.2
3	13.8	15.6	23.2	33.3	21.8	30.2	27.5	23.5
4	5.6	4.5	5.9	8.3	16.9	14.1	21.2	9.9
5	0.3	0.3	0.3	0.8	0.9	2.2	1.3	0.7
6+	0.2	0.3	0.2	0.3	1.0	0.5	2.4	0.6
Non-numeric response	8.5	4.7	4.6	6.1	6.7	8.0	14.4	7.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of ever-married women	1024	1791	2024	1636	1183	852	1130	9640
Mean ideal number	2.2	2.2	2.4	2.5	2.7	2.7	3.0	2.5
Number of ever-married women	937	1707	1932	1537	1104	784	967	8968
Mean ideal for currently married women	2.2	2.2	2.4	2.6	2.7	2.7	3.0	2.5
Number of currently married women	834	1560	1813	1464	1048	729	921	8369

Note: The means exclude women who gave non-numeric responses.
[1]Includes current pregnancy

larger families will tend to actually have them. Second, women who have larger families may tend to rationalize their family size by reporting their actual number of children as their ideal number. Finally, women with larger families, being older, on average, than women with smaller families, may have larger ideal family sizes, because of attitudes they acquired 20 to 30 years ago.

Despite the likelihood that some rationalization of large families occurs, it is common for women to report ideal family sizes lower than their actual number of children. For example, 74 percent of women with four children report fewer than four children as their ideal number and 89 percent of those with 5 children state an ideal number of children less than five. These proportions are considerably higher than similar figures reported for 1989. For example, in 1989, only 38 percent of currently married women with four children stated ideal family sizes that were less than four (Huq and Cleland, 1990:55).

Table 6.6 shows the mean ideal number of children for ever-married women interviewed in the 1993-94 BDHS by age group and selected background characteristics. The mean ideal number of children increases with age from 2.2 percent among women age 10-14 to 2.7 among women age 45-49. Rural women have slightly higher family size norms than urban women; this differential is reflected in every age group. Regionally, the largest mean ideal family size is found among women in Chittagong (2.8 children), regardless of age group. Women in Khulna Division have the lowest ideal family size (2.3 children), which also holds true for every age group. Ideal family size is correlated with the level of education attained. Women with no education want the largest mean ideal family size (2.6 children), while women with some secondary education want the smallest (2.2 children); this is true for every age group except 15-19, though the differences are small for some age groups.

Table 6.6 Mean ideal number of children by background characteristics

Mean ideal number of children for ever-married women age 10-49, by age and selected background characteristics, Bangladesh 1993-94

Background characteristic	Age of woman								Total
	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
Residence									
Urban	*	2 2	2.2	2.3	2.4	2.4	2.5	2.6	2.3
Rural	2.2	2.3	2.4	2.5	2.6	2.7	2 8	2.8	2.5
Division									
Barisal	*	2.2	2.3	2 4	2.6	2.6	2.7	2.7	2.5
Chittagong	*	2.6	2.6	2.7	2.8	3.0	2.9	3.0	2.8
Dhaka	2.3	2.3	2.3	2.4	2.5	2.6	2.7	2.7	2.5
Khulna	*	2.2	2.3	2.2	2.4	2.4	2.5	2.6	2.3
Rajshahi	(2.2)	2.2	2.3	2.3	2.4	2.6	2.7	2 7	2.4
Education									
No education	2 3	2.4	2.4	2.5	2.6	2.8	2.8	2.8	2 6
Primary incomplete	(2 1)	2.2	2.4	2.4	2.6	2.5	2.8	2.7	2.4
Primary complete	(2.3)	2.5	2.3	2.5	2.5	2.6	2.7	(2 8)	2.5
Secondary/Higher	*	2.1	2.2	2.2	2 3	2.3	2.4	(2.7)	2.2
Total	2 2	2.3	2.4	2.4	2.6	2.7	2.7	2.7	2.5

Note: Figures in parentheses are based on 25 to 49 women; an asterisk indicates that a figure is based on fewer than 25 women and has been suppressed.

6.4 Fertility Planning

There are two ways of estimating levels of unwanted fertility from the BDHS data. One is based on responses to a question as to whether each birth in the three years before the survey was planned (wanted then), mistimed (wanted, but at a later time), or unwanted (wanted no more children). These data are likely to result in underestimates of unplanned childbearing, since women may rationalize unplanned births and declare them as planned once they are born. Another way of measuring unwanted fertility utilizes the data on ideal family size to calculate what the total fertility rate would be if all unwanted births were avoided. This measure may also suffer from underestimation to the extent that women are unwilling to report an ideal family size lower than their actual family size. Data using these two approaches are presented below.

Table 6.7 shows the percent distribution of births in the three years before the survey by whether the birth was wanted then, wanted later, or not wanted. Overall, about one-third of the births in the three-year period can be considered as unplanned; 20 percent as mistimed (wanted later) and 13 percent as unwanted. The proportion of unplanned births increases directly with the birth order of the child. One-third of all fourth and higher order births were unwanted. Thus, a much larger proportion of births to older women are found to be unwanted—one-half of births among women in their late 30s.

Table 6.7 Fertility planning status

Percent distribution of births in the three years preceding the survey and current pregnancies, by fertility planning status, according to birth order and mother's age, Bangladesh 1993-94

Birth order and mother's age	Planning status of birth				Total	Number of births
	Wanted then	Wanted later	Not wanted	Missing		
Birth order						
1	82.7	17.0	0.1	0.2	100.0	1230
2	76.0	22.9	0.8	0.3	100.0	1050
3	66.6	24.7	8.1	0.5	100.0	790
4+	48.2	19.1	32.4	0.4	100.0	1644
Age at birth						
<19	77.0	22.3	0.2	0.4	100.0	1236
20-24	72.1	21.5	6.0	0.4	100.0	1634
25-29	59.7	21.2	19.1	0.1	100.0	1040
30-34	52.2	15.5	31.8	0.5	100.0	526
35-39	39.5	8.3	51.7	0.5	100.0	213
40-44	40.0	16.9	43.1	0.0	100.0	50
45-49	*	*	*	*	100.0	16
Total	66.5	20.3	12.9	0.3	100.0	4714

Note: Birth order includes current pregnancy. An asterisk indicates that a figure is based on fewer than 25 births (and current pregnancies) and has been suppressed.

Table 6.8 presents "wanted" fertility rates calculated using the second approach to measuring unwanted fertility. The wanted fertility rate is calculated in the same manner as the total fertility rate, but unwanted births are excluded from the numerator. For this purpose, unwanted births are defined as those which exceed the number considered ideal by the respondent. (Women who do not report a numeric ideal family size are assumed to want all their births.) This rate represents the level of fertility that would have prevailed in the three years preceding the survey if all unwanted births had been prevented. A comparison of the total wanted fertility rate and the actual fertility rate suggests the potential demographic impact of the elimination of unwanted births.

The wanted fertility rate in Bangladesh as a whole is 2.1 births per woman, 1.3 children less than the actual total fertility rate. This implies that the total fertility rate is 62 percent higher than it would be if unwanted births were avoided. The gap between the wanted and actual total fertility rates is slightly larger among rural than urban women and among those in Barisal and Chittagong Divisions than among those in other divisions. There is also a larger gap among women with no education than among those with secondary education.

Table 6.8 Wanted fertility rates

Total wanted fertility rates and total fertility rates for the three years preceding the survey, by selected background characteristics, Bangladesh 1993-94

Background characteristic	Total wanted fertility rate	Total fertility rate
Residence		
Urban	1.7	2.7
Rural	2.2	3.5
Division		
Barisal	2.1	3.5
Chittagong	2.5	3.9
Dhaka	2.1	3.4
Khulna	1.9	3.1
Rajshahi	1.9	3.0
Education		
No education	2.4	3.8
Primary incomplete	2.1	3.4
Primary complete	2.1	3.3
Secondary/Higher	1.7	2.6
Total	2.1	3.4

Note: Rates are based on births to women 15-49 in the period 1-36 months preceding the survey. The total fertility rates are the same as those presented in Table 3.2.

CHAPTER 7

INFANT AND CHILD MORTALITY

7.1 Introduction

This chapter presents information on mortality under age five in Bangladesh, specifically on levels, trends and differentials in neonatal, postneonatal, infant, and child mortality, as well as data on high-risk fertility behavior. The data are disaggregated by sex, socioeconomic and demographic characteristics, division, and other factors in order to identify segments of the population requiring special attention. This information is useful for monitoring and evaluating population and health programs and policies. Infant and child mortality rates are basic indicators of a country's socioeconomic situation and quality of life.

Estimates of childhood mortality are based on information from the birth history section of the questionnaire administered to individual women. The section began with questions about the aggregate childbearing experience of respondents (i.e., the number of sons and daughters who live with the mother, the number who live elsewhere and the number who have died). For each of these births, information was then collected on sex, month and year of birth, survivorship status and current age, or, if the child had died, age at death.

This information is used to directly estimate mortality rates. In this report, mortality in early childhood is measured using the following five rates:

Neonatal mortality: the probability of dying within the first month of life;

Postneonatal mortality: the difference between infant and neonatal mortality;

Infant mortality: the probability of dying before the first birthday;

Child mortality: the probability of dying between the first and fifth birthday;

Under-five mortality: the probability of dying between birth and the fifth birthday.

All rates are expressed per 1,000 live births, except for child mortality, which is expressed per 1,000 children surviving to 12 months of age.

Examination of data relating to child mortality does not indicate that there are any serious biases in reporting (see Appendix C.2 for details).

7.2 Levels and Trends in Infant and Child Mortality

Neonatal, postneonatal, infant, child, and under-five mortality rates are shown in Table 7.1 for five-year periods preceding the survey. Under-five mortality for the most recent five-year period (which roughly corresponds to the years 1989-1993) is 133 per 1,000 births. This means that almost one in seven children born in Bangladesh dies before reaching the fifth birthday. Two-thirds of the deaths under age five occur in the first year of life; the infant mortality rate is 87 deaths per 1,000 births and the child mortality rate is 50 per 1,000 children age one year. During infancy, the risk of death in the first month of life (52 per 1,000) is greater than in the next 11 months (35 per 1,000).

Table 7.1 Infant and child mortality

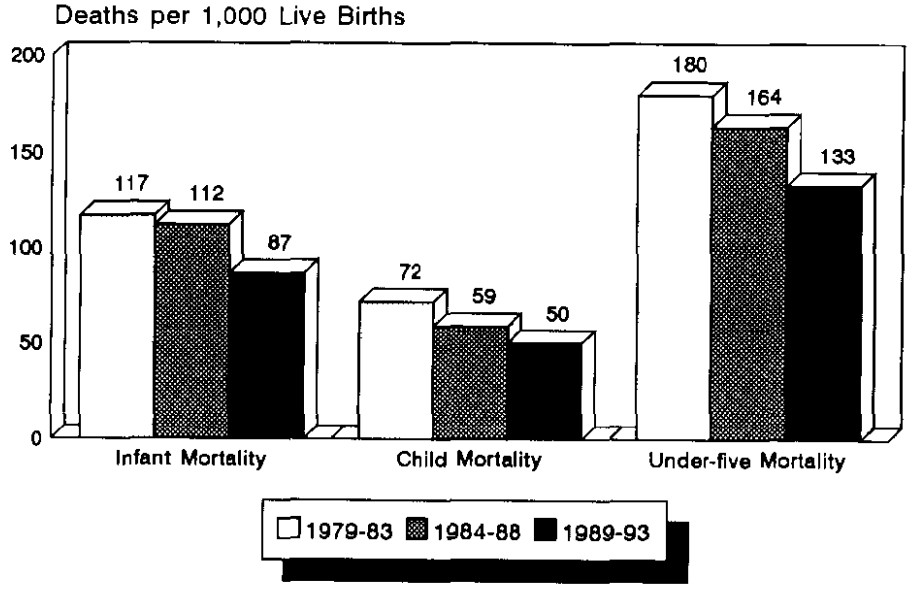
Infant and child mortality rates by five-year periods preceding the survey, Bangladesh 1993-94

Years preceding survey	Approximate reference period	Neonatal mortality (NN)	Postneonatal mortality (PNN)	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
0-4	1989-93	52.3	35.1	87.4	50.1	133.1
5-9	1984-88	73.1	38.8	111.9	59.0	164.3
10-14	1979-83	78.2	38.2	116.5	71.8	180.0

The estimates in Table 7.1 and Figure 7.1 indicate that child survival in Bangladesh has improved since the early 1980s. Under-five mortality has declined from 180 deaths per 1,000 births in the period 10-14 years before the survey (approximately 1979-83) to 133 for the period 0-4 years before the survey, a decline of 26 percent. The pace of decline was slightly faster for child mortality than for infant mortality; the child mortality rate declined by 30 percent (from 72 per 1,000 births 10-14 years before the survey to 50 per 1,000 births 0-4 years before the survey), while the infant mortality rate declined by 25 percent over the same period (from 117 to 87 per 1,000 births). It is interesting to note that, while neonatal mortality rates have fallen in the recent past, postneonatal mortality rates show little change.

Further evidence of a decline in childhood mortality comes from a comparison of data from the 1993-94 BDHS with previous data sources. Table 7.2 and Figure 7.2 show infant mortality rates from various surveys and the vital registration system for the period 1981 to 1991. Although the rates fluctuate

Figure 7.1
Trends in Infant and Child Mortality
Bangladesh, 1979-1993



BDHS 1993-94

Table 7.2 Trends in infant mortality rates

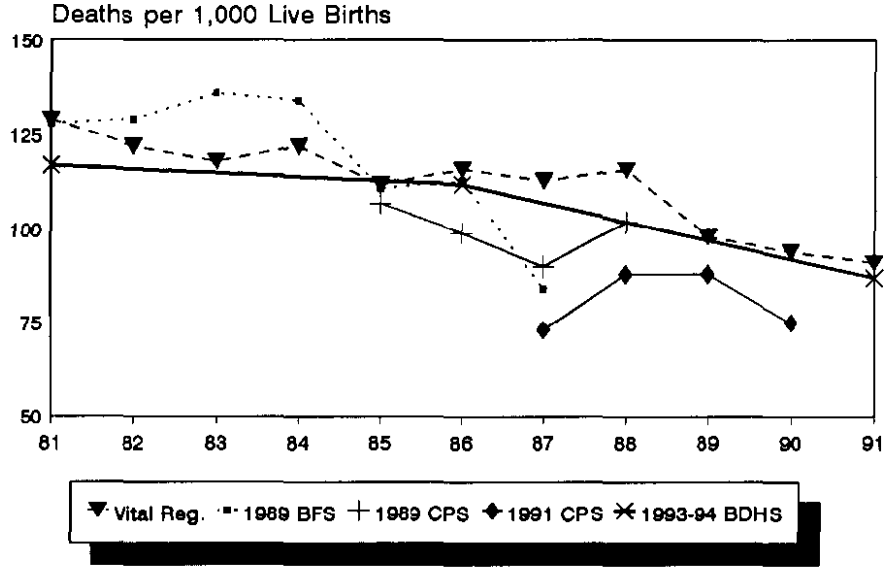
Infant mortality rates from selected sources, Bangladesh, 1981-1991

Data source	Year										
	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
1993-94 BDHS[1]	117	-	-	-	-	112	-	-	-	-	87
1991 CPS	-	-	-	-	-	-	73	88	88	75	-
1989 CPS	-	-	-	-	107	99	90	102	-	-	-
1989 BFS	128	129	136	134	111	113	84	-	-	-	-
Vital registration	129	122	118	122	112	116	113	116	98	94	91

[1]Figures are five-year rates placed at the mid-point year.

Source: Huq and Cleland, 1990:116; Mitra et al., 1993:109

Figure 7.2
Infant Mortality Rates from Selected Sources, Bangladesh, 1981-1991



Note: BDHS rates are for 5-year periods centered on the index year.
Source: Huq and Cleland, 1990:116; Mitra et al., 1993:109

over time, there is a general downward trend. Infant mortality rates have declined from around 120 or more per 1,000 births in the early 1980s to less than 90 in the five years before the BDHS. Under-five mortality has also declined. The 1989 BFS reported rates for 1979 to 1983 of almost 190 deaths per 1,000 births (Huq and Cleland, 1990:116), while the rate from the BDHS for the period 1989-93 is 133. Although not comparable to nationally-representative data, childhood mortality has also declined in the

Matlab area of Bangladesh. Infant mortality rates in the comparison area declined from about 106 deaths per 1,000 births in the period 1984-88 to 97 for 1989-93, a less rapid decline than implied by the BDHS rates of 112 and 87, respectively (ICDDR,B, 1994:5). However, the decline in under-five mortality for the comparison area of Matlab was steeper than the rates recorded in the BDHS; the former show a decline from about 182 to 132 deaths per 1,000 births for the period 1984-88 to 1989-93, compared to 164 to 133 for the BDHS.

7.3 Socioeconomic Differentials in Infant and Child Mortality

Differentials in the various mortality rates by selected background characteristics are presented in Table 7.3. The table focuses on basic socioeconomic characteristics, including urban-rural residence, division, and mother's educational level. A ten-year period is used to calculate the mortality estimates in order to have a sufficient number of cases in each category.

Table 7.3 Infant and child mortality by background characteristics

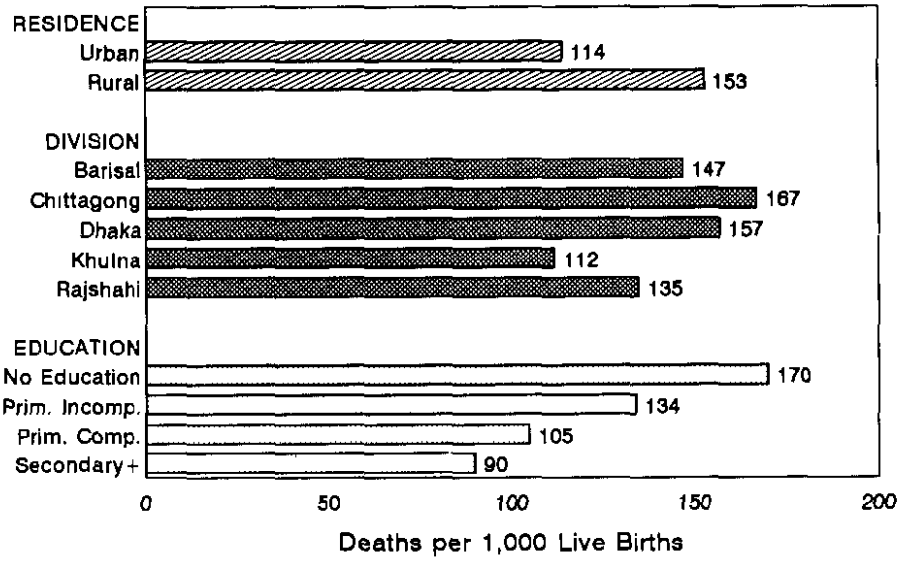
Infant and child mortality rates for the ten-year period preceding the survey, by selected background characteristics, Bangladesh 1993-94

Background characteristic	Neonatal mortality (NN)	Postneonatal mortality (PNN)	**Infant mortality** ($_1q_0$)	Child mortality ($_4q_1$)	**Under-five mortality** ($_5q_0$)
Residence					
Urban	43.7	37.2	80.9	36.3	114.3
Rural	65.5	37.1	102.6	56.4	153.2
Division					
Barisal	63.2	38.8	102.0	49.6	146.5
Chittagong	65.2	37.9	103.2	70.8	166.7
Dhaka	62.2	43.4	105.6	57.6	157.1
Khulna	59.3	30.0	89.3	24.7	111.8
Rajshahi	64.6	30.2	94.8	44.0	134.7
Education					
No education	70.9	42.4	113.3	64.4	170.4
Primary incomplete	56.0	36.6	92.6	45.5	133.9
Primary complete	55.0	26.7	81.7	25.8	105.4
Secondary/Higher	40.9	16.7	57.5	34.7	90.2
Total	63.4	37.1	100 5	54.4	149.5

Children in the urban areas of Bangladesh experience a 25 percent lower risk of dying before age five than rural children (114 vs. 153 per 1,000 births, respectively—see Figure 7.3). The urban-rural differential in mortality exists at every age group except for postneonatal mortality. Infant mortality rates are 81 per 1,000 births in urban areas and 103 in rural areas.

Differences in mortality by division are also quite marked, especially for child and under-five mortality. Interestingly, there are only minimal differences in neonatal mortality by division and differences in postneonatal and infant mortality are relatively small. Child mortality is considerably higher in Chittagong Division than in the other divisions and under-five mortality in Chittagong and Dhaka Divisions (167 and 157 per 1,000, respectively) is higher than in Khulna and Rajshahi Divisions (112 and 135 per 1,000). Mortality rates in Khulna Division are lower in each age group than rates in the other divisions.

Figure 7.3
Under-Five Mortality by Selected Background Characteristics



Note: Rates are for the 10-year period preceding survey

BDHS 1993-94

Differences in early childhood mortality by education of the mother are large. Children born to mothers who have at least some secondary education are about half as likely to die before their fifth birthday as those born to mothers who have had no education (90 vs. 170 per 1,000 births, respectively). This educational advantage is apparent for the mortality rates in every age group; for example, infant mortality rates are 113 per 1,000 births to women with no education, compared to only 58 per 1,000 births to women with at least some secondary education.

7.4 Demographic Differentials in Infant and Child Mortality

The relationship between early childhood mortality and various demographic variables is examined in Table 7.4 and Figure 7.4 for the ten-year period preceding the survey. The results show that, as expected, male children are more likely to die in infancy than female children (107 for males vs. 93 for females). The difference is especially pronounced in the neonatal period, whereas postneonatal mortality rates are almost identical for males and females. The gender differential reverses in childhood; between age 1 and 4, more females die than males. The same pattern is found in the Matlab area, where neonatal mortality rates in the comparison area in 1993 were 67 for males and 60 for females (ICDDR, B, 1994:5). Since childhood mortality is typically about equal among females and males, this pattern suggests that there may be gender-related differences in childrearing practices or in treatment of illnesses during childhood that favor boys over girls.

The relationship between childhood mortality and mother's age at birth generally shows the expected U-shaped pattern with higher mortality for children of younger (less than age 20) and older mothers. For example, the infant mortality rate for children of mothers who were less than age 20 at the time of the child's birth (120 per 1,000) is one-third higher than the rate for children whose mothers were 20-29 at the time they gave birth (89 per 1,000). Among the children of mothers age 30-39, the infant mortality rate is again high (100 per 1,000). Exceptions to the U-shaped pattern are neonatal mortality, which is high for very young mothers but does not rise again for older mothers, and childhood mortality, which rises with the age of the mother.

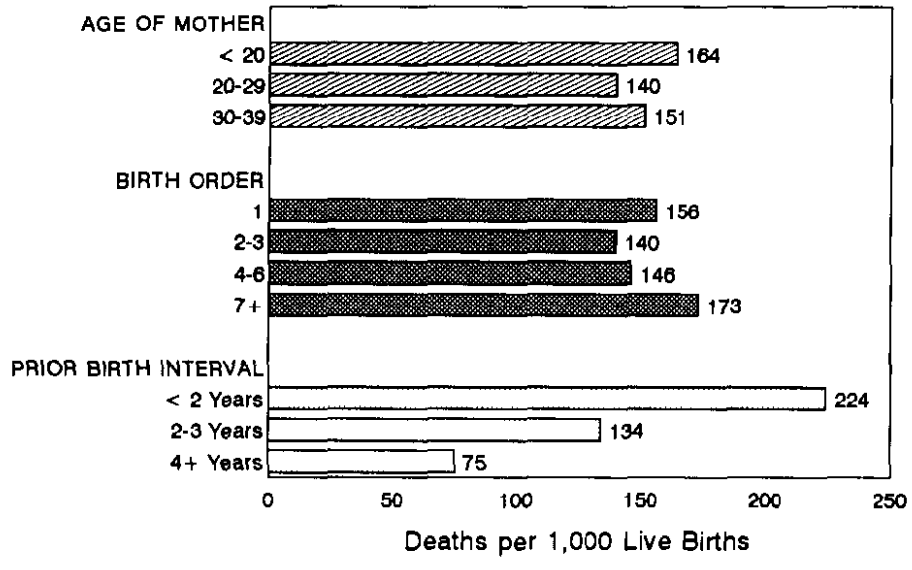
Table 7.4 Infant and child mortality by demographic characteristics

Infant and child mortality rates for the ten-year period preceding the survey, by selected demographic characteristics, Bangladesh 1993-94

Demographic characteristic	Neonatal mortality (NN)	Postneonatal mortality (PNN)	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
Sex of child					
Male	70.9	36.5	107.3	46.7	149.1
Female	55.7	37.7	93.4	62.3	149.9
Age of mother at birth[1]					
< 20	81.3	38.5	119.9	50.6	164.4
20-29	55.7	33.5	89.2	55.9	140.2
30-39	57.0	43.2	100.2	56.1	150.6
Birth order					
1	84.6	34.7	119.3	41.9	156.2
2-3	54.6	32.8	87.5	57.1	139.6
4-6	54.8	39.3	94.1	57.1	145.8
7+	68.4	49.4	117.8	63.1	173.4
Previous birth interval					
< 2 yrs	93.6	60.9	154.6	82.6	224.4
2-3 yrs	48.0	34.0	82.0	56.6	134.0
4 yrs +	32.4	17.1	49.4	26.9	75.0

[1]Rates for age group 40-49 not shown due to small numbers of children exposed (i.e., less than 250).

Figure 7.4
Under-Five Mortality by Selected Demographic Characteristics



Note: Rates are for the 10-year period preceding survey

BDHS 1993-94

Birth order is correlated with mother's age so it is not surprising that mortality risks are elevated among first births (which are predominantly to younger mothers) and births of order seven or higher (which are generally to older mothers). The most consistent findings can be seen in the relationship between mortality rates and the length of the interval between births. The data show that short birth intervals significantly reduce a child's chances of survival. Children born less than two years after a previous birth are three times more likely to die in infancy than those born after an interval of four years or more (155 vs. 49 per 1,000). This relationship persists in all the age groups examined. This finding supports the importance of child spacing practices as a means of reducing mortality of young children.

7.5 High-Risk Fertility Behavior

Previous research has shown strong relationships between fertility patterns and children's survival chances. Typically, infants and children have a greater probability of dying early if they are born to mothers who are especially young or old, if they are born after a short birth interval, or if they are of high birth order. Data to examine these relationships are presented in Table 7.5, which shows the distribution of births in the five years preceding the survey and of currently married women according to these categories of increased risk. In this analysis, a mother is classified as "too young if she is less than 18 years of age and "too old" if she is over 34 years of age. A "short birth interval" is defined by a birth occurring less than 24 months after a previous birth, and a child is of "high birth order" if the mother had previously given birth to three or more children (i.e., if the child is of birth order 4 or higher). First births, although often at increased risk, are classified in the "not in any high-risk category," because they are not considered an avoidable risk.

Table 7.5 is further divided into two categories, with births falling into either single high-risk categories (such as those born to mothers below the age of 18 or over the age of 34, those born after an interval of less than 24 months and those of birth order higher than three) or multiple high-risk categories (such as those born after an interval of less than 24 months to mothers below the age of 18, children of birth order 4 or higher who are born to mothers over 34 years, etc.).

The results indicate that well over half (58 percent) of children born in the five years before the survey fall into at least one high-risk category; one in seven births is characterized by two or more high-risk factors. The most common high-risk category is high birth order.

Table 7.5 also indicates the relative risk of dying for children born in the five years before the survey by comparing the proportion dead in each high-risk category with the proportion dead among children not in any high-risk category. These risk ratios are presented in column 2. One risk category stands out—the multiple high-risk category of children of high birth order born to older women after a short interval, which has a relative risk ratio of over three. Also high is the category of children born after a short interval to young mothers (relative risk of 2.55). Fortunately, however, only a small proportion of recent births falls into either of these two categories, so that, even though the fertility behavior results in much higher risk of death for the child, few children are subject to that higher risk. Of greater practical importance are the categories of births that occur after an interval that is too short. Such births account for 15 percent of all births and suffer mortality risks that are almost twice that for children who fall in the "not in any high-risk category." Moreover, 15 percent of children born in Bangladesh are exposed to greater risk of dying because they are born to mothers under 18 years.

Column 3 of Table 7.5 shows the proportion of currently married women who fall into the various risk categories. Overall, 66 percent of married women, if they became pregnant today, would conceive a child that would fall into a high-risk category. However, since two categories do not have a relative risk of dying that is significantly higher than 1 ("birth order >3" has a relative risk of 1.01 and "age >34 and birth order >3" has a relative risk of 1.07), actually only about one in four married women (26 percent) are at risk of conceiving a child that would have an elevated risk of dying early.

Table 7.5 High-risk fertility behavior

Percent distribution of children born in the five years preceding the survey by category of elevated risk of mortality, and the percent distribution of currently married women at risk of conceiving a child with an elevated risk of mortality, by category of increased risk, Bangladesh 1993-94

Risk category	Births in 5 years preceding the survey		Percentage of currently married women[a]
	Percentage of births	Risk ratio	
Not in any high-risk category	42.5	1.00	34.4[b]
Single high-risk category			
Mother's age < 18	13.7	1.55	5.1
Mother's age > 34	0.2	*	1.9
Birth interval < 24 months	6.4	1.89	7.6
Birth order > 3	23.5	1.01	19.4
Subtotal	43.8	1.31	34.0
Multiple high-risk category			
Age <18 & birth interval <24[c] mo	1.5	2.55	1.5
Age >34 & birth order >3	5.0	1.07	20.4
Age >34 & birth interval <24 & birth order >3	1.0	3.37	1.5
Birth interval <24 & birth order >3	6.3	2.18	8.2
Subtotal	13.8	1.90	31.6
In any high-risk category	57.5	1.45	65.6
Total	100.0	-	100.0
Number of births	6200	-	8980

Note: Risk ratio is the ratio of the proportion dead of births in a specific high-risk category to the proportion dead of births *not in any high-risk category*.An asterisk indicates that a figure is based on fewer than 25 women and has been suppressed.

[a]Women were assigned to risk categories according to the status they would have at the birth of a child, if the child were conceived at the time of the survey: age less than 17 years and 3 months, age older than 34 years and 2 months, latest birth less than 15 months ago, and latest birth of order 3 or higher.

[b]Includes sterilized women

[c]Includes the combined categories *Age <18 and birth order >3*.

CHAPTER 8

MATERNAL AND CHILD HEALTH

The topics under discussion in this chapter are maternal care, childhood vaccinations, common childhood diseases and their treatment, and infant feeding practices. This information can be used to identify groups of women whose babies are "at risk" because of nonuse of maternal health services. The information will assist policymakers in the planning of appropriate strategies to improve maternal and child care. Data were obtained from women who had had a live birth in the three years preceding the survey.

8.1 Antenatal Care

Ideally, antenatal care facilitates detection and treatment of problems during pregnancy, such as anemia and infections, and provides an opportunity to give information to women and their families. In addition, this early contact with the health care system can increase use of delivery care if problems occur.

Prevalence and Source of Antenatal Care

Table 8.1 shows the percent distribution of births in the three years preceding the survey by source of antenatal care received during pregnancy, according to maternal and background characteristics. Interviewers were instructed to record all persons a woman may have seen for care, but in the table, only the provider with the highest qualifications is considered, if more than one person was seen.

The data indicate that many mothers do not seek antenatal care. Among births that occurred in the three years before the survey, almost three-quarters (73 percent) received no antenatal care during pregnancy. Those women who do receive care tend to receive it from doctors (19 percent) or from nurses, midwives, or family welfare visitors (7 percent). Only a fraction of pregnant women receive antenatal care from traditional birth attendants (*dai*).

The survey results show that there are sharp differences in antenatal care coverage among subgroups in Bangladesh. Antenatal care is much more common for births to younger women and those of lower birth order. Births to women in urban areas are more than twice as likely to have received antenatal care (56 percent) as births in rural areas (24 percent). The urban-rural difference is due largely to the greater proportion of urban births for which doctors provide antenatal care. Differences in antenatal care coverage by division are minimal; it is only in Dhaka that a greater proportion of pregnant women receive antenatal care. However, differences by education level of the mother are substantial: while only 18 percent of births to women with no education receive care during pregnancy, the level increases to 60 percent of births to women with at least some secondary school.

Although the level of antenatal care in Bangladesh is still relatively low, there is evidence that it has been increasing over time. The 1989 BFS included a question as to whether women had gone to a doctor or family welfare visitor for a check on her recent pregnancies (Huq and Cleland, 1990:111). Mothers responded affirmatively for less than 10 percent of the births in the years immediately prior to the survey. Although differences in the questions could account for some of the increase over time, it seems likely that there has been an increase in the extent of antenatal care received.

Table 8.1 Antenatal care

Percent distribution of births in the three years preceding the survey by source of antenatal care during pregnancy, according to selected background characteristics, Bangladesh 1993-94

Background characteristic	Received some care	Antenatal care provider[1]					Total	Number of births
		Doctor	Trained nurse/ Midwife	Traditional birth attendant	Other	No one		
Mother's age at birth								
< 20	31.1	19.8	8.8	0.3	2.2	68.9	100.0	1009
20-34	26.9	18.7	6.7	0.3	1.2	73.1	100.0	2607
35+	18.4	14.6	3.1	0.0	0.7	81.6	100.0	234
Birth order								
1	37.3	26.2	8.6	0.3	2.2	62.7	100.0	997
2-3	26.8	18.6	6.7	0.3	1.3	73.2	100.0	1482
4-5	23.7	15.2	7.0	0.3	1.2	76.3	100.0	775
6+	17.5	11.4	5.3	0.3	0.5	82.5	100.0	597
Residence								
Urban	56.1	44.5	9.2	0.3	2.1	43.9	100.0	392
Rural	24.2	15.8	6.8	0.3	1.3	75.8	100.0	3458
Division								
Barisal	27.5	18.3	7.9	0.0	1.3	72.5	100.0	247
Chittagong	24.1	16.6	6.8	0.2	0.6	75.9	100.0	1174
Dhaka	34.7	25.3	7.5	0.5	1.5	65.3	100.0	1174
Khulna	28.0	17.6	7.9	0.2	2.3	72.0	100.0	423
Rajshahi	21.6	13.3	5.9	0.3	2.1	78.4	100.0	832
Mother's education								
No education	17.9	11.3	5.2	0.2	1.1	82.1	100.0	2214
Primary incomplete	30.3	18.6	8.7	0.2	2.7	69.7	100.0	654
Primary complete	26.8	18.9	7.0	0.2	0.7	73.2	100.0	387
Secondary/Higher	60.4	46.3	12.0	0.5	1.6	39.6	100.0	595
All births	27.5	18.7	7.0	0.3	1.4	72.5	100.0	3850

Note: Figures are for births in the period 1-35 months preceding the survey.
[1]If the respondent mentioned more than one provider, only the most qualified provider is considered.

Number and Timing of Antenatal Visits

Antenatal care is important to both the mother and child. The number and timing of antenatal care visits are considered important to preventing an adverse pregnancy outcome. Care is most effective if the visits are started early in pregnancy and continue at regular intervals throughout the pregnancy. It is generally recommended that antenatal care visits be made monthly for the first 7 months, fortnightly in the 8th month, and then weekly until birth. If the first visit is made at the third month of pregnancy, this schedule translates to a total of about 12 to 13 visits.

Data on the number and timing of visits made by pregnant women are given in Table 8.2 and in Figure 8.1. As mentioned above, for a large majority of births, mothers do not obtain any antenatal care. Among those who do obtain care, the median number of visits is only 2.7, far fewer than the recommended 12 visits.

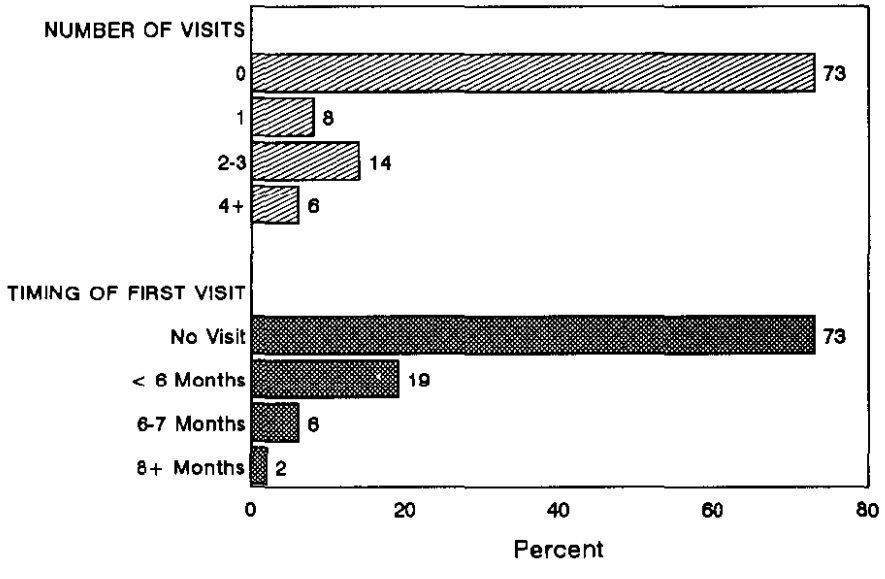
Table 8.2 Number of antenatal care visits and stage of pregnancy

Percent distribution of live births in the three years preceding the survey by number of antenatal care visits, and by the stage of pregnancy at the time of the first visit, Bangladesh 1993-94

Characteristic	Percent
Number of visits	
0	72.5
1	7.7
2-3	14.0
4+	5.5
Don't know/missing	0.3
Total	100.0
Median	2.7
Number of months pregnant at time of first visit	
No antenatal care	72.5
<6 months	19.0
6-7 months	6.0
8+ months	2.3
Don't know/missing	0.2
Total	100.0
Median	4.9
Number of births	3850

Note: Figures are for births in the period 1-35 months preceding the survey.

Figure 8.1
Percent Distribution of Births by Number of Antenatal Care Visits and Timing of First Visit



BDHS 1993-94

Pregnant women who seek antenatal care generally do so on or before the fifth month of pregnancy. The median time at which mothers started antenatal visits is 4.9 months.

Tetanus Toxoid Vaccinations

Tetanus toxoid injections are given during pregnancy for prevention of neonatal tetanus among newborns. This is a fatal disease caused by unhygienic conditions at childbirth. For full protection, it is recommended that pregnant women receive two doses of the toxoid. However, if a woman was vaccinated during a previous pregnancy, she may only require one booster dose during a subsequent pregnancy. Five doses are considered to provide lifetime protection. In order to estimate the extent of tetanus toxoid coverage during pregnancy, the BDHS collected data for each birth in the three years before the survey as to whether the mother had received tetanus toxoid vaccinations during pregnancy and, if so, the number of injections. These results are presented in Table 8.3. The data may underestimate the actual extent of protection from tetanus, since women were asked about vaccination during specific pregnancies. Women who had received prior vaccinations may not have received additional injections because they were considered unnecessary.

Table 8.3 Tetanus toxoid vaccination

Percent distribution of live births in the three years preceding the survey by number of tetanus toxoid injections during pregnancy, according to background characteristics, Bangladesh 1993-94

Background characteristic	Number of tetanus toxoid injections				Total	Number of births
	None	One dose	Two doses or more	Don't know/ Missing		
Mother's age at birth						
< 20	25.6	15.5	58.7	0.2	100.0	1009
20-34	35.3	17.3	47.1	0.3	100.0	2607
35+	53.6	11.4	34.4	0.5	100.0	234
Birth order						
1	21.9	13.5	64.5	0.1	100.0	997
2-3	33.1	17.5	48.9	0.5	100.0	1482
4-5	37.5	20.0	42.4	0.1	100.0	775
6+	51.4	14.0	34.4	0.2	100.0	597
Residence						
Urban	19.1	15.4	64.7	0.8	100.0	392
Rural	35.6	16.6	47.6	0.2	100.0	3458
Division						
Barisal	32.3	19.2	48.5	0.0	100.0	247
Chittagong	41.6	12.2	46.1	0.1	100.0	1174
Dhaka	34.2	14.7	50.4	0.6	100.0	1174
Khulna	21.4	22.6	55.7	0.2	100.0	423
Rajshahi	29.3	21.0	49.6	0.1	100.0	832
Mother's education						
No education	42.1	16.5	41.2	0.2	100.0	2214
Primary incomplete	32.5	15.1	52.2	0.2	100.0	654
Primary complete	24.8	16.5	58.1	0.6	100.0	387
Secondary/Higher	11.0	17.7	70.9	0.4	100.0	595
All births	33.9	16.4	49.4	0.3	100.0	3850

Note: Figures are for births in the period 1-35 months preceding the survey.

The data indicate that tetanus toxoid coverage is relatively widespread in Bangladesh. For almost half of births, the mothers received two or more tetanus toxoid injections during pregnancy and for 16 percent, the mothers received one dose. One-third of births did not benefit from any tetanus toxoid vaccination during pregnancy.

As for antenatal care coverage, tetanus toxoid coverage is higher among younger mothers, mothers of lower order births, and urban mothers. Higher coverage for lower order births and for younger mothers may be explained by the fact that higher parity mothers and older mothers may have received all the required doses of the toxoid during previous pregnancies. Differentials in coverage by division show that coverage is highest in Khulna Division and lowest in Chittagong Division. There is a strong positive relationship between the mother's education and tetanus toxoid coverage. The proportion of births whose mothers received two or more tetanus toxoid doses during pregnancy increases from 41 percent among women with no education to 71 percent among those with secondary school.

As with the data on antenatal care coverage, data from the 1989 BFS indicate that the proportion of pregnant women receiving tetanus toxoid injections has risen substantially. For births occurring in 1988 and early 1989, 26 percent of the mothers received at least one tetanus toxoid injection during pregnancy, according to the 1989 BFS (Huq and Cleland, 1990:111). According to the BDHS, this figure was 66 percent for births in the three years before the survey (corresponding roughly to 1991-93). If true, this means that the coverage level more than doubled in about four years.

8.2 Delivery Care

An important element in reducing health risks for mothers and children is to increase the proportion of babies that are delivered in health facilities. Proper medical attention and hygienic conditions during delivery can reduce the risk of infections and facilitate management of complications that can cause death or serious illness for either the mother or the newborn. In this section, two topics related to delivery are discussed: place of delivery and type of assistance during delivery.

Place of Delivery

Table 8.4 presents the distribution of births in the three years prior to the survey by the place of delivery. Almost all births (96 percent) in Bangladesh occur at home. The only exceptions to this high level of home deliveries are births to urban women, 20 percent of which occur in health facilities; births to women with some secondary education, 16 percent of which occur in health facilites; and the small proportion of births to women who receive at least four antenatal care visits, 37 percent of which occur in health facilities. Differentials by age of the mother, birth order, and division are not significant.

Table 8.4 Place of delivery

Percent distribution of births in the three years preceding the survey by place of delivery, according to selected background characteristics, Bangladesh 1993-94

Background characteristic	Place of delivery: Health facility	Respondent's home/ Other home	Other	Don't know/ Missing	Total	Number
Mother's age at birth						
< 20	3.0	96.6	0.2	0.3	100.0	1009
20-34	3.7	95.9	0.3	0.0	100.0	2607
35+	2.6	97.4	0.0	0.0	100.0	234
Birth order						
1	6.2	93.4	0.2	0.3	100.0	997
2-3	3.8	95.8	0.4	0.1	100.0	1482
4-5	1.5	98.1	0.4	0.0	100.0	775
6+	0.6	99.3	0.1	0.0	100.0	597
Residence						
Urban	19.8	79.1	1.1	0.0	100.0	392
Rural	1.6	98.1	0.2	0.1	100.0	3458
Division						
Barisal	1.5	98.2	0.3	0.0	100.0	247
Chittagong	2.0	98.0	0.0	0.0	100.0	1174
Dhaka	5.7	93.8	0.5	0.0	100.0	1174
Khulna	4.5	94.7	0.3	0.5	100.0	423
Rajshahi	2.4	97.1	0.3	0.2	100.0	832
Mother's education						
No education	0.7	99.1	0.1	0.1	100.0	2214
Primary incomplete	2.0	97.4	0.6	0.0	100.0	654
Primary complete	2.8	96.6	0.6	0.0	100.0	387
Secondary/Higher	15.9	83.6	0.4	0.2	100.0	595
Antenatal care visits[1]						
None	0.6	99.3	0.1	0.0	100.0	2793
1-3 visits	4.8	94.5	0.7	0.0	100.0	836
4 or more visits	36.8	62.0	1.2	0.0	100.0	210
All births	3.5	96.2	0.3	0.1	100.0	3850

Note: Figures are for births in the period 1-35 months preceding the survey; births for which there was no information about antenatal visits are excluded.
[1]Total includes 11 births for which the number of antenatal care visits was unknown.

Assistance During Delivery

Table 8.5 shows the percent distribution of births in the three years before the survey by type of assistance during delivery, according to background characteristics. If the mother was assisted by more than one type of provider, only the most qualified person is recorded in the table. Sixty percent of births in Bangladesh are assisted by traditional birth attendants (*dai*), with relatives and friends assisting in delivering 29 percent of births.[1] Less than 10 percent of births are assisted by medically trained personnel—either doctors (4 percent) or nurses, midwives and family welfare visitors (5 percent).

[1] It is possible that some women may have reported traditional birth attendants as "friends," since the distinction may be slight.

Table 8.5 Assistance during delivery

Percent distribution of births in the three years preceding the survey by type of assistance during delivery, according to selected background characteristics, Bangladesh 1993-94

Background characteristic	Attendant assisting during delivery						Total	Number
	Doctor	Trained nurse/ Midwife	Traditional birth attendant	Relative/ Other	No one	Missing		
Mother's age at birth								
< 20	3.9	5.3	59.4	30.4	0.7	0.4	100.0	1009
20-34	4.4	5.5	60.2	28.3	1.4	0.1	100.0	2607
35+	2.7	3.8	64.8	24.9	3.7	0.0	100.0	234
Birth order								
1	7.5	6.5	61.5	23.5	0.5	0.5	100.0	997
2-3	4.4	5.2	58.4	30.9	1.0	0.1	100.0	1482
4-5	2.1	5.1	60.7	30.1	1.9	0.2	100.0	775
6+	1.0	4.0	62.3	29.8	2.9	0.0	100.0	597
Residence								
Urban	18.2	16.5	48.8	15.8	0.5	0.2	100.0	392
Rural	2.6	4.1	61.6	30.1	1.5	0.2	100.0	3458
Division								
Barisal	2.7	4.5	63.1	28.1	1.0	0.5	100.0	247
Chittagong	2.3	5.9	72.6	18.2	0.8	0.2	100.0	1174
Dhaka	6.4	6.7	59.2	25.9	1.8	0.0	100.0	1174
Khulna	4.3	7.5	59.3	27.8	0.7	0.5	100.0	423
Rajshahi	4.2	1.8	43.9	48.1	1.9	0.2	100.0	832
Mother's education								
No education	1.5	3.1	60.5	32.8	1.9	0.2	100.0	2214
Primary incomplete	3.0	3.4	62.0	30.5	1.0	0.1	100.0	654
Primary complete	3.0	4.5	69.2	22.9	0.3	0.0	100.0	387
Secondary/Higher	16.1	16.6	51.7	14.8	0.4	0.3	100.0	595
Antenatal care visits[1]								
None	1.5	3.2	62.4	31.4	1.4	0.1	100.0	2793
1-3 visits	5.5	9.2	59.9	23.9	1.4	0.1	100.0	836
4 or more visits	34.7	19.1	34.5	10.7	0.6	0.3	100.0	210
Total	4.2	5.3	60.3	28.7	1.4	0.2	100.0	3850

Note: Figures are for births in the period 1-35 months preceding the survey. If the respondent mentioned more than one attendant, only the most qualified attendant was considered.
[1]Total includes 11 births for which the number of antenatal care visits was unknown.

There are only minor differences in the type of assistance at delivery according to the age of the mother and the birth order of the child. As might be expected, births in urban areas are more likely to be assisted by medical personnel (doctors, nurses, midwives, or family welfare visitors) than rural births (35 vs. 7 percent). Similarly, a higher proportion of births to women with at least some secondary school are assisted by medical personnel (33 percent) than births to women with no education (5 percent). Not surprisingly, the more antenatal visits a woman makes when pregnant, the greater the likelihood that her baby will be delivered with assistance from medically trained staff. Of the births whose mothers received no antenatal care, only

5 percent were assisted by doctors, nurses, midwives, or family welfare visitors, compared to 54 percent of the births whose mothers had four or more antenatal visits. Also of interest in Table 8.5 is the relatively high proportion of births in Chittagong Division that are assisted by traditional birth attendants and the high proportion of births in Rajshahi Division that are assisted by relatives and friends only.

There has been a slight increase over time in the proportion of births assisted by medical personnel. Data from the 1989 BFS shows that less than 2 percent of births in the late 1980s were assisted at delivery by a doctor, while about 3 percent were assisted by a nurse or family welfare visitor (Huq and Cleland, 1990:111). According to BDHS data, these figures had increased to 4 percent and 5 percent, respectively, for births in the three years prior to the survey (roughly 1991-93). What is more surprising is that, according to the BFS, only slightly over one-quarter of births are assisted by traditional birth attendants, while about two-thirds were assisted by relatives. According to the BDHS, these proportions are reversed, with about 60 percent of births assisted by birth attendants and 29 percent assisted by relatives.

8.3 Childhood Vaccination

The Expanded Programme on Immunization (EPI) follows the international guidelines recommended by the World Health Organization (WHO). The guidelines recommend that all children receive a BCG vaccination against tuberculosis; three doses of DPT vaccine for the prevention of diphtheria, pertussis (whooping cough), and tetanus; three doses of polio vaccine, and a vaccination against measles. WHO recommends that children receive all of these vaccines before their first birthday and that the vaccinations be recorded on a health card given to the parents.

In the BDHS, mothers were asked to show the interviewer the health cards of all children born in the three years before the survey. The interviewer copied from the card the date each vaccine was received. If a child never received a health card or if the mother was unable to show the card to the interviewer, the mother was asked to recall whether the child had received BCG, polio, DPT (including the number of doses for polio and DPT), and measles vaccinations. Mothers were able to produce health cards for 46 percent of these children.

Vaccination Coverage

Information on vaccination coverage is presented in Table 8.6, according to the source of information used to determine coverage, i.e., the vaccination card or mother's report. Data are presented for children age 12-23 months, thereby including only those children who have reached the age by which they should be fully vaccinated. The first indicator shows the proportion of these children who had been vaccinated at any age up to the time of the survey. These results are presented according to the source of the information used to determine coverage, i.e., vaccination record or mother's report. The second indicator shows the proportion of children who had been vaccinated by age 12 months, the age at which vaccination coverage should be complete. Figure 8.2 presents coverage figures as assessed from both vaccination cards and mothers' reports.

According to information from both the vaccination records and mothers' recall, 85 percent of children age 12-23 months have received a BCG vaccination and 84 percent the first doses of DPT and polio. Coverage declines for subsequent doses of DPT and polio. Only 67 percent of children receive the third doses of DPT and polio; dropout rates[2] between the first and third doses of DPT and of polio are thus 21 percent. The coverage rate for measles (69 percent) is similar to that for the third doses of DPT and polio. Overall,

[2] Dropout rate = (Dose 1 - Dose 3) * 100 / Dose 1

Table 8.6 Vaccinations by source of information

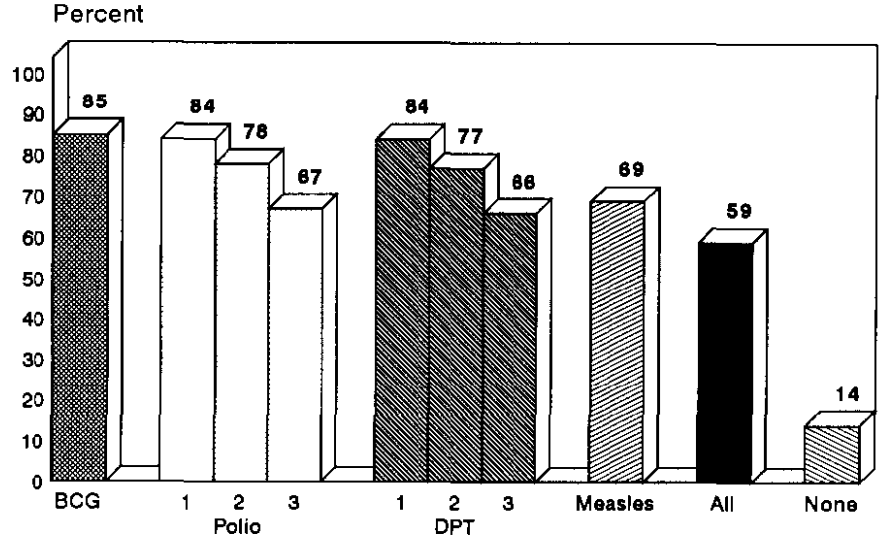
Percentage of children 12-23 months who had received specific vaccines at any time before the survey, by whether the information was from a vaccination card or from the mother, and the percentage vaccinated by 12 months of age, Bangladesh 1993-94

Source of information	Percentage of children who received:										Percent with vaccination card	Number of children
		DPT			Polio							
	BCG	1	2	3+	1	2	3+	Measles	All[1]	None		
Vaccinated at any time before the survey												
Vaccination card	45.1	45.4	42.8	39.7	45.4	42.8	39.7	36.5	35 3	0.0	45.5	533
Mother's report	40.3	38.2	34.6	26.3	38.8	35.0	27.1	32.4	23.6	14.0	54.5	638
Either source	85.4	83.6	77.4	66.0	84.2	77.7	66.8	68.9	58.9	14.0	100.0	1171
Vaccinated by 12 months of age	79.4	78.9	71.6	59.0	79.5	71.9	59.7	55.0	46.2	19.0	-	1171

Note: The DPT coverage rate for children without a written record is assumed to be the same as that for polio vaccine since mothers were specifically asked whether the child had received polio vaccine. For children whose information was based on the mother's report, the proportion of vaccinations given during the first year of life was assumed to be the same as for children with a written record of vaccination.

[1]Children who are fully vaccinated (i.e., those who have received BCG, measles and three doses of DPT and polio).

Figure 8.2
Vaccination Coverage Among Children Age 12-23 Months



Note: Based on health card information and mothers' reports

BDHS 1993-94

59 percent of children 12-23 months are fully vaccinated; 14 percent have not received any vaccinations at all.

As mentioned earlier, it is recommended that children complete the schedule of immunizations during their first year of life, i.e., by 12 months of age. Table 8.6 shows that, among children age 12-23 months at the time of interview, 46 percent had been fully vaccinated before their first birthday. With regard to specific vaccines, children were least likely to have received the measles vaccination by age 12 months.

Differentials in Vaccination Coverage

Table 8.7 shows vaccination coverage rates among children age 12-23 months by selected background characteristics, including the child's sex and birth order, urban-rural residence, division, and the mother's education level. The figures refer to the proportion of children receiving the vaccinations at any time up to the date of the survey and they are based on information from both the vaccination records and mothers' reports. The table includes information on the proportion of children for whom a vaccination record was shown to the interviewer.

Table 8.7 Vaccinations by background characteristics

Percentage of children 12-23 months who had received specific vaccines by the time of the survey (according to the vaccination card or the mother's report) and the percentage with a vaccination card, by selected background characteristics, Bangladesh 1993-94

Background characteristics	Percentage of children who received:										Percent with vaccination card	Number of children
		DPT			Polio							
	BCG	1	2	3+	1	2	3+	Measles	All[1]	None		
Sex												
Male	88.4	85.4	78.5	68.4	86.6	79.1	68.9	72.5	62.1	11.3	48.3	591
Female	82 3	81.9	76.3	63.5	81.8	76 4	64.6	65.1	55.6	16.7	42.6	580
Birth order												
1	87.7	86.0	78.4	66.5	87.0	79.1	67.3	73.1	61.5	11.7	44.9	289
2-3	86.2	85.0	79.7	69.2	85.1	79.8	70.6	71.4	61.5	13.3	45.5	455
4-5	86.2	83.8	77.4	64.0	85.0	77.5	62.8	65.6	55.9	13.2	48.6	243
6+	78.8	76.3	70.1	59.9	76.9	70.9	61.7	60.3	52.2	20.5	42.2	184
Residence												
Urban	91.3	89.9	88.4	78.5	90.4	89.3	79.3	77.9	70.4	8.7	50.5	121
Rural	84.7	82.9	76.1	64.5	83.5	76.4	65.3	67.8	57 5	14.6	44.9	1051
Division												
Barisal	91.2	88.8	86.3	80.8	89.6	85.5	82.0	81.2	73.2	8.8	58.9	80
Chittagong	78.7	77.7	71.8	59.5	77.5	72.3	61.0	63.2	53.7	20.3	39.1	385
Dhaka	84.6	82.1	73.6	56.8	83.0	73.9	57.4	60.7	49.2	15 4	43.0	349
Khulna	91.8	91.0	89.4	87.8	91.0	90.2	87.8	85.4	80.7	7.5	59.6	128
Rajshahi	92.3	90.1	82.9	73.5	91.7	83.1	73.5	77.3	65.0	6.8	47.4	230
Mother's education												
No education	80.2	78.5	70.9	59.1	78.8	71.2	60.3	61.0	51.7	19.2	44.0	679
Primary incomplete	89.0	85.9	80.7	67.5	87.9	81.6	67.6	72.5	59.4	10.5	46.6	189
Primary complete	92.6	90.7	85.9	75.4	92.2	87.2	76.3	77.7	67.2	6.2	47.8	107
Secondary/Higher	96.0	95.4	92.1	83.4	95.2	91.6	83.0	87.8	78.5	3.5	48.5	196
All children	85.4	83.6	77.4	66.0	84.2	77.7	66.8	68.9	58.9	14.0	45.5	1171

Note: The DPT coverage rate for children without a written record is assumed to be the same as that for polio vaccine since mothers were specifically asked whether the child had received polio vaccine.
[1]Children who are fully vaccinated (i.e., those who have received BCG, measles and three doses of DPT and polio).

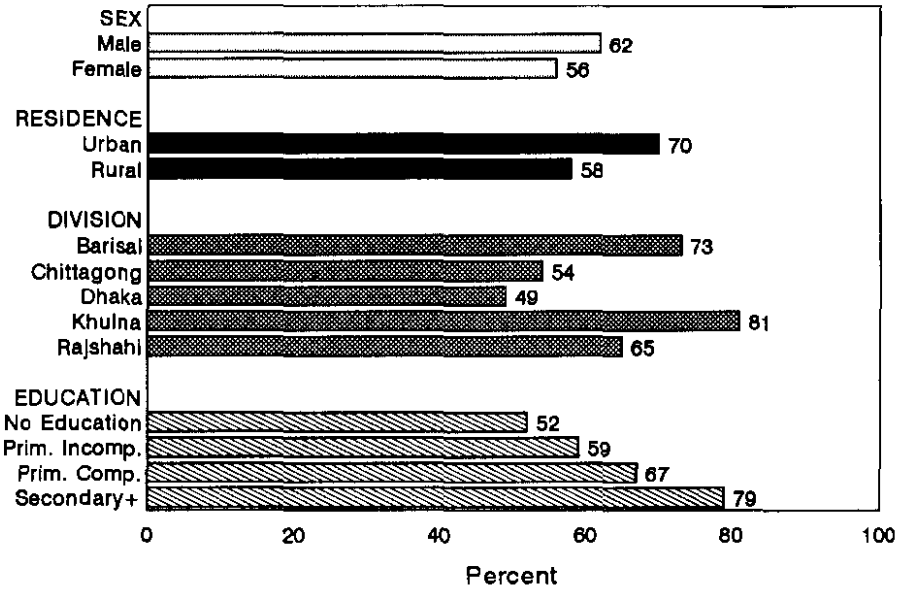
The data indicate that boys are somewhat more likely than girls to receive basic immunizations. For most vaccinations, the difference is small, with about 5 to 6 percent more boys than girls receiving the immunization. Overall 62 percent of boys receive all of the recommended immunizations, compared to 56 percent of girls (Figure 8.3).

Children of birth order six and above are less likely than children of lower birth orders to receive the basic childhood immunizations. The difference is particularly wide for the measles vaccine, which is given to only 60 percent of children of birth order six and above, compared to 73 percent of first children. The vaccination program has been more successful in urban areas, even though more than half of the children in rural areas have been fully immunized.

There are sharp differences in vaccination coverage by division. Children in Khulna and Barisal Divisions are more likely to be fully immunized than children in other divisions, whereas those in Dhaka and Chittagong Divisions lag behind the national average. Only half of the children in Dhaka Division are fully immunized, compared to over 80 percent of those in Khulna Division. Although some of the regional differences are due to lower proportions of children in Dhaka and Chittagong Divisions receiving initial vaccinations such as BCG and the first dose of DPT, much of the difference is due to higher dropout rates between the first and third doses of DPT and polio and especially to lower proportions who receive the measles vaccine. As expected, the proportion of children who receive all the recommended vaccinations increases with the education level of the mother, from 52 percent of children of mothers with no education to 79 percent of those whose mothers have at least some secondary education.

Overall, vaccination cards were shown to interviewers for 46 percent of children age 12-23 months. Differentials in vaccination card levels generally follow those of the proportion fully immunized.

Figure 8.3
Percentage of Children Age 12-23 Months Who Are Fully Immunized, by Background Characteristics



BDHS 1993-94

Trends in Vaccination Coverage

A general idea of the trend in vaccination coverage can be obtained by comparing coverage among children age 12-23 months and those age 24-35 months, since those in the latter age group received their vaccinations roughly one year prior to those in the former age group. In order to be comparable, the data refer only to vaccinations received before age 12 months. The data imply that vaccination coverage has improved slightly in the recent past, with 41 percent of children age 24-35 months being fully vaccinated, compared to 46 percent of those age 12-23 months (data not shown). Of course, retrospective reporting has flaws, since vaccination cards are less likely to be available for older children and mothers' recall may be less accurate.

The level of vaccination coverage from the BDHS is considerably lower than the level estimated from the 1993 EPI Coverage Evaluation Survey. The latter produced an estimate that 74 percent of children age 12-23 months were fully immunized (GB, 1993:11). The discrepancy for particular antigens was greatest for DPT3: the EPI survey shows that 80 percent of children age 12-23 months received the third dose of DPT, compared to the estimate of 67 percent from the BDHS. The two surveys give identical coverage rates for Rajshahi Division, but very different rates for the other two comparable divisions (Chittagong and Dhaka). Differences in survey methodology may account for some of the differences in results.

However, both surveys show a vast increase from the levels of coverage reported in the 1989 BFS. In that survey, only 19 percent of children born in 1987 received 3 doses of DPT, while 26 percent were vaccinated against TB and 19 percent against measles (Huq and Cleland, 1990:113).

8.4 Childhood Illness and Treatment

Two illnesses that are of major importance for infant and child survival in Bangladesh are discussed in this section. They are acute respiratory infection and diarrhea. Estimates of the prevalence of these illnesses, as well as data concerning types of treatment, are presented. Data are also presented on the extent of use of Vitamin A capsules, given to children to prevent deficiency in this important vitamin.

Acute Respiratory Infection

Acute respiratory infection (ARI) is one of the major causes of morbidity and mortality among children in Bangladesh. One-fourth of the deaths to children under five are reportedly caused by ARI (UNICEF, 1991:39). Almost all children with pneumonia have a cough and short, rapid breathing. Early diagnosis and treatment with antibiotics can prevent a large proportion of deaths from ARI.[3]

The prevalence of symptoms of ARI was estimated in the BDHS by asking mothers if their children under age three had been ill with coughing accompanied by short, rapid breathing during the two weeks preceding the survey. Mothers whose children had experienced these symptoms were asked what they had done to treat the illness. It bears mentioning that information on disease prevalence is more subjective than many other topics covered in the BDHS; it is highly dependent on what symptoms the mother considers serious. Similarly, reporting of treatment practices depends on how much mothers know about the medicines their children may receive. Mothers may not know whether the pills or syrups their children receive contain antibiotics or not. Thus, reporting may vary widely within the country, due to cultural differences in reporting. Information on the prevalence and treatment of ARI is presented in Table 8.8.

[3] Cough and short, rapid breathing are signs and symptoms of pneumonia. The BDHS estimate of ARI prevalence provides an estimate of the prevalence of children who need to be evaluated for presumed pneumonia.

Table 8.8 Prevalence and treatment of acute respiratory infection

Percentage of children under three years who were ill with a cough accompanied by rapid breathing during the two weeks preceding the survey, and the percentage of ill children who were taken to a health facility, by selected background characteristics, Bangladesh 1993-94

Background characteristic	Percentage of children with cough and rapid breathing	Among ill children, the percentage who: Were taken to a health facility or provider[1]	Received no treatment	Number of children
Child's age				
< 6 months	28.7	21.5	38.4	557
6-11 months	29.7	37.0	23.6	585
12-23 months	24.5	29.2	36.1	1171
24-35 months	18.5	24.2	40.4	1222
Sex				
Male	26.6	30.1	31.9	1809
Female	21.2	25.4	39.3	1726
Birth order				
1	26.8	31.6	27.9	896
2-3	23.7	27.8	35.8	1372
4-5	21.9	27.1	38.3	728
6+	22.6	22.8	43.4	539
Residence				
Urban	24.8	33.4	22.9	370
Rural	23.9	27.4	36.6	3165
Division				
Barisal	29.3	27.1	39.3	222
Chittagong	24.7	32.1	32.7	1072
Dhaka	23.6	26.8	39.4	1073
Khulna	23.0	21.2	42.6	397
Rajshahi	22.5	27.6	27.0	771
Mother's education				
No education	23.6	24.2	36.5	2008
Primary incomplete	26.8	27.8	37.8	603
Primary complete	25.0	28.7	34.8	360
Secondary/Higher	21.6	42.5	26.5	564
All children	24.0	28.0	35.1	3535

Note: Figures are for children born in the period 1-35 months preceding the survey.
[1]Includes health post, health center, hospital, and private doctor

The BDHS results indicate that 24 percent of children under three years had a cough with rapid breathing in the two weeks before the survey. ARI is slightly less common among children over 24 months old than it is among those under two years. There are no significant differences in ARI prevalence by sex or birth order of the child, nor by urban-rural residence or division of residence. Similarly, education of the mother appears to have little impact on whether or not her children have respiratory illness.

Overall, just over one-quarter (28 percent) of children who have symptoms of ARI are taken to a health facility for treatment.[4] Children of educated mothers are more likely to be taken to a health facility than those whose mothers had less education. Likewise, children in Chittagong Division who have symptoms of ARI are more likely to be taken to a health facility, while those in Khulna Division are less likely to be taken to a health facility.

Diarrhea

Dehydration engendered by severe diarrhea is a major cause of morbidity and mortality among Bangladeshi children, accounting for some 30 percent of deaths to children under five (UNICEF, 1991:38). One treatment for dehydration is oral rehydration therapy (ORT): either a solution prepared from commercially produced packets of oral rehydration salts (ORS) (which is also called *khabir* or packet saline), or a homemade solution of sugar, salt and water (also called *labon gur*). Oral rehydration therapy was developed in Bangladesh over 25 years ago by what is now called the International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR, B). ORS is currently available through health facilities in Bangladesh and is also distributed by the Social Marketing Company through a network of pharmacies, small shops and kiosks.

Table 8.9 indicates that 13 percent of children under three years of age were reported as having had diarrhea in the two weeks prior to the BDHS interview. Only 3 percent of children under three had bloody diarrhea (a sign of dysentery) in the two weeks prior to the survey.

Table 8.9 Prevalence of diarrhea

Percentage of children under three years who had diarrhea and diarrhea with blood in the two weeks preceding the survey, by selected background characteristics, Bangladesh 1993-94

Background characteristic	Diarrhea in the preceding 2 weeks[1]		Number of children
	All diarrhea	Diarrhea with blood	
Child's age			
< 6 months	5.1	0.5	557
6-11 months	14.0	1.5	585
12-23 months	16.6	4.2	1171
24-35 months	11.5	3.1	1222
Sex			
Male	12.1	2 7	1809
Female	13.1	2.9	1726
Birth order			
1	14.0	2.8	896
2-3	11.9	2.7	1372
4-5	11.3	3.3	728
6+	13.8	2.4	539
Residence			
Urban	10.8	2.3	370
Rural	12.8	2.9	3165
Division			
Barisal	16.2	3.9	222
Chittagong	14.2	3.5	1072
Dhaka	9.5	1.5	1073
Khulna	14.4	2.7	397
Rajshahi	12.6	3.4	771
Mother's education			
No education	12.1	3.2	2008
Primary incomplete	16.9	2.5	603
Primary complete	12.1	2.2	360
Secondary/Higher	10.0	2.1	564
All children	12.6	2.8	3535

Note: Figures are for children born in the period 1-35 months preceding the survey
[1]Includes diarrhea in the past 24 hours

Diarrhea is more common among children age 6-23 months than among older or younger children; it is especially uncommon among children under six months of age, who are presumably protected by breastfeeding. Differences in the prevalence of diarrhea according to other background characteristics are minimal.

[4] Health facilities include: government hospitals, family welfare centers, thana health complexes, satellite clinics, community health workers, private doctors, and private clinics.

Treatment of Diarrhea

One in five children under three whose mothers reported that they had had diarrhea in the two weeks before the survey were taken to a health facility for consultation (Table 8.10 and Figure 8.4). Of all children with diarrhea, half were given fluid made from an ORS packet, 16 percent were given a recommended home fluid (RHF), and half were given more fluids than usual. If oral rehydration therapy is defined broadly to

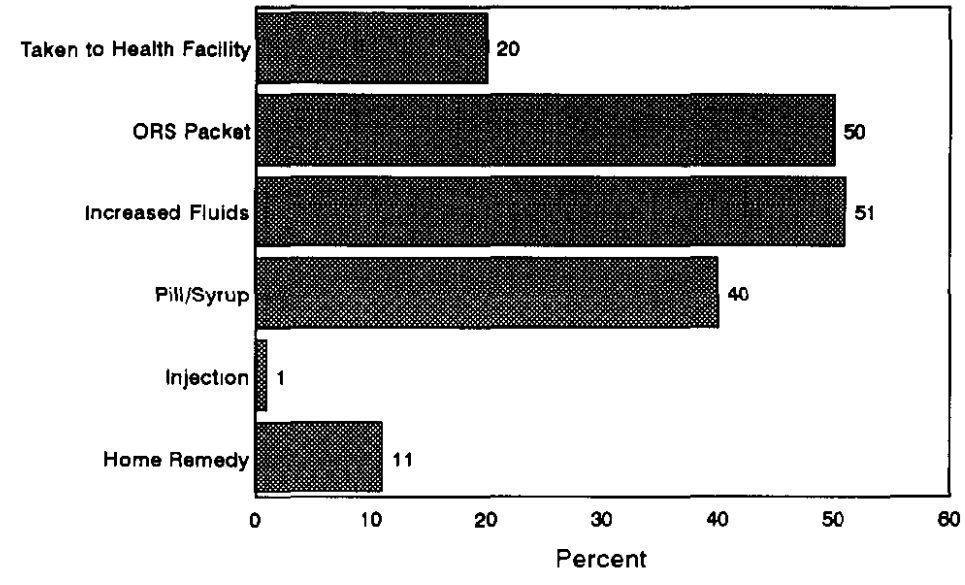
Table 8.10 Treatment of diarrhea

Among children under three years who had diarrhea in the two weeks preceding the survey, the percentage taken for treatment to a health facility or provider, the percentage who received oral rehydration therapy (either solution prepared from ORS packets or recommended home fluids) and increased fluids, the percentage who received neither oral rehydration therapy nor increased fluids, and the percentage receiving other treatments, by background characteristics, Bangladesh 1993-94

Background characteristic	Percentage taken to a health facility or provider[1]	Oral rehydration therapy (ORT)					Other treatments					
		ORS packets	RHF	ORS or RHF	Increased fluids	Neither ORT nor increased fluids	Pill or syrup	Injection	Home remedy/ Herb/ Other	No treatment	Missing	Number of children
Child's age												
< 6 months	(13.2)	(26.4)	(6.7)	(33.2)	(27.7)	(51.6)	(31.7)	(0.0)	(17.0)	(11.0)	(3.4)	28
6-11 months	27.8	49.2	23.0	61.1	46.1	31.2	35.3	1.2	14.2	12.1	10.8	82
12-23 months	18.7	50.8	11.7	56.7	53.0	28.7	39.2	0.3	12.0	18.6	6.2	195
24-35 months	19.3	55.0	18.2	64.0	55.6	21.6	44.5	1.9	6.8	17.2	6.2	140
Sex												
Male	19.6	57.5	11.9	63 0	56.7	24.2	42.5	1.3	11.7	17.5	7.9	219
Female	20.8	43.2	19.0	53.7	45.3	32.5	36.8	0.6	10.4	15.6	5.8	226
Birth order												
1	26.8	47.7	14.5	54.8	49.5	34.3	39.8	2.3	13.9	17.2	6.1	125
2-3	16.2	51.5	17.0	61.7	53.5	24.4	42.7	0.0	8.8	18.2	6.9	163
4-5	19.3	49.3	15.1	56.2	49.7	27.4	43.6	0.0	10.9	13.6	3.9	82
6+	19.1	52.6	14.3	59.1	48.9	28.4	28.3	1.8	11.7	14.9	11.0	74
Residence												
Urban	30.3	59.4	22.9	66.9	60.3	24.7	49.8	0.0	16.2	17.8	3.4	40
Rural	19.2	49.3	14.8	57.5	50.0	28.8	38.6	1.1	10.6	16.4	7.2	405
Division												
Barisal	25.8	55.9	9 7	63.9	46.0	21.1	46.8	1.8	16.9	16.0	2.6	36
Chittagong	21.4	48.0	10.7	54.8	46.7	31.2	38.4	1.7	11.2	17.0	3.5	152
Dhaka	13.7	50.0	22.2	58.6	58.0	26.8	35.7	0.0	9.2	20.4	9.6	102
Khulna	19.8	40.9	2.6	42.6	50.8	40.4	35.3	0.0	10.4	24.3	3.5	57
Rajshahi	23.3	57.4	25.8	70.6	52.0	21.2	45.6	1.0	11.0	7.3	12.7	97
Mother's education												
No education	14.0	45.7	16.2	55.2	45.8	31.5	37.4	0.5	11.2	16.5	6.7	243
Primary incomplete	25.4	47.3	16.3	56.1	50.7	31.4	40.4	0.0	10.6	13.1	8.0	102
Primary complete	(23.5)	(59.3)	(7.2)	(61.5)	(60.7)	(20.1)	(40.8)	(0.0)	(10.0)	(21.7)	(7.8)	43
Secondary/Higher	35.3	68.4	17.3	73.3	65.8	15.7	47.3	5.2	12.0	18.5	4.6	56
All children	20.2	50.3	15.5	58.3	50.9	28.4	39.6	1.0	11.1	16.5	6.8	445

Note: Figures in parentheses are based on 25 to 49 children.
ORS = Oral rehydration salts
ORT = Oral rehydration therapy
RHF = Recommended home fluid
[1]Includes health post, health center, hospital, and private doctor

Figure 8.4
Percentage of Children under 3 Who Received Various Treatments for Diarrhea in the Two Weeks Preceding the Survey



include ORS, RHF, and increased fluids, then 72 percent of children with diarrhea received some sort of oral rehydration treatment; 28 percent did not receive ORS, recommended home fluid, or increased fluids. Forty percent of children with diarrhea were given some kind of pill or syrup to treat the disease, while 11 percent were given home remedies or herbs. About one in six children with diarrhea was given nothing to treat the diarrhea.

Children age 6-11 months are more likely to be taken to health facilities when they have diarrhea than older or younger children. These children are also more likely to be given a recommended home fluid (i.e., sugar-salt-water solution) as treatment for their diarrhea. Children under age 6 months are not only the least likely to be taken to health facilities when they have diarrhea, but are also least likely to be treated with ORS packets, recommended home fluid, or increased fluids of any kind. Male children with diarrhea are no more likely than female children to be taken to a health facility; however, they are more likely to be treated with ORS packets. A higher proportion of first-born children are taken to health facilities when they have diarrhea than children of higher birth orders, but otherwise, treatment differentials by birth order are minimal.

The data indicate some differences in the treatment of diarrhea cases by urban-rural residence. Not only are urban children with diarrhea more likely than rural children to be taken to a health facility, but they are also more likely to receive ORS fluid, recommended home fluid, and increased fluids of any kind.

The proportion of children with diarrhea who are taken to health facilities is highest in Barisal and Rajshahi Divisions and lowest in Dhaka Division. Children in Rajshahi and Barisal Divisions are also more likely to be given ORS fluid when they have diarrhea. Homemade fluids for treating diarrhea appear to be much more commonly used in Rajshahi and Dhaka Divisions than in the other divisions.

As expected, children of mothers with at least some secondary education are more likely to be taken to a health facility when they have diarrhea than are children whose mothers are less educated. They are also more likely to be treated with solution made from ORS packets or by increased fluids in general. However, uneducated women are just as likely to treat their children by giving them a homemade fluid or herbal remedies as are women with some secondary education.

The BDHS also directly investigated the extent to which mothers made changes in the amount of fluids that a child received during a diarrheal episode. To obtain these data, mothers who had a child under age three with diarrhea during the two-week period prior to the survey were asked whether they had changed the amount that the child was given to drink during the diarrheal episode. The data indicate that 32 percent of children with diarrhea were given the same amount of fluids as usual and 51 percent received more fluids than usual; 16 percent received less fluids than usual (data not shown). These results suggest that, although the benefit of increasing fluid intake during a diarrheal episode is quite widely understood in Bangladesh, about one in six mothers still curtail fluid intake when their children have diarrhea.

Table 8.11 Treatment with vitamin A capsules

Percentage of children under three years who received a vitamin A capsule in the six months preceding the survey, by selected background characteristics, Bangladesh 1993-94

Background characteristic	Received vitamin A capsule	Number of children
Child's age		
<6 months	20.0	557
6-11 months	48.4	585
12-23 months	55.0	1171
24-35 months	56.0	1222
Sex		
Male	50.1	1809
Female	47.4	1726
Birth order		
1	48.1	896
2-3	47.7	1372
4-5	51.9	728
6+	48.2	539
Residence		
Urban	47.7	370
Rural	48.9	3165
Division		
Barisal	67.2	222
Chittagong	43.0	1072
Dhaka	39.2	1073
Khulna	61.5	397
Rajshahi	58.2	771
Mother's education		
No education	46.2	2008
Primary incomplete	52.3	603
Primary complete	49.4	360
Secondary/Higher	53.5	564
All children	48.8	3535

Treatment With Vitamin A Capsules

Vitamin A deficiency is the leading cause of preventable childhood blindness. Moreover, Vitamin A has been found to be essential to the proper functioning of the immune system. Deficiency in this crucial micronutrient can be avoided by giving children supplements of Vitamin A by capsule twice a year. Table 8.11 shows the proportion of children under age three who received a Vitamin A capsule in the six months before the survey.

The BDHS data indicate that almost half of children under three had received at least one capsule in the six months before the survey. Differences by background characteristics are minimal, except that children under six months of age and those living in Dhaka Division are less likely to receive Vitamin A supplements, while those living in Barisal Division are more likely to receive them.

8.5 Infant Feeding and Supplementation

This section presents data on several aspects of infant feeding, namely initiation of breastfeeding, patterns and duration of breastfeeding, and patterns of supplementation with other foods. Infant feeding has an impact on both the child and the mother. Feeding practices are important determinants of children's nutritional status, and many studies have shown the beneficial effects of breastfeeding on nutritional status, morbidity, and mortality of young infants. Breastfeeding also has an indirect effect on the postpartum fertility of mothers. In particular, more frequent breastfeeding is associated with longer periods of postpartum amenorrhea, which in turn are related to longer birth intervals, and thus lower fertility levels.

Prevalence of Breastfeeding

Table 8.12 presents data on the proportion of children born in the three years before the survey who were ever breastfed and the percentage of the most recent births who started breastfeeding within one hour and one day of birth. Almost all Bangladeshi children (96 percent) are breastfed for some period of time, regardless of background characteristics of the child or the mother. Previous research confirms the universality of breastfeeding in Bangladesh (Mitra et al., 1993:96).

Table 8.12 Initial breastfeeding

Percentage of children who were ever breastfed and percentage of last-born children who started breastfeeding within one hour and within one day of birth, among children born in the three years before the survey, by selected background characteristics, Bangladesh 1993-94

Background characteristic	Among all children:		Among last-born children, percentage who started breastfeeding:		
	Percentage ever breastfed	Number of children	Within 1 hour of birth	Within 1 day of birth	Number of children
Sex					
Male	96.1	2005	9.3	50.2	1862
Female	96.3	1921	8.0	45.8	1799
Residence					
Urban	96.9	395	10.5	50.8	361
Rural	96.2	3531	8.4	47.7	3299
Division					
Barisal	96.2	253	8.2	52.0	229
Chittagong	96.8	1193	8.9	59.3	1117
Dhaka	96.1	1199	8.1	43.5	1115
Khulna	97.0	430	9.4	41.9	400
Rajshahi	95.2	851	8.8	40.3	800
Mother's education					
No education	96.2	2250	7.7	46.6	2088
Primary incomplete	96.8	670	9.1	49.4	639
Primary complete	96.7	399	8.1	44.8	368
Secondary/Higher	95.3	607	11.9	53.8	565
Assistance at delivery					
Medically trained person	95.3	373	11.3	51.2	348
Traditional birth attendant	96.2	2371	8.7	49.4	2217
Other or none	96.7	1175	7.7	44.1	1091
Place of delivery					
Health facility	93.2	137	12.4	53.2	130
At home	96.4	3775	8.5	47.8	3521
All children	96.2	3926	8.6	48.0	3661

Note: Table excludes 7 children (4 last-born children) for whom data on assistance at delivery is missing and 14 children (9 last born) for whom place of birth is either missing or other than a home or health facility.

An important dimension related to breastfeeding is the timing of its initiation. Early initiation of breastfeeding is beneficial for mothers and children. From the mother's perspective, early suckling stimulates the release of a hormone that helps the uterus to contract. From the child's perspective, the first breast milk (colostrum) is important, since it is rich in antibodies. In Bangladesh, although almost all babies are breastfed at some time, only 9 percent are put to the breast within one hour of birth and less than half (48 percent) of children are put to the breast within the first day of life. Delayed initiation of breastfeeding was also found in the Matlab study area, where only 60 percent of children born in the comparison area were given colostrum (ICDDR,B, 1994:7). Late initiation of breastfeeding is apparently widespread. Infants born to mothers with some secondary education, those born in Chittagong Division, and those born in a health facility have a slightly greater chance of receiving breast milk within the first day of life.

Timing of Introduction of Supplementary Foods

The timing of introduction of supplementary foods in addition to breast milk has important implications for the child and the mother. Breast milk is uncontaminated and contains all the nutrients needed by children in the first few months of life. In addition, it provides some immunity to disease through the mother's antibodies. Early supplementation, especially under unhygienic conditions, can result in infection with foreign organisms and lower immunity to disease. The timing of introduction of food supplements also has an impact on the length of the mother's postpartum amenorrhea. Early initiation of supplementation results in earlier resumption of the mother's menstrual periods, since supplementation reduces infants' dependence on breast milk and the frequency of suckling.

Mothers were asked about the current breastfeeding status of all last-born children under age three and, if the child was being breastfed, whether various types of liquid or solid foods had been given to the child "yesterday" or "last night." Children who are *exclusively* breastfed are defined as receiving breast milk only, while *full* breastfeeding is defined as receiving breast milk and plain water only.

Table 8.13 Breastfeeding status

Percent distribution of living children by breastfeeding status, according to child's age in months, Bangladesh 1993-94

Age in months	Percentage of living children who are:					Number of living children
			Breastfeeding and:			
	Not breast-feeding	Exclusively breast-fed	Plain water only	Supple-ments	Total	
<2	1.7	62.7	12.0	23.6	100.0	164
2-3	1.3	47.4	5.3	45.9	100.0	250
4-5	0.0	31.1	11.5	57.4	100.0	211
6-7	1.0	22.5	11.3	65.2	100.0	185
8-9	1.6	9.4	11.9	77.1	100.0	216
10-11	3.7	7.0	12.6	76.7	100.0	184
12-13	3.5	7.3	8.1	81.1	100.0	249
14-15	5.4	6.3	5.5	82.7	100.0	263
16-17	5.1	4.0	10.5	80.4	100.0	191
18-19	10.7	7.0	7.9	74.5	100.0	146
20-21	9.7	1.7	5.3	83.3	100.0	138
22-23	16.4	2.5	2.5	78.5	100.0	185
24-25	25.7	0.6	1.0	72.7	100.0	220
26-27	32.0	4.4	2.3	61.3	100.0	257
28-29	36.8	2.2	3.3	57.7	100.0	203
30-31	40.0	1.9	2.4	55.7	100.0	179
32-33	43.7	0.6	5.1	50.6	100.0	181
34-35	39.6	1.3	0.9	58.3	100.0	181

Note: Breastfeeding status refers to preceding 24 hours. Children classified as *breastfeeding and plain water only* receive no supplements.

The results shown in Table 8.13 indicate that among newborns less than two months of age, 63 percent were exclusively breastfed and another 12 percent were fully breasfed; however, one-quarter of these very young babies were already receiving supplemental foods or liquids. Among those age 2-3 months, about half (47 percent) were exclusively breastfed and half were being given supplements. By age 8-9 months, only 9 percent were being exclusively breastfed.

Table 8.14 shows in more detail the types of food supplemention received by breastfeeding children. The results are striking. One in ten babies under two months of age is given infant formula. The use of formula increases steadily to 27 percent of children age 6-7 months and is given to about one-quarter of children up to age 35 months. Almost equal proportions of children at every age group receive supplements of infant formula, other milk and other liquids. Solid and mushy food items do not become an important part of the diet until at least age 6-7 months. After this age, the transition to giving solid and mushy foods as supplements is so slow as to be problematic; among children age 10-11 months, less than half are reportedly being fed any solid or mushy food. If true, this indicates severe nutritional deficits for infants in Bangladesh. However, since it is unlikely that children close to one year of age could survive long on a liquid diet, the possibility that the question was misunderstood or that children's ages were overestimated should be considered.

Table 8.14 Breastfeeding and supplementation by age

Percentage of breastfeeding children who are receiving specific types of food supplementation, by age in months, Bangladesh 1993-94

Age in months	Percentage of breastfeeding children who are receiving supplementation				Number of children
	Infant formula	Other milk	Other liquid	Solid/ mushy	
<2	9.9	9.8	10.7	0.6	161
2-3	14.3	18.6	26.1	2.7	246
4-5	19.0	24.9	26.4	3.5	211
6-7	27.4	23.1	28.8	22.2	183
8-9	26.9	31.3	37.8	36.4	212
10-11	19.5	23.9	31.9	45.7	177
12-13	25.7	29.9	31.6	60.8	241
14-15	21.0	26.8	30.1	67.7	248
16-17	24.2	29.0	25.2	64.2	181
18-19	23.4	32.0	34.9	66.7	130
20-21	19.7	31.0	34.6	70.7	125
22-23	22.0	33.8	31.3	74.8	154
24-25	21.8	34.1	33.9	80.0	164
26-27	22.3	27.9	28.1	81.6	175
28-29	23.4	31.4	23.1	79.6	128
30-31	16.5	36.6	33.4	79.9	108
32-33	25.0	35.0	31.1	82.0	102
34-35	23.1	37.7	35.3	84.5	109

Note: Breastfeeding status refers to preceding 24 hours. Percents by type of supplement among breastfeeding children may sum to more than 100 percent, as children may have received more than one type of supplement.

Duration of Breastfeeding

Data on the median duration and frequency of breastfeeding are presented in Table 8.15. The estimates of mean and median duration of breastfeeding are based on current status data, that is, the proportion of children under 3 years of age who were being breastfed at the time of the survey, as opposed to retrospective data on the length of breastfeeding of older children who are no longer breastfed. The prevalence/incidence mean is also provided for possible comparison with other data sources.

Table 8.15 Median duration and frequency of breastfeeding

Median duration of any breastfeeding, exclusive breastfeeding, and full breastfeeding among children under three years of age, and the percentage of children under 6 months of age who were breastfed six or more times in the 24 hours preceding the interview, according to selected background characteristics, Bangladesh 1993-94

Background characteristic	Median duration in months[1]			Number of children under 3 years of age	Children under 6 months	
	Any breast-feeding	Exclusive breast-feeding	Full breast-feeding[2]		Breastfed 6+ times in preceding 24 hours	Number of children
Sex of child						
Male	a	1.4	2.7	2005	95.0	326
Female	a	1.8	2.6	1921	94.9	299
Residence						
Urban	(26.0)	*	*	395	92.6	74
Rural	a	1.7	2.9	3531	95.3	550
Division						
Barisal	a	*	*	253	95.3	41
Chittagong	26.4	(2.0)	4.6	1193	95.6	177
Dhaka	33.3	1.1	1.7	1199	94.1	220
Khulna	a	*	*	430	96.5	57
Rajshahi	a	(2.2)	3.2	851	94.7	129
Mother's education						
No education	a	1.9	3.4	2250	94.6	334
Primary incomplete	a	(1.7)	(2.4)	670	94.8	112
Primary complete	*	*	*	399	94.8	82
Secondary/Higher	26.4	(1.1)	(2.3)	607	96.3	96
Assistance at delivery						
Medically trained	*	*	*	373	95.4	62
Traditional midwife	a	1.5	2.7	2371	94.7	401
Other or none	33.7	2.3	3.6	1175	95.4	161
Total	a	1.6	2.7	3926	94.9	624
Mean	28.3	4.6	6.7	96.2	-	-
Prevalence/Incidence[3]	27.6	4.0	6.1	-	-	-

Note: Figures in parentheses are based on 25 to 49 children; an asterisk means a figure is based on fewer than 25 children and has been suppressed.
[1]Medians and means are based on current status
[2]Either exclusive breastfeeding or breastfeeding and plain water only
[3]The prevalence-incidence mean is borrowed from epidemiology and is defined as the number of children whose mothers are amenorrheic (prevalence) divided by the average number of births per month (incidence).
[a]Median is 36 months or more

The median duration of breastfeeding in Bangladesh is extraordinarily long, so long, in fact, that it cannot be calculated exactly from BDHS data. This is because breastfeeding status was asked only for children age 35 months or less and 60 percent of the children age 34-35 months were still being breastfed. Thus, the median duration of breastfeeding is something more than 35 months. The mean duration of breastfeeding is 28 months, which is similar to estimates of 30 months in 1991 (Mitra et al., 1993:97) and 29 in 1989 (Huq and Cleland, 1990:87).

The early introduction of supplements is reflected in the short duration of exclusive breastfeeding (2 months). Few children who are supplemented receive only plain water in addition to breast milk and thus, the median duration of full breastfeeding is also quite short (3 months). Differentials in breastfeeding durations are also shown in Table 8.15, although analysis is hampered by both the long durations and the small sample sizes for some groups. Children whose mothers have less education are breastfed longer than those whose mothers have at least some secondary education.

The duration of postpartum amenorrhea is affected by both the length of time spent breastfeeding and the frequency of breastfeeding. The child's health and nutritional status are also affected by the frequency of breastfeeding. Almost all children (95 percent) under the age of six months were reported to have been breastfed at least six times in the 24 hours preceding the survey. Differences among subgroups are very minor.

CHAPTER 9

RESULTS OF THE HUSBANDS SURVEY

9.1 Background Characteristics of Husbands

In the BDHS, 3,284 husbands of women respondents were also interviewed to obtain information about their background and demographic characteristics, family planning knowledge and behavior, and fertility preferences. The main reason for the Husbands Survey was to assess the extent to which men's attitudes might affect family planning use levels and to compare some of the data as reported by both husbands and wives.

While ever-married women age 10-49 in every household selected in the BDHS were eligible for the individual interview, every second household was designated as also falling into the husbands sample, and in these households, the husbands of women who were interviewed were considered eligible. The distribution of the husbands who were interviewed in the BDHS survey is presented in Table 9.1 by selected background characteristics. The husbands are older, on average, and better educated than currently married women in general (see Table 2.8). For example, 57 percent of currently married women have no education, compared to only 42 percent of husbands. Similarly, 16 percent of married women have had some secondary education, compared to 27 percent of husbands. The distribution of husbands by urban-rural residence and by division is similar to that of women.

Table 9.1 Background characteristics of husbands

Percent distribution of husbands by selected background characteristics, Bangladesh 1993-94

Background characteristic	Weighted percent	Number of husbands	
		Weighted	Un-weighted
Age			
15-19	0.6	19	19
20-24	5.0	165	166
25-29	14.1	463	468
30-34	19.7	648	649
35-39	17.2	564	575
40-44	12.3	405	410
45-49	10.0	329	328
50-54	8.5	278	272
55-59	7.3	240	230
60+	5.3	173	167
Residence			
Urban	11.5	379	500
Rural	88.5	2905	2784
Division			
Barisal	6.0	197	334
Chittagong	23.7	778	588
Dhaka	30.4	999	949
Khulna	13.8	452	456
Rajshahi	26.1	858	957
Education			
No education	42.2	1385	1344
Primary incomplete	23.6	775	779
Primary complete	7.3	239	232
Secondary/Higher	27.0	885	929
All husbands	100.0	3284	3284

More precise information on the differences in ages between husbands and wives is presented in Table 9.2. In 99 percent of couples, the husband is older than his wife. In 44 percent of couples, husbands are at least 10 years older than their wives. The median difference in ages of spouses is 9 years, with little difference by wife's age.[1]

[1] The number of couples differs slightly from the number of husbands due to weighting factors (husbands have their own independent weight, while couples are given the woman's weight).

Table 9.2 Age differences between spouses

Percent distribution of couples by age difference between husband and wife and median age difference between spouses, according to wife's age, Bangladesh 1993-94

Wife's age	Husband's age - wife's age (in years)					Total	Median age difference	Number of couples
	Wife older	0-4	5-9	10-14	15+			
10-14	(0.0)	(11.2)	(45.9)	(33.2)	(9.7)	100.0	8.9	46
15-19	0.0	9.6	43.0	33.9	13.5	100.0	9.7	407
20-24	0.4	12.0	48.2	27.0	12.4	100.0	8.9	693
25-29	1.4	18.2	40.1	27.9	12.3	100.0	8.5	685
30-34	1.2	16.5	38.1	23.8	20.4	100.0	9.3	506
35-39	2.2	14.9	33.9	24.7	24.3	100.0	9.8	409
40-44	2.1	12.6	30.7	33.1	21.6	100.0	10.7	340
45-49	3.6	14.3	40.6	29.8	11.7	100.0	9.1	241
Total	1.3	14.2	40.2	28.2	16.1	100.0	9.3	3327

Note: Figures in parentheses are based on 25 to 49 cases.

9.2 Knowledge and Use of Contraception

Table 9.3 shows the percent distribution of married couples by knowledge of specific contraceptive methods. There is generally high correlation between spouses; if one partner knows a method, the other is likely to know it as well, or, if one partner does not know a method, the other is also likely not to know it. Exceptions to this are the IUD, male sterilization, and traditional methods, for which there is less consistency of knowledge between spouses. Husbands are generally less likely than their wives to know about female methods such as the IUD and injection and more likely to know about male methods such as the condom and male sterilization. Surprisingly, wives are more likely than their husbands to have heard of withdrawal, although in one-third of the couples, neither spouse had heard of the method.

Table 9.3 Knowledge of family planning methods among married couples

Percent distribution of married couples by contraceptive knowledge, according to specific methods, Bangladesh 1993-94

Method	Both know method	Husband knows, wife doesn't	Wife knows, husband doesn't	Neither knows method	Total
Any method	99.6	0.1	0.3	0.0	100.0
Any modern method	99.6	0.1	0.3	0.0	100.0
Pill	98.9	0.3	0.8	0.0	100.0
IUD	66.4	4.2	24.5	4.9	100.0
Injection	87.6	2.4	9.3	0.7	100.0
Condom	84.7	10.0	3.5	1.7	100.0
Female sterilization	96.9	0.8	2.2	0.2	100.0
Male sterilization	75.7	13.7	7.4	3.2	100.0
Any traditional method	60.8	15.0	16.6	7.6	100.0
Periodic abstinence	48.2	20.6	18.3	12.9	100.0
Withdrawal	25.9	16.3	25.8	32.0	100.0
Other	3.6	7.0	14.4	75.0	100.0

Fifty-five percent of husbands (versus 45 percent of currently married women) said that they were currently using a method of family planning at the time of the survey (see Table 9.4).[2] The principal methods husbands report are the pill (23 percent), female sterilization, (9 percent), and periodic abstinence (8 percent). Use of the pill prevails among all but the oldest groups of husbands; those over age 50 are more likely to be relying on female sterilization than on the pill. Contraceptive use among husbands is higher in urban than rural areas (63 vs. 54 percent). It is also highest among husbands in Khulna and Rajshahi Divisions and lowest in Chittagong and Dhaka Divisions. Use of family planning increases sharply with education level, from 49 percent of husbands with no education to 65 percent of those with secondary education or higher.

Table 9.4 Current use of family planning among husbands

Percent distribution of husbands by contraceptive method currently used, according to background characteristics, Bangladesh 1993-94

		Modern method							Traditional method						
Background characteristic	Any method	Any modern method	Pill	IUD	Injection	Condom	Female sterilization	Male sterilization	Any trad. method	Periodic abstinence	Withdrawal	Other	Not currently using	Total	Number of husbands
Age															
20-24	34.3	26.4	18.0	1.8	2.9	3.7	0.0	0.0	7.9	5.9	2.0	0.0	65.7	100.0	165
25-29	48.0	39.3	26.6	1.5	4.4	5.7	0.9	0.1	8.7	6.4	1.7	0.6	52.0	100.0	463
30-34	54.3	44.6	27.1	1.7	4.5	4.9	4.9	1.6	9.6	8.0	1.3	0.4	45.7	100.0	648
35-39	61.1	50.9	29.1	3.5	5.5	3.7	6.4	2.7	10.2	6.7	1.9	1.6	38.9	100.0	564
40-44	69.6	56.7	27.8	2.6	6.5	4.9	11.7	3.1	12.9	8.6	2.8	1.5	30.4	100.0	405
45-49	68.1	51.8	21.0	2.3	6.2	3.5	15.5	3.3	16.3	9.3	4.0	3.0	31.9	100.0	329
50-54	53.7	39.3	14.2	0.7	3.3	3.4	15.8	1.9	14.4	10.1	2.1	2.2	46.3	100.0	278
55-59	46.1	32.3	9.0	0.4	3.0	1.2	15.5	3.2	13.7	9.4	2.0	2.4	53.9	100.0	240
60+	38.5	28.5	6.9	1.1	0.0	0.6	15.6	4.4	9.9	7.2	2.1	0.6	61.5	100.0	173
Residence															
Urban	62.9	51.1	26.0	2.7	4.9	9.2	6.9	1.4	11.8	8.5	2.5	0.9	37.1	100.0	379
Rural	54.1	42.9	22.4	1.8	4 5	3.3	8.7	2.2	11.2	7.8	2.1	1.4	45.9	100.0	2905
Division															
Barisal	59.2	48.9	24.5	1.7	6.8	4.0	9.5	2.4	10.3	4.8	3.8	1.7	40.8	100.0	197
Chittagong	42.9	31.3	15.6	2.0	4.2	3.0	5.8	0.7	11.6	8.0	1.9	1.7	57.1	100.0	778
Dhaka	52.5	42.2	22.0	1.7	4.4	4.4	8.0	1.7	10.4	8.2	0.9	1.3	47.5	100.0	999
Khulna	65.3	48.7	22.6	3.1	6.2	5.6	9.5	1.8	16.6	10.1	5.4	1.2	34.7	100.0	452
Rajshahi	63.1	53.5	29.9	1.6	3.6	3.6	10.7	4.1	9.5	6.9	1.7	0.9	36.9	100.0	858
Education															
No education	49.2	39.8	20.3	1.2	4.4	1.6	9.7	2.7	9.4	7.0	1.3	1.1	50.8	100.0	1385
Primary incomplete	52.5	39.8	20.1	1.6	4.6	3.1	8.9	1.6	12.6	9.1	1.9	1.6	47.5	100.0	775
Primary complete	60.8	48.1	25.4	2.2	7.4	3.1	8.3	1.8	12.8	10.4	0.6	1.8	39.2	100.0	239
Secondary/Higher	65.3	52.6	28.3	3.5	3.9	8.8	6.2	1.9	12.7	7.5	4.0	1.3	34.7	100.0	885
Total	55.2	43.9	22.8	1.9	4.5	4.0	8.5	2.1	11.3	7.9	2.1	1.3	44.8	100.0	3284

Note: Total includes 19 husbands age 15-19, too small a number to show separately.

[2] There are two reasons why the proportion of husbands using family planning might be higher than the proportion of currently married women (in general) using family planning. First, that couples in which both spouses were interviewed have higher prevalence rates than those in which only the wife was interviewed (49 percent of the wives whose husbands were interviewed reported current use vs. only 45 percent of all married women). Secondly, husbands were asked about contraceptive use in general and *not* specifically with their wives, thus, the data from husbands could theoretically include extra-marital contraceptive use.

When data on current contraceptive use from husbands and wives are matched, there is considerable discrepancy (Table 9.5). Overall, 55 percent of husbands report that they are currently using family planning, compared to only 49 percent of their wives. The largest discrepancy comes in reported pill use; 23 percent of husbands report current use of the pill, compared to 19 percent of their wives. Most of the difference consists of couples in which the husband says they are using the pill and his wife says she is not currently using any method. Use of condoms and male sterilization is each one percent higher as reported by husbands than as reported by wives; however, use of withdrawal is slightly lower as reported by husbands than wives. Husbands appear to be misinformed about the use of periodic abstinence; 8 percent of them say they are using the method, compared to only 6 percent of their wives. Again, most of the difference is due to wives who say they are not using any method. It is possible that at least some of these discrepancies in reporting of contraceptive use could be due to extra-marital use.

Table 9.5 Comparison of reported contraceptive use by spouses

Percent distribution of couples according to wife's and husband's reported current contraceptive use status, Bangladesh 1993-94

	Wife's report										
Husband's report	Pill	IUD	Injection	Condom	Female sterili-zation	Male sterili-zation	Periodic abstinence	With-drawal	Other	Not currently using	Total
Pill	**16.9**	0.2	0.6	0.1	0.0	0.0	0.7	0.3	0.1	3.8	22.8
IUD	0.0	**1.8**	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	2.0
Injection	0.2	0.0	**3.7**	0.0	0.0	0.0	0.1	0.0	0.0	0.6	4.6
Condom	0.1	0.0	0.0	**2.3**	0.0	0.0	0.3	0.2	0.0	1.0	4.0
Female sterilization	0.0	0.0	0.0	0.0	**8.1**	0.1	0.0	0.0	0.0	0.4	8.6
Male sterilization	0.1	0.0	0.0	0.0	0.3	**1.3**	0.1	0.0	0.0	0.4	2.2
Periodic abstinence	0.2	0.1	0.1	0.2	0.1	0.0	**2.2**	0.7	0.1	4.2	7.8
Withdrawal	0.1	0.0	0.0	0.0	0.0	0.0	0.4	**1.0**	0.1	0.6	2.1
Other	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	**0.6**	0.5	1.3
Not currently using	0.9	0.3	0.4	0.4	0.1	0.0	1.9	0.9	0.5	**39.3**	44.6
Total	18.6	2.3	4.8	3.0	8.6	1.4	5.8	3.1	1.4	50.9	100.0

9.3 Couples' Attitudes Towards Family Planning Use

Family planning use is facilitated when both husband and wife approve of its use. Table 9.6 shows the percent distribution of couples by approval of family planning, according to selected background characteristics. Overall, in 89 percent of the couples, both husband and wife approve of family planning, and in 2 percent, both disapprove. In 6 percent of couples, the wife approves but the husband does not, while in 3 percent, the husband approves but the wife does not. Variations in the data by background characteristics are small except in Chittagong Division, where couples are somewhat less likely to approve of family planning use and also less likely to agree with each other on the subject.

Because both men and women interviewed in the BDHS were asked whether they approved of family planning and, if married, whether they thought their spouses approved of family planning, it is possible to examine the extent to which husbands and wives report accurately on their spouses' attitudes. Table 9.7 shows the percent distribution of couples by husband's and wife's attitude toward family planning, according to their spouse's perception of their attitude.

Table 9.6 Attitudes of couples towards family planning

Percent distribution of couples by approval of family planning, according to age difference between spouses and selected background characteristics, Bangladesh 1993-94

Background characteristic	Both approve	Both disapprove	Wife approves, husband doesn't	Husband approves, wife doesn't	Missing	Total	Percent who agree	Number of couples
Age difference								
Wife older	(84.2)	(0.0)	(10.5)	(5.3)	0.0	100.0	(84.2)	44
0-4	90.2	0.8	5.5	3.5	0.0	100.0	91.0	473
5-9	89.7	1.7	5.8	2.6	0.3	100.0	91.4	1338
10-14	89.0	0.8	5.7	4.2	0.3	100.0	89.8	938
15+	84.3	3.3	7.5	4.1	0.8	100.0	87.6	534
Residence								
Urban	94.7	0.1	3.2	1.4	0.7	100.0	94.8	384
Rural	87.8	1.7	6.4	3.7	0.3	100.0	89.6	2943
Division								
Barisal	92.8	1.4	2.9	2.9	0.0	100.0	94.2	209
Chittagong	79.3	4.3	9.9	6.2	0.2	100.0	83.6	757
Dhaka	89.9	0.8	5.7	3.2	0.3	100.0	90.7	1042
Khulna	90.1	0.9	6.3	2.2	0.5	100.0	91.0	447
Rajshahi	93.5	0.3	3.7	2.1	0.4	100.0	93.8	872
Couple's education								
Both none	93.9	0.7	3.5	1.8	0.1	100.0	94.7	1078
Wife some/husband none	89.2	1.9	5.8	2.3	0.8	100.0	91.1	292
Husband some/wife none	85.7	1.3	7.7	4.5	0.7	100.0	87.0	845
Both some	85.6	2.4	7.4	4.5	0.1	100.0	88.0	1113
Total	88.6	1.5	6.1	3.4	0.3	100.0	90.2	3327

Note: Figures in parentheses are based on 25 to 49 cases.

Table 9.7 Spouses' perceptions of approval of family planning

Percent distribution of couples by husband's and wife's attitude towards family planning, according to their spouse's perception of their attitude, Bangladesh 1993-94

Wife's perception	Husband			Total	Number of couples
	Approves	Disapproves	Unsure		
Believes approves	95.2	4.7	0.1	100.0	2788
Believes disapproves	69.8	29.5	0.7	100.0	343
Doesn't know	89.1	10.9	0.0	100.0	196
Total	92.2	7.6	0.2	100.0	3327

Husband's perception	Wife			Total	Number of couples
	Approves	Disapproves	Unsure		
Believes approves	96.5	3.3	0.2	100.0	2879
Believes disapproves	78.4	21.6	0.0	100.0	189
Doesn't know	88.2	11.8	0.0	100.0	259
Total	94.8	5.0	0.2	100.0	3327

The data indicate that when husbands and wives report that their spouses approve of family planning, they are generally accurate. For example, in 95 percent of cases in which wives reported that their husbands approved of family planning, the husbands also said they approved. Similarly, in 97 percent of the couples in which the husband said his wife approved of family planning, she also said she approved. However, when husbands and wives report that their spouses disapprove of family planning, in 70 to 80 percent of cases, the opposite is true, that is, the spouse actually approves of family planning. Caution should be used in drawing a conclusion from these data that there is a considerable lack of communication between spouses about attitudes towards family planning. It is likely that at least some respondents report more favorable attitudes towards family planning than they in fact hold, perhaps in an attempt to please the interviewer or to appear more sophisticated.

9.4 Fertility Preferences

Husbands who were interviewed in the 1993-94 BDHS were asked the same questions about fertility preferences that were asked of women. Table 9.8 shows the percent distribution of husbands by whether they would like to have another child and when, according to age group. The data are similar to those reported for currently married women in general (see Table 6.2). For example, the proportion who want no more children is very close to that of married women (51 vs. 48 percent, respectively) as are the proportions who want to have another child some time (33 vs. 37 percent, respectively). As with women, younger husbands are more likely to want another child, while older husbands are more likely to want no more children or to be sterilized.

Table 9.8 Fertility preferences of husbands by age

Percent distribution of husbands by desire for more children, according to age, Bangladesh 1993-94

Desire for children	Current age									Total
	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60+	
Have another within 2 years	29.5	24.5	17.4	10.5	4.5	6.4	2.1	2.3	2.0	12.0
Have another after 2 years	54.4	43.2	26.2	13.8	6.3	2.7	0.3	0.2	0.0	17.8
Have another/undecided when	4.4	3.6	6.2	3.5	3.4	2.0	0.7	0.0	0.6	3.3
Undecided/Don't know	0.6	4.1	3.1	2.9	3.2	1.9	3.8	2.2	1.2	2.9
Want no more	11.1	23.3	40.7	59.9	66.9	64.3	66.2	62.9	65.5	50.5
Sterilized	0.0	1.1	6.5	9.1	14.8	18.8	17.7	18.7	20.0	10.6
Wife declared infecund	0.0	0.0	0.0	0.3	0.8	3.6	9.1	13.7	10.7	2.9
Missing	0.0	0.3	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	165	463	648	564	405	329	278	240	173	3284

Note: There were too few husbands age 15-19 to show the data.

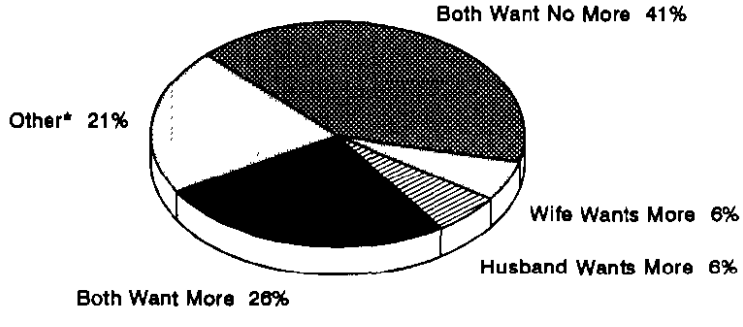
It is also possible to compare the fertility preferences of husbands and wives. Table 9.9 shows the percent distribution of couples by desire for more children, according to the number of living children each partner has. Overall, there is a high degree of agreement between spouses. For example, in 26 percent of the couples, both spouses want more children, while in 41 percent, both want no more children (Figure 9.1). The proportion of couples in which the husband wants more children and the wife does not (6 percent) is the same as the proportion in which the wife wants more and the husband does not (6 percent). In 21 percent of the couples, one or both of the spouses is undecided about whether they want to have more children.

Table 9.9 Desire for more children among couples by number of living children

Percent distribution of couples by desire for more children, according to number of living children, Bangladesh 1993-94

Number of living children	Both want more	Husband *wants* more, wife infecund	Husband wants *more*, wife does not	Wife wants *more*, husband does not	*Both* want no more	One or both missing	Other	Total	Number of couples
Wife									
0	87.8	0.4	0.8	3.8	0.4	0.4	6.4	100.0	337
1	69.2	0.0	8.4	6.9	5.6	0.0	9.8	100.0	558
2	20.3	0.0	10.1	10.4	41.1	0.0	18.1	100.0	678
3	7.5	0.0	7.3	6.7	55.3	0.4	22.8	100.0	601
4	2.1	0.0	4.7	3.4	61.2	0.2	28.5	100.0	420
5+	0.3	0.2	2.4	1.4	64.8	0.0	30.8	100.0	733
Husband									
0	93.7	0.5	1.1	0.6	0.0	0.9	3.3	100.0	299
1	74.2	0.0	8.5	4.3	5.4	0.0	7.6	100.0	509
2	23.0	0.0	10.4	10.8	38.8	0.0	16.9	100.0	618
3	9.0	0.0	7.4	7.0	55.2	0.0	21.4	100.0	600
4	2.7	0.0	4.8	5.5	57.8	0.5	28.7	100.0	425
5+	1.1	0.2	2.8	3.5	60.7	0.0	31.7	100.0	876
Total	26.3	0.1	6.0	5.6	41.4	0.1	20.5	100.0	3327

Figure 9.1
Percent Distribution of Couples by Fertility Desires



* Husband or wife sterilized, undecided, or information missing

BDHS 1993-94

There is a high degree of agreement between spouses, regardless of the number of children the husband or wife has. Of course, when the number of children is small, both spouses are likely to want more children; as the number of children increases, both are likely to want no more children or to be undecided. When there is disagreement, roughly equal proportions of husbands and wives want more children.

Table 9.10 shows the percent distribution of couples by the extent to which they agree on ideal number of children, according to selected background characteristics. Overall, almost half (45 percent) of the couples report the same ideal number of children. Among 20 percent of the couples, the husband wants more children than the wife, and among 22 percent of the couples, the wife wants more children than the husband. This shows that there is a fair degree of agreement between husbands and wives on ideal number of children. The data also show that husbands are not any more or less pronatalist than their wives. Differentials according to background characteristics are not large, except that in Chittagong Division, one or both of the spouses is more likely to give a non-numeric answer to the question on ideal family size. The same is true among couples in which both have some education.

Table 9.10 Spouses' agreement on ideal number of children

Percent distribution of couples by extent of agreement on ideal number of children, according to selected background characteristics, Bangladesh 1993-94

Background characteristic	Ideal number same for husband and wife	Husband wants more than wife	Wife wants more than husband	Non-numeric response	Total	Number of couples
Age difference						
Wife older	(45.8)	(16.8)	(23.0)	(14.4)	100.0	44
0-4	44.7	20.2	23.5	11.6	100.0	473
5-9	48.1	17.9	22.0	12.1	100.0	1338
10-14	43.9	20.0	21.7	14.4	100.0	938
15+	39.6	23.8	18.8	17.7	100.0	534
Residence						
Urban	55.2	15.9	20.5	8.4	100.0	384
Rural	43.7	20.2	21.8	14.3	100.0	2943
Division						
Barisal	45.1	22.2	22.9	9.8	100.0	209
Chittagong	30.2	18.9	24.2	26.7	100.0	757
Dhaka	46.1	19.5	23.2	11.2	100.0	1042
Khulna	57.3	15.4	19.2	8.0	100.0	447
Rajshahi	50.3	22.4	18.5	8.9	100.0	872
Couple's education						
Both none	54.6	17.1	21.2	7.1	100.0	1078
Wife some/husband none	42.8	24.6	19.0	13.6	100.0	292
Husband some/wife none	41.8	19.4	22.3	16.5	100.0	845
Both some	38.7	21.3	22.3	17.8	100.0	1113
Total	45.0	19.7	21.6	13.6	100.0	3327

Note: Figures in parentheses are based on 25 to 49 cases.

CHAPTER 10

AVAILABILITY OF HEALTH AND FAMILY PLANNING SERVICES

As part of the Bangladesh DHS, a separate team of interviewers conducted a Service Availability survey in each of the sample points selected for the larger survey. The Service Availability survey was designed to elicit data on background characteristics of the selected sample points (e.g., distance to thana headquarters, distance to schools, post office, etc.), as well as information about the types of family planning services that are available either within or near the sample point. The main reason for conducting the Service Availability survey was to be able to distinguish sample points covered by government family planning field workers from those covered by field workers supported by non-governmental organizations. This in turn allows an assessment of the coverage of public versus private field worker programs.

The Service Availability survey utilized three questionnaires: one to collect general information about the sample point, one for information from family planning field workers, and one for information from the Family Welfare Visitors. Interviewers first gathered a group of residents from the selected sample point and conducted a group interview in order to complete the first questionnaire regarding the general description of the sampled area. They then made a list of the family planning field workers who covered the area in or near the BDHS sample point and selected three for individual interviews. In addition, they interviewed the Family Welfare Visitors (FWVs) who worked in the union headquarters in which the BDHS sample point was located. Questions for field workers and FWVs included duration of employment, type of training received, and workload.

10.1 Community Characteristics

Some community characteristics can be expected to have an effect on family planning and health service utilization. Such factors as distance to schools, markets, post offices, and health and family planning centers are ways of measuring development of this area.

Table 10.1 presents the distribution of ever-married women by distance to various types of schools and services. Almost all women in Bangladesh (97 percent) live within a mile of a primary school and 71 percent live within a mile of a high school. Religious schools are also widespread in Bangladesh. Three-quarters of women live within one mile of a weekly market, while about two-thirds live within a mile of a post office or a daily market. About half of women live within one mile of a family welfare center, while only 14 percent live as close to the much larger thana health complex. Overall, public services appear to be widely available, with urban women living closer to most services than their rural counterparts.

Table 10.2 shows the availability of various income-generating organizations such as mothers clubs, the Grameen Bank, and cottage industries. The availability of these income-generating programs may influence women's reproductive behavior. The data indicate that more than half of ever-married women in Bangladesh live in communities that have mothers clubs, whereas only about one in seven women live in communities with cooperative societies or Grameen Bank programs. Very few women live in areas with cottage industries or other income-generating activities. Finally, about 8 percent of women have access to television in their communities. Mothers clubs and Grameen Bank programs are less available to urban than to rural women; television sets are, however, more accessible to urban women.

Table 10.1 Distance to public services

Percent distribution of ever-married women age 10-49 by distance to selected public services, according to urban-rural residence, Bangladesh 1993-94

Type of facility	Number of miles to public service			Missing/ Don't know	Total
	0-1	2-4	5+		
Urban areas					
Religious school	96.4	1.2	2.4	0.0	100.0
Primary school	100.0	0.0	0.0	0.0	100.0
High school	98.0	2.0	0.0	0.0	100.0
Post office	88.1	8.9	3.0	0.0	100.0
Daily market	97.0	2.0	1.0	0.0	100.0
Weekly market	80.5	11.2	8.3	0.0	100.0
Cinema hall	81.9	18.1	0.0	0.0	100.0
Family welfare center	85.1	11.1	2.1	1.7	100.0
Thana health complex	35.2	22.8	12.9	29.1	100.0
Rural areas					
Religious school	86.1	12.4	1.0	0.5	100.0
Primary school	97.1	2.4	0.0	0.5	100.0
High school	66.9	31.9	0.7	0.5	100.0
Post office	65.6	31.4	2.5	0.5	100.0
Daily market	61.9	31.0	6.6	0.5	100.0
Weekly market	75.8	23.8	0.4	0.0	100.0
Cinema hall	12.7	35.6	51.8	0.0	100.0
Family welfare center	46.7	45.9	6.6	0.8	100.0
Thana health complex	10.7	34.9	51.2	3.1	100.0
Total					
Religious school	87.3	11.1	1.2	0.4	100.0
Primary school	97.4	2.1	0.0	0.4	100.0
High school	70.5	28.5	0.6	0.4	100.0
Post office	68.2	28.8	2.6	0.4	100.0
Daily market	65.9	27.7	5.9	0.4	100.0
Weekly market	76.4	22.3	1.3	0.0	100.0
Cinema hall	20.6	33.6	45.8	0.0	100.0
Family welfare center	51.1	41.9	6.1	0.9	100.0
Thana health complex	13.5	33.5	46.8	6.1	100.0

Table 10.2 Presence of income-generating organizations in cluster

Percentage of ever-married women age 10-49 by presence of specific income-generating organizations in their communities, and access to television, Bangladesh 1993-94

Organization	Residence		Total
	Urban	Rural	
Mothers club	37.2	53.2	51.4
Grameen Bank	2.1	15.9	14.4
BSCIC[1]	10.6	0.0	1.2
Co-operative society	17.4	15.1	15.3
NGO income-generating activity	5.0	3.8	3.9
Access to television set	27.6	5.7	8.2

[1]Bangladesh Small Cottage Industry Corporation

Table 10.3 provides information on the presence of health and family planning field workers and their services, based on reports from community informants. Health and family planning services are available to the majority of women in Bangladesh; 97 percent of ever-married women live in a cluster that has a family planning field worker, 79 percent live in an area covered by a satellite clinic and 89 percent of women live in communities covered by health workers.

Table 10.3 Presence of health and family planning field workers and services in the community

Percent of ever-married women age 10-49 living in communities covered by family planning (FP) field workers, satellite clinics, and health workers, according to division and urban-rural residence, Bangladesh 1993-94

Field workers/ Services	Division					Residence		Total
	Barisal	Chittagong	Dhaka	Khulna	Rajshahi	Urban	Rural	
Family planning field worker in community	97.5	93.9	96.8	100.0	100.0	95.6	97.5	97.3
Of those with FP field worker in community, percent with worker who provides:								
FP information	100.0	96.6	97.0	96.1	100.0	95.6	98.0	97.7
FP methods	100.0	98.1	98.5	96.1	100.0	95.9	98.9	98.5
Help at satellite clinic	78.5	72.3	58.6	89.2	74.3	39.9	75.2	71.2
Take women to clinic	72.2	70.3	76.5	84.3	91.9	57.5	82.3	79.5
Take children for immunization	73.7	53.1	59.9	85.1	69.9	55.1	66.1	64.8
Vitamin A capsules	61.7	51.8	38.9	70.9	48.2	52.7	49.7	50.1
Mean years of FP field workers	13.8	9.7	12.4	15.2	13.6	11.3	12.6	12.5
Satellite clinic in community	89.8	78.2	73.4	93.1	75.5	49.3	82.5	78.7
Of those with satellite clinic, percent with clinic:								
0-1 miles	92.4	94.0	90.3	100.0	92.9	93.6	93.4	93.4
2-4 miles	0.0	2.0	0.0	0.0	2.7	2.0	1.1	1.1
Don't know/missing	7.6	4.0	9.7	0.0	4.4	4.4	5.5	5.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Of those with satellite clinic, percent with clinic supplying:								
Pill	83.0	77.1	73.9	84.8	83.5	77.8	79.3	79.2
Condom	61.8	59.3	51.9	56.7	65.8	50.1	59.1	58.5
IUD	42.4	29.3	35.8	35.0	40.1	12.4	37.2	35.4
FP injection	81.1	55.8	52.3	76.8	64.6	38.2	63.6	61.8
Immunizations	77.2	56.6	65.4	70.5	53.3	62.9	61.8	61.9
ORS packets	43.0	25.1	11.6	35.9	32.2	18.0	26.4	25.8
Vitamin A capsules	88.8	40.3	34.2	55.5	55.0	50.8	47.5	47.7
Weighing children	7.4	4.4	10.2	12.9	10.9	9.8	9.0	9.1
Checking pregnant women	29.3	43.3	38.2	60.7	51.0	37.7	45.8	45.2
Health worker in community	90.0	90.7	81.2	96.0	93.3	63.9	92.3	89.0
Of those with health worker in community, percent who provide:								
Health information	82.0	93.2	89.5	97.0	95.0	86.6	93.0	92.4
Immunizations	100.0	100.0	96.8	100.0	100.0	89.2	100.0	99.1
ORS packets	79.7	73.6	69.1	71.5	81.2	36.4	77.8	74.4
Vitamin A capsules	95.8	86.9	84.8	92.2	96.7	79.6	91.0	90.1
Number of women	606	2527	2963	1218	2326	1108	8532	9640

All but a tiny fraction of family planning field workers provide contraceptive supplies and counselling, while for seven out of ten women living in communities with family planning field workers, the workers assist with satellite clinics and for eight out of ten, the workers accompany women to the clinics for services. However, family planning field workers have a more limited role in providing health services; only two-thirds of ever-married women live in communities in which family planning field workers take children to health clinics for immunization and only half live in places where field workers distibute vitamin A capsules for children.

Among women who live in communities with satellite clinics, most live within 1 mile of the clinic. Among women for whom a clinic is available, 79 percent live in communities with clinics that provide the pill, 59 percent have clinics that distribute condoms and only 35 percent live near clinics that insert IUDs. Among ever-married women living in communities with health workers, almost all of the health workers provide immunizations and about 90 percent provide health information and distribute vitamin A capsules. Although there are regional differences in the availability of health and family planning services, it appears that, overall, the population of Bangladesh is very well served.

One of the major reasons for implementing the study on availability of services was to identify the proportion of couples who are covered by family planning field workers provided by government versus non-governmental organizations (NGOs). Data in Table 10.4 indicate that government field workers predominate. Eighty-two percent of ever-married women in Bangladesh live in communities in which only a government field worker operates, while 4 percent live in communities with only a NGO field worker and 14 percent live in communities with both government and NGO field workers. This means that 96 percent of women live in areas covered by government field workers, while 18 percent live in areas covered by NGO field workers. Differentials in this pattern by division are small; however, NGO field workers tend to be more prevalent in urban areas. Almost 60 percent of ever-married women in urban areas live in places covered by an NGO field worker and 68 percent in areas with government field workers.

Table 10.4 Presence of government and non-governmental family planning field workers

Percent distribution of ever-married women age 10-49 by presence of family planning field worker supported by government, non-government organizations (NGO), both, or neither, according to division and urban-rural residence, Bangladesh 1993-94

Type of field worker	Division					Residence		Total
	Barisal	Chittagong	Dhaka	Khulna	Rajshahi	Urban	Rural	
Government field worker only	78.7	84.1	81.5	87.0	77.0	40.6	86.9	81.6
NGO field worker only	5.8	5.5	3.4	4.1	2.1	32.1	0.2	3.9
Both government and NGO workers	12.9	10.4	15.1	8.9	20.9	27.3	12.7	14.3
No field worker	2.5	0.0	0.0	0.0	0.0	0.0	0.2	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	606	2527	2963	1218	2326	1108	8532	9640

CHAPTER 11

IMPLICATIONS FOR POLICY AND STRATEGIES

Kim Streatfield
S. Jahangeer Haider
S.R. Chowdhury

The most important finding from the 1993-94 Bangladesh Demographic and Health Survey (BDHS) is undoubtedly the continuation, indeed acceleration, of fertility decline. Fertility has been virtually halved over the past two decades, a fall equal to three-quarters of the decline needed to achieve replacement level fertility. Attention must now be given to whether conditions are conducive to further declines in fertility. In the present context, there has been little change in a number of factors which can affect fertility, namely marriage patterns, breastfeeding, and abortion; the driving force behind the decline in fertility has been the rapid rise in use of family planning, in particular temporary modern methods.

In this chapter selected findings from the BDHS will be reviewed on the prospects for further fertility decline, especially trends in the desired number of children, or ideal family size. This in turn influences the level of unmet need for family planning. The potential to satisfy this unmet need depends, among other things, on the extent and quality of family planning services. The BDHS findings indicate where these service issues may be addressed and improved.

The desired number of children implicitly relates to numbers of surviving children and so tends to be sensitive to the level of child survival. The BDHS indicates recent improvement in child survival, but primarily in the neonatal period. This will be discussed in the light of persistent low levels of all safe motherhood indicators, except for tetanus toxoid immunization of pregnant women.

This chapter then, examines whether current policies that influence fertility and maternal and child health require modification, or whether new national or subnational policies and strategies are required in order to achieve the national population goals.

11.1 Fertility

While fertility has fallen dramatically, a variety of measures suggest that Bangladeshi couples want to reduce their fertility still further. The vast majority now regard the ideal family size as two or three children, with a mean of 2.5 (see Table 6.5). A notable change that has occurred over recent years is the growing proportion of women (more than one in three) who state that they want fewer children than they already have. In fact, if couples could control their fertility such that they gave birth only to "wanted" children, the total fertility rate would now be 2.1 rather than 3.4 (see Table 6.8). The national goal is 2.1 children per woman, which is replacement level fertility (GB, 1994:6).

The fact that ideal family size varies little among subgroups is encouraging. Even for women with six or more children, ideal family size does not exceed 3.0 (see Table 6.8). Predictably, women with secondary education want fewer children (2.2), but even illiterate couples desire smaller families (2.6).

In attempting to understand and predict fertility change, there are a number of behaviors affecting childbearing that are amenable to policy. These include marriage patterns, breastfeeding and supplementation (which affect birth intervals), and the use of contraception and induced abortion to space or limit births.

Marriage

A review of the role of these factors in fertility decline in Bangladesh suggests that marriage patterns have not changed to an extent that would noticeably reduce fertility. While age at marriage among women has risen by about one year over the past decade (see Table 5.4), age at first birth has changed less, about half a year (see Table 3.12). This is possibly because in the past more girls were marrying very young, at which age their ability to bear children (fecundity) was not fully developed. Thus, the impact of the marriage delay on fertility is dampened. So, the situation persists that more than half of Bangladeshi girls have married and produced their first child while still teenagers. Indeed, by age 20, one in four has already had a second child.

In regard to possible policy interventions, there is little historical evidence that legislation of age of marriage has been effective in delaying early marriage, but there are other avenues such as the provision of opportunities for education and employment outside the home for young women that are likely to result in delayed marriage. More important is the need to extend the interval between marriage and first birth, thus delaying the timing of the first birth. This suggests the need for a more concerted family planning effort focused on newly married couples.

Breastfeeding

Breastfeeding patterns have not changed in ways which would contribute to fertility decline. Indeed, the proportions of children being partially or fully breastfed have remained remarkably stable over recent decades, and the durations continue to be among the longest anywhere. Experience elsewhere, however, suggests that as societies become more modern and urban, and as women become more involved in wage employment, supplementation is increasingly common and the effect of breastfeeding on the delay of the return of fecundity after childbirth (i.e., on postpartum amenorrhea) is seriously reduced. There is some evidence that this is beginning to happen in Bangladesh (Salway et al., 1993).

The area in which policy may be required then, is not encouraging initiation of breastfeeding, or reinforcing the lengthy duration of breastfeeding, but in minimizing the proportion of infants being supplemented too early. Currently, less than one-third of children are exclusively breastfed until the WHO recommended age of 4-6 months (see Table 8.13). While very few are given solid or mushy foods until after this age, far too many newborn infants are being given infant formula, or other types of supplementary milk and liquids (see Table 8.14). Appropriate policy would be to discourage early formula feeding.

Abortion

As a theoretical determinant of fertility, abortion was not measured in the BDHS; however, a brief review is presented here. Menstrual regulation services have expanded in recent years. The Government reporting system indicates that official numbers of menstrual regulations rose from several thousand in 1979 to 100,000 in 1993 (BAPSA, 1993). If the undocumented estimate of 500,000 or more abortions (official plus unofficial) is correct, then this practice could be reducing the total fertility rate by as much as 0.5 children per woman.

This review of marriage, breastfeeding, and abortion suggests that *changes* in these factors have not played a key role in the fertility decline. Instead, the rapidly increasing level of contraceptive use is the most important factor influencing the decline of fertility in Bangladesh.

Contraception

The past decade has seen a doubling in use of family planning, but this increase has not occurred uniformly for all methods. The dramatic increase in contraceptive use in Bangladesh has been largely the result of increased use of the pill, and recently, injectables (see Table 4.7).

As fertility in Bangladesh approaches replacement level, the majority of women (six of every seven) will have completed childbearing by the age of 30 years. These women will then be faced with 15 to 20 fertile years during which they will need contraceptive protection. Such a long reliance on spacing methods such as hormonal contraceptives, will be both expensive and inefficient. A permanent method such as sterilization would be a much more desirable alternative for many couples.

It is of concern that the findings from the BDHS indicate that permanent methods, i.e., female and male sterilization, and long-term temporary methods such as the IUD, have stagnated relative to other methods. This pattern of decreasing reliance on sterilization, from almost two- fifths of users a decade ago, to only one-fifth in 1993-94, may be partially a result of the stopping of recruiter incentives in the late 1980s. It also suggests that the decreased emphasis on sterilization at the national level, as reflected by the reduced targets set in the Five Year Plan—a target for 1993 of 35 percent of current users to be sterilization clients, down from 43 percent in 1989—and the greatly reduced IEC activity regarding sterilization may have caused a decline in acceptance of this method. A word of caution should be raised by the observation that one in six sterilization acceptors stated that they regretted having had the operation (see Table 4.21), primarily because they wanted another child (though three out of four had at least three living children). Nationwide, this could amount to as many as 400,000 dissatisfied clients, and emphasizes the need for pre-operation counselling that clearly explains the permanent nature of the method.

The prospects for increased use of sterilization are slight unless major changes occur. In the BDHS, when women not currently using any contraceptive method but who intend to adopt a method in the future were asked which method they would choose, not one mentioned male sterilization (see Table 4.27), and only 3 percent specified female sterilization (down from 12 percent a decade ago). By far and away the most popular future choices were the hormonal methods, pills for half the couples, and injectables for one in five couples. This may of course be a function of which methods are most heavily and effectively promoted by the family planning program. For example, when female sterilization was actively promoted in the early and mid- 1980s, the annual number of acceptors was five times greater than in recent years. This was also the case for male sterilization.

For the long-term success and sustainability of the family planning program, a greater role for permanent or long-acting methods, especially sterilization, is desirable. If incentives of the type used previously are no longer acceptable, some other approach to promoting these methods must be found. There are a small number of organizations that provide high-quality training and education interventions on sterilization and the IUD. Possibly, this type of training for clinic staff could be expanded through cooperation with the private sector. Also, training is urgently needed for private doctors, so they can deliver the full range of family planning services.

Although this discussion has focused on modern methods, traditional methods are also widely used and consistently account for one in five users (see Table 4.7). An unexpected finding from the BDHS was that use of traditional methods is more prevalent among educated women, sometimes supplementing use of modern methods. More research is required on use of traditional methods, and whether some women are using them because of dissatisfaction with modern methods, as suggested in Table 4.13. Such research might reveal important programmatic interventions that could increase the effectiveness of traditional methods from the current low levels (see Table 4.23 and 4.24).

Unmet Need for Family Planning

The findings of the BDHS suggest that fertility will probably continue to decline in the future as it has in the recent past. However, a number of countries have experienced "plateauing" of contraceptive prevalence rates at various stages of development. One indicator that can throw light on whether contraceptive use in Bangladesh will continue to rise or not is the measure of *unmet need*[1] for family planning.

The estimate of 19 percent unmet need from the BDHS (see Table 6.4), combined with the current level of contraceptive use or *met need*, of 45 percent suggests that, theoretically, close to two-thirds of couples would use family planning if services were available. This would produce a total fertility rate of around 2.9, which is still well above the Government's replacement-level fertility goal. However, unmet need is not an absolute value; it changes over time as desired family size decreases and there is greater awareness of the value of spacing births.

With existing contraceptive protection being primarily in the form of short-term methods, the challenge for program administrators is to increase demand for long-acting temporary methods, and permanent methods, with greater efforts directed to the mass media to create positive images. While there are reasons to be cautious about the ethical aspects of financial incentives, it is possible to promote sterilization and the IUD by ensuring the provision of high-quality services. This should decrease the reluctance of field workers to refer potential clients for these services.

An often neglected aspect of unmet need is women who previously used contraception but have subsequently stopped. In Bangladesh, this has consistently been almost one-third of ever-users. While there may be numerous reasons for discontinuing, there is clear evidence that dissatisfaction with methods, primarily due to side effects, is by far the major reason. This reason accounts for two of five discontinuers of pills and condoms, and three of five in the case of the IUD and injectables (see Table 4.24). Among current users, one-third of pill users and almost half of injectable users complain of side effects.

These findings imply that there is a need for increased frequency of contact between service providers and clients to provide counselling and support. Recently, there has been considerable discussion about the most effective and sustainable ways to achieve this end. One option is "doorstep" delivery of supplies through regular household visits by field workers. A lower cost and less time consuming approach is through outreach or satellite clinics, which provide an intermediate link between the formal site such as the family welfare center, and the client. These outreach centers should be well equipped to handle side effects of methods.

There is also a need to educate clients about the management of side effects through the mass media, and through ensuring that field workers are well trained in this type of counselling. Routine follow up of clients, and encouragement of interaction between satisfied users and potential new clients, may reduce the excessively high discontinuation rates due to side effects.

---

[1] *Unmet need* refers to women who are currently married and who say either that they do not want any more children or that they want to wait two or more years before having another child, but are not using contraception.

11.2 Family Planning Services Issues

Household Visitation by Field Workers

Field workers are a key component in the family planning program service delivery system. Their direct contact with clients through household visitation remains a key strategy in the program's educational and motivational efforts. The BDHS data show that despite impressive coverage by family planning field workers, the household visitation rate remains low. In 1993-94, only 38 percent of currently married women said they had been visited by a family planning field worker during the previous six months (see Table 4.30). It should be noted that visits to the household may underestimate the actual frequency of contact between field workers and couples.

The patterns of visits according to characteristics of the women are as expected. Very young women, old women without children, women in Chittagong Division, and sterilized couples, are all less likely to be visited. It is of concern that only one in four couples who were not currently using any method of contraception were visited. Clearly, this group must be reached if use of contraception is to increase further.

Despite the small proportion of households visited, it is encouraging that among those visited, the mean number of visits during the preceding six months was 3.0, indicating that the normal bimonthly visitation schedule was being followed in these cases (see Table 4.30). Questions may be asked about why such frequent visits are made to sterilization acceptors, and what supplies are provided to current users of traditional methods, but overall the pattern is satisfactory.

Currently married women who were visited by a field worker had a contraceptive prevalence rate almost double that of those who were not visited by a field worker. This pattern has also been observed in other studies; however, it cannot be assumed that such visits necessarily *cause* the higher rate of contraceptive use. There may be a selection bias by the field workers to avoid determined nonusers, and to favor visiting likely users.

Consideration should be given to a review of just how realistic the targets are for field worker visitation. Currently, field workers are supposed to visit 20 households a day, or to complete the visitation cycle in two month's time. It is necessary to determine the optimum number of households a field worker can visit daily, as well as the length of the visitation cycle based on the current workload. If the present force of field workers cannot be increased, or current workloads reduced, alternative approaches should be developed. Current pilot approaches such as satellite clinics, the Depotholder Program, the block system of visitation, or the cluster mode of visitation need to be properly evaluated to determine which aspects are most conducive to increased client contact. In many cases, nonusers decline to use family planning due to matters which could be effectively addressed by IEC. For example, about half of nonusers under 30 years (and one in four, overall) gave reasons for nonuse related to health concerns or knowledge issues that could be due to inadequate information (see Table 4.24).

National planning must focus not only on providing services for around 12 million current contraceptive users, but must also anticipate a doubling of that number within a decade if the Government's contraceptive prevalence goals are to be approached in the context of the large and rapidly increasing number of eligible couples. There can be no doubt that the private sector will need to take a greater role in provision of services.

Family Planning Outreach/Satellite Clinics

The Satellite clinic approach is considered by many to be the most important FP/MCH service delivery strategy. However, the BDHS data show that family planning accounts only for 11 percent of services reported by women attending the satellite clinics (see Table 4.31). Immunization and child care services constitute the bulk of the services provided. What is not clear is whether women who go to the satellite clinics are not *aware* that family planning services are available and, if they are aware, whether they chose to obtain those family planning services elsewhere (e.g., from field workers).

Injectables have been available to a limited extent for a decade, but, since 1990, have become more popular than the IUD, condoms, and male sterilization. While one-third of injectable users obtain their supplies from Family Welfare Assistants, and almost the same proportion from Family Welfare Centers, satellite clinics are now supplying injectables to about one in eight users (see Table 4.22), a proportion which will probably continue to rise.

Thus, it appears that the mix of services provided by the satellite clinics has favored maternal and child health services, especially immunization, where they have played an important and effective role. In the future, it is highly desirable that the package of services should have a more balanced mix of family planning, maternal and child health, and primary health care services, and the relevant staff should be oriented to optimize utilization of this strategy. If satellite clinics are to play as important a role in family planning service delivery as they do in the Expanded Programme on Immunization (EPI), there would be much to gain from an IEC campaign to highlight and promote the range of services offered by the clinics.

Geographic Differences in Family Planning

Although actual levels of family planning use in all divisions have more than doubled over the past decade, the contraceptive prevalence rate in Chittagong Division has persistently lagged behind, at two-thirds the national level, and just half that of Rajshahi Division.

While cultural variables not measured in the BDHS may well have a role, the socioeconomic and demographic characteristics of individual couples in Chittagong Division do not explain the low level of contraceptive use. One possible factor is the low field worker visitation rate in Chittagong Division during the six months preceding the survey (29 percent versus 38 percent nationwide) (see Table 4.30). It would be useful to review the ratio of field workers to eligible couples in areas with difficult terrain such as is found in Chittagong Division. Rather than selecting on the basis of a fixed ratio per union, some factor could be considered which would take into account the difficulty of travelling in hilly or remote areas, and areas flooded in the monsoon season.

Background information suggests that limited female mobility is another factor suppressing contraceptive use in Chittagong Division, and that this may be exacerbated by insufficient field worker contact. There is some support for this view in the relatively low proportion of women who have visited a satellite clinic in their community (see Table 4.31). Among those who have, the purpose has mainly been to obtain EPI services rather than family planning services. This observation is consistent with the limited use of family planning observed in Chittagong Division, compared with the country as a whole, in which the deficit can be accounted for by methods provided by field workers (pills, condoms), and less so by female sterilization.

The conservative nature of society in Chittagong Division is hinted at by the smaller proportion of respondents who report that they shared family planning decisions with their husbands (see Table 4.11); the smaller proportion who found family planning messages acceptable; and the substantially smaller proportion of both husbands and wives who approve of family planning.

11.3 Maternal and Child Health

The crucial issue of effective contact and support of family planning clients is also relevant to the delivery of maternal and child health services. The BDHS has provided data on a number of issues which suggest the need for policy changes. A discussion of specific interventions will be preceded by a brief review of infant and child mortality.

The data on both infant and child mortality point to an encouraging decline. The most recent infant mortality rate (87 deaths per 1,000 live births) is one-fifth lower than the level five years earlier, and the child mortality figure (the probability, not the rate) is down some 15 percent at 50 deaths per 1,000 children aged one year (see Table 7.1).

All of the recent decline in infant mortality rate has occurred in the neonatal period (the first month). This is consistent with the widespread increase in tetanus toxoid immunization among pregnant women, which appears to be reducing neonatal deaths due to tetanus. In support, data from Matlab show a dramatic fall in neonatal deaths caused by tetanus.[2] As will be discussed below, there have been disappointingly few improvements in other aspects of antenatal care or delivery care which might account for such a fall by reduction in birth related causes.

The fact that the infant mortality rate is 27 percent higher in rural areas than in urban areas highlights the inadequacy of rural health services (Table 7.3). Compared with urban women, rural women: have greatly reduced use of high quality antenatal care (Table 8.1); are less likely to receive two or more doses of tetanus toxoid (Table 8.3); and are much less likely to deliver in a health facility (Table 8.4), or to be attended at delivery by trained medical personnel (Table 8.5).

The specific areas where improvements are necessary in order to further reduce both child mortality and maternal mortality are antenatal care, assistance at delivery, infant feeding, and immunization.

The BDHS data indicate that almost three-quarters of mothers who gave birth to a child in the three years before the survey received no antenatal care during pregnancy, and only one in twenty had more than three antenatal visits, the median number being 2.7 visits per pregnancy (see Table 8.2).

While the real challenge is to ensure that all pregnant women receive at least basic antenatal care, it might avoid some confusion if national standards were set for antenatal care in respect to the scheduling of visits, and the content of visits. At present, there is wide variation in the type and level of antenatal care services, especially regarding the recommended number of antenatal care visits. The Family Planning Directorate has set a target of 3 visits; however, the antenatal card now in use has provision for up to 12 visits per pregnancy.

Risk factors and danger signs in pregnant women should be carefully evaluated by properly trained and competent providers. Referral for, and treatment of their conditions at a higher level medical facility

---

[2] Matlab data on neonatal tetanus are from *Demographic Surveillance System-Matlab.* Scientific Report No. 63 (published October 1985 for the period 1975-81) through No. 74 (published August 1994 for the year 1991). Dhaka: International Centre for Diarrhoeal Disease Research, Bangladesh.

should be organized on a priority basis. Maternal and child health performance reporting should also highlight indicators for such conditions, the absence of which is inhibiting the improvement of MCH services in general.

A similarly unsatisfactory situation holds for child birth. The BDHS data show that even in the 1990s, virtually all births (96 percent) take place at home (see Table 8.4). Six of every ten births are assisted by traditional birth attendants (trained or untrained), but less than one in ten by medically trained personnel (see Table 8.5). Although the proportion of deliveries attended by traditional birth attendants (TBAs) has been increasing, it is still below the Government's goal of 60 percent by trained TBAs. Thus, efforts should be made to further increase the delivery of births by trained personnel—at least by paramedics or trained TBAs.

In the earlier discussion of breastfeeding, mention was made of the undesirably early introduction of supplementary liquids in the first few months of breastfeeding (section 11.2). It is somewhat surprising then that even by the first birthday less than half of all children are being fed any solid or mushy food (see Table 8.14). This implies severe undernutrition among infants in Bangladesh. Promotion of additional feedings for growing babies within existing available resources should be emphasized by maternal and child health programs. Provision of feeding services in Family Welfare Centers, Mother and Child Welfare Centers, or the Maternal and Child Health Units of the Thana Health Complexes should be explored, if necessary, with assistance from UNICEF, the Vulnerable Group Feeding Project, or other international agencies. The Matlab experience of providing feeding services should be examined for possible replications.

The final area of interest is much more positive. The Government's immunization program, the Expanded Programme on Immunization (EPI), made dramatic strides in the late 1980s. Until 1987, less than one in ten children was fully immunized, but within six years, UNICEF data (1995) indicated that about three-quarters of one-year-old children were fully protected. The BDHS data do not fully support this claim, indicating that slightly less than half of children were immunized by their first birthday (see Table 8.6). If children aged between the first and second birthday are considered, then the proportion protected increases to three in five, closer to the UNICEF level. Some differences in coverage would be expected due to the different survey methodologies used by the BDHS and UNICEF; however, what is most important is the encouragingly high levels of coverage for all vaccines, which have been achieved in just a few years. There is much to be learned about health service delivery in Bangladesh from the success of the immunization program.

Immunization patterns of concern to health professionals are the lower levels of full coverage among girls; among large families; among less educated groups; and in rural areas. Although urban coverage is expected to be higher than rural coverage and favor families in Dhaka, not quite half of children in Dhaka Division were fully immunized, compared with three-quarters or more in Barisal and Khulna Divisions. This emphasizes the urgency of continuing to promote urban immunization programs, especially among floating and slum populations, in which the prevalence of immunizable diseases such as tuberculosis is likely to be relatively high.

Somewhat unexpectedly the Divisional pattern is not the same for women as for children. More women receive tetanus toxoid vaccination in Dhaka Division than in all other divisions except Khulna. Presumably, this is a result of women in Dhaka being more likely to receive some antenatal care, particularly from a doctor (see Table 8.1).

11.4 Conclusion

In conclusion, it is apparent from the findings of the 1993-94 Bangladesh Demographic and Health Survey that the demographic transition is proceeding rapidly in Bangladesh. To achieve replacement-level fertility in the context of a large and growing population will require further refinements of the family planning program, particularly in equipping family planning program outreach and clinic workers to respond more effectively to problems users experience with their methods, which might result in discontinuation. Staff training and facilities should be upgraded to ensure the provision of high-quality services, especially for users of permanent and longer-term temporary family planning methods.

As improved child survival is an essential objective, both for humanitarian reasons and as a precursor to lower fertility, further efforts must be made to upgrade village level health facilities to enable provision of adequate preventive and curative child health care. The persistent challenge of maternal and reproductive morbidity and mortality requires more widespread knowledge of risk indicators at the individual and community levels, in conjunction with a more effective referral system to deal with difficult births and other reproductive health problems.

Finally, it should not be forgotten that demographic change is dependent not only on the factors explored in the present study, but also on many aspects of social change not covered here. Broader intersectoral approaches encouraging greater economic activity, decisionmaking power, and freedom of movement for women, will undoubtedly accelerate the developments which are crucial to the future well being of Bangladesh.

REFERENCES

Arnold, Fred. 1990. Assessment of the quality of birth history data in the Demographic and Health Surveys. In *An assessment of DHS-I data quality*, 81-111. DHS Methodological Reports No. 1. Columbia, Maryland: Institute for Resource Development/Macro Systems Inc.

Bairagi, Radheshyam, Stan Becker, Andrew Kantner, Karen B. Allen, and Ashish Daha. 1995. *Evaluation of the Bangladesh 1993-4 Demographic and Health Survey within the Matlab Surveillance System: Methods of the Study and Preliminary Results*. Paper presented at the annual meeting of the Population Association of America.

Bairagi, R., B. Edmonston, and A. Hye. 1991. The influence of nutritional status on age misstatement for young children in rural Bangladesh. *Genus* 47(1-2):193-204.

Bangladesh Association for the Prevention of Septic Abortion (BAPSA). 1993, *MR Newsletter*, No. 2, December, Bangladesh Association for the Prevention of Septic Abortion.

Bangladesh Bureau of Statistics (BBS). 1993. *Statistical pocketbook of Bangladesh 1993*. Dhaka: BBS.
Bangladesh Bureau of Statistics (BBS). 1994. *Summary presentation of results of prevalence of morbidity and disability, May 1994*. Presented at the Workshop on Dissemination of Summary Results of Health Surveys, 1994. Dhaka: BBS.

Becker, Stan and Suraiya Begum. 1994. Reliability study of reporting of days since last sexual intercourse in Matlab, Bangladesh. *Journal of Biosocial Science* 26(3):291-299.

Bernhart, Michael and Ghulam M. Kamal. 1994. Management of community distribution programs in Bangladesh. In *Studies in Family Planning* 25(4):197-210.

Boerma, J. Ties. 1988. Monitoring and evaluation of health interventions: Age- and cause-specific mortality and morbidity in childhood. In *Research and intervention issues concerning infant and child mortality and health*, 195-218. Proceedings of the East Africa Workshop, International Development Research Centre, Manuscript Report 200e. Ottawa, Canada.

Cleland, John, James F. Phillips, Sajeda Amin, and G.M. Kamal. 1994. *The determinants of reproductive change in Bangladesh: Success in a challenging environment*. Washington, D.C.: The World Bank.

Cleland, John, G. Edward Ebanks, Lokky Wai, M. Nawab Ali, and M.A. Rashid, eds. 1993. *Bangladesh Fertility Survey, 1989; Secondary analysis*. Dhaka: National Institute of Population Research and Training (NIPORT).

Government of Bangladesh (GB). 1993. *Summary report of major achievements, key problems, and recommendations*. Dhaka: Joint Review of the Expanded Programme on Immunization (EPI) in Bangladesh.

Government of Bangladesh (GB). 1994. *Country report: Bangladesh*. International Conference on Population and Development, Cairo, September 5-13, 1994. Dhaka: Government of Bangladesh.

Huq, Md. Najmul and John Cleland. 1990. *Bangladesh Fertility Survey 1989: Main report*. Dhaka: National Institute of Population Research and Training (NIPORT).

International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B). 1994. *Demographic surveillance system: Early indicators, Matlab-1993*. Dhaka:ICDDR,B.

Islam, M. Nurul and M. Mazharul Islam. 1993. Biological and behavioral determinants of fertility in Bangladesh: 1975-1989. In *Bangladesh Fertility Survey, 1989: Secondary analysis*, 29-72. Dhaka: National Institute of Population Research and Training (NIPORT).

Kantner, Andrew and Elizabeth Frankenberg. 1988. Levels and trends in fertility and mortality in Bangladesh. In *Bangladesh Contraceptive Prevalence Survey-1985: Secondary analysis*, ed. A. Kantner, E. Frankenberg, M.A. Islam, and S.N. Mitra, 3-32, i, ii. Dhaka: Mitra and Associates.

Khan, Aminur R. and L.T. Ruzicka. 1981. Trends and patterns of fertility. In *Population of Bangladesh*, 64-76. Bangkok: United Nations Economic and Social Commission for Asia and the Pacific.

Larson, Ann and S.N. Mitra. 1992. Family planning in Bangladesh: An unlikely success story. *International Family Planning Perspectives* 18(4):123-29, 144.

Loaiza, Edilberto. 1995. Sterilization regret in the Dominican Republic: Looking for quality-of-care issues. *Studies in Family Planning* 26(1):39-48.

Ministry of Health and Population Control (MHPC). 1978. *Bangladesh Fertility Survey, 1975-1976: First report.* Dhaka: Government of the People's Republic of Bangladesh and the World Fertility Survey.

Ministry of Health and Population Control (MHPC). 1983. *Bangladesh Contraceptive Prevalence Survey-1981.* Dhaka: MHPC.

Mitra, S.N. 1987. *Bangladesh Contraceptive Prevalence Survey - 1985: Final report.* Dhaka: Mitra and Associates.

Mitra, S.N., Ann Larson, Gillian Foo, and Shahidul Islam. 1990. *Bangladesh Contraceptive Prevalence Survey - 1989: Final report.* Dhaka: Mitra and Associates.

Mitra, S.N., Charles Lerman, and Shahidul Islam. 1993. *Bangladesh Contraceptive Prevalence Survey - 1991: Final report.* Dhaka: Mitra and Associates.

Mitra, S.N. and G.M. Kamal. 1985. *Bangladesh Contraceptive Prevalence Survey - 1983: Final report.* Dhaka: Mitra and Associates.

National Research Council (NRC). 1981. *Estimation of recent trends in fertility and mortality in Bangladesh.* Committee on Population and Demography Report No. 5. Washington, D.C.: National Academy Press.

Phillips, James E., Mian Bazle Hossain, Ruth Sommons, and Michael A. Koenig. 1994. Worker-client exchanges and contraceptive use in rural Bangladesh. *Studies in Family Planning* 24(6):329-342.

Rutstein, Shea O. and George T. Bicego. 1990. Assessment of the quality of data used to ascertain eligibility and age in the Demographic and Health Surveys. In *An assessment of DHS-I data quality*, 3-37. DHS Methodological Reports No. 1. Columbia, Maryland: Institute for Resource Development/Macro Systems Inc.

Salway, S., N. Roy, M.A. Koenig, and J. Cleland. 1993. Levels and trends in post-partum amenorrhoea, breastfeeding and birth intervals in Matlab, Bangladesh: 1978-1989. *Asia-Pacific Population Journal* 8(2): 3-22.

Sullivan, Jeremiah M., George T. Bicego, and Shea Oscar Rutstein. 1990. Assessment of the quality of data used for the direct estimation of infant and child mortality in the Demographic and Health Surveys. In *An assessment of DHS-I data quality*, 113-140. DHS Methodological Reports No. 1. Columbia, Maryland: Institute for Resource Development/Macro Systems Inc.

United Nations (U.N.). 1981. *Population of Bangladesh.* Economic and Social Commission for Asia and the Pacific, Country Monograph Series No. 8. New York: United Nations.

UNICEF. 1995. *The State of the World's Children 1995.* New York: Oxford University Press.

United Nations Children's Fund (UNICEF). 1991. *Impressions of women and children in Bangladesh.* Dhaka: UNICEF.

Vaessen, Martin. 1980. *Knowledge of contraceptive methods.* WFS Comparative Studies, Cross National Summaries No. 8. The Hague and London: International Statistical Institute and World Fertility Survey.

APPENDIX A

SAMPLE IMPLEMENTATION

Table A.1 Sample implementation

Percent distribution of households and eligible women in the DHS sample by results of the interviews and household, eligible women, and overall response rates, according to division and urban-rural residence, Bangladesh 1993-94

Result	Division					Residence		Total
	Barisal	Chittagong	Dhaka	Khulna	Rajshahi	Urban	Rural	
Selected households								
Completed (C)	95.7	94.0	93.6	95.6	95.9	92.0	95.3	94.8
Household present but no competent respondent at home (HP)	0.2	0.8	0.5	0.2	0.6	0.7	0.5	0.5
Refused (R)	0.0	0.3	0.1	0.0	0.0	0.1	0.1	0.1
Dwelling not found (DNF)	0.2	0.3	0.4	0.1	0.1	0.8	0.1	0.2
Household absent (HA)	0.8	1.9	0.8	1.5	1.1	1.8	1.1	1.2
Dwelling vacant (DV)	3.1	2.6	3.7	2.2	1.9	3.9	2.5	2.7
Dwelling destroyed (DD)	0.0	0.2	0.3	0.3	0.3	0.4	0.2	0.3
Other (O)	0.0	0.0	0.6	0.1	0.1	0.2	0.2	0.2
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	1035	1983	2875	1170	2618	1495	8186	9681
Household response rate (HRR)[1]	99.6	98.6	98.9	99.7	99.2	98.2	99.3	99.1
Eligible women								
Completed (EWC)	97.6	97.7	96.9	98.0	97.3	97.1	97.4	97.4
Not at home (EWNH)	1.6	1.1	2.3	1.6	1.9	2.1	1.7	1.8
Postponed (EWP)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Refused (EWR)	0.0	0.3	0.0	0.2	0.1	0.1	0.1	0.1
Partly completed (EWPC)	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1
Incapacitated (EWI)	0.5	0.5	0.5	0.3	0.5	0.5	0.5	0.5
Other (EWO)	0.2	0.2	0.1	0.0	0.1	0.1	0.1	0.1
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	1031	2049	2862	1285	2673	1510	8390	9900
Eligible woman response rate (EWRR)[2]	97.6	97.7	96.9	98.0	97.3	97.1	97.4	97.4
Overall response rate (ORR)[3]	97.2	96.4	95.9	97.7	96.5	95.4	96.7	96.5
Eligible husbands								
Completed (EHC)	87.4	81.1	86.4	83.5	85.3	84.9	84.7	84.8
Not at home (EHNH)	6.5	13.1	7.7	9.3	9.4	9.7	9.3	9.3
Postponed (EHP)	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Refused (EHR)	0.0	0.4	0.0	0.2	0.1	0.2	0.1	0.1
Partly completed (EHPC)	0.0	0.3	0.3	0.0	0.2	0.0	0.2	0.2
Incapacitated (EHI)	0.5	1.4	0.5	0.5	0.8	1.2	0.7	0.7
Other (EHO)	5.5	3.7	5.2	6.4	4.2	4.1	5.0	4.8
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	382	725	1099	546	1122	589	3285	3874
Eligible husband response rate (EHRR)	87.4	81.1	86.4	83.5	85.3	84.9	84.7	84.8

Note: The household response rate is calculated for completed households as a proportion of completed, no competent respondent, refused, and dwelling not found. The eligible woman and eligible husband response rate is calculated for completed interviews as a proportion of completed, not at home, postponed, refused, partially completed, incapacitated and "other." The overall response rate is the product of the household and woman response rates.

[1]Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{C}{C + HP + R + DNF}$$

[2]Using the number of eligible women falling into specific response categories, the eligible woman response rate (EWRR) is calculated as:

$$\frac{EWC}{EWC + EWNH + EWP + EWR + EWPC + EWI + EWO}$$

[3]The overall response rate (ORR) is calculated as:

$$ORR = HRR * EWRR$$

APPENDIX B

ESTIMATES OF SAMPLING ERRORS

APPENDIX B

ESTIMATES OF SAMPLING ERRORS

The estimates from a sample survey are affected by two types of errors: nonsampling errors and sampling errors. Nonsampling errors are the results of mistakes made in implementing data collection and data processing, such as failure to locate and interview the correct household, misunderstanding of the questions on the part of either the interviewer or the respondent, and data entry errors. Although numerous efforts were made during the implementation of the BDHS to minimize this type of error, nonsampling errors are impossible to avoid and difficult to evaluate statistically.

Sampling errors, on the other hand, can be evaluated statistically. The sample of respondents selected in the BDHS is only one of many samples that could have been selected from the same population, using the same design and expected size. Each of these samples would yield results that differ somewhat from the results of the actual sample selected. Sampling errors are a measure of the variability between all possible samples. Although the degree of variability is not known exactly, it can be estimated from the survey results.

Sampling error is usually measured in terms of the *standard error* for a particular statistic (mean, percentage, etc.), which is the square root of the variance. The standard error can be used to calculate confidence intervals within which the true value for the population can reasonably be assumed to fall. For example, for any given statistic calculated from a sample survey, the value of that statistic will fall within a range of plus or minus two times the standard error of that statistic in 95 percent of all possible samples of identical size and design.

If the sample of respondents had been selected as a simple random sample, it would have been possible to use straightforward formulas for calculating sampling errors. However, the BDHS sample is the result of a two-stage stratified design, and, consequently, it was necessary to use more complex formulas. The computer software used to calculate sampling errors for the BDHS is the ISSA Sampling Error Module (ISSAS). This module used the Taylor linearization method of variance estimation for survey estimates that are means or proportions. The Jacknife repeated replication method is used for variance estimation of more complex statistics such as fertility and mortality rates.

The Taylor linearization method treats any percentage or average as a ratio estimate, $r = y/x$, where y represents the total sample value for variable y, and x represents the total number of cases in the group or subgroup under consideration. The variance of r is computed using the formula given below, with the standard error being the square root of the variance:

$$var(r) = \frac{1-f}{x^2} \sum_{h=1}^{H} \left[\frac{m_h}{m_h - 1} \left(\sum_{i=1}^{m_h} z_{hi}^2 - \frac{z_h^2}{m_h} \right) \right]$$

in which

$$z_{hi} = y_{hi} - r.x_{hi} \text{ , and } z_h = y_h - r.x_h$$

where h represents the stratum which varies from 1 to H,
m_h is the total number of enumeration areas selected in the h^{th} stratum,
y_{hi} is the sum of the values of variable y in EA i in the h^{th} stratum,
x_{hi} is the sum of the number of cases in EA i in the h^{th} stratum, and
f is the overall sampling fraction, which is so small that it is ignored.

The Jacknife repeated replication method derives estimates of complex rates from each of several replications of the parent sample, and calculates standard errors for these estimates using simple formulas. Each replication considers *all but one* clusters in the calculation of the estimates. Pseudo-independent replications are thus created. In the BDHS, there were 301 non-empty clusters. Hence, 301 replications were created. The variance of a rate r is calculated as follows:

$$var(r) = \frac{1}{k(k-1)} \sum_{i=1}^{k} (r_i - r)^2$$

in which

$$r_i = kr - (k-1)r_{(i)}$$

where r is the estimate computed from the full sample of 301 clusters,
$r_{(i)}$ is the estimate computed from the reduced sample of 300 clusters (i^{th} cluster excluded), and
k is the total number of clusters.

In addition to the standard error, ISSAS computes the design effect (DEFT) for each estimate, which is defined as the ratio between the standard error using the given sample design and the standard error that would result if a simple random sample had been used. A DEFT value of 1.0 indicates that the sample design is as efficient as a simple random sample, while a value greater than 1.0 indicates the increase in the sampling error due to the use of a more complex and less statistically efficient design. ISSAS also computes the relative error and confidence limits for the estimates.

Sampling errors for the BDHS are calculated for selected variables considered to be of primary interest. The results are presented in this appendix for the country as a whole, for urban and rural areas, and for the five divisions: Barisal, Chittagong, Dhaka, Khulna, and Rajshahi. For each variable, the type of statistic (mean, proportion, or rate) and the base population are given in Table B.1. Tables B.2 to B.9 present the value of the statistic (R), its standard error (SE), the number of unweighted (N) and weighted (WN) cases, the design effect (DEFT), the relative standard error (SE/R), and the 95 percent confidence limits (R±2SE), for each variable. The DEFT is considered undefined when the standard error considering simple random sample is zero (when the estimate is close to 0 or 1). In the case of the total fertility rate, the number of unweighted cases is not relevant, as there is no known unweighted value for woman-years of exposure to childbearing.

In general, the relative standard errors for most estimates for the country as a whole are small, except for estimates of very small proportions. There are some differentials in the relative standard error for the estimates of sub-populations. For example, for the variable *with secondary education or higher*, the relative standard errors as a percent of the estimated mean for the whole country, for urban areas, and for Rajshahi are 4.0 percent, 6.5 percent, and 8.5 percent, respectively.

The confidence interval can be interpreted as follows, using the variable *mean number of children ever born to women age 15-49*: the overall average from the national sample is 3.479 and its standard error is .034. Therefore, to obtain the 95 percent confidence limits, one adds and subtracts twice the standard error to the sample estimate, i.e., 3.479±.034. There is a high probability (95 percent) that the *true* average number of children ever born to all women aged 15 to 49 is between 3.410 and 3.548.

Table B.1 List of selected variables for sampling errors, Bangladesh 1993-94

Variable	Description	Base population
	WOMEN	
No education	Proportion	Ever-married women 10-49
With secondary education or higher	Proportion	Ever-married women 10-49
Currently married	Proportion	Ever-married women 10-49
Children ever born	Mean	Currently married women 15-49
Children surviving	Mean	Currently married women 15-49
Knowing any contraceptive method	Proportion	Currently married women 10-49
Knowing any modern contraceptive method	Proportion	Currently married women 10-49
Knowing source for any modern method	Proportion	Currently married women 10-49
Ever used any contraceptive method	Proportion	Currently married women 10-49
Currently using any method	Proportion	Currently married women 10-49
Currently using a modern method	Proportion	Currently married women 10-49
Currently using pill	Proportion	Currently married women 10-49
Currently using IUD	Proportion	Currently married women 10-49
Currently using injections	Proportion	Currently married women 10-49
Currently using condom	Proportion	Currently married women 10-49
Currently using female sterilization	Proportion	Currently married women 10-49
Currently using male sterilization	Proportion	Currently married women 10-49
Currently using rhythm	Proportion	Currently married women 10-49
Using public sector source	Proportion	Current users of modern method
Want no more children	Proportion	Currently married women 10-49
Want to delay at least 2 years	Proportion	Currently married women 10-49
Ideal number of children	Mean	Ever-married women 10-49
Mothers received tetanus injection	Proportion	Births in last 3 years
Mothers received medical care at birth	Proportion	Births in last 3 years
Had diarrhea in the last 2 weeks	Proportion	Children under 3
Treated with ORS packets	Proportion	Children under 3 with diarrhea in last 2 weeks
Sought medical treatment	Proportion	Children under 3 with diarrhea in last 2 weeks
Having health card, seen	Proportion	Children 12-23 months
Received BCG vaccination	Proportion	Children 12-23 months
Received DPT vaccination (3 doses)	Proportion	Children 12-23 months
Received polio vaccination (3 doses)	Proportion	Children 12-23 months
Received measles vaccination	Proportion	Children 12-23 months
Fully immunized	Proportion	Children 12-23 months
Total fertility rate (3 years)	Rate	Women-years of exposure to child-bearing
Infant mortality rate (0-4 years)	Rate	Number of births
Infant mortality rate (0-9 years)	Rate	Number of births
	HUSBANDS	
No education	Proportion	Husbands
With secondary education or higher	Proportion	Husbands
Knowing any contraceptive method	Proportion	Husbands
Knowing any modern contraceptive method	Proportion	Husbands
Currently using any method	Proportion	Husbands
Currently using a modern method	Proportion	Husbands
Currently using pill	Proportion	Husbands
Currently using IUD	Proportion	Husbands
Currently using injections	Proportion	Husbands
Currently using condom	Proportion	Husbands
Currently using female sterilization	Proportion	Husbands
Currently using male sterilization	Proportion	Husbands
Currently using rhythm	Proportion	Husbands
Want no more children	Proportion	Husbands

Table B.2 Sampling errors - National sample, Bangladesh 1993-94

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
No education	.581	.008	9640	9640	1.654	.014	.564	597
With secondary education or higher	.149	.006	9640	9640	1.658	040	.137	.161
Currently married	.932	.003	9640	9640	1.002	.003	.926	.937
Children ever born	3.479	.034	8846	8840	1.232	.010	3.410	3.548
Children surviving	2.845	.026	8846	8840	1.189	.009	2.792	2.898
Knowing any contraceptive method	.998	.001	8989	8980	1.000	.001	.995	1.000
Knowing any modern contraceptive method	.998	.001	8989	8980	1 000	.001	.995	1.000
Knowing source for any modern method	.980	.003	8989	8980	2.016	.003	.974	.986
Ever used any contraceptive method	.657	.008	8989	8980	1.530	.012	.642	.672
Currently using any method	.446	.007	8989	8980	1.387	.016	.431	.460
Currently using a modern method	.362	.007	8989	8980	1.435	.020	.348	377
Currently using pill	.174	.005	8989	8980	1.319	.030	.163	.184
Currently using IUD	.022	.002	8989	8980	1.087	.077	.018	.025
Currently using injections	.045	.003	8989	8980	1.565	.076	.038	.052
Currently using condom	.030	.002	8989	8980	1.134	068	.026	.034
Currently using female sterilization	.081	.004	8989	8980	1 252	.045	073	.088
Currently using male sterilization	.011	.001	8989	8980	1 314	.132	.008	.014
Currently using rhythm	.048	.002	8989	8980	1.094	.051	043	.053
Using public sector source	.375	.011	3374	3251	1.325	.029	.353	.397
Want no more children	.478	.007	8989	8980	1.284	.014	.464	.492
Want to delay at least 2 years	.218	.005	8989	8980	1.063	.021	.209	.228
Ideal number of children	2.501	.013	9037	8968	1.357	.005	2.476	2.526
Mothers received tetanus injection	.658	.012	3798	3850	1.491	.018	.635	.682
Mothers received medical care at birth	.095	.006	3798	3850	1.177	.062	.084	.107
Had diarrhea in the last 2 weeks	.126	.007	3486	3535	1.287	.058	.111	140
Treated with ORS packets	.503	.025	444	445	1.054	.051	.452	.553
Sought medical treatment	.202	.019	444	445	.994	.095	.164	.241
Having health card, seen	.455	.017	1146	1171	1.164	.037	.421	.489
Received BCG vaccination	.854	.014	1146	1171	1.312	.016	.827	.881
Received DPT vaccination (3 doses)	.661	.020	1146	1171	1.478	.031	620	.702
Received polio vaccination (3 doses)	.669	.019	1146	1171	1.366	028	631	.706
Received measles vaccination	.689	.018	1146	1171	1.363	027	652	.726
Fully immunized	.590	.020	1146	1171	1.359	.033	.550	.629
Total fertility rate (3 years)	3.442	073	NA	30697	1 389	.021	3.296	3.588
Infant mortality rate (0-4 years)	87.449	4.111	7282	7397	1.191	.047	79.227	95.672
Infant mortality rate (0-9 years)	100.510	3 167	15534	15752	1 222	.032	94.175	106.844
HUSBANDS								
No education	.422	.011	3284	3284	1.252	.026	.400	.443
With secondary education or higher	.270	.010	3284	3284	1.264	.036	.250	.289
Knowing any contraceptive method	.997	.001	3284	3284	Und	.001	.995	.999
Knowing any modern contraceptive method	.996	.001	3284	3284	1 110	001	994	.999
Currently using any method	.552	.010	3284	3284	1.149	.018	.532	.572
Currently using a modern method	.439	.010	3284	3284	1.201	.024	.418	.459
Currently using pill	.228	.008	3284	3284	1.101	.035	.212	.244
Currently using IUD	.019	.003	3284	3284	1.158	.143	.014	.025
Currently using injections	.045	.004	3284	3284	1.214	.097	.036	.054
Currently using condom	.040	.004	3284	3284	1.069	.091	.033	.047
Currently using female sterilization	.085	.006	3284	3284	1.202	.069	.073	.096
Currently using male sterilization	.021	.003	3284	3284	1.050	124	.016	.027
Currently using rhythm	.079	.005	3284	3284	1.155	069	068	.090
Want no more children	.505	.010	3284	3284	1.110	.019	.486	.524

NA = Not applicable
Und = Undefined

Table B.3 Sampling errors - Urban sample, Bangladesh 1993-94

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
No education	.395	.024	1466	1108	1.877	.061	.347	.443
With secondary education or higher	.390	.025	1466	1108	1.992	.065	.339	.440
Currently married	.915	.006	1466	1108	.879	.007	.902	.928
Children ever born	3.093	.084	1333	1001	1.316	.027	2.925	3.261
Children surviving	2.638	.070	1333	1001	1.333	.026	2.499	2.777
Knowing any contraceptive method	.999	.000	1351	1013	Und	.000	.999	.999
Knowing any modern contraceptive method	.999	.000	1351	1013	Und	.000	999	999
Knowing source for any modern method	.992	.003	1351	1013	1.083	.003	.987	.997
Ever used any contraceptive method	.800	.013	1351	1013	1.198	.016	.774	.827
Currently using any method	.544	.014	1351	1013	1.003	.025	.517	.571
Currently using a modern method	.446	.014	1351	1013	1.039	.032	.418	.474
Currently using pill	.209	.012	1351	1013	1.055	.056	.186	.233
Currently using IUD	.037	.006	1351	1013	1.240	.171	.025	.050
Currently using injections	.044	.006	1351	1013	1.122	.142	.032	.057
Currently using condom	.083	.011	1351	1013	1.400	.127	.062	.104
Currently using female sterilization	.064	.007	1351	1013	1.052	.109	.050	.078
Currently using male sterilization	.007	.002	1351	1013	1.011	.318	.003	.012
Currently using rhythm	.055	.010	1351	1013	1.570	.178	.035	.074
Using public sector source	.247	.024	606	452	1.387	.098	.198	.295
Want no more children	.562	.012	1351	1013	.919	.022	.537	.587
Want to delay at least 2 years	.190	.012	1351	1013	1.084	.061	.167	.213
Ideal number of children	2.323	.030	1420	1075	1.325	.013	2.263	2 382
Mothers received tetanus injection	.802	.024	522	392	1.273	.029	.754	.849
Mothers received medical care at birth	.348	.028	522	392	1.279	.082	.291	.404
Had diarrhea in the last 2 weeks	.108	.015	488	370	1.046	.136	.079	.137
Treated with ORS packets	.594	.065	60	40	.967	.110	.464	.725
Sought medical treatment	.303	.075	60	40	1.178	.246	154	452
Having health card, seen	.505	.053	155	121	1.342	.105	399	611
Received BCG vaccination	.913	.020	155	121	.885	.022	874	953
Received DPT vaccination (3 doses)	.785	.039	155	121	1.204	.050	707	863
Received polio vaccination (3 doses)	.793	.038	155	121	1.186	.048	.717	.869
Received measles vaccination	.779	.037	155	121	1.131	.048	705	.853
Fully immunized	.704	.046	155	121	1.284	.066	.611	.797
Total fertility rate (3 years)	2.689	.168	NA	3927	1.183	.062	2.353	3.025
Infant mortality rate (0-4 years)	59.440	9.037	958	715	1.202	.152	41.366	77 514
Infant mortality rate (0-9 years)	80.871	7.751	2068	1518	1.244	.096	65.369	96.373
HUSBANDS								
No education	.237	.030	500	379	1.571	.126	.177	.296
With secondary education or higher	.534	.035	500	379	1.578	.066	.464	.605
Knowing any contraceptive method	.997	.003	500	379	1.279	.003	.990	1.003
Knowing any modern contraceptive method	.997	.003	500	379	1 279	.003	.990	1.003
Currently using any method	.629	.022	500	379	.997	.034	.586	.672
Currently using a modern method	.511	.021	500	379	.945	.041	469	.553
Currently using pill	.260	.019	500	379	.981	.074	.221	.298
Currently using IUD	.027	.007	500	379	1.014	.270	.013	.042
Currently using injections	.049	.011	500	379	1.163	.231	026	.071
Currently using condom	.092	.015	500	379	1.195	.168	.061	.123
Currently using female sterilization	.069	.012	500	379	1.077	.177	.045	.094
Currently using male sterilization	.014	.006	500	379	1.104	416	002	.025
Currently using rhythm	.085	.018	500	379	1.430	210	.049	.120
Want no more children	.565	.021	500	379	.945	.037	.523	.607

NA = Not applicable
Und = Undefined

Table B.4 Sampling errors - Rural sample, Bangladesh 1993-94

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
No education	.605	.009	8174	8532	1.646	.015	.587	.623
With secondary education or higher	.118	.006	8174	8532	1.662	.050	.106	.130
Currently married	.934	.003	8174	8532	1.015	.003	.928	.939
Children ever born	3.528	.037	7513	7838	1.219	.011	3.454	3.603
Children surviving	2.872	.028	7513	7838	1.172	.010	2.815	2.928
Knowing any contraceptive method	.997	.001	7638	7967	Und	.001	.995	1.000
Knowing any modern contraceptive method	.997	.001	7638	7967	Und	.001	.995	1.000
Knowing source for any modern method	.979	.003	7638	7967	2.013	.003	.972	.985
Ever used any contraceptive method	.639	.008	7638	7967	1.545	.013	.622	.656
Currently using any method	.433	.008	7638	7967	1.411	.018	.417	.449
Currently using a modern method	.351	.008	7638	7967	1 461	.023	.335	.367
Currently using pill	.169	.006	7638	7967	1.339	.034	.158	181
Currently using IUD	.020	.002	7638	7967	1.066	.086	.016	023
Currently using injections	.045	.004	7638	7967	1.588	.084	.038	.053
Currently using condom	.023	.002	7638	7967	1.062	.079	.020	.027
Currently using female sterilization	.083	.004	7638	7967	1.259	.048	.075	.091
Currently using male sterilization	.011	.002	7638	7967	1.309	139	.008	.015
Currently using rhythm	.048	.002	7638	7967	1.023	.052	.043	.053
Using public sector source	.395	.012	2768	2800	1.311	.031	.371	.420
Want no more children	.467	.007	7638	7967	1.295	.016	.453	.482
Want to delay at least 2 years	.222	.005	7638	7967	1.042	022	.212	.232
Ideal number of children	2.525	014	7617	7893	1 358	.005	2.498	2.553
Mothers received tetanus injection	.642	.013	3276	3458	1.484	.020	.616	.667
Mothers received medical care at birth	.067	.005	3276	3458	1.176	.080	.056	.077
Had diarrhea in the last 2 weeks	.128	008	2998	3165	1.289	.062	.112	.144
Treated with ORS packets	.493	.027	384	405	1.050	.055	.439	.548
Sought medical treatment	.192	.020	384	405	.965	.102	.153	231
Having health card, seen	.449	.018	991	1051	1.138	040	.413	.485
Received BCG vaccination	.847	.015	991	1051	1.313	.018	.817	.877
Received DPT vaccination (3 doses)	.646	.022	991	1051	1.483	.035	.602	.691
Received polio vaccination (3 doses)	.654	.021	991	1051	1.369	.031	.613	.696
Received measles vaccination	.678	.020	991	1051	1.370	.030	.638	.719
Fully immunized	.576	.021	991	1051	1.356	.037	.534	.619
Total fertility rate (3 years)	3.545	.080	NA	26830	1.402	.022	3.386	3.704
Infant mortality rate (0-4 years)	90.441	4.417	6324	6682	1.164	.049	81.606	99.275
Infant mortality rate (0-9 years)	102 596	3.389	13466	14234	1 201	.033	95.818	109.375
HUSBANDS								
No education	.446	.011	2784	2905	1.219	.026	.423	.469
With secondary education or higher	.235	.010	2784	2905	1.240	.042	.215	.255
Knowing any contraceptive method	.997	.001	2784	2905	1.118	.001	.995	.999
Knowing any modern contraceptive method	.996	.001	2784	2905	1.086	.001	.994	.999
Currently using any method	.541	.011	2784	2905	1.161	.020	.519	.563
Currently using a modern method	.429	.011	2784	2905	1.222	.027	.406	.452
Currently using pill	.224	.009	2784	2905	1.106	.039	.206	.241
Currently using IUD	.018	.003	2784	2905	1.177	.163	.012	.024
Currently using injections	.045	.005	2784	2905	1.204	.105	.035	.054
Currently using condom	.033	.004	2784	2905	1.047	.107	.026	.040
Currently using female sterilization	.087	.006	2784	2905	1.202	.074	.074	.100
Currently using male sterilization	.022	.003	2784	2905	1.029	.129	.017	.028
Currently using rhythm	.078	.006	2784	2905	1.119	.073	.067	.089
Want no more children	.497	011	2784	2905	1.120	.021	.476	.518

NA = Not applicable
Und = Undefined

Table B.5 Sampling errors - Barisal, Bangladesh 1993-94

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
No education	.342	.030	1006	606	2.015	.088	.282	.402
With secondary education or higher	.196	.021	1006	606	1.678	.107	.154	.238
Currently married	.935	.007	1006	606	.851	.007	.922	.948
Children ever born	3.553	.098	931	561	1.172	.027	3.358	3.749
Children surviving	2.882	.064	931	561	.963	.022	2.755	3.010
Knowing any contraceptive method	1.000	.000	942	567	Und	.000	1.000	1.000
Knowing any modern contraceptive method	1.000	.000	942	567	Und	.000	1.000	1.000
Knowing source for any modern method	.994	.003	942	567	1.199	.003	.988	1.000
Ever used any contraceptive method	.746	.023	942	567	1.634	.031	.700	.792
Currently using any method	.477	.021	942	567	1.279	.044	.436	.519
Currently using a modern method	.378	.021	942	567	1.316	.055	.336	.419
Currently using pill	.182	.021	942	567	1.689	.117	.140	.225
Currently using IUD	.024	.007	942	567	1.366	.282	.011	.038
Currently using injections	.047	.013	942	567	1.832	.268	.022	.072
Currently using condom	.028	.007	942	567	1.353	.259	.014	.043
Currently using female sterilization	.082	.011	942	567	1.211	.132	.060	.103
Currently using male sterilization	.014	.008	942	567	2.007	.546	.000	.030
Currently using rhythm	.051	.006	942	567	.812	.114	.040	.063
Using public sector source	*.409*	*.038*	*361*	*214*	*1.472*	*.093*	*.333*	*.485*
Want no more children	.520	.020	942	567	1.207	.038	.481	.560
Want to delay at least 2 years	.233	.017	942	567	1.204	.071	.200	.267
Ideal number of children	2.467	.034	961	578	1.291	.014	2.399	2.534
Mothers received tetanus injection	.677	.036	403	247	1.532	.054	.604	.749
Mothers received medical care at birth	.073	.021	403	247	1.554	.293	.030	.115
Had diarrhea in the last 2 weeks	.162	.022	361	222	1.122	.136	.118	.207
Treated with ORS packets	.559	.049	61	36	.759	.088	.461	.657
Sought medical treatment	.258	.049	61	36	.848	.188	.161	.355
Having health card, seen	.589	.049	131	80	1.137	.083	.491	.686
Received BCG vaccination	.912	.034	131	80	1.368	.037	.844	.979
Received DPT vaccination (3 doses)	.808	.046	131	80	1.334	.057	.716	.899
Received polio vaccination (3 doses)	.820	.048	131	80	1.433	.058	.724	.915
Received measles vaccination	.812	.046	131	80	1.363	.057	.719	.904
Fully immunized	.732	.050	131	80	1.287	.068	.633	.831
Total fertility rate (3 years)	3.469	.196	NA	1975	.986	.057	3.076	3.862
Infant mortality rate (0-4 years)	94.478	12.615	776	473	1.129	.134	69.247	119.709
Infant mortality rate (0-9 years)	101.981	9.063	1650	1001	1.137	.089	83.856	120 106
HUSBANDS								
No education	.248	021	334	197	.903	.086	.206	.291
With secondary education or higher	.351	.033	334	197	1.271	.095	.284	.417
Knowing any contraceptive method	1.000	.000	334	197	Und	.000	1.000	1.000
Knowing any modern contraceptive method	.997	.003	334	197	1.037	.003	.990	1.003
Currently using any method	.592	.025	334	197	.925	.042	.542	.642
Currently using a modern method	.489	.027	334	197	.998	.056	.434	.543
Currently using pill	.245	.032	334	197	1.364	.131	.180	.309
Currently using IUD	.017	.007	334	197	1.015	.418	.003	.032
Currently using injections	.068	.018	334	197	1.275	.259	.033	.103
Currently using condom	.040	.011	334	197	1.041	.280	.017	.062
Currently using female sterilization	.095	.014	334	197	.880	.149	.067	.123
Currently using male sterilization	.024	.013	334	197	1.512	.531	.000	.049
Currently using rhythm	.048	.011	334	197	.946	.232	.026	.070
Want no more children	.515	.035	334	197	1.281	.068	.445	.585

NA = Not applicable
Und = Undefined

Table B.6 Sampling errors - Chittagong, Bangladesh 1993-94

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
No education	.614	.020	2002	2527	1.819	.032	.575	.654
With secondary education or higher	.149	.015	2002	2527	1.894	.101	.118	.179
Currently married	.923	.006	2002	2527	1.020	.007	.911	.936
Children ever born	3.836	.089	1833	2313	1.354	.023	3.658	4.013
Children surviving	3.084	.062	1833	2313	1.201	.020	2.960	3.209
Knowing any contraceptive method	.993	.004	1849	2334	2.130	.004	.985	1.001
Knowing any modern contraceptive method	.993	.004	1849	2334	2.130	.004	.985	1.001
Knowing source for any modern method	.948	.011	1849	2334	2.076	.011	.926	.969
Ever used any contraceptive method	.490	.021	1849	2334	1.826	.043	.447	532
Currently using any method	.293	.017	1849	2334	1 624	.059	259	.327
Currently using a modern method	.234	.016	1849	2334	1.597	.067	203	.266
Currently using pill	.091	.010	1849	2334	1.496	110	.071	.111
Currently using IUD	.020	004	1849	2334	1.076	.173	.013	.027
Currently using injections	.044	.006	1849	2334	1.307	.141	.032	.057
Currently using condom	.021	.003	1849	2334	.978	.157	.014	.027
Currently using female sterilization	.055	.007	1849	2334	1.254	.121	.041	.068
Currently using male sterilization	.003	.001	1849	2334	.779	.324	.001	005
Currently using rhythm	.033	.004	1849	2334	1.023	.130	.024	.041
Using public sector source	.433	.028	446	547	1.189	.065	.377	.489
Want no more children	.471	.016	1849	2334	1.346	.033	.439	.502
Want to delay at least 2 years	.202	.011	1849	2334	1.188	.055	.180	.224
Ideal number of children	2.765	034	1700	2139	1 460	.012	2.696	2.834
Mothers received tetanus injection	.582	.028	929	1174	1.663	.048	.526	.638
Mothers received medical care at birth	.082	.010	929	1174	1.072	.126	.062	.103
Had diarrhea in the last 2 weeks	142	.017	849	1071	1.344	.117	.109	.176
Treated with ORS packets	.480	.047	119	152	.989	.097	387	.573
Sought medical treatment	.214	.037	119	152	949	.172	.141	.288
Having health card, seen	.391	.031	303	385	1.092	.078	.330	.452
Received BCG vaccination	787	.032	303	385	1.358	.040	.723	.851
Received DPT vaccination (3 doses)	.595	.046	303	385	1.631	.077	.503	.687
Received polio vaccination (3 doses)	.610	040	303	385	1.421	.065	.531	.690
Received measles vaccination	.632	.042	303	385	1.517	.066	.548	.716
Fully immunized	.537	.043	303	385	1.511	.080	.451	.623
Total fertility rate (3 years)	3.948	.141	NA	8525	1.285	036	3.665	4.231
Infant mortality rate (0-4 years)	89.866	7.998	1791	2272	1.130	.089	73.870	105.862
Infant mortality rate (0-9 years)	103.153	6.562	3792	4820	1.256	.064	90 029	116.277
HUSBANDS								
No education	.416	.029	588	778	1.423	.070	.359	.474
With secondary education or higher	.225	.025	588	778	1.476	.113	.174	.276
Knowing any contraceptive method	.990	004	588	778	1 027	.004	.981	.998
Knowing any modern contraceptive method	.990	.004	588	778	1.027	.004	.981	.998
Currently using any method	.429	.023	588	778	1.116	.053	.384	.475
Currently using a modern method	.313	.022	588	778	1.155	071	.269	.357
Currently using pill	.156	.016	588	778	1.091	.105	.123	.189
Currently using IUD	.020	.008	588	778	1.362	.392	.004	.036
Currently using injections	.042	.009	588	778	1.068	.212	.024	.059
Currently using condom	.030	.007	588	778	955	.225	.016	.043
Currently using female sterilization	.058	.011	588	778	1.117	.185	.037	.080
Currently using male sterilization	.007	.004	588	778	1.250	.612	.000	016
Currently using rhythm	.080	.010	588	778	.919	.129	.059	.101
Want no more children	.498	.021	588	778	1.012	.042	.456	.539

NA = Not applicable
Und = Undefined

Table B.7 Sampling errors - Dhaka, Bangladesh 1993-94

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
No education	.598	.014	2774	2963	1.535	.024	.570	.627
With secondary education or higher	.164	.011	2774	2963	1.583	.068	.142	.186
Currently married	.930	.005	2774	2963	.979	.005	.921	.940
Children ever born	3.441	.055	2532	2702	1.081	.016	3.330	3.552
Children surviving	2.794	.045	2532	2702	1.124	.016	2.703	2.885
Knowing any contraceptive method	1.000	.000	2583	2756	Und	.000	1.000	1.000
Knowing any modern contraceptive method	1.000	.000	2583	2756	Und	.000	1.000	1.000
Knowing source for any modern method	.990	.002	2583	2756	1.140	.002	.985	.994
Ever used any contraceptive method	.677	.011	2583	2756	1.238	.017	.654	.699
Currently using any method	.443	.013	2583	2756	1.340	.030	.417	.469
Currently using a modern method	.363	.013	2583	2756	1.365	.036	.337	.389
Currently using pill	.182	.009	2583	2756	1.213	.051	.163	.200
Currently using IUD	.019	.003	2583	2756	1.135	.159	.013	.026
Currently using injections	.044	.005	2583	2756	1.359	.125	.033	.054
Currently using condom	.030	.004	2583	2756	1.339	.150	.021	.039
Currently using female sterilization	.082	.006	2583	2756	1.125	.074	.070	.094
Currently using male sterilization	.007	.001	2583	2756	.893	.214	.004	.010
Currently using rhythm	.046	.005	2583	2756	1.254	.112	.036	.056
Using public sector source	.366	.020	944	1001	1.301	.056	.325	.407
Want no more children	.475	.012	2583	2756	1.204	.025	.452	.499
Want to delay at least 2 years	.212	.009	2583	2756	1.092	.041	.195	.230
Ideal number of children	2.469	.018	2644	2822	1.112	.007	2.434	2.504
Mothers received tetanus injection	.651	.019	1098	1174	1.271	.029	.614	.689
Mothers received medical care at birth	.131	.013	1098	1174	1.217	.098	.105	.156
Had diarrhea in the last 2 weeks	.095	.012	1001	1073	1.275	.125	.071	.118
Treated with ORS packets	.500	.052	96	102	1.012	.105	.396	.605
Sought medical treatment	.137	.033	96	102	.939	.242	.070	.203
Having health card, seen	.430	.033	324	349	1.197	.076	.365	.496
Received BCG vaccination	.846	.023	324	349	1.136	.027	.800	.891
Received DPT vaccination (3 doses)	.571	.037	324	349	1.335	.064	.497	.644
Received polio vaccination (3 doses)	.577	.036	324	349	1.312	.062	.505	.649
Received measles vaccination	.607	.032	324	349	1.178	.053	.543	.671
Fully immunized	.495	.033	324	349	1.187	.066	.429	.561
Total fertility rate (3 years)	3.444	.129	NA	9305	1.394	.038	3.185	3.702
Infant mortality rate (0-4 years)	92.396	7.507	2099	2248	1.158	.081	77.383	107.409
Infant mortality rate (0-9 years)	105.627	5.434	4471	4764	1.101	.051	94.759	116.495
HUSBANDS								
No education	.440	.019	949	999	1.198	.044	.401	.478
With secondary education or higher	.289	.017	949	999	1.174	.060	.254	.323
Knowing any contraceptive method	.999	.001	949	999	1.011	.001	.997	1.001
Knowing any modern contraceptive method	.999	.001	949	999	1.011	.001	.997	1.001
Currently using any method	.525	.020	949	999	1.204	.037	.486	.564
Currently using a modern method	.422	.017	949	999	1.046	.040	.388	.455
Currently using pill	.220	.012	949	999	.923	.056	.195	.245
Currently using IUD	.017	.004	949	999	.854	.210	.010	.024
Currently using injections	.044	.007	949	999	1.023	.155	.030	.058
Currently using condom	.044	.008	949	999	1.183	.180	.028	.059
Currently using female sterilization	.080	.010	949	999	1.098	.121	.060	.099
Currently using male sterilization	.017	.004	949	999	.890	.218	.010	.025
Currently using rhythm	.082	.012	949	999	1.330	.144	.058	.106
Want no more children	.512	.015	949	999	.915	.029	.483	.542

NA = Not applicable
Und = Undefined

Table B.8 Sampling errors - Khulna, Bangladesh 1993-94

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
No education	.512	.019	1258	1217	1.314	.036	.475	.549
With secondary education or higher	.164	.011	1258	1217	1.072	.068	.141	.186
Currently married	.941	.006	1258	1217	.914	.006	.929	.953
Children ever born	3.211	.091	1166	1131	1.283	.028	3.028	3.394
Children surviving	2.753	.076	1166	1131	1.271	.028	2.602	2.905
Knowing any contraceptive method	1.000	.000	1182	1145	Und	.000	1.000	1.000
Knowing any modern contraceptive method	1.000	.000	1182	1145	Und	.000	1.000	1.000
Knowing source for any modern method	.997	.002	1182	1145	1.026	.002	.994	1.000
Ever used any contraceptive method	.767	.018	1182	1145	1.443	.023	.732	.803
Currently using any method	.553	.017	1182	1145	1.197	.031	.518	.587
Currently using a modern method	.428	.022	1182	1145	1.516	.051	.384	.472
Currently using pill	.201	.017	1182	1145	1.457	.085	.167	.235
Currently using IUD	.031	.005	1182	1145	.897	146	.022	.040
Currently using injections	.054	.013	1182	1145	1.904	.232	.029	.079
Currently using condom	.044	.007	1182	1145	1 123	.153	.030	057
Currently using female sterilization	.085	.010	1182	1145	1.281	.122	.064	.106
Currently using male sterilization	.013	.004	1182	1145	1.226	.312	.005	.021
Currently using rhythm	.071	.009	1182	1145	1.135	.119	.054	.088
Using public sector source	.351	.023	506	490	1.093	.066	.305	.398
Want no more children	.489	.019	1182	1145	1.306	.039	.451	.527
Want to delay at least 2 years	.236	.009	1182	1145	.736	.039	.217	.254
Ideal number of children	2.328	.027	1223	1184	1.276	.012	2.274	2.383
Mothers received tetanus injection	.783	.033	429	422	1.647	.042	.717	.849
Mothers received medical care at birth	.118	.023	429	422	1.366	.191	.073	.163
Had diarrhea in the last 2 weeks	.144	.023	404	397	1.298	.160	.098	.190
Treated with ORS packets	.409	.063	57	57	.971	.154	.283	.534
Sought medical treatment	.198	.051	57	57	981	.258	.096	.301
Having health card, seen	.596	.049	130	128	1.151	.083	.497	.694
Received BCG vaccination	.918	.028	130	128	1.178	031	.861	.974
Received DPT vaccination (3 doses)	878	.035	130	128	1.238	.040	.808	.949
Received polio vaccination (3 doses)	.878	.035	130	128	1 230	.040	.808	.948
Received measles vaccination	.854	.040	130	128	1.315	.047	.773	.935
Fully immunized	.807	.045	130	128	1.302	.055	.717	.896
Total fertility rate (3 years)	3 052	.142	NA	3834	1.380	.047	2.768	3.336
Infant mortality rate (0-4 years)	77.881	10.487	800	787	1 097	.135	56.908	98.855
Infant mortality rate (0-9 years)	89.256	7.288	1694	1664	.992	.082	74.680	103 833
HUSBANDS								
No education	.385	.016	456	452	.695	.041	.353	.417
With secondary education or higher	.290	.020	456	452	.955	.070	.249	.330
Knowing any contraceptive method	1.000	.000	456	452	Und	.000	1.000	1 000
Knowing any modern contraceptive method	1.000	.000	456	452	Und	.000	1.000	1.000
Currently using any method	.653	.027	456	452	1.198	.041	600	.707
Currently using a modern method	.487	.039	456	452	1.661	.080	.409	.565
Currently using pill	.226	.020	456	452	1.012	.088	.186	.265
Currently using IUD	.031	.011	456	452	1.311	341	010	.053
Currently using injections	.062	.015	456	452	1.374	.251	.031	.093
Currently using condom	.056	.011	456	452	.997	.192	.035	.078
Currently using female sterilization	.095	.022	456	452	1.620	.235	.050	.139
Currently using male sterilization	.018	.006	456	452	903	.316	.006	.029
Currently using rhythm	.101	.018	456	452	1.264	.177	.065	.136
Want no more children	.524	.029	456	452	1.223	.055	.467	.581

NA = Not applicable
Und = Undefined

Table B.9 Sampling errors - Rajshahi, Bangladesh 1993-94

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
No education	.620	.015	2600	2326	1.617	.025	.589	.651
With secondary education or higher	.112	.009	2600	2326	1.532	.085	.093	.131
Currently married	.936	.005	2600	2326	.958	.005	.927	.945
Children ever born	3.263	.054	2384	2133	1.049	.017	3.154	3.372
Children surviving	2.690	.045	2384	2133	1.088	.017	2.600	2.779
Knowing any contraceptive method	.998	.001	2433	2178	Und	.001	.996	1.000
Knowing any modern contraceptive method	.998	.001	2433	2178	Und	.001	.996	1.000
Knowing source for any modern method	.991	.002	2433	2178	1.218	.002	.986	.996
Ever used any contraceptive method	.730	.011	2433	2178	1.245	.015	.708	.752
Currently using any method	.548	.012	2433	2178	1.153	.021	.525	.572
Currently using a modern method	.459	.012	2433	2178	1.225	.027	.434	.484
Currently using pill	.235	.010	2433	2178	1.204	.044	.215	.256
Currently using IUD	.021	.003	2433	2178	1.047	.146	.015	.027
Currently using injections	.042	.007	2433	2178	1.759	.169	.028	.057
Currently using condom	.033	.003	2433	2178	.891	.097	.027	.040
Currently using female sterilization	.104	.008	2433	2178	1.342	.080	.087	.121
Currently using male sterilization	.023	005	2433	2178	1.532	.203	.014	.032
Currently using rhythm	.055	.004	2433	2178	.924	.077	.047	.064
Using public sector source	.356	.021	1117	1000	1.479	.060	.313	.398
Want no more children	.472	.012	2433	2178	1.200	.026	.448	.497
Want to delay at least 2 years	.231	.008	2433	2178	.897	.033	.216	.246
Ideal number of children	2.389	.027	2509	2245	1.515	.011	2.335	2.444
Mothers received tetanus injection	.705	.018	939	832	1.176	.026	.669	.741
Mothers received medical care at birth	059	.007	939	832	.904	.126	.045	.074
Had diarrhea in the last 2 weeks	.126	.011	871	771	.968	.087	.104	.148
Treated with ORS packets	.574	.057	111	97	1.180	.099	.461	.688
Sought medical treatment	.233	.042	111	97	1.042	.182	.148	.318
Having health card, seen	.474	.035	258	230	1.118	.073	.405	.544
Received BCG vaccination	.923	.019	258	230	1.135	.020	.886	.961
Received DPT vaccination (3 doses)	.735	.035	258	230	1.272	.048	.665	.805
Received polio vaccination (3 doses)	.735	.035	258	230	1.276	.048	.665	.806
Received measles vaccination	.773	.029	258	230	1.128	.038	.714	.832
Fully immunized	.650	.037	258	230	1.234	.056	.577	.724
Total fertility rate (3 years)	3.030	.137	NA	7103	1.453	.045	2.757	3.303
Infant mortality rate (0-4 years)	79.749	9.213	1816	1617	1.330	.116	61.323	98.175
Infant mortality rate (0-9 years)	94.838	6.989	3927	3503	1.307	.074	80.861	108.816
HUSBANDS								
No education	.465	.020	957	858	1.245	.043	.425	.505
With secondary education or higher	.259	.017	957	858	1.226	.067	.224	.293
Knowing any contraceptive method	.999	.001	957	858	1.029	.001	.997	1.001
Knowing any modern contraceptive method	.998	.002	957	858	1.022	.002	.995	1.001
Currently using any method	.631	.018	957	858	1.134	.028	.595	.666
Currently using a modern method	.535	.019	957	858	1.193	.036	.497	.574
Currently using pill	.299	.019	957	858	1.273	.063	.262	.337
Currently using IUD	.016	.003	957	858	.798	.205	.009	.022
Currently using injections	.036	.008	957	858	1.390	.232	.019	.053
Currently using condom	.036	.006	957	858	.965	.161	.025	.048
Currently using female sterilization	.107	.012	957	858	1.153	.108	.084	.130
Currently using male sterilization	.041	.007	957	858	1.117	.175	.026	.055
Currently using rhythm	.069	.008	957	858	.928	.110	.054	.085
Want no more children	.491	.021	957	858	1.272	.042	.450	.532

NA = Not applicable
Und = Undefined

APPENDIX C

DATA QUALITY

APPENDIX C

DATA QUALITY

The purpose of this appendix is to provide the reader with an initial view of the general quality of the BDHS data. Appendix B is concerned with sampling errors and their effects on the survey results. The tables in this appendix refer to possible *non-sampling* errors: digit preference, rounding or heaping on certain ages or dates; omission of events occurring farther in the past; deliberate distortion of information by some interviewers in an attempt to lighten their work loads, etc. A description of the magnitude of such non-sampling errors is provided in the following paragraphs. The issues covered in this appendix are only lightly touched on; many might qualify for more detailed study.

C.1 Age Reporting and Completeness of Reporting

The distribution of the de facto household population by single year of age is presented in Table C.1 (see also Figure 2.2). The data show a preference for reporting ages that end in zeros and fives (age "heaping" or digit preference) that is commonly found in countries where ages are not known well. This tendency is much more prevalent in the age reporting for men than for women, perhaps because in many cases, the women themselves were the respondents for the household questionnaire and their ages were probed in more detail since they were to be interviewed individually.

There is little evidence of a pattern, which has been observed in some DHS surveys, of interviewers "displacing" women outside of the eligible age range, presumably in order to avoid the need to interview them. In Bangladesh, all ever-married women age 10-49 were eligible for individual interview. There is no evidence of a heaping of girls at age 9 and a deficit at age 10; on the contrary, there is heaping at age 10, presumably due to the tendency to round ages to those ending in five or zero. There is evidence of some heaping of women on age 50; however, since it is much more exaggerated for men than women, it appears that there was little, if any, intentional displacement of women outside of the age range of eligibility. There is a somewhat greater bulge of women than men reported to be age 52, which may be evidence of displacement to that age as opposed to age 50.

Table C.2 shows that response rates vary little according to age of respondents. The percent distribution of women interviewed is almost identical to that from the household questionnaire of ever-married women by age. Also, the proportions of women interviewed are close to 100 percent (Table C.2, last column).

Information on the completeness of reporting selected important variables is provided in Table C.3. Overall, the percentage of cases with missing information is extraordinarily low. Month of birth was missing for less than one percent of births that occurred in the 15 years before the survey and both month and year were missing for one-tenth of one percent. Age at death was missing for an infinitesimal proportion of non-surviving births, as was prevalence of diarrhea among children under three. It should be noted that completeness of reporting does not necessarily imply accuracy of reporting, since interviewers were instructed to probe to get ages and dates and, in some cases, to give their own best estimate rather than to allow the missing information to be imputed in the office.

Table C.1 Household age distribution

Single-year age distribution of the de facto household population by sex (weighted), Bangladesh 1993-94

	Males		Females			Males		Females	
Age	Number	Percent	Number	Percent	Age	Number	Percent	Number	Percent
<1	633	2.6	597	2.4	37	157	0.6	226	0.9
1	588	2.4	594	2.4	38	237	1.0	229	0.9
2	651	2.7	610	2.5	39	105	0.4	211	0.9
3	713	2.9	727	3.0	40	659	2.7	257	1.1
4	783	3.2	695	2.8	41	63	0.3	166	0.7
5	765	3.1	793	3.2	42	172	0.7	183	0.7
6	703	2.9	704	2.9	43	74	0.3	155	0.6
7	791	3.2	823	3.4	44	58	0.2	145	0.6
8	794	3.2	756	3.1	45	522	2.1	175	0.7
9	699	2.9	641	2.6	46	94	0.4	155	0.6
10	892	3.7	805	3.3	47	92	0.4	118	0.5
11	530	2.2	540	2.2	48	121	0.5	145	0.6
12	822	3.4	817	3.3	49	67	0.3	84	0.3
13	581	2.4	568	2.3	50	379	1.6	131	0.5
14	584	2.4	630	2.6	51	69	0.3	144	0.6
15	580	2.4	618	2.5	52	136	0.6	214	0.9
16	544	2.2	590	2.4	53	73	0.3	145	0.6
17	386	1.6	472	1.9	54	34	0.1	111	0.5
18	509	2.1	538	2.2	55	293	1.2	246	1.0
19	279	1.1	406	1.7	56	76	0.3	103	0.4
20	535	2.2	495	2.0	57	47	0.2	85	0.3
21	250	1.0	373	1.5	58	84	0.3	89	0.4
22	494	2.0	554	2.3	59	38	0.2	48	0.2
23	390	1.6	539	2.2	60	348	1.4	375	1.5
24	306	1.3	474	1.9	61	30	0.1	37	0.2
25	575	2.4	541	2.2	62	83	0.3	92	0.4
26	328	1.3	401	1.6	63	25	0.1	40	0.2
27	262	1.1	386	1.6	64	18	0.1	17	0.1
28	353	1.4	429	1.8	65	279	1.1	191	0.8
29	166	0.7	333	1.4	66	23	0.1	16	0.1
30	782	3.2	403	1.6	67	34	0.1	25	0.1
31	127	0.5	252	1.0	68	52	0.2	32	0.1
32	407	1.7	336	1.4	69	29	0.1	17	0.1
33	161	0.7	251	1.0	70+	773	3.2	480	2.0
34	141	0.6	270	1.1	Don't know/				
35	776	3.2	325	1.3	missing	4	0.0	1	0.0
36	208	0.9	251	1.0					
					Total	24438	100.0	24428	100.0

Note: The de facto population includes all residents and nonresidents who slept in the household the night before the interview.

Table C.2 Age distribution of eligible and interviewed women

Percent distribution of the de facto household population of women aged 10-54 and of interviewed women aged 10-49, and the percentage of eligible women who were interviewed (weighted) by five-year age groups, Bangladesh 1993-94

	Household population of women				Interviewed women age 10-49		Percentage interviewed (weighted)
	Total		Ever-married				
Age	Number	Percent	Number	Percent	Number	Percent	
10-14	3361	22.6	154	1.5	148	1.5	96.1
15-19	2625	17.7	1299	13.1	1258	13.0	96.8
20-24	2435	16.4	2123	21.4	2063	21.4	97.2
25-29	2090	14.1	2035	20.5	1991	20.6	97.8
30-34	1511	10.2	1500	15.1	1465	15.2	97.7
35-39	1242	8.4	1235	12.5	1202	12.4	97.3
40-44	906	6.1	898	9.1	869	9.0	96.8
45-49	677	4.6	674	6.8	658	6.8	97.6
50-54	745	-	-	-	-	-	-
10-49	14847	100.0	9917	100.0	9653	100.0	97.3
15-49	11486	-	9763	-	9506	-	97.4

Note: The de facto population includes all residents and nonresidents who slept in the household the night before interview. The number of interviewed women is calculated using the household weights in order to be comparable to the number of ever-married women in the household. Thus, the numbers differ slightly from those shown in the rest of the report, which are based on individual woman weights.

Table C.3 Completeness of reporting

Percentage of observations missing information for selected demographic and health questions (weighted), Bangladesh 1993-94

Subject	Reference group	Percentage missing information	Number of cases
Birth date	Births in last 15 years		
Month only		0.3	22529
Month and year		0.1	22529
Age at death	Deaths to births in last 15 years	0.3	3533
Age/date at first union[1]	Ever-married women	0.2	9640
Respondent's education	Ever-married women	0.0	9640
Diarrhea in last 2 weeks	Living children age 0-35 months	0.6	3603

[1]Both year and age missing

C.2 Fertility

The low level of fertility reported in the BDHS and the extremely steep decline that it implies invites a review of the quality of the data. There are a number of possible reasons why reported fertility rates could be erroneously low. The most likely explanation for a downward bias in fertility rates is that the dates of birth of some children were misreported so as to place them further back in time, either due to mothers' bias to make the child older or to deliberate overstatement by the interviewer. Alternatively, some births could have been omitted from the birth histories of women either due to misreporting by the mother or to deliberate omission by the interviewer. Finally, the sample of women interviewed could be biased for some reason towards women with low fertility, perhaps by over-representing urban women or those with more education.

Patterns of overstatement of children's ages and/or omission of young children have been reported in other DHS surveys (Arnold, 1990) and are generally believed to be due to a tendency of interviewers to reduce their workloads by reducing the number of children for whom the health questions must be asked. Overstatement of children's ages ("displacement") usually appears in the form of a sharp spike in the number of births immediately prior to the cutoff year for eligibility of children for the health questions. Outright omission of children is much more difficult to detect, as it is difficult to separate omission from a genuine decline in fertility. However, a relatively high but steady number of births in the years prior to the cutoff date for eligibility for the health questions, followed by an abrupt decline and a steady smaller number after the cutoff year implies that omission might be the cause. In the BDHS, the cutoff date for the health questions was based on the Bangla, rather than the Western calendar; consequently, all children born after April 1990 were considered eligible for the questions in the health section.

Table C.4 shows the number of births by Western calendar year and the percentage with complete dates, the sex ratio at birth, the calendar ratio, and sex, according to survival status, while Table C.5 presents the same data using the Bangla year (April through March). The data do not show any indication of displacement or transference of births across the boundary of the cutoff date. For example, the calendar ratios in Table C.5 are very close to 100. If displacement had occurred, one would expect the ratio for April 1990-March 1991 to be low and that for 1989 to be high. The same data are shown graphically in Figure C.1. They show no evidence of displacement or of omission.

Other evidence that might be expected to support a claim of displacement or omission of births is also lacking. It is generally accepted that omission of births is not usually uniform but rather is selective of certain events. Children who have died—especially those who died when very young—and female children are often subject to greater omission than surviving children and males. However, infant mortality rates calculated from BDHS data agree well with those from other sources and are not particularly low (see Figure 7.2). Furthermore, ratios of early deaths to those at older ages appear plausible (see Section C.3). Finally, sex ratios are generally close to the expected value of 105 males per 100 females (Tables C.4 and C.5, column 10), which implies that underreporting of births by gender was not a problem in the BDHS.

The fact that there is no apparent evidence of omission or displacement of births in the BDHS data does not mean that the problem does not exist. Several researchers believe that backwards displacement of birth dates is a common source of error in Bangladeshi surveys (Cleland, 1993; Bairagi et al., 1991). If displacement of events (overstatement of children's ages) is not selective for particular children and if there is no independent measure of children's ages, it is impossible to differentiate between displacement and true declines in fertility.

Table C.4 Births by Western calendar years

Distribution of births by Western calendar years for living (L), dead (D), and all (T) children, according to reporting completeness, sex ratio at birth, and ratio of births by calendar year, Bangladesh 1993-94

	Number of births			Percentage with complete birth date[1]			Sex ratio at birth[2]			Calendar ratio[3]			Male			Female		
Year	L	D	T	L	D	T	L	D	T	L	D	T	L	D	T	L	D	T
94	82	9	91	100.0	100.0	100.0	118.2	36.4	106.0	NA	NA	NA	44	2	47	38	7	44
93	1234	94	1328	100.0	98.9	99.9	103.8	106.0	104.0	NA	NA	NA	629	48	677	605	46	651
92	1151	97	1249	99.9	100.0	99.9	100.7	116.6	101.9	92.6	85.2	92.0	578	52	630	574	45	619
91	1252	135	1387	100.0	100.0	100.0	106.0	83.8	103.6	99.1	89.8	98.2	644	62	706	608	73	681
90	1374	203	1577	100.0	100.0	100.0	102.7	124.7	105.3	103.3	110.9	104.2	696	113	809	678	90	768
89	1409	231	1640	100.0	99.1	99.9	105.7	121.8	107.8	99.3	100.9	99.5	724	127	851	685	104	789
88	1463	255	1718	99.9	99.9	99.9	97.7	108.9	99.3	105.6	96.0	104.0	723	133	856	740	122	862
87	1363	301	1663	99.9	99.2	99.8	102.1	114.9	104.3	91.9	118.4	95.8	688	161	849	674	140	814
86	1503	253	1756	99.6	98.6	99.5	94.1	107.4	95.9	108.7	83.4	104.2	729	131	860	774	122	896
85	1402	305	1707	99.7	98.8	99.5	109.1	96.2	106.6	NA	NA	NA	732	150	881	671	156	826
90-94	5093	539	5632	100.0	99.8	100.0	103.6	106.3	103.8	NA	NA	NA	NA	2591	277	2869	2502	2263
85-89	7140	1345	8485	99.8	99.1	99.7	101.5	108.9	102.6	NA	NA	NA	3596	701	4297	3544	644	4188
80-84	5913	1404	7318	99.6	98.8	99.4	109.7	100.1	107.8	NA	NA	NA	3093	702	3796	2820	702	3522
75-79	3972	1172	5144	99.2	98.8	99.1	105.4	108.9	106.2	NA	NA	NA	2038	611	2649	1933	561	2494
<75	4608	1674	6282	99.1	98.5	99.0	112.2	115.9	113.2	NA	NA	NA	2437	899	3335	2171	775	2947
All	26726	6133	32860	99.6	98.9	99.5	106.0	108.4	106.5	NA	NA	NA	13755	3191	16946	12971	2943	15914

NA = Not applicable

[1]Both year and month of birth given

[2]$(B_m/B_f)*100$, where B_m and B_f are the numbers of male and female births, respectively

[3]$[2B_x/(B_{x-1}+B_{x+1})]*100$, where B_x is the number of births in calendar year x

Table C.5 Births by Bangla calendar years

Distribution of births since April 1983 by Bangla calendar years for living (L), dead (D), and all (T) children, according to reporting completeness, sex ratio at birth, and ratio of births by calendar year, Bangladesh 1993-94

	Number of births			Percentage with complete birth date[1]			Sex ratio at birth[2]			Calendar ratio[3]			Male			Female		
Year	L	D	T	L	D	T	L	D	T	L	D	T	L	D	T	L	D	T
93[a]	1105	95	1200	100.0	98.9	99.9	106.2	102.1	105.9	NA	NA	NA	569	48	617	536	47	583
92	1175	84	1259	99.9	100.0	99.9	101.2	119.5	102.4	100.7	73.4	98.3	591	46	637	584	38	622
91	1227	135	1362	100.0	100.0	100.0	108.2	83.8	105.5	98.0	99.1	98.2	638	62	699	589	73	663
90	1329	188	1517	100.0	100.0	100.0	100.0	115.6	101.8	99.9	103.4	100.3	664	101	765	664	87	752
89	1434	229	1662	100.0	99.1	99.9	109.5	120.4	110.9	101.5	103.5	101.8	749	125	874	684	104	788
88	1497	254	1751	100.0	100.0	100.0	94.8	111.3	97.0	109.1	97.1	107.2	728	134	862	769	120	889
87	1310	294	1604	99.9	99.1	99.8	100.4	118.9	103.6	86.6	117.3	90.9	656	160	816	653	134	788
86	1529	247	1777	99.6	98.6	99.5	97.3	97.4	97.3	112.6	81.8	107.0	754	122	876	775	125	901
85	1406	311	1718	99.6	99.1	99.5	105.6	104.7	105.4	101.8	120.9	104.8	722	159	882	684	152	836
84	1235	267	1502	99.9	99.2	99.8	119.0	92.0	113.7	86.8	81.7	85.8	671	128	799	564	139	703
83	1439	343	1782	99.8	98.2	99.5	113.4	95.5	109.7	128.5	124.4	127.7	764	168	932	674	176	850

Note: Since the new year in the Bengali calendar starts in April, the cutoff for eligibility of births for questions in the health section was April 1990.

NA = Not applicable

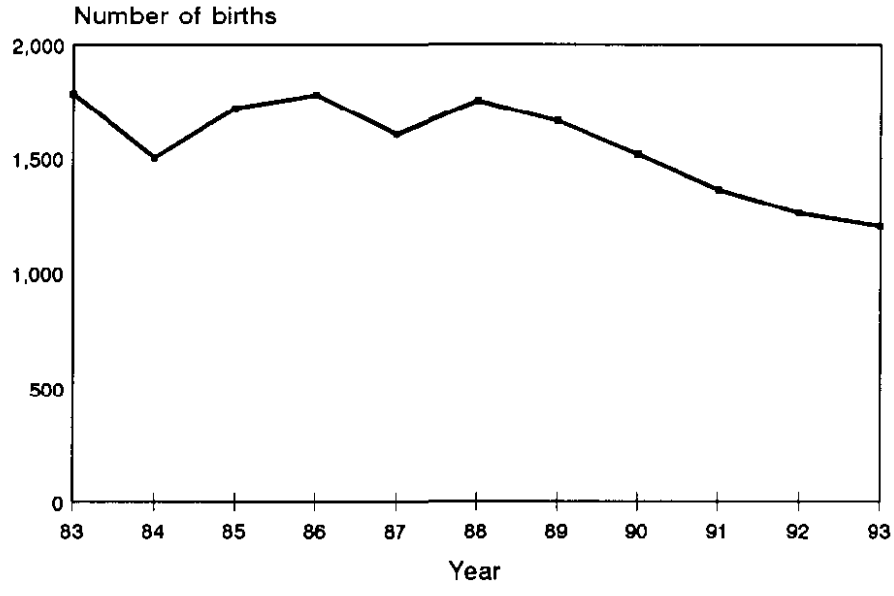
[a]Refers to April cutoff; for example, 93 means from April 1993 to the interview date and 92 means April 1992-March 1993, etc.

[1]Both year and month of birth given

[2]$(B_m/B_f)*100$, where B_m and B_f are the numbers of male and female births, respectively

[3]$[2B_x/(B_{x-1}+B_{x+1})]*100$, where B_x is the number of births in calendar year x

Figure C.1
Births by Calendar Year, Bangladesh, 1983-1993



Note: Year refers to April-March (see text)

BDHS 1993-94

One place in which the BDHS solicited objective data on dates is in the questions on dates of childhood immunizations. Mothers of all children born after April 1990 were asked to show the interviewers the health cards for these children and interviewers copied the dates from the cards. If a child's date of birth were misreported as occurring earlier than it actually did, s/he would appear to have received vaccinations at an older age. If displacement were common, one would expect to find unusually low proportions of children who had received various vaccinations by age 12 months. However, the proportion of children reported in the BDHS to have received various vaccinations by age 12 months is only slightly lower than the proportion who received them by the time of the survey (see Table 8.6), lending little evidence to support the hypothesis of age overstatement.

One indication that children's ages might have been overstated appears in the data on breastfeeding and supplementation. The data show that supplementation of breastfed children with solid and mushy foods is generally delayed. For example, more than half of children age 10-11 months of age were not given any solid or mushy food in the 24 hours prior to the survey (see Section 8.5). If some of these children were in fact, several months younger than reported, the data would be more plausible. Overstatement would also account for the extraordinarily long reported durations of breastfeeding in Bangladesh.

Some light may be shed on the question of age misreporting and/or omission of children in surveys by an on-going study comparing birth history data collected in a DHS-type survey with a continuous record-keeping surveillance system maintained by the International Centre for the Control of Diarrhoeal Disease Research, Bangladesh. One objective of the study is to evaluate the DHS methodology, especially the use of a birth history to collect fertility and child mortality information. For this reason, the survey utilized questionnaires and procedures almost identical to those used in the BDHS and the interviewers had also worked on the BDHS. The survey covered 3,039 ever-married women living in Matlab in April, May 1994,

immediately after the BDHS. Preliminary results indicate a remarkable level of consistency between the two sources in the total fertility rates for recent years (Bairagi et al., 1995).

C.3 Childhood Mortality

As mentioned in Chapter 7, the estimates of childhood mortality are based on information from the birth history section of the questionnaire administered to individual women. The reliability of mortality estimates calculated from retrospective birth histories depends on the completeness with which deaths are reported and the extent to which birth dates and ages at death are accurately reported and recorded. Omission of births and deaths directly affects the level and often the age pattern of mortality estimates, misreporting of the age at death may distort the age pattern of mortality, and displacement of dates has an impact on mortality trends.

Omission of infant deaths is usually most severe for deaths which occur early in infancy. If early deaths are selectively underreported, the result would be an abnormally low ratio of deaths under seven days to all neonatal deaths and an abnormally low ratio of neonatal to infant mortality. Underreporting of early infant deaths is usually more common for births that occurred longer before the survey; hence it is useful to examine the ratios over time.

It does not appear that early infant deaths have been severely underreported in the 1993-94 BDHS, at least not for the most recent period. The proportion of neonatal deaths that occur in the first week of life is reasonably high, about 64 percent[1] (see Table C.6). However, the ratio is higher for the period 0-4 years prior to the survey than for earlier periods, suggesting that some early infant deaths were not reported by older women. Alternatively, the increase in the proportion of early to total neonatal deaths could be due to overall declines in infant mortality; generally, early infant deaths are the most difficult to prevent and countries with low mortality have relatively high ratios of early infant to total neonatal rates. Another indication that early infant deaths were not underreported in the BDHS is that fact that the proportions of infant deaths that occur during the first month of life are plausible (62-67 percent—see Table C.7).

The quality of the reporting of age at death is also important. Misreporting of age at death will bias estimates of the age pattern of mortality if the net result of the misreporting is transference of deaths between age segments for which rates are calculated; for example, an overestimate of child mortality relative to infant mortality may result if children who died during the first year of life are reported as having died at age one year or older. In an effort to minimize error in the reporting of age at death, BDHS interviewers were instructed to record the age at death in days for deaths under one month, and in months for deaths under 2 years. They were specifically asked to probe for deaths reported at one year of age to ensure that they had actually occurred at 12 months. Nevertheless, there is evidence of some "heaping" on age 12 months in the reporting of age at death (see Table C.7).

With regard to the issue of displacement of the dates of events, there is no evidence of systematic misreporting of birth dates for children born in the five-year period immediately prior to the survey. Unlike the pattern found in some DHS surveys, in which it appears that interviewers might have deliberately transferred the dates of births so as to put them out of the age range for eligibility for questions in the health section of the questionnaire, the BDHS data on births by year are quite uniform (see Section C.2 above).

[1] There are no model mortality patterns for the neonatal period. However, one review of data from several developing countries concluded that, at levels of neonatal mortality of 20 per 1,000 or higher, approximately 70 percent of neonatal deaths occur within the first six days of life (Boerma, 1988, cited in Sullivan et al., 1990).

This cursory inspection of the quality of the BDHS data on childhood mortality indicates that infant deaths might be slightly underestimated due to the tendency to heap the age at death at 12 months. Presumably, some of these deaths might have occurred before exact age 12 months. However, the effect on the mortality estimates of errors of the magnitude revealed in the BDHS would be extremely small; thus the results presented in this report are unadjusted for misreporting. No evidence of selective omission of deaths or of displacement of date of birth was detected.

Table C.6 Reporting of age at death in days

Distribution of reported deaths under one month of age by age at death in days and the percentage of neonatal deaths reported to occur at ages 0-6 days, for five-year periods preceding the survey, Bangladesh 1993-94

Age at death (in days)	Number of years preceding the survey				Total
	0-4	5-9	10-14	15-19	0-19
<1	79	94	85	55	314
1	59	75	68	49	251
2	28	21	30	25	104
3	29	47	35	33	144
4	16	20	26	16	79
5	11	38	47	23	119
6	10	32	23	29	94
7	27	71	76	55	229
8	16	30	26	29	100
9	11	23	20	13	67
10	6	18	11	7	42
11	10	15	8	8	41
12	7	7	6	10	30
13	3	14	9	11	38
14	5	9	11	11	36
15	10	26	20	19	75
16	5	8	3	1	17
17	2	1	5	4	13
18	4	6	4	6	21
19	1	8	4	1	14
20	2	7	5	6	21
21	3	13	8	4	28
22	6	12	5	6	29
23	1	1	3	1	6
24	0	4	3	1	8
25	6	3	0	2	13
26	1	1	2	1	6
27	0	4	2	0	6
28	0	0	0	1	2
29	2	4	4	0	10
30	1	0	3	2	7
31+	4	6	8	7	25
Missing	3	1	0	0	4
Total 0-30	364	612	553	432	1961
Percent early neonatal[1]	63.8	53.5	56.8	53.3	56.3

[1](0-6 days/0-30 days) * 100

Table C.7 Reporting of age at death in months

Distribution of reported deaths under two years of age by age at death in months and the percentage of infant deaths reported to occur at ages under one month, for five-year periods preceding the survey, Bangladesh 1993-94

Age at death (in months)	Number of years preceding the survey				Total 0-19
	0-4	5-9	10-14	15-19	
<1[a]	367	613	553	432	1965
1	56	69	59	55	239
2	22	46	23	26	118
3	34	60	50	51	195
4	23	28	17	18	86
5	19	17	18	18	72
6	24	31	31	23	109
7	13	16	21	11	60
8	16	17	20	19	71
9	8	14	11	13	46
10	7	14	10	2	33
11	5	6	8	2	20
12	12	37	41	23	114
13	4	2	2	0	8
14	3	2	4	1	10
15	1	2	4	1	7
16	5	2	1	0	8
17	1	2	0	0	4
18	27	45	46	35	153
19	1	1	0	1	3
20	0	1	1	1	3
22	2	1	2	0	5
23	1	1	0	0	2
24	1	8	7	5	21
1 year	19	53	58	49	179
Total 0-11	595	929	821	671	3015
Percent neonatal[b]	61.8	66.0	67.3	64.4	65.2

[a]Includes deaths under 1 month reported in days
[b](Under 1 month/under 1 year) * 100

APPENDIX D

QUESTIONNAIRES

BANGLADESH DEMOGRAPHIC AND HEALTH SURVEY 1993-94
HOUSEHOLD SCHEDULE

DIVISION _____ [ ]

DISTRICT _____ [ ][ ]

UPAZILA/THANA _____

UNION _____

VILLAGE/MOHALLA/BLOCK _____

CLUSTER NUMBER..... [ ][ ][ ]

HOUSEHOLD NUMBER..... [ ][ ][ ]

DHAKA/CHITTAGONG=1, SMALL CITY=2, TOWN=3, VILLAGE=4..... [ ]

NAME OF HOUSEHOLD HEAD _____

IS HOUSEHOLD SELECTED FOR HUSBAND SURVEY? (YES=1; NO=2). [ ]

INTERVIEWER VISITS	1	2	3	FINAL VISIT
DATE				DAY [ ][ ] MONTH** [ ][ ] YR [1][9][9][ ]
INTERVIEWER'S NAME				NAME [ ][ ]
RESULT *				RESULT [ ]
NEXT VISIT: DATE TIME				TOTAL NUMBER OF VISITS [ ]

* RESULT CODES:
1 COMPLETED
2 NO HOUSEHOLD MEMBER AT HOME OR NO COMPETENT RESPONDENT AT HOME AT TIME OF VISIT
3 ENTIRE HOUSEHOLD ABSENT FOR EXTENDED PERIOD
4 POSTPONED
5 REFUSED
6 DWELLING VACANT OR ADDRESS NOT A DWELLING
7 DWELLING DESTROYED
8 DWELLING NOT FOUND
9 OTHER _____ (SPECIFY)

TOTAL IN HOUSEHOLD [ ][ ]

TOTAL ELIGIBLE WOMEN [ ][ ]

TOTAL ELIGIBLE MEN [ ][ ]

LINE NO. OF RESP. TO HOUSEHOLD SCHEDULE [ ][ ]

	FIELD EDITED BY	OFFICE EDITED BY	KEYED BY	KEYED BY
NAME				[ ][ ]
DATE				

** MONTH:
01 JANUARY
02 FEBRUARY
03 MARCH
04 APRIL
05 MAY
06 JUNE
07 JULY
08 AUGUST
09 SEPTEMBER
10 OCTOBER
11 NOVEMBER
12 DECEMBER

1

HOUSEHOLD SCHEDULE

Now we would like some information about the people who usually live in your household or who are staying with you now.

LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD*	RESIDENCE		SEX	AGE	EDUCATION			EMPLOYMENT	MARITAL STATUS	WOMAN ELIGIBILITY	HUSBAND'S LINE NUMBER	HUSBAND ELIGIBILITY
							IF AGED 6 YEARS OR OLDER			IF AGED 8 YEARS OR OLDER	FOR ALL AGED 10 YEARS OR ABOVE			
	Please give me the names of the persons who usually live in your household and guests of the household who stayed here last night, starting with the head of the household.	What is the relationship of (NAME) to the head of the household?	Does (NAME) usually live here?	Did (NAME) sleep here last night?	Is (NAME) male or female ?	How old is (NAME)?	Has (NAME) ever been to school?	IF ATTENDED SCHOOL: What is the highest level of school (NAME) attended? What is the highest class (NAME) completed at that level?**	IF AGED LESS THAN 25 YEARS: Is (NAME) still in school?	Is (NAME) currently working for money?	Has (NAME) ever been married?	CIRCLE LINE NUMBER OF ALL EVER-MARRIED WOMEN AGE 10-49 YEARS.	WRITE THE LINE NUMBER OF THE HUSBAND OF THOSE IN (16). IF NOT MARRIED OR IF HUSBAND NOT IN HOUSEHOLD, WRITE '00'.	IF HOUSEHOLD CHOSEN FOR HUSBAND SURVEY, CIRCLE LINE NUMBER OF HUSBANDS OF ALL ELIGIBLE WOMEN.
(1)	(2)	(3)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
			YES NO	YES NO	M F	IN YEARS	YES NO	LEVEL CLASS	YES NO	YES NO DK	YES NO			
01			1 2	1 2	1 2		1 2		1 2	1 2 8	1 2	01		01
02			1 2	1 2	1 2		1 2		1 2	1 2 8	1 2	02		02
03			1 2	1 2	1 2		1 2		1 2	1 2 8	1 2	03		03
04			1 2	1 2	1 2		1 2		1 2	1 2 8	1 2	04		04
05			1 2	1 2	1 2		1 2		1 2	1 2 8	1 2	05		05
06			1 2	1 2	1 2		1 2		1 2	1 2 8	1 2	06		06
07			1 2	1 2	1 2		1 2		1 2	1 2 8	1 2	07		07
08			1 2	1 2	1 2		1 2		1 2	1 2 8	1 2	08		08
09			1 2	1 2	1 2		1 2		1 2	1 2 8	1 2	09		09
10			1 2	1 2	1 2		1 2		1 2	1 2 8	1 2	10		10

HOUSEHOLD SCHEDULE CONTINUED

(1)	(2)	(3)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
			YES NO	YES NO	M F	IN YEARS	YES NO	LEVEL CLASS	YES NO	YES NO DK	YES NO			
11			1 2	1 2	1 2		1 2		1 2	1 2 8	1 2	11		11
12			1 2	1 2	1 2		1 2		1 2	1 2 8	1 2	12		12
13			1 2	1 2	1 2		1 2		1 2	1 2 8	1 2	13		13
14			1 2	1 2	1 2		1 2		1 2	1 2 8	1 2	14		14
15			1 2	1 2	1 2		1 2		1 2	1 2 8	1 2	15		15
16			1 2	1 2	1 2		1 2		1 2	1 2 8	1 2	16		16
17			1 2	1 2	1 2		1 2		1 2	1 2 8	1 2	17		17
18			1 2	1 2	1 2		1 2		1 2	1 2 8	1 2	18		18
19			1 2	1 2	1 2		1 2		1 2	1 2 8	1 2	19		19
20			1 2	1 2	1 2		1 2		1 2	1 2 8	1 2	20		20

TICK HERE IF CONTINUATION SHEET USED ☐

Just to make sure that I have a complete listing:

4) Are there any other persons such as small children or infants that we have not listed? YES ☐ → ENTER EACH IN TABLE NO ☐

5) In addition, are there any other people who may not be members of your family, such as domestic servants, lodgers or friends who usually live here? YES ☐ → ENTER EACH IN TABLE NO ☐

6) Do you have any guests or temporary visitors staying here, or anyone else who slept here last night? YES ☐ → ENTER EACH IN TABLE NO ☐

* CODES FOR Q.3
RELATIONSHIP TO HEAD OF HOUSEHOLD:
01= HEAD
02= WIFE OR HUSBAND
03= SON OR DAUGHTER
04= SON OR DAUGHTER-IN-LAW
05= GRANDCHILD
06= PARENT
07= PARENT-IN-LAW
08= BROTHER OR SISTER
09= OTHER RELATIVE
10= ADOPTED/FOSTER CHILD
11= NOT RELATED
98= DOES NOT KNOW

** CODES FOR Q.12
LEVEL OF EDUCATION:
1= PRIMARY
2= SECONDARY
3= COLLEGE/UNIVERSITY
8= DOES NOT KNOW

CLASS:
00=LESS THAN 1 YEAR COMPLETED
98=DOES NOT KNOW

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
19	What is the source of water your household uses for dishwashing?	PIPED WATER PIPED INSIDE DWELLING.....11 PIPED OUTSIDE DWELLING.....12 WELL WATER TUBEWELL.....21 SURFACE WELL/OTHER WELL.....22 SURFACE WATER POND/TANK/LAKE.....31 RIVER/STREAM.....32 RAINWATER.....41 OTHER _____ 51 (SPECIFY)	→21 →21
20	How long does it take to go there?	MINUTES..... ☐☐☐ ON PREMISES.....996	
20A	How long do you usually wait to get water there?	MINUTES..... ☐☐☐	
21	Does your household get drinking water from this same source?	YES.....1 NO.....2	→24
22	What is the source of drinking water for members of your household?	PIPED WATER PIPED INSIDE DWELLING.....11 PIPED OUTSIDE DWELLING.....12 WELL WATER TUBEWELL.....21 SURFACE WELL/OTHER WELL.....22 SURFACE WATER POND/TANK/LAKE.....31 RIVER/STREAM.....32 RAINWATER.....41 OTHER _____ 51 (SPECIFY)	
24	Where do adult women in your household usually defecate?	SEPTIC TANK/MODERN TOILET.....11 PIT TOILET/LATRINE WATER SEALED/SLAB LATRINE.....21 PIT LATRINE.....22 OPEN LATRINE.....23 HANGING LATRINE.....24 NO FACILITY/BUSH/FIELD.....31 OTHER _____ 41 (SPECIFY)	
25	Where do children in your household usually defecate?	SEPTIC TANK/MODERN TOILET.....11 PIT TOILET/LATRINE WATER SEALED/SLAB LATRINE.....21 PIT LATRINE.....22 OPEN LATRINE.....23 HANGING LATRINE.....24 NO FACILITY/BUSH/FIELD.....31 OTHER _____ 41 (SPECIFY) NO CHILDREN.....51	
26	Does your household have: Almirah (wardrobe)? A table, chair or bench? A watch or clock? A cot or bed? Electricity? A radio that is working? A television that is working? A bicycle? Agricultural land?	YES NO ALMIRAH.....1 2 TABLE/CHAIR/BENCH.....1 2 WATCH/CLOCK.....1 2 COT/BED.....1 2 ELECTRICITY.....1 2 RADIO.....1 2 TELEVISION.....1 2 BICYCLE.....1 2 AGRICULTURAL LAND.....1 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
27	How many rooms in your household are used for sleeping?	ROOMS..... ☐☐	
28	MAIN MATERIAL OF THE ROOF. RECORD OBSERVATION.	NATURAL ROOF KATCHA (BAMBOO/THATCH).....11 RUDIMENTARY ROOF TIN.....21 FINISHED ROOF CEMENT/CONCRETE.....31 OTHER _____ 41 (SPECIFY)	
29	MAIN MATERIAL OF THE WALLS. RECORD OBSERVATION.	NATURAL WALLS JUTE/BAMBOO/MUD (KATCHA).....11 RUDIMENTARY WALLS WOOD.....21 FINISHED WALLS BRICK/CEMENT.....31 TIN.....32 OTHER _____ 41 (SPECIFY)	
30	MAIN MATERIAL OF THE FLOOR. RECORD OBSERVATION.	NATURAL FLOOR EARTH/BAMBOO (KATCHA).....11 RUDIMENTARY FLOOR WOOD.....21 FINISHED FLOOR (PUKKA) CEMENT/CONCRETE.....31 OTHER _____ 41 (SPECIFY)	
31	IS THIS HOUSEHOLD IN A BOSTI (SLUM)? RECORD OBSERVATION.	YES.....1 NO.....2	

BANGLADESH DEMOGRAPHIC AND HEALTH SURVEY 1993-94
WOMAN QUESTIONNAIRE

DIVISION _____	
DISTRICT _____	
UPAZILA/THANA _____	
UNION _____	
VILLAGE/MOHALLA/BLOCK _____	
CLUSTER NUMBER.....	
HOUSEHOLD NUMBER.....	
DHAKA/CHITTAGONG=1, SMALL CITY=2, TOWN=3, VILLAGE=4.....	
NAME OF HOUSEHOLD HEAD _____	
NAME AND LINE NUMBER OF WOMAN _____	

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE				DAY / MONTH** / YR 1 9 9
INTERVIEWER'S NAME				NAME
RESULT *				RESULT
NEXT VISIT: DATE / TIME				TOTAL NUMBER OF VISITS

***RESULT CODES:

1 COMPLETED
2 NOT AT HOME
3 POSTPONED
4 REFUSED
5 PARTLY COMPLETED
6 INCAPACITATED
7 OTHER _____ (SPECIFY)

	FIELD EDITED BY	OFFICE EDITED BY	KEYED BY	KEYED BY
NAME				
DATE				

** MONTH:

01 JANUARY	05 MAY	09 SEPTEMBER
02 FEBRUARY	06 JUNE	10 OCTOBER
03 MARCH	07 JULY	11 NOVEMBER
04 APRIL	08 AUGUST	12 DECEMBER

SECTION 1. RESPONDENT'S BACKGROUND

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
101	RECORD THE TIME.	HOUR..... ☐☐ MINUTES..... ☐☐	
102	How long have you been living continuously in (NAME OF CURRENT PLACE OF RESIDENCE)?	YEARS..... ☐☐ ALWAYS.....95 VISITOR.....96 → 103	
102A	Just before you moved here, did you live in a city, in a town, or in the countryside?	CITY.....1 TOWN.....2 COUNTRYSIDE.....3	
103	In what month and year were you born? USE CODES BELOW FOR MONTHS. IF SHE DOES NOT KNOW, WRITE 'D K' IN BOXES.	BENGALI.....1 MONTH *..... ☐☐ YEAR..... 1 3 ☐☐ ENGLISH.....2 MONTH**..... ☐☐ YEAR..... 1 9 ☐☐	
104	How old are you? COMPARE AND CORRECT 103 AND/OR 104 IF INCONSISTENT.	AGE IN COMPLETED YEARS... ☐☐	
104A	Are you now married, widowed, or divorced?	MARRIED.....1 WIDOWED.....2 DIVORCED/DESERTED.....3	
105	Have you ever attended school?	YES.....1 NO.....2 → 109	
106	What is the highest level of school you attended: primary, secondary, or higher?	PRIMARY.....1 SECONDARY.....2 COLLEGE/UNIVERSITY.....3	
107	What is the highest class you completed?	CLASS..... ☐☐	
108	CHECK 106: PRIMARY ☐ ↓ SECONDARY OR COLLEGE ☐ → 110		
109	Can you read and write a letter in any language easily, with difficulty, or not at all?	EASILY.....1 WITH DIFFICULTY.....2 NOT AT ALL.....3 → 111	
110	Do you usually read a newspaper or magazine at least once a week?	YES.....1 NO.....2	
111	Do you usually listen to the radio at least once a week?	YES.....1 NO.....2	

* BENGALI MONTHS:

01 BAISHAK	05 BADHRA	09 POUSH
02 JAISTHA	06 ASHWIN	10 MAGH
03 ASHAR	07 KARTIK	11 FALGUN
04 SRABAN	08 AGRAHAYAN	12 CHOITRA

** ENGLISH MONTHS:

01 JANUARY	05 MAY	09 SEPTEMBER
02 FEBRUARY	06 JUNE	10 OCTOBER
03 MARCH	07 JULY	11 NOVEMBER
04 APRIL	08 AUGUST	12 DECEMBER

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
112	Do you usually watch television at least once a week?	YES.....1 NO.....2	
113	What is your religion?	ISLAM.....1 CHRISTIANITY.....2 HINDUISM.....3 BUDDHISM.....4 OTHER_____5 (SPECIFY)	
114	Do you belong to any of the following organizations? Grameen Bank? BRAC? BRDP? Mother's club? Any other organization?	YES NO GRAMEEN BANK.....1 2 BRAC.....1 2 BRDP.....1 2 MOTHER'S CLUB.....1 2 OTHER_____1 2 (SPECIFY)	
115	CHECK Q.7 IN THE HOUSEHOLD QUESTIONNAIRE THE WOMAN INTERVIEWED IS NOT A USUAL RESIDENT ☐ ↓ THE WOMAN INTERVIEWED IS A USUAL RESIDENT ☐		→201
116	Now I would like to ask about the place in which you usually live. Do you usually live in a city, in a town, or in a village? IF CITY: In which city do you live?*	DHAKA/CHITTAGONG.....1 SMALL CITY.....2 TOWN.....3 VILLAGE.....4	
117	In which division is that located?	RAJSHAHI.....1 DHAKA.....2 CHITTAGONG.....3 KHULNA.....4 BARISHAL.....5	
118	Now I would like to ask about the household in which you usually live. What is the source of water your household uses for handwashing?	PIPED WATER PIPED INSIDE DWELLING.....11 PIPED OUTSIDE DWELLING.....12 WELL WATER TUBEWELL.....21 SURFACE WELL/OTHER WELL.....22 SURFACE WATER POND/TANK/LAKE.....31 RIVER/STREAM.....32 RAINWATER.....41 OTHER_____51 (SPECIFY)	→120 →120
119	How long does it take to go there?	MINUTES..... ☐☐☐ ON PREMISES.....996	
119A	How long do you usually wait to get water?	MINUTES..... ☐☐☐	
120	Does your household get drinking water from this same source?	YES.....1 NO.....2	→122

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	GO TO
121	What is the source of drinking water for members of your household?	PIPED WATER PIPED INSIDE DWELLING.....11 PIPED OUTSIDE DWELLING.....12 WELL WATER TUBEWELL.....21 SURFACE WELL/OTHER WELL.....22 SURFACE WATER POND/TANK/LAKE.....31 RIVER/STREAM.....32 RAINWATER.....41 OTHER _____ 51 (SPECIFY)	
122	Where do adult women in your household usually defecate?	SEPTIC TANK/MODERN TOILET.....11 PIT TOILET/LATRINE WATER SEALED/SLAB LATRINE.....21 PIT LATRINE.....22 OPEN LATRINE.....23 HANGING LATRINE.....24 NO FACILITY/BUSH/FIELD.....31 OTHER _____ 41 (SPECIFY)	
123	Where do children in your household usually defecate?	SEPTIC TANK/MODERN TOILET.....11 PIT TOILET/LATRINE WATER SEALED/SLAB LATRINE.....21 PIT LATRINE.....22 OPEN LATRINE.....23 HANGING LATRINE.....24 NO FACILITY/BUSH/FIELD.....31 OTHER _____ 41 (SPECIFY) NO CHILDREN.....51	
124	Does your household have: Almirah? A table, chair or bench? A watch or clock? A cot or bed? Electricity? A radio that is working? A television that is working? A bicycle? Agricultural land?	YES NO ALMIRAH.....1 2 TABLE/CHAIR/BENCH.....1 2 WATCH/CLOCK.....1 2 COT/BED.....1 2 ELECTRICITY.....1 2 RADIO.....1 2 TELEVISION.....1 2 BICYCLE.....1 2 AGRICULTURAL LAND.....1 2	
125	How many rooms in your household are used for sleeping?	ROOMS..... ☐☐	
126	MAIN MATERIAL OF THE ROOF. RECORD OBSERVATION.	NATURAL ROOF KATCHA (BAMBOO/THATCH).....11 RUDIMENTARY ROOF TIN.....21 FINISHED ROOF CEMENT/CONCRETE.....31 OTHER _____ 41 (SPECIFY)	
127	MAIN MATERIAL OF THE WALLS. RECORD OBSERVATION.	NATURAL WALLS JUTE/BAMBOO/MUD (KATCHA).....11 RUDIMENTARY WALLS WOOD.....21 FINISHED WALLS BRICK/CEMENT.....31 TIN.....32 OTHER _____ 41 (SPECIFY)	
128	MAIN MATERIAL OF THE FLOOR. RECORD OBSERVATION.	NATURAL FLOOR EARTH/BAMBOO (KATCHA).....11 RUDIMENTARY FLOOR WOOD.....21 FINISHED FLOOR (PUKKA) CEMENT/CONCRETE.....31 OTHER _____ 41	

SECTION 2. REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
201	Now I would like to ask about all the births you have had during your life. Have you ever given birth?	YES.....1 NO.....2	→206
202	Do you have any sons or daughters to whom you have given birth who are now living with you?	YES.....1 NO.....2	→204
203	How many sons live with you? And how many daughters live with you? IF NONE RECORD '00'.	SONS AT HOME..... DAUGHTERS AT HOME.....	
204	Do you have any sons or daughters to whom you have given birth who are alive but do not live with you?	YES.....1 NO.....2	→206
205	How many sons are alive but do not live with you? And how many daughters are alive but do not live with you? IF NONE RECORD '00'.	SONS ELSEWHERE..... DAUGHTERS ELSEWHERE.....	
206	Have you ever given birth to a boy or a girl who was *born alive but later died?* *IF NO, PROBE:* Any baby who cried or showed any sign of life but only survived a few hours or days?	YES.....1 NO.....2	→208
207	In all, how many boys have died? And how many girls have died? IF NONE RECORD '00'.	BOYS DEAD..... GIRLS DEAD.....	
208	SUM ANSWERS TO 203, 205, AND 207, AND ENTER TOTAL. IF NONE RECORD '00'.	TOTAL.....	
209	CHECK 208: Just to make sure that I have this right: you have had in TOTAL ____ births during your life. Is that correct? YES ☐ NO ☐ → PROBE AND CORRECT 201-208 AS NECESSARY		
210	CHECK 208: ONE OR MORE BIRTHS ☐ NO BIRTHS ☐		→225

5

211 Now I would like to talk to you about all of your births, whether still alive or not, starting with the first one you had. RECORD NAMES OF ALL THE BIRTHS IN 212. RECORD TWINS AND TRIPLETS ON SEPARATE LINES.

212 What name was given to your (first,next) baby?	213 Were any of these births twins?	214 Is (NAME) a boy or a girl?	215 In what month and year was (NAME) born? WRITE IN EITHER BENGALI OR ENGLISH DATES, BUT NOT BOTH. USE CODES AT BOTTOM OF PAGE FOR MONTHS. BENGALI	215 ENGLISH	216 Is (NAME) still alive?	217 IF ALIVE: How old was (NAME) at his or her last birthday? RECORD AGE IN COMPLETED YEARS.	218 IF ALIVE: Is (NAME) living with you?	220 IF DEAD: How old was he/she when he/she died? IF "1 YR.", PROBE: How many months old was (NAME)? RECORD DAYS IF LESS THAN 1 MONTH, MONTHS IF LESS THAN TWO YEARS, OR YEARS.
01 _____ (NAME)	SING..1 MULT..2	BOY...1 GIRL..2	1 MONTH YR 1	2 MONTH YR 1 9	YES...1 NO....2 → 220	AGE IN YEARS	YES.....1 (GO TO NEXT BIRTH) NO.....2	DAYS....1 MONTHS..2 YEARS...3
02 _____ (NAME)	SING..1 MULT..2	BOY...1 GIRL..2	1 MONTH YR 1	2 MONTH YR 1 9	YES...1 NO....2 → 220	AGE IN YEARS	YES.....1 (GO TO NEXT BIRTH) NO.....2	DAYS....1 MONTHS..2 YEARS...3
03 _____ (NAME)	SING..1 MULT..2	BOY...1 GIRL..2	1 MONTH YR 1	2 MONTH YR 1 9	YES...1 NO....2 → 220	AGE IN YEARS	YES.....1 (GO TO NEXT BIRTH) NO.....2	DAYS....1 MONTHS..2 YEARS...3
04 _____ (NAME)	SING..1 MULT..2	BOY...1 GIRL..2	1 MONTH YR 1	2 MONTH YR 1 9	YES...1 NO....2 → 220	AGE IN YEARS	YES.....1 (GO TO NEXT BIRTH) NO.....2	DAYS....1 MONTHS..2 YEARS...3
05 _____ (NAME)	SING..1 MULT..2	BOY...1 GIRL..2	1 MONTH YR 1	2 MONTH YR 1 9	YES...1 NO....2 → 220	AGE IN YEARS	YES.....1 (GO TO NEXT BIRTH) NO.....2	DAYS....1 MONTHS..2 YEARS...3
06 _____ (NAME)	SING..1 MULT..2	BOY...1 GIRL..2	1 MONTH YR 1	2 MONTH YR 1 9	YES...1 NO....2 → 220	AGE IN YEARS	YES.....1 (GO TO NEXT BIRTH) NO.....2	DAYS....1 MONTHS..2 YEARS...3
07 _____ (NAME)	SING..1 MULT..2	BOY...1 GIRL..2	1 MONTH YR 1	2 MONTH YR 1 9	YES...1 NO....2 → 220	AGE IN YEARS	YES.....1 (GO TO NEXT BIRTH) NO.....2	DAYS....1 MONTHS..2 YEARS...3

6

212 What name was given to your (first,next) baby?	213 Were any of these births twins?	214 Is (NAME) a boy or a girl?	215 In what month and year was (NAME) born? WRITE IN EITHER BENGALI OR ENGLISH DATES. USE CODES AT BOTTOM OF PAGE FOR MONTHS. BENGALI / ENGLISH	216 Is (NAME) still alive?	217 IF ALIVE: How old was (NAME) at his or her last birthday? RECORD AGE IN COMPLETED YEARS.	218 IF ALIVE: Is (NAME) living with you?	220 IF DEAD: How old was he/she when he/she died? IF "1 YR.", PROBE: How many months old was (NAME)? RECORD DAYS IF LESS THAN 1 MONTH, MONTHS IF LESS THAN TWO YEARS, OR YEARS.
08 _____ (NAME)	SING..1 MULT..2	BOY...1 GIRL..2	1 MONTH ☐☐ YR 1 ☐☐ 2 MONTH ☐☐ YR 1 9 ☐☐	YES...1 NO....2 → 220	AGE IN YEARS ☐☐	YES.....1 (GO TO NEXT BIRTH) NO.....2	DAYS....1 MONTHS..2 YEARS...3 ☐☐
09 _____ (NAME)	SING..1 MULT..2	BOY...1 GIRL..2	1 MONTH ☐☐ YR 1 ☐☐ 2 MONTH ☐☐ YR 1 9 ☐☐	YES...1 NO....2 → 220	AGE IN YEARS ☐☐	YES.....1 (GO TO NEXT BIRTH) NO.....2	DAYS....1 MONTHS..2 YEARS...3 ☐☐
10 _____ (NAME)	SING..1 MULT..2	BOY...1 GIRL..2	1 MONTH ☐☐ YR 1 ☐☐ 2 MONTH ☐☐ YR 1 9 ☐☐	YES...1 NO....2 → 220	AGE IN YEARS ☐☐	YES.....1 (GO TO NEXT BIRTH) NO.....2	DAYS....1 MONTHS..2 YEARS...3 ☐☐
11 _____ (NAME)	SING..1 MULT..2	BOY...1 GIRL..2	1 MONTH ☐☐ YR 1 ☐☐ 2 MONTH ☐☐ YR 1 9 ☐☐	YES...1 NO....2 → 220	AGE IN YEARS ☐☐	YES.....1 (GO TO NEXT BIRTH) NO.....2	DAYS....1 MONTHS..2 YEARS...3 ☐☐
12 _____ (NAME)	SING..1 MULT..2	BOY...1 GIRL..2	1 MONTH ☐☐ YR 1 ☐☐ 2 MONTH ☐☐ YR 1 9 ☐☐	YES...1 NO....2 → 220	AGE IN YEARS ☐☐	YES.....1 (GO TO NEXT BIRTH) NO.....2	DAYS....1 MONTHS..2 YEARS...3 ☐☐
13 _____ (NAME)	SING..1 MULT..2	BOY...1 GIRL..2	1 MONTH ☐☐ YR 1 ☐☐ 2 MONTH ☐☐ YR 1 9 ☐☐	YES...1 NO....2 → 220	AGE IN YEARS ☐☐	YES.....1 (GO TO NEXT BIRTH) NO.....2	DAYS....1 MONTHS..2 YEARS...3 ☐☐
14 _____ (NAME)	SING..1 MULT..2	BOY...1 GIRL..2	1 MONTH ☐☐ YR 1 ☐☐ 2 MONTH ☐☐ YR 1 9 ☐☐	YES...1 NO....2 → 220	AGE IN YEARS ☐☐	YES.....1 (GO TO NEXT BIRTH) NO.....2	DAYS....1 MONTHS..2 YEARS...3 ☐☐

* BENGALI MONTHS:

01 BAISHAK	05 BADHRA	09 POUSH
02 JAISTHA	06 ASHWIN	10 MAGH
03 ASHAR	07 KARTIK	11 FALGUN
04 SRABAN	08 AGRAHAYAN	12 CHOITRA

** ENGLISH MONTHS:

01 JANUARY	05 MAY	09 SEPTEMBER
02 FEBRUARY	06 JUNE	10 OCTOBER
03 MARCH	07 JULY	11 NOVEMBER
04 APRIL	08 AUGUST	12 DECEMBER

221	COMPARE 208 WITH NUMBER OF BIRTHS IN HISTORY ABOVE AND MARK: NUMBERS ARE SAME ☐ → NUMBERS ARE DIFFERENT ☐ → (PROBE AND RECONCILE) CHECK: FOR EACH BIRTH: YEAR OF BIRTH IS RECORDED. ☐ FOR EACH LIVING CHILD: CURRENT AGE IS RECORDED. ☐ FOR EACH DEAD CHILD: AGE AT DEATH IS RECORDED. ☐ FOR AGE AT DEATH 12 MONTHS OR 1 YEAR: PROBE TO DETERMINE EXACT NUMBER OF MONTHS. ☐ FOR BIRTH INTERVALS OF FOUR YEARS OR MORE: PROBE FOR UNREPORTED BIRTHS. ☐
223	FOR EACH BIRTH SINCE BAISHAK 1395 OR APRIL 1988, ENTER "B" IN MONTH OF BIRTH IN COLUMN 1 OF CALENDAR AND "P" IN EACH OF THE 8 PRECEDING MONTHS. WRITE NAME TO THE LEFT OF THE "B" CODE.

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
225	Are you pregnant now?	YES.....1 NO.....2 UNSURE.....8	→ 228
226	How many months pregnant are you? ENTER "P" IN COLUMN 1 OF CALENDAR IN MONTH OF INTERVIEW AND IN EACH PRECEDING MONTH PREGNANT.	MONTHS..... ☐☐	
227	At the time you became pregnant, did you want to become pregnant then, did you want to wait until later, or did you not want to become pregnant at all?	THEN.....1 LATER.....2 NOT AT ALL.....3	
228	Have you ever had a pregnancy that miscarried, was aborted, or ended in a stillbirth?	YES.....1 NO.....2	→ 233A
229	When did the last such pregnancy end? USE CODES BELOW FOR MONTHS.	BENGALI.....1 MONTH *..... ☐☐ YEAR..... 1 ☐☐ ENGLISH.....2 MONTH**..... ☐☐ YEAR..... 1 9 ☐☐	
230	CHECK 229: LAST PREGNANCY ENDED SINCE BAISHAK 1395 OR APRIL 1988 ☐ ↓ LAST PREGNANCY ENDED BEFORE BAISHAK 1395 OR APRIL 1988 ☐		→ 233A
231	How many months pregnant were you when the pregnancy ended? ENTER "T" IN COLUMN 1 OF CALENDAR IN THE MONTH THAT THE PREGNANCY TERMINATED, AND "P" IN EACH PRECEDING MONTH PREGNANT.	MONTHS..... ☐☐	

* BENGALI MONTHS:

01 BAISHAK	05 BADHRA	09 POUSH
02 JAISTHA	06 ASHWIN	10 MAGH
03 ASHAR	07 KARTIK	11 FALGUN
04 SRABAN	08 AGRAHAYAN	12 CHOITRA

** ENGLISH MONTHS:

01 JANUARY	05 MAY	09 SEPTEMBER
02 FEBRUARY	06 JUNE	10 OCTOBER
03 MARCH	07 JULY	11 NOVEMBER
04 APRIL	08 AUGUST	12 DECEMBER

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
232	Did you ever have any other such pregnancies?	YES.....1 NO.....2	→233A
233	ASK FOR DATES AND DURATIONS OF ANY OTHER PREGNANCIES BACK TO BAISHAK 1395 OR APRIL 1988. ENTER "T" IN COLUMN 1 OF CALENDAR IN MONTH PREGNANCY TERMINATED, AND "P" IN EACH PRECEDING MONTH PREGNANT.		
233A	Have you ever become pregnant when you did not want to be?	YES.....1 NO.....2	→234
233B	Were any of those pregnancies ended by menstrual regulation or induced abortion?	YES.....1 NO.....2	→234
233C	The last time this happened, was the pregnancy ended by menstrual regulation or induced abortion?	MENSTRUAL REGULATION (MR).....1 INDUCED ABORTION/D & C.....2 OTHER_____3 (SPECIFY)	
233D	When did the last such pregnancy end? USE CODES BELOW FOR MONTHS.	BENGALI.....1 MONTH *..... YEAR..... 1 _ _ _ ENGLISH.....2 MONTH**..... YEAR..... 1 9 _ _ STILL PREGNANT.....6	
234	When did your last menstrual period start?	DAYS AGO.....1 WEEKS AGO.....2 MONTHS AGO.....3 YEARS AGO.....4 IN MENOPAUSE.....994 BEFORE LAST BIRTH.....995 NEVER MENSTRUATED.....996	

* BENGALI MONTHS:

01 BAISHAK	05 BADHRA	09 POUSH
02 JAISTHA	06 ASHWIN	10 MAGH
03 ASHAR	07 KARTIK	11 FALGUN
04 SRABAN	08 AGRAHAYAN	12 CHOITRA

** ENGLISH MONTHS:

01 JANUARY	05 MAY	09 SEPTEMBER
02 FEBRUARY	06 JUNE	10 OCTOBER
03 MARCH	07 JULY	11 NOVEMBER
04 APRIL	08 AUGUST	12 DECEMBER

SECTION 3: CONTRACEPTION

301 Now I would like to talk about family planning - the various ways or methods that a couple can use to delay or avoid a pregnancy. Which ways or methods have you heard about?

CIRCLE CODE 1 IN 302 FOR EACH METHOD MENTIONED SPONTANEOUSLY.
THEN PROCEED DOWN THE COLUMN, READING THE NAME AND DESCRIPTION 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 303-304 BEFORE PROCEEDING TO THE NEXT METHOD.

	302 Have you ever heard of (METHOD)? READ DESCRIPTION OF EACH METHOD	303 Have you ever used (METHOD)?	304 Do you know where a person could go to get (METHOD)?
01 PILL, MAYA Women can take a pill every day.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	YES.....1 NO.....2
02 IUD, COPPER T Women can have a loop or coil placed inside them by a doctor or a nurse.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	YES.....1 NO.....2
03 INJECTIONS Women can have an injection by a doctor or nurse which stops them from becoming pregnant for several months.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	YES.....1 NO.....2
04 CONDOM, RAJA Men can use a rubber sheath during sexual intercourse.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	YES.....1 NO.....2
05 FEMALE STERILIZATION, TUBAL LIGATION, TL Women can have an operation to avoid having any more children.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	Have you ever had an operation to avoid having any more children? YES.....1 NO.....2	YES.....1 NO.....2
06 MALE STERILIZATION, VASECTOMY Men can have an operation to avoid having any more children.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	YES.....1 NO.....2
07 SAFE PERIOD, COUNTING DAYS, CALENDAR, RHYTHM METHOD Couples can avoid having sexual intercourse on certain days of the month when the woman is more likely to become pregnant.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	Do you know where a person can obtain advice on how to use the safe period? YES.....1 NO.....2
08 WITHDRAWAL Men can be careful and pull out before climax.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	
09 Have you heard of any other ways or methods that women or men can use to avoid pregnancy? 1 _____ (SPECIFY) 2 _____ (SPECIFY) 3 _____ (SPECIFY)	YES/SPONT.....1 NO.....3	YES.....1 NO.....2 YES.....1 NO.....2 YES.....1 NO.....2	

305 CHECK 303: NOT A SINGLE "YES" (NEVER USED) ☐ AT LEAST ONE "YES" (EVER USED) ☐ → SKIP TO 309

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
306	Have you ever used anything or tried in any way to delay or avoid getting pregnant?	YES.....☐ NO.....☐	→308
307	ENTER "0" IN COLUMN 1 OF CALENDAR IN EACH BLANK MONTH.		→328E
308	What have you used or done? CORRECT 303-305 (AND 302 IF NECESSARY).		
309	What was the first method you ever used?	PILL.....01 IUD.....02 INJECTIONS.....03 CONDOM.....04 FEMALE STERILIZATION.....05 MALE STERILIZATION.....06 SAFE PERIOD, COUNTING DAYS.....07 WITHDRAWAL.....08 OTHER _____ 09 (SPECIFY)	→311
310	Where did you get this method the first time?	PUBLIC SECTOR HOSPITAL/MEDICAL COLLEGE.....11 FAMILY WELFARE CENTRE.....12 THANA HEALTH COMPLEX.....13 SATELLITE CLINIC.....14 MEDICAL PRIVATE SECTOR PRIVATE CLINIC/DOCTOR.....21 TRADITIONAL DOCTOR.....22 PHARMACY.....23 OTHER PRIVATE SECTOR SHOP.....31 FRIENDS/RELATIVES.....32 FIELDWORKER, FWA.....41 OTHER _____ 51 (SPECIFY) DOES NOT KNOW..... 98	
311	How many living children did you have at that time, if any? IF NONE, RECORD '00'.	NUMBER OF CHILDREN.....☐☐	
311A	CHECK 303: WOMAN NOT STERILIZED ☐ ∨	WOMAN STERILIZED ☐	→315A
312	CHECK 104A: CURRENTLY MARRIED ☐ ∨	WIDOWED/ DIVORCED ☐	→322D
313	CHECK 225: NOT PREGNANT OR UNSURE ☐ ∨	PREGNANT ☐	→322D
314	Are you currently doing something or using any method to delay or avoid getting pregnant?	YES.....1 NO.....2	→322D

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	GO TO
315 315A	Which method are you using? CIRCLE '05' FOR FEMALE STERILIZATION.	PILL.....01 IUD.....02 INJECTIONS.....03 CONDOM.....04 FEMALE STERILIZATION.....05 MALE STERILIZATION.....06 SAFE PERIOD, COUNTING DAYS.....07 WITHDRAWAL.....08 OTHER_____09 (SPECIFY)	→321
316	At any time during the same month, do you regularly use any method other than (CURRENT METHOD)?	YES.....1 NO.....2	→318
317	Which method is that?	PILL.....01 IUD.....02 INJECTIONS.....03 CONDOM.....04 SAFE PERIOD, COUNTING DAYS.....07 WITHDRAWAL.....08 OTHER_____09 (SPECIFY)	
318	CHECK 315: USING PILL ☐	USING INJECTION ☐	→319
		USING CONDOM ☐	→320
		USING IUD OR OTHER MODERN METHOD ☐	→323
		USING SAFE PERIOD ☐	→322C
		USING WITHDRAWAL, OTHER ☐	→326
318A	May I see the package of pills you are using now? RECORD NAME OF BRAND.	PACKAGE SEEN.....1 BRAND NAME_____ ☐☐ PACKAGE NOT SEEN.....2	→318D
318B	CHECK PACKET FOR PILL USE AND MARK CORRECT CODE.	PILLS MISSING IN ORDER.....1 PILLS MISSING OUT OF ORDER.....2 NO PILLS MISSING.....3	→318F
318C	Why is it that you have not taken the pills (in order)?	DOESN'T KNOW WHAT TO DO.....01 HEALTH REASONS.....02 FOLLOWING INSTRUCTIONS.....03 NEW PACKET.....04 MENSTRUATING.....05 OTHER_____06 (SPECIFY)	→318F
318D	SHOW BRAND CHART FOR PILLS: Please tell me which of these is the brand of pills that you are now using.	BRAND NAME_____ ☐☐ DOES NOT KNOW.....98	
318E	Why don't you have a package of pills available? CIRCLE ALL MENTIONED.	RAN OUT.....A COST TOO MUCH.....B HUSBAND AWAY.....C HAS MENSTRUAL PERIOD.....D NOT AVAILABLE AT HER SOURCE.....E FWA HAS NOT BROUGHT RESUPPLY.....F OTHER_____G (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
318F	When was the last time you took a pill?	DAYS AGO..... ☐☐ MORE THAN ONE MONTH AGO.....97	
318G	CHECK 318F: MORE THAN TWO DAYS AGO ☐ ↓ TWO DAYS AGO OR LESS ☐		→318I
318H	Why aren't you taking the pill these days?	HUSBAND AWAY.....A FORGOT.....B HEALTH REASONS.....C COST TOO MUCH.....D NO NEED TO TAKE EVERY DAY.....E RAN OUT.....F FWA HAS NOT BROUGHT RESUPPLY....G MENSTRUATING.....H OTHER_____I (SPECIFY)	
318I	After you finish taking one package of pills do you sometimes wait before starting the next package?	YES.....1 NO.....2	
318J	How much does one (packet/cycle) of pills cost you?	COST..... ☐☐.☐☐ FREE.....9996 DK.....9998	
318K	Just about everyone forgets to take a pill sometime. What do you do when you forget to take a pill for two days in a row?	START TAKING AGAIN AS USUAL.....1 TAKE EXTRA/MISSED PILLS.....2 USE ANOTHER METHOD.....3 TAKE EXTRA PILL AND USE ANOTHER METHOD.....4 OTHER_____5 (SPECIFY) NEVER FORGOT.....6	→323
319	When did you last have an injection?	MONTHS AGO..... ☐☐	
319A	CHECK 319: MORE THAN 3 MONTHS AGO ☐ ↓ THREE MONTHS AGO OR LESS ☐		→323
319B	Why haven't you had an injection recently?	HUSBAND AWAY.....1 FORGOT.....2 HEALTH REASONS.....3 COST TOO MUCH.....4 NOT AVAILABLE AT PROVIDER.....5 OTHER_____6 (SPECIFY)	→323
320	May I see the package of condoms that you are using? RECORD NAME OF BRAND.	PACKAGE SEEN.....1 BRAND NAME_____ ☐☐ PACKAGE NOT SEEN.....2	→320C
320A	Why can't you show me the package of condoms that you are using?	HUSBAND KEEPS.....1 RAN OUT.....2 OTHER_____3 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
320B	SHOW BRAND CHART FOR CONDOMS: Please tell me which of these is the brand of condoms that you are using.	BRAND NAME_____ ☐☐ DOES NOT KNOW.....98	
320C	Do you use a condom every time that you have sexual intercourse or only sometimes?	EVERY TIME.....1 ONLY SOMETIMES.....2	
320D	How many times have you used condoms during the last month?	NUMBER OF TIMES..... ☐☐	→323
321	In what month and year was the sterilization operation performed? USE CODES BELOW FOR MONTHS.	BENGALI.....1 MONTH *..... ☐☐ YEAR..... 1 ☐☐ ENGLISH.....2 MONTH**..... ☐☐ YEAR..... 1 9 ☐☐	
322	ENTER STERILIZATION METHOD CODE IN MONTH OF INTERVIEW IN COLUMN 1 OF CALENDAR AND IN EACH MONTH BACK TO DATE OF OPERATION OR TO BAISHAK 1395, IF OPERATION OCCURRED BEFORE 1395.		
322A	Do you regret that (you/your husband) had the operation not to have any more children?	YES.....1 NO.....2	→323A
322B	Why do you regret it?	RESPONDENT WANTS ANOTHER CHILD..1 PARTNER WANTS ANOTHER CHILD.....2 SIDE EFFECTS.....3 OTHER REASON_____4	→323A
322C	You told me that you use the safe period (calendar, rhythm) method. Please tell me which days of your monthly cycle are not safe.	DURING HER PERIOD.....01 RIGHT AFTER HER PERIOD ENDS....02 IN THE MIDDLE OF HER CYCLE.....03 JUST BEFORE HER PERIOD BEGINS..04 OTHER _____96 (SPECIFY) DOES NOT KNOW.....98	→326
322D	Which method of family planning did you use most recently?	PILL.....01 IUD.....02 INJECTIONS.....03 CONDOM.....04 SAFE PERIOD, COUNTING DAYS.....07 WITHDRAWAL.....08 OTHER_____09 (SPECIFY)	→325J
323	Where did you obtain (METHOD) the last time?	PUBLIC SECTOR HOSPITAL/MEDICAL COLLEGE.....11 FAMILY WELFARE CENTRE.....12 THANA HEALTH COMPLEX.....13 SATELLITE CLINIC.....14 MEDICAL PRIVATE SECTOR PRIVATE CLINIC/DOCTOR.....21 TRADITIONAL DOCTOR.....22 PHARMACY.....23 OTHER PRIVATE SECTOR SHOP.....31 FRIENDS/RELATIVES.....32 FIELDWORKER, FWA.....41 OTHER _____51 (SPECIFY) DOES NOT KNOW..... 98	→325E
323A	Where did the sterilization take place? _____ (NAME OF PLACE)		

* BENGALI MONTHS:

01 BAISHAK	05 BADHRA	09 POUSH
02 JAISTHA	06 ASHWIN	10 MAGH
03 ASHAR	07 KARTIK	11 FALGUN
04 SRABAN	08 AGRAHAYAN	12 CHOITRA

** ENGLISH MONTHS:

01 JANUARY	05 MAY	09 SEPTEMBER
02 FEBRUARY	06 JUNE	10 OCTOBER
03 MARCH	07 JULY	11 NOVEMBER
04 APRIL	08 AUGUST	12 DECEMBER

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
323B	Did you pay for the service you received there?	YES.....1 NO.....2 DOES NOT KNOW.....8	
323C	CHECK 322D OR 315: USING (USED) PILLS OR CONDOMS ☐ ↓ USING (USED) OTHER METHOD ☐		→325J
325	Who obtained the (pills/condoms) the last time you got them?	RESPONDENT.....1 HUSBAND.....2 SON/DAUGHTER.....3 OTHER RELATIVE.....4 OTHER_____5 (SPECIFY)	→325B
325A	Have you yourself ever been to a health facility, a doctor, or a shop to get (pills, condoms)?	YES.....1 NO.....2	→325J
325B	Did anyone there ever tell you about side effects or other problems that you might have using this method?	YES.....1 NO.....2 CANNOT REMEMBER.....8	
325C	Did anyone there ever tell you about other methods that you might use?	YES.....1 NO.....2 CANNOT REMEMBER.....8	→325H
325E	Did the family welfare assistant (fieldworker) ever tell you about side effects or problems you might have with this (CURRENT METHOD)?	YES.....1 NO.....2 CANNOT REMEMBER.....8	
325G	Did the family welfare assistant (fieldworker) ever tell you about other methods that you might use?	YES.....1 NO.....2 CANNOT REMEMBER.....8	
325H	Did you get the method that you wanted?	YES.....1 NO.....2	→325J
325I	Which method did you want?	PILL.....01 IUD.....02 INJECTIONS.....03 CONDOM.....04 FEMALE STERILIZATION.....05 MALE STERILIZATION.....06 SAFE PERIOD, COUNTING DAYS.....07 WITHDRAWAL.....08 OTHER_____09 (SPECIFY)	

15

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	GO TO
325J	When a couple is making a decision, sometimes the husband has more influence, sometimes the wife has more influence and sometimes other people have more influence In your family, who had the most influence in deciding to use family planning the first time you used a method?	RESPONDENT HAD MORE INFLUENCE...1 HUSBAND HAD MORE INFLUENCE.....2 BOTH HUSBAND AND WIFE EQUAL.....3 OTHER RELATIVE.....4 OTHER_____5 (SPECIFY)	
325K	CHECK 315: CURRENTLY USING A METHOD ☐ ↓ NOT USING A METHOD (BLANK) ☐		→328E
326	What is the main reason you decided to use (CURRENT METHOD FROM 315) rather than some other method of family planning?	FAMILY PLAN. WORKER RECOMMEND..01 FRIEND/RELATIVE RECOMMENDED....02 SIDE EFFECTS OF OTHER METHODS..03 METHOD EASY TO USE.....04 ACCESS/AVAILABILITY.....05 COST.....06 WANTED PERMANENT METHOD.....07 HUSBAND PREFERRED.....08 WANTED MORE EFFECTIVE METHOD...09 OTHER_____10 (SPECIFY) DOES NOT KNOW.....98	
327	Are you having any health problems in using (CURRENT METHOD)?	YES.....1 NO.....2	→328C
328	What health problems are you having with using (METHOD)? CIRCLE ALL MENTIONED.	WEIGHT GAIN.....A WEIGHT LOSS.....B TOO MUCH BLEEDING.....C HYPERTENSION.....D HEADACHE.....E NAUSEA.....F NO MENSTRUATION.....G WEAK/TIRED.....H DIZZINESS.....I OTHER_____J (SPECIFY) DOES NOT KNOW..... K	
328A	When you first started having these problems, did anyone talk to you about these problems?	YES.....1 NO.....2	→328C
328B	Who talked to you about these problems?	FIELDWORKER, FWA.....1 STAFF AT SATELLITE CLINIC.....2 STAFF AT FAMILY WELFARE CLIIC...3 RELATIVE, FRIEND.....4 OTHER_____5 (SPECIFY)	
328C	Are you having any other problems in using (CURRENT METHOD)?	YES.....1 NO.....2	→329
328D	What other problems are you having? CIRCLE ALL MENTIONED.	HUSBAND DISAPPROVES.....A OTHER RELATIVE DISAPPROVES.....B RELIGION DISAPPROVES.....C ACCESS/AVAILABILITY.....D COSTS TOO MUCH.....E INCONVENIENT TO USE.....F STERILIZED, WANTS CHILDREN.....G OTHER_____H (SPECIFY) DOES NOT KNOW.....I	→329
328E	CHECK 104A: CURRENTLY MARRIED ☐ ↓ WIDOWED/ DIVORCED ☐		→328J
328F	CHECK 225: NOT PREGNANT OR UNSURE ☐ ↓ PREGNANT ☐		→328J

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
328G	What is the main reason you are not using a method to delay or avoid pregnancy?	WANTS CHILDREN.....01 LACK OF KNOWLEDGE.....02 PARTNER OPPOSED.....03 COST TOO MUCH.....04 SIDE EFFECTS.....05 HEALTH CONCERNS.....06 HARD TO GET METHODS.....07 RELIGION.....08 OPPOSED TO FAMILY PLANNING.....09 FATALISTIC.....10 OTHER PEOPLE OPPOSED.....11 INFREQUENT SEX/HUSBAND AWAY....12 DIFFICULT TO GET PREGNANT.....13 MENOPAUSAL/HAD HYSTERECTOMY....14 INCONVENIENT.....15 MENSTRUATION NOT RETURNED.....16 BREASTFEEDING.....17 OTHER _____ 18 (SPECIFY) DK.....98	
328H	Do you know where you can obtain a method of family planning?	YES.....1 NO.....2 → 328J	
328I	Where is that? _____ (NAME OF PLACE) IF WOMAN SAYS MORE THAN ONE PLACE, ASK FOR THE PLACE SHE WOULD MOST LIKELY USE.	PUBLIC SECTOR HOSPITAL/MEDICAL COLLEGE.....11 FAMILY WELFARE CENTRE.....12 THANA HEALTH COMPLEX.....13 SATELLITE CLINIC.....14 MEDICAL PRIVATE SECTOR PRIVATE CLINIC/DOCTOR.....21 TRADITIONAL DOCTOR.....22 PHARMACY.....23 OTHER PRIVATE SECTOR SHOP.....31 FRIENDS/RELATIVES.....32 FIELDWORKER, FWA.....41 OTHER _____ 51 (SPECIFY) DOES NOT KNOW..... 98	
328J	CHECK 305 AND 306: HAS USED A METHOD ☐ ↓ HAS NEVER USED A METHOD ☐ → 347		
329	CHECK 315 AND 321: CURRENT USER OTHER THAN STERILIZATION ☐ ↓	STERILIZED BEFORE BAISHAK 1395 ☐ → 347 STERILIZED SINCE BAISHAK 1395 ☐ → 331 NOT CURRENTLY USING ☐ → 331	
330	ENTER METHOD CODE FROM 315 IN CURRENT MONTH IN COL.1 OF CALENDAR. THEN DETERMINE WHEN SHE STARTED USING THIS METHOD THIS TIME. ENTER METHOD CODE IN EACH MONTH OF USE. ILLUSTRATIVE QUESTIONS: - When did you start using this method continuously? - How long have you been using this method continuously?		

331 I would like to ask some questions about all of the (other) periods in the last few years during which you or your partner used a method to avoid getting pregnant.

USE CALENDAR TO PROBE FOR EARLIER PERIODS OF USE AND NONUSE, STARTING WITH MOST RECENT USE, BACK TO BAISHAK 1395*.

USE NAMES OF CHILDREN, DATES OF BIRTH, AND PERIODS OF PREGNANCY AS REFERENCE POINTS.

IN EACH MONTH, ENTER CODE FOR METHOD OR "0" FOR NONUSE IN COLUMN 1. IN COLUMN 2, ENTER CODES FOR DISCONTINUATION NEXT TO LAST MONTH OF USE.

NUMBER OF CODES ENTERED IN COLUMN 2 MUST BE THE SAME AS THE NUMBER OF INTERRUPTIONS OF CONTRACEPTIVE USE IN COLUMN 1

ASK WHY SHE STOPPED USING THE METHOD. IF A PREGNANCY FOLLOWED, ASK WHETHER SHE BECAME PREGNANT UNINTENTIONALLY WHILE USING THE METHOD OR DELIBERATELY STOPPED TO GET PREGNANT.

ILLUSTRATIVE QUESTIONS:
COLUMN 1:
-When was the last time you used a method? Which method was that?
-When did you start using that method? How long after the birth of (NAME)?
-How long did you use the method then?

COLUMN 2:
-Why did you stop using the (METHOD)?
-Did you become pregnant while using (METHOD), or did you stop to get pregnant, or stop for some other reason?

IF DELIBERATELY STOPPED TO BECOME PREGNANT, ASK:
"How many months did it take you to get pregnant after you stopped using (METHOD)?
AND ENTER '0' IN EACH SUCH MONTH IN COLUMN 1.

---

347 CHECK 310, 323, AND 328I:

SATELLITE CLINIC NOT MENTIONED ☐ → 347A

SATELLITE CLINIC MENTIONED ☐ → 347B

347A In some places, there is a clinic set up for a day or part of a day in someone's house or in a school. This is called a satellite clinic. During the past 3 months was there any such clinic in your village/mohalla?

YES.....1
NO.....2 → 348
DOES NOT KNOW.....8 → 348

347B Did you ever visit such a clinic?

YES.....1
NO.....2 → 348

347C What services did they provide?

CIRCLE ALL MENTIONED.

FAMILY PLANNING METHODS.....A
IMMUNIZATION.....B
CHILD GROWTH MONITORING.....C
OTHER_____D
(SPECIFY)
DOES NOT KNOW.....E

---

348 In the last month, have you heard or seen a message about family planning on:

	YES	NO
the radio?	1	2
television?	1	2
a billboard?	1	2
a poster?	1	2

---

349 Is it acceptable or not acceptable to you for information to be provided on the radio about:

	YES	NO
the pill?	1	2
condoms?	1	2
injections?	1	2
IUDs (coil, loop)?	1	2
sterilization (TL)?	1	2

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
350	During the last six months has anyone visited you in your house to talk to you about family planning or to give you any family planning method?	YES.....1 NO.....2 DOES NOT KNOW.....8	→352
351	Has a family planning worker visited you in the last six months for another reason?	YES.....1 NO.....2 DOES NOT KNOW.....8	→358 →358
352	How many times did a family planning worker visit you in the last six months?	TIMES..... ☐☐ DOES NOT KNOW.....98	
353	When was the last visit? IF LESS THAN ONE MONTH AGO, WRITE '00'.	MONTHS AGO..... ☐☐ DOES NOT KNOW.....98	
354	Did you receive any family planning supplies from the fieldworker during the last visit?	YES.....1 NO.....2	→357
355	What supplies did you receive?	PILLS.....1 CONDOMS.....2 INJECTION.....3 OTHER_____4 (SPECIFY)	→357 →357
356	How many cycles/condoms?	CYCLES/CONDOMS..... ☐☐	
357	Thinking back to all the visits you have ever had from family planning workers, which methods of avoiding pregnancy did they discuss with you? CIRCLE ALL MENTIONED.	PILLS.....A IUD.....B INJECTION.....C CONDOMS.....D FEMALE STERILIZATION.....E MALE STERILIZATION.....F NEVER DISCUSSED.....G	
357A	Did the family planning worker who came to your house ever refer you to a clinic for any reason?	YES.....1 NO.....2 DOES NOT KNOW.....8	→358
357B	Why did she refer you to a clinic?	FOR STERILIZATION.....1 TO GET AN IUD INSERTED.....2 TO GET INJECTION.....3 TO GET OTHER FP METHODS.....4 FOR TREATMENT OF SIDE EFFECTS...5 FOR OTHER HEALTH REASONS.....6 OTHER_____7 (SPECIFY)	
358	Do you think that most of the women you know use some kind of family planning method?	YES.....1 NO.....2 DOES NOT KNOW.....8	
359	Have you ever recommended family planning to a friend, relative, or anyone else?	YES.....1 NO.....2	
360	In the past 12 months, have you visited a health facility for any reason?	YES.....1 NO.....2	→401
361	Did anyone at the health facility speak to you about family planning methods during any of your visits this year?	YES.....1 NO.....2	

SECTION 4A. PREGNANCY AND BREASTFEEDING

401 CHECK 215:

ONE OR MORE BIRTHS SINCE BAISHAK 1397 (APRIL 1990) [ ] | NO BIRTHS SINCE BAISHAK 1397 [ ] → (SKIP TO 501)

402 ENTER THE LINE NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH SINCE BAISHAK 1397 OR APRIL 1990 IN THE TABLE. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. (IF THERE ARE MORE THAN 3 BIRTHS, USE ADDITIONAL FORMS).

Now I would like to ask you some more questions about the health of all your children born in the past 3 years. (We will talk about one child at a time.)

		LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST BIRTH
	LINE NUMBER FROM Q. 212	[ ][ ]	[ ][ ]	[ ][ ]
	FROM Q. 212 AND Q. 216	NAME ______ ALIVE [ ] DEAD [ ]	NAME ______ ALIVE [ ] DEAD [ ]	NAME ______ ALIVE [ ] DEAD [ ]
403	At the time you became pregnant with (NAME), did you want to become pregnant <u>then</u>, did you want to wait until <u>later</u> or did you want <u>no (more)</u> children at all?	THEN....1 LATER....2 NO MORE....3	THEN....1 LATER....2 NO MORE....3	THEN....1 LATER....2 NO MORE....3
405	When you were pregnant with (NAME), did you see anyone for antenatal care for this pregnancy?** IF YES, Whom did you see? Anyone else? RECORD ALL PERSONS SEEN.	HEALTH PROFESSIONAL DOCTOR....A NURSE/MIDWIFE....B FAMILY WELFARE VISITOR..C OTHER PERSON TRAINED (TRADITIONAL) BIRTH ATTENDANT....D TRADITIONAL BIRTH ATTENDANT....E OTHER______F (SPECIFY) NO ONE....G (SKIP TO 409)	HEALTH PROFESSIONAL DOCTOR....A NURSE/MIDWIFE....B FAMILY WELFARE VISITOR..C OTHER PERSON TRAINED (TRADITIONAL) BIRTH ATTENDANT....D TRADITIONAL BIRTH ATTENDANT....E OTHER______F (SPECIFY) NO ONE....G (SKIP TO 409)	HEALTH PROFESSIONAL DOCTOR....A NURSE/MIDWIFE....B FAMILY WELFARE VISITOR..C OTHER PERSON TRAINED (TRADITIONAL) BIRTH ATTENDANT....D TRADITIONAL BIRTH ATTENDANT....E OTHER______F (SPECIFY) NO ONE....G (SKIP TO 409)
407	How many months pregnant were you when you first saw someone for an antenatal check on this pregnancy?	MONTHS....[ ][ ] DK....98	MONTHS....[ ][ ] DK....98	MONTHS....[ ][ ] DK....98
408	How many antenatal visits did you have during this pregnancy?	NO. OF VISITS....[ ][ ] DK....98	NO. OF VISITS....[ ][ ] DK....98	NO. OF VISITS....[ ][ ] DK....98
409	When you were pregnant with (NAME) were you given an injection in the arm*** to prevent the baby from getting tetanus, that is, convulsions after birth?	YES....1 NO....2 (SKIP TO 411) DK....8	YES....1 NO....2 (SKIP TO 411) DK....8	YES....1 NO....2 (SKIP TO 411) DK....8
410	During this pregnancy how many times did you get this injection?	TIMES....[ ] DK....8	TIMES....[ ] DK....8	TIMES....[ ] DK....8
411	Where did you give birth to (NAME)?*	HOME YOUR HOME....11 OTHER HOME....12 PUBLIC SECTOR GVT. HOSPITAL....21 THANA HEALTH COMPLEX...22 PRIVATE SECTOR PVT. HOSPITAL/CLINIC...31 OTHER______41 (SPECIFY)	HOME YOUR HOME....11 OTHER HOME....12 PUBLIC SECTOR GVT. HOSPITAL....21 THANA HEALTH COMPLEX...22 PRIVATE SECTOR PVT. HOSPITAL/CLINIC...31 OTHER______41 (SPECIFY)	HOME YOUR HOME....11 OTHER HOME....12 PUBLIC SECTOR GVT. HOSPITAL....21 THANA HEALTH COMPLEX...22 PRIVATE SECTOR PVT. HOSPITAL/CLINIC...31 OTHER______41 (SPECIFY)

		LAST BIRTH NAME ____	NEXT-TO-LAST BIRTH NAME ____	SECOND-FROM-LAST BIRTH NAME ____
412	Who assisted with the delivery of (NAME)? Anyone else? PROBE FOR THE TYPE OF PERSON AND RECORD ALL PERSONS ASSISTING.	HEALTH PROFESSIONAL DOCTOR....A NURSE/MIDWIFE....B FAMILY WELFARE VISITOR..C OTHER PERSON TRAINED (TRADITIONAL) BIRTH ATTENDANT....D TRADITIONAL BIRTH ATTENDANT....E RELATIVE....F OTHER ____ G (SPECIFY) NO ONE....H	HEALTH PROFESSIONAL DOCTOR....A NURSE/MIDWIFE....B FAMILY WELFARE VISITOR..C OTHER PERSON TRAINED (TRADITIONAL) BIRTH ATTENDANT....D TRADITIONAL BIRTH ATTENDANT....E RELATIVE....F OTHER ____ G (SPECIFY) NO ONE....H	HEALTH PROFESSIONAL DOCTOR....A NURSE/MIDWIFE....B FAMILY WELFARE VISITOR..C OTHER PERSON TRAINED (TRADITIONAL) BIRTH ATTENDANT....D TRADITIONAL BIRTH ATTENDANT....E RELATIVE....F OTHER ____ G (SPECIFY) NO ONE....H
418	Has your period returned since the birth of (NAME)?	YES....1 (SKIP TO 420) NO....2 (SKIP TO 421)		
419	Did your period return between the birth of (NAME) and your next pregnancy?		YES....1 NO....2 (SKIP TO 423)	YES....1 NO....2 (SKIP TO 423)
420	For how many months after the birth of (NAME) did you <u>not</u> have a period?	MONTHS....[ ][ ] DK....98	MONTHS....[ ][ ] DK....98	MONTHS....[ ][ ] DK....98
421	CHECK 223: RESPONDENT PREGNANT?	NOT PREGNANT [ ] ↓ PREGNANT OR UNSURE [ ] (SKIP TO 423)		
422	Have you resumed sexual relations since the birth of (NAME)?	YES....1 NO....2 (SKIP TO 424)		
423	For how many months after the birth of (NAME) did you <u>not</u> have sexual relations?	MONTHS....[ ][ ] DK....98	MONTHS....[ ][ ] DK....98	MONTHS....[ ][ ] DK....98
424	Did you ever breastfeed (NAME)?	YES....1 (SKIP TO 428) NO....2	YES....1 (SKIP TO 431) NO....2	YES....1 (SKIP TO 431) NO....2
425	Why did you not breastfeed (NAME)?	MOTHER ILL/WEAK....01 CHILD ILL/WEAK....02 CHILD DIED....03 NIPPLE/BREAST PROBLEM...04 INSUFFICIENT MILK....05 MOTHER WORKING....06 CHILD REFUSED....07 OTHER ____ 08 (SPECIFY) (SKIP TO 434A)	MOTHER ILL/WEAK....01 CHILD ILL/WEAK....02 CHILD DIED....03 NIPPLE/BREAST PROBLEM...04 INSUFFICIENT MILK....05 MOTHER WORKING....06 CHILD REFUSED....07 OTHER ____ 08 (SPECIFY) (SKIP TO 434A)	MOTHER ILL/WEAK....01 CHILD ILL/WEAK....02 CHILD DIED....03 NIPPLE/BREAST PROBLEM...04 INSUFFICIENT MILK....05 MOTHER WORKING....06 CHILD REFUSED....07 OTHER ____ 08 (SPECIFY) (SKIP TO 434A)
428	How long after birth did you first put (NAME) to the breast? IF LESS THAN 1 HOUR, RECORD '00' HOURS. IF LESS THAN 24 HOURS, RECORD HOURS. OTHERWISE, RECORD DAYS.	IMMEDIATELY....000 HOURS....1 [ ][ ] DAYS....2 [ ][ ]		

		LAST BIRTH NAME ____	NEXT-TO-LAST BIRTH NAME ____	SECOND-FROM-LAST BIRTH NAME ____
429	CHECK 216: CHILD ALIVE?	ALIVE ☐ ↓ DEAD ☐ (GO TO 431)		
430	Are you still breast-feeding (NAME)?	YES....................1 (SKIP TO 432A) NO....................2		
431	For how many months did you breastfeed (NAME)?	MONTHS............ ☐☐	MONTHS............ ☐☐	MONTHS............ ☐☐
432	Why did you stop breastfeeding (NAME)?	MOTHER ILL/WEAK.........01 CHILD ILL/WEAK..........02 CHILD DIED..............03 NIPPLE/BREAST PROBLEM...04 INSUFFICIENT MILK.......05 MOTHER WORKING..........06 CHILD REFUSED...........07 WEANING AGE.............08 BECAME PREGNANT.........09 STARTED USING CONTRACEPTION..........10 OTHER ____ (SPECIFY) 11 (SKIP TO 434A)	MOTHER ILL/WEAK.........01 CHILD ILL/WEAK..........02 CHILD DIED..............03 NIPPLE/BREAST PROBLEM...04 INSUFFICIENT MILK.......05 MOTHER WORKING..........06 CHILD REFUSED...........07 WEANING AGE.............08 BECAME PREGNANT.........09 STARTED USING CONTRACEPTION..........10 OTHER ____ (SPECIFY) 11 (SKIP TO 434A)	MOTHER ILL/WEAK.........01 CHILD ILL/WEAK..........02 CHILD DIED..............03 NIPPLE/BREAST PROBLEM...04 INSUFFICIENT MILK.......05 MOTHER WORKING..........06 CHILD REFUSED...........07 WEANING AGE.............08 BECAME PREGNANT.........09 STARTED USING CONTRACEPTION..........10 OTHER ____ (SPECIFY) 11 (SKIP TO 434A)
432A	How many times did you breastfeed last night between sunset and sunrise? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER	NUMBER OF NIGHTTIME FEEDINGS ☐☐		
433	How many times did you breastfeed yesterday during the daylight hours? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER	NUMBER OF DAYLIGHT FEEDINGS ☐☐		
434	At any time yesterday or last night was (NAME) given any of the following?:	YES NO		
	Plain water?	PLAIN WATER..........1 2		
	Sugar water or honey?	SUGAR WATER, HONEY...1 2		
	Juice?	JUICE................1 2		
	Tea?	TEA..................1 2		
	Baby formula?	BABY FORMULA.........1 2		
	Cow's milk?	COW'S MILK...........1 2		
	Other liquids?	OTHER LIQUIDS........1 2		
	Meat?	MEAT.................1 2		
	Other solid or mushy food?	SOLID/MUSHY FOOD.....1 2		

434A GO BACK TO 403 FOR NEXT BIRTH; OR, IF NO MORE BIRTHS, GO TO 435.

435	CHECK 215: LAST BIRTH WAS BORN SINCE BAISHAK 1399 (APRIL 1992)	☐ ↓	NO BIRTH SINCE BAISHAK 1399 ☐	→ 442L
436	CHECK 216: CHILD STILL ALIVE	☐ ↓	CHILD DIED ☐	→ 442L
437	CHECK 424: BREASTFED CHILD? YES	☐ ↓	NO ☐	→ 442A

22

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	GO TO
439	Did anyone talk to you and give you specific advice about how long to breastfeed (NAME OF YOUNGEST)?	YES.....1 NO.....2	→442A
440	Among the persons with whom you talked about breast-feeding, who would you say helped you the most with your decision about how long to breastfeed?	DOCTOR.....01 NURSE/MIDWIFE.....02 PHARMACIST.....03 TRADITIONAL BIRTH ATTEND.....04 FIELDWORKER, FWA.....05 HUSBAND.....06 MOTHER.....07 SISTER.....08 MOTHER-IN-LAW.....09 SISTER-IN-LAW.....10 OTHER RELATIVE.....11 OTHER_____12	
441	For how long did he/she advise you to breastfeed?	MONTHS..... ☐☐ OTHER_____95 (SPECIFY) DID NOT DISCUSS.....96 DOES NOT KNOW/CANNOT REMEMBER..98	
442A	Since you became pregnant with (NAME OF BABY), did anyone give you specific advice about using family planning after (NAME OF BABY) was born?	YES.....1 NO.....2	→442L

ASK QUESTION 442B AND ENTER THE NAME OF EACH PERSON GIVING ADVICE IN COLUMN 1. RECORD A CODE FOR EACH PERSON USING THE LIST AT THE BOTTOM OF THE GRID. THEN ASK QUESTIONS 442C-442F. GO TO QUESTION 442G AFTER COMPLETING FOR ALL PERSONS WHO GAVE ADVICE.

442B Who gave you specific advice about using family planning? PROBE: Anyone else?	442C Did he/she ask how you planned to feed your baby?	442D Which methods if any did he/she talk to you about? RECORD ALL MENTIONED.	442E Which method(s) did he/she recommend? RECORD METHOD NAME AND CODE FROM 442D FOR ALL MENTIONED.	442F How long after the birth of baby did he/she recommend you begin (METHOD IN 442E)? ASK FOR EACH METHOD RECORDED IN 442E.
NAME OF PERSON _____ ☐☐	YES.....1 NO.....2 DK.....8	PILL.....A IUD.....B INJECTIONS.....C CONDOM.....D FEMALE STER.....E MALE STERIL.....F CALENDAR,COUNTING..G WITHDRAWAL.....H PROLONGED BRSTFEED.I OTHER_____J (SPECIFY) NONE.....K	METHOD_____ ☐ METHOD_____ ☐	MONTHS..... ☐☐ AFTER MENSTRUATION BEGINS.....95 NOT DISCUSSED....96 FORGOT/DK.....98 MONTHS..... ☐☐ AFTER MENSTRUATION BEGINS.....95 NOT DISCUSSED....96 FORGOT/DK.....98
NAME OF PERSON _____ ☐☐ NO ONE ELSE.....12 (SKIP TO 442G)	YES.....1 NO.....2 DK.....8	PILL.....A IUD.....B INJECTIONS.....C CONDOM.....D FEMALE STER.....E MALE STERIL.....F CALENDAR,COUNTING..G WITHDRAWAL.....H PROLONGED BRSTFEED.I OTHER_____J (SPECIFY) NONE.....K	METHOD_____ ☐ METHOD_____ ☐	MONTHS..... ☐☐ AFTER MENSTRUATION BEGINS.....95 NOT DISCUSSED....96 FORGOT/DK.....98 MONTHS..... ☐☐ AFTER MENSTRUATION BEGINS.....95 NOT DISCUSSED....96 FORGOT/DK.....98

CODES FOR 442B:
01 DOCTOR
02 NURSE/MIDWIFE/FWV
03 PHARMACIST
04 TRAD. BIRTH ATTENDANT
05 FIELDWORKER, FWA
06 HUSBAND
07 MOTHER
08 SISTER
09 MOTHER-IN LAW
10 SISTER-IN-LAW
11 OTHER RELATIVE
12 OTHER

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	GO TO
442G	CHECK CALENDAR: USED CONTRACEPTION SINCE LAST BIRTH?	YES ☐ V NO ☐	→442L
442H	Among the persons with whom you talked about family planning, who would you say helped you the most with your decision about when to begin using family planning after the birth of your baby?	DOCTOR.....01 NURSE/MIDWIFE.....02 PHARMACIST.....03 TRADITIONAL BIRTH ATTEND.....04 FIELDWORKER, FWA.....05 HUSBAND.....06 MOTHER.....07 SISTER.....08 MOTHER-IN-LAW.....09 SISTER-IN-LAW.....10 OTHER RELATIVE.....11 OTHER_____12 (SPECIFY)	
442I	What else influenced your decision about when to begin using family planning after the birth of your baby? CIRCLE ALL MENTIONED.	RESUMED SEXUAL RELATIONS.....A RESUMED MONTHLY PERIODS.....B BREASTFEEDING.....C CHILDBEARING DESIRES.....D RADIO/TV MESSAGES.....E OTHER_____F (SPECIFY) NOTHING ELSE.....G	
442J	Among the persons with whom you talked about family planning, who would you say helped you the most with your decision about which method to use?	DOCTOR.....01 NURSE/MIDWIFE.....02 PHARMACIST.....03 TRADITIONAL BIRTH ATTEND.....04 FIELDWORKER, FWA.....05 HUSBAND.....06 MOTHER.....07 SISTER.....08 MOTHER-IN-LAW.....09 SISTER-IN-LAW.....10 OTHER RELATIVE.....11 OTHER_____12 (SPECIFY)	
442K	What else influenced your decision about which method to use?	EFFICACY OF METHOD.....A PREVIOUS EXPERIENCE.....B SAFETY OF METHOD.....C COMFORT/DISCOMFORT.....D RADIO/TV MESSAGES.....E OTHER_____F (SPECIFY)	
442L	Are there any family planning methods that are not good for a woman who is breastfeeding to use?	YES.....1 NO.....2 DOES NOT KNOW.....3	→442N →442N
442M	Which method(s) are not good for a breastfeeding woman to use? CIRCLE ALL MENTIONED.	PILL.....A IUD.....B INJECTIONS.....C CONDOM.....D FEMALE STERILIZATION.....E MALE STERILIZATION.....F SAFE PERIOD, COUNTING DAYS.....G WITHDRAWAL.....H OTHER_____I (SPECIFY)	
442N	After childbirth, if a woman is giving only breastmilk to her child and she has not resumed her periods, do you think she does not have any risk of getting pregnant?	NO RISK.....1 HAS RISK.....2 DOES NOT KNOW.....3	→451 →451
442O	For how many months would she be protected against pregnancy?	MONTHS..... ☐☐	

451 ENTER THE LINE NUMBER AND NAME OF EACH BIRTH SINCE BAISHAK 1397 (APRIL 1990) IN THE TABLE. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. (IF THERE ARE MORE THAN 3 BIRTHS, USE ADDITIONAL FORMS).

	LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST BIRTH
LINE NUMBER FROM Q. 212			
FROM Q. 212 AND 216	NAME _____ ALIVE ☐ DEAD ☐ (GO TO 451 FOR NEXT BIRTH; IF NO MORE, 501)	NAME _____ ALIVE ☐ DEAD ☐ (GO TO 451 FOR NEXT BIRTH; IF NO MORE, 501)	NAME _____ ALIVE ☐ DEAD ☐ (GO TO 451 FOR NEXT BIRTH; IF NO MORE, 501)
452 Do you have a card where (NAME'S) vaccinations are written down?** IF YES: May I see it, please?	YES, SEEN.....1 (SKIP TO 454) ← ; YES, NOT SEEN.....2 (SKIP TO 456) ← ; NO CARD.....3	YES, SEEN.....1 (SKIP TO 454) ← ; YES, NOT SEEN.....2 (SKIP TO 456) ← ; NO CARD.....3	YES, SEEN.....1 (SKIP TO 454) ← ; YES, NOT SEEN.....2 (SKIP TO 456) ← ; NO CARD.....3
453 Did you ever have a vaccination card for (NAME)?	YES.....1 (SKIP TO 456) ← ; NO.....2	YES.....1 (SKIP TO 456) ← ; NO.....2	YES.....1 (SKIP TO 456) ← ; NO.....2

454 (1) COPY VACCINATION DATES FOR EACH VACCINE FROM THE CARD**
(2) WRITE '44' IN 'DAY' COLUMN IF CARD SHOWS THAT A VACCINATION WAS GIVEN, BUT NO DATE WAS RECORDED.

	LAST BIRTH DAY	MO	YR	NEXT-TO-LAST BIRTH DAY	MO	YR	SECOND-FROM-LAST BIRTH DAY	MO	YR
BCG	BCG			BCG			BCG		
POLIO 1	P1			P1			P1		
POLIO 2	P2			P2			P2		
POLIO 3	P3			P3			P3		
DPT 1	D1			D1			D1		
DPT 2	D2			D2			D2		
OPT 3	D3			D3			D3		
MEASLES	MEA			MEA			MEA		

455 Has (NAME) received any vaccinations that are not recorded on this card? RECORD 'YES' ONLY IF RESPONDENT MENTIONS BCG, DPT 1-3, POLIO 1-3 AND/OR MEASLES VACCINE(S).	YES.....1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 454) ← ; NO.....2 ; DK.....8 (SKIP TO 461) ←	YES.....1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 454) ← ; NO.....2 ; DK.....8 (SKIP TO 461) ←	YES.....1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 454) ← ; NO.....2 ; DK.....8 (SKIP TO 461) ←
456 Did (NAME) ever receive any vaccinations to prevent him/her from getting diseases?	YES.....1 ; NO.....2 (SKIP TO 461) ← ; DK.....8	YES.....1 ; NO.....2 (SKIP TO 461) ← ; DK.....8	YES.....1 ; NO.....2 (SKIP TO 461) ← ; DK.....8

		LAST BIRTH NAME ______	NEXT-TO-LAST BIRTH NAME ______	SECOND-FROM-LAST BIRTH NAME ______
457	Has (NAME) received any of the following vaccinations:			
	A BCG vaccination against tuberculosis, that is, an injection in the left shoulder that caused a scar?*	YES....1 NO....2 DK....8	YES....1 NO....2 DK....8	YES....1 NO....2 DK....8
	Polio vaccine, that is, drops in the mouth?	YES....1 NO....2 DK....8	YES....1 NO....2 DK....8	YES....1 NO....2 DK....8
	IF YES: How many times?	NUMBER OF TIMES....[ ]	NUMBER OF TIMES....[ ]	NUMBER OF TIMES....[ ]
	DPT vaccination, that is, an injection, usually given at the same time as polio drops?	YES....1 NO....2 DK....8	YES....1 NO....2 DK....8	YES....1 NO....2 DK....8
	IF YES: How many times?	NUMBER OF TIMES....[ ]	NUMBER OF TIMES....[ ]	NUMBER OF TIMES....[ ]
	An injection to prevent measles?	YES....1 NO....2 DK....8	YES....1 NO....2 DK....8	YES....1 NO....2 DK....8
461	Has (NAME) been ill with a cough at any time in the last 2 weeks?	YES....1 NO....2 (SKIP TO 470)← DK....8	YES....1 NO....2 (SKIP TO 470)← DK....8	YES....1 NO....2 (SKIP TO 470)← DK....8
464	When (NAME) had the illness with a cough, did he/she breathe faster than usual with short, rapid breaths?	YES....1 NO....2 DOES NOT KNOW....8	YES....1 NO....2 DOES NOT KNOW....8	YES....1 NO....2 DOES NOT KNOW....8
468	Did you seek advice or treatment for the cough?	YES....1 NO....2 (SKIP TO 470)←	YES....1 NO....2 (SKIP TO 470)←	YES....1 NO....2 (SKIP TO 470)←
469	Where did you seek advice or treatment? Anywhere else? RECORD ALL MENTIONED.	PUBLIC SECTOR GVT. HOSPITAL....A FAMILY WELFARE CENTER...B THANA HEALTH COMPLEX....C SATELLITE CLINIC....D COMMUNITY HEALTH WORKER.E MEDICAL PRIVATE SECTOR PVT. HOSPITAL/CLINIC....F PHARMACY....G PRIVATE DOCTOR....H OTHER PRIVATE SECTOR SHOP....I TRADITIONAL DOCTOR....J OTHER ______ K (SPECIFY)	PUBLIC SECTOR GVT. HOSPITAL....A FAMILY WELFARE CENTER...B THANA HEALTH COMPLEX....C SATELLITE CLINIC....D COMMUNITY HEALTH WORKER.E MEDICAL PRIVATE SECTOR PVT. HOSPITAL/CLINIC....F PHARMACY....G PRIVATE DOCTOR....H OTHER PRIVATE SECTOR SHOP....I TRADITIONAL DOCTOR....J OTHER ______ K (SPECIFY)	PUBLIC SECTOR GVT. HOSPITAL....A FAMILY WELFARE CENTER...B THANA HEALTH COMPLEX....C SATELLITE CLINIC....D COMMUNITY HEALTH WORKER.E MEDICAL PRIVATE SECTOR PVT. HOSPITAL/CLINIC....F PHARMACY....G PRIVATE DOCTOR....H OTHER PRIVATE SECTOR SHOP....I TRADITIONAL DOCTOR....J OTHER ______ K (SPECIFY)

		LAST BIRTH NAME ______	NEXT-TO-LAST BIRTH NAME ______	SECOND-FROM-LAST BIRTH NAME ______
470	Has (NAME) had diarrhea in the last two weeks?	YES....1 NO....2 (SKIP TO 483) DK....8 (SKIP TO 483)	YES....1 NO....2 (SKIP TO 483) DK....8 (SKIP TO 483)	YES....1 NO....2 (SKIP TO 483) DK....8 (SKIP TO 483)
474	Was there any blood in the stools?	YES....1 NO....2 DK....8	YES....1 NO....2 DK....8	YES....1 NO....2 DK....8
478	Was he/she given the same amount to drink as before the diarrhea, or more, or less?	SAME....1 MORE....2 LESS....3 DK....8	SAME....1 MORE....2 LESS....3 DK....8	SAME....1 MORE....2 LESS....3 DK....8
478A	Was (NAME) given khabar saline made from a special packet?	YES....1 NO....2 DK....8	YES....1 NO....2 DK....8	YES....1 NO....2 DK....8
479	Was anything (else) given to treat the diarrhea?	YES....1 NO....2 (SKIP TO 481) DK....8 (SKIP TO 481)	YES....1 NO....2 (SKIP TO 481) DK....8 (SKIP TO 481)	YES....1 NO....2 (SKIP TO 481) DK....8 (SKIP TO 481)
480	What was given to treat the diarrhea? Anything else? RECORD ALL MENTIONED.	RECOMMENDED HOME FLUID...A PILL OR SYRUP....B INJECTION....C (I.V.) INTRAVENOUS....D HOME REMEDIES/HERBS....E OTHER ______ F (SPECIFY)	RECOMMENDED HOME FLUID...A PILL OR SYRUP....B INJECTION....C (I.V.) INTRAVENOUS....D HOME REMEDIES/HERBS....E OTHER ______ F (SPECIFY)	RECOMMENDED HOME FLUID...A PILL OR SYRUP....B INJECTION....C (I.V.) INTRAVENOUS....D HOME REMEDIES/HERBS....E OTHER ______ F (SPECIFY)
481	Did you seek advice or treatment for the diarrhea?	YES....1 NO....2 (SKIP TO 483)	YES....1 NO....2 (SKIP TO 483)	YES....1 NO....2 (SKIP TO 483)
482	Where did you seek advice or treatment? Anywhere else? RECORD ALL MENTIONED.	PUBLIC SECTOR GVT. HOSPITAL....A FAMILY WELFARE CENTER...B THANA HEALTH COMPLEX....C SATELLITE CLINIC....D COMMUNITY HEALTH WORKER.E MEDICAL PRIVATE SECTOR PVT. HOSPITAL/CLINIC....F PHARMACY....G PRIVATE DOCTOR....H OTHER PRIVATE SECTOR SHOP....I TRADITIONAL DOCTOR....J OTHER ______ K (SPECIFY)	PUBLIC SECTOR GVT. HOSPITAL....A FAMILY WELFARE CENTER...B THANA HEALTH COMPLEX....C SATELLITE CLINIC....D COMMUNITY HEALTH WORKER.E MEDICAL PRIVATE SECTOR PVT. HOSPITAL/CLINIC....F PHARMACY....G PRIVATE DOCTOR....H OTHER PRIVATE SECTOR SHOP....I TRADITIONAL DOCTOR....J OTHER ______ K (SPECIFY)	PUBLIC SECTOR GVT. HOSPITAL....A FAMILY WELFARE CENTER...B THANA HEALTH COMPLEX....C SATELLITE CLINIC....D COMMUNITY HEALTH WORKER.E MEDICAL PRIVATE SECTOR PVT. HOSPITAL/CLINIC....F PHARMACY....G PRIVATE DOCTOR....H OTHER PRIVATE SECTOR SHOP....I TRADITIONAL DOCTOR....J OTHER ______ K (SPECIFY)
483	In the past 6 months, has (NAME) taken a Vitamin A capsule? SHOW CAPSULE.	YES....1 NO....2 NOT SURE/DK....8	YES....1 NO....2 NOT SURE/DK....8	YES....1 NO....2 NOT SURE/DK....8

489	GO BACK TO 452 FOR NEXT BIRTH; OR, IF NO MORE BIRTHS, GO TO 501

SECTION 5. MARRIAGE

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
501	Have you been married only once or more than once?	ONCE.....1 MORE THAN ONCE.....2	
502	In what month and year did you start living with your (first) husband?	BENGALI.....1 MONTH *..... YEAR..... 1 3	→504
		ENGLISH.....2 MONTH**..... YEAR..... 1 9	→504
503	How old were you when you started living with him?	AGE..... DOES NOT KNOW AGE.....98	
504	DETERMINE MONTHS MARRIED SINCE BAISHAK 1395. ENTER "X" IN COLUMN 3 OF CALENDAR FOR EACH MONTH MARRIED OR IN UNION, AND ENTER "0" FOR EACH MONTH NOT MARRIED/NOT IN UNION, SINCE BAISHAK 1395. FOR WOMEN NOT CURRENTLY MARRIED OR WITH MORE THAN ONE MARRIAGE, PROBE FOR DATE THAT THE COUPLE STOPPED LIVING TOGETHER OR DATE WIDOWED, AND FOR STARTING DATE OF ANY SUBSEQUENT MARRIAGE.		
505	CHECK 104A: CURRENTLY MARRIED ☐ V WIDOWED, DIVORCED ☐		→508
506	Now we need some details about your sexual activity in order to get a better understanding of family planning and fertility. When was the last time you had sexual intercourse?	NEVER.....000 DAYS AGO.....1 WEEKS AGO.....2 MONTHS AGO.....3 YEARS AGO.....4 BEFORE LAST BIRTH.....996	
507	Is your husband living with you now or is he staying elsewhere?	LIVING WITH HER.....1 STAYING ELSEWHERE.....2	
508	PRESENCE OF OTHERS AT THIS POINT.	YES NO CHILDREN UNDER 10.....1 2 HUSBAND.....1 2 OTHER MALES.....1 2 OTHER FEMALES.....1 2	

* BENGALI MONTHS:

01 BAISHAK	05 BADHRA	09 POUSH
02 JAISTHA	06 ASHWIN	10 MAGH
03 ASHAR	07 KARTIK	11 FALGUN
04 SRABAN	08 AGRAHAYAN	12 CHOITRA

** ENGLISH MONTHS:

01 JANUARY	05 MAY	09 SEPTEMBER
02 FEBRUARY	06 JUNE	10 OCTOBER
03 MARCH	07 JULY	11 NOVEMBER
04 APRIL	08 AUGUST	12 DECEMBER

SECTION 6. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
601	CHECK 104A: CURRENTLY MARRIED ☐ → NOT CURRENTLY MARRIED ☐		→619
602	CHECK 315: NEITHER STERILIZED ☐ → SHE OR HE STERILIZED ☐		→611
603	CHECK 225: NOT PREGNANT OR UNSURE ☐ → Now I have some questions about the future. Would you like to have (a/another) child or would you prefer not to have any (more) children? PREGNANT ☐ → Now I have some questions about the future. After the child you are expecting, would you like to have another child or would you prefer not to have any more children?	HAVE A (ANOTHER) CHILD.....1 NO MORE/NONE.....2 SAYS SHE CAN'T GET PREGNANT.....3 UNDECIDED OR DK.....8	→604A
604	CHECK 225: NOT PREGNANT OR UNSURE ☐ → How long would you like to wait from now before the birth of (a/another) child? PREGNANT ☐ → How long would you like to wait after the birth of the child you are expecting before the birth of another child?	MONTHS.....1 ☐☐ YEARS.....2 ☐☐ SOON/NOW.....994 SAYS SHE CAN'T GET PREGNANT...995 OTHER_____ (SPECIFY) 996 DK.....998	
604A	If you became pregnant in the next few weeks, would you be happy, unhappy, or would it not matter very much?	HAPPY.....1 UNHAPPY.....2 WOULD NOT MATTER.....3	
605	CHECK 314: USING A METHOD? NO ☐ → YES ☐		→611
606	Do you intend to use a method to delay or avoid pregnancy within the next 12 months?	YES.....1 NO.....2 DK.....8	→608
607	Do you intend to use a method at any time in the future?	YES.....1 NO.....2 DK.....8	→610 →610
608	When you use a method, which method would you prefer to use?	PILL.....01 IUD.....02 INJECTIONS.....03 CONDOM.....04 FEMALE STERILIZATION.....05 MALE STERILIZATION.....06 CALENDAR, COUNTING DAYS.....07 WITHDRAWAL.....08 OTHER_____ (SPECIFY) 09 UNSURE.....98	→611

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
609	Where can you get (METHOD MENTIONED IN 608)? _____ (NAME OF PLACE)	PUBLIC SECTOR HOSPITAL/MEDICAL COLLEGE.....11 FAMILY WELFARE CENTRE.....12 THANA HEALTH COMPLEX.....13 SATELLITE CLINIC.....14 MEDICAL PRIVATE SECTOR TRADITIONAL DOCTOR.....21 QUALIFIED DOCTOR.....22 PHARMACY.....23 OTHER PRIVATE SECTOR SHOP.....31 FRIENDS/RELATIVES.....32 FIELDWORKER, FWA.....41 OTHER _____ 51 (SPECIFY) DOES NOT KNOW..... 98	→611
610	What is the main reason you do not intend to use a method?	WANTS CHILDREN.....01 LACK OF KNOWLEDGE.....02 PARTNER OPPOSED.....03 COST TOO MUCH.....04 SIDE EFFECTS.....05 HEALTH CONCERNS.....06 HARD TO GET METHODS.....07 RELIGION.....08 OPPOSED TO FAMILY PLANNING.....09 FATALISTIC.....10 OTHER PEOPLE OPPOSED.....11 INFREQUENT SEX.....12 DIFFICULT TO GET PREGNANT.....13 MENOPAUSAL/HAD HYSTERECTOMY....14 INCONVENIENT.....15 OTHER_____16 (SPECIFY) DK.....98	
611	Do you think that your husband is in favor or not in favor of couples using a method to avoid pregnancy?	APPROVES.....1 DISAPPROVES.....2 DOES NOT KNOW.....8	
612	How often have you talked to your husband about family planning in the last year?	NEVER.....1 ONCE OR TWICE.....2 MORE OFTEN.....3	
613	Have you and your husband ever discussed the number of children you would like to have?	YES.....1 NO.....2	
614	Do you think your husband wants the <u>same</u> number of children that you want, or does he want <u>more</u> or <u>fewer</u> than you want?	SAME NUMBER.....1 MORE CHILDREN.....2 FEWER CHILDREN.....3 DK.....8	
615	Can you go outside the village/town/city alone (or with your young children)?	YES, ALONE.....1 YES, WITH CHILDREN.....2 NOT ALLOWED TO GO OUT.....3 OTHER_____4 (SPECIFY)	
616	Since you have been married, how frequently do you go to another part of your village/town/city?	ONCE A MONTH OR MORE.....1 SEVERAL TIMES A YEAR.....2 LESS THAN ONCE A YEAR.....3 NEVER.....4	
617	Since you have been married, how frequently do you go shopping/marketing?	ONCE A MONTH OR MORE.....1 SEVERAL TIMES A YEAR.....2 LESS THAN ONCE A YEAR.....3 NEVER.....4	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	GO TO
618	Can you go to a health center or hospital alone (or with your young children)?	YES, ALONE.....1 YES, WITH CHILDREN.....2 NOT ALLOWED TO GO OUT.....3 OTHER_____4 (SPECIFY)	
619	In general, do you approve or disapprove of couples using a method to avoid pregnancy?	APPROVES.....1 DISAPPROVES.....2	
620	CHECK 216: HAS LIVING CHILD(REN) ☐ → If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be? NO LIVING CHILD(REN) ☐ → If you could choose exactly the number of children to have in your whole life, how many would that be? RECORD SINGLE NUMBER OR OTHER ANSWER.	NUMBER..... ☐☐ OTHER ANSWER_____96 (SPECIFY)	
621	How many of these would you like to be boys and how many would you like to be girls?	BOYS..... ☐☐ GIRLS..... ☐☐ EITHER..... ☐☐ UP TO GOD.....95 OTHER_____96 (SPECIFY)	

31

SECTION 7. HUSBAND'S BACKGROUND, RESIDENCE AND WOMAN'S WORK

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
701	ASK QUESTIONS ABOUT CURRENT OR MOST RECENT HUSBAND.		
702	Now I have some questions about your (most recent) husband. Did your (last) husband ever attend school?	YES.....1 NO.....2 → 705	
703	What was the highest level of school he attended: primary, secondary, or higher?	PRIMARY .....1 SECONDARY.....2 HIGHER.....3 DOES NOT KNOW.....8 → 705	
704	What was the highest (grade/form/year) he completed?	GRADE..... ☐☐ DOES NOT KNOW.....98	
705	What kind of work does (did) your (last) husband/partner mainly do?	_____ ☐☐ _____ _____	
706	CHECK 705: WORKS (WORKED) IN AGRICULTURE ☐ ↓ DOES (DID) NOT WORK IN AGRICULTURE ☐ → 708		
707	(Does/did) your husband/partner work mainly on his own land or family land, or (does/did) he rent land, or (does/did) he work on someone else's land?	HIS/FAMILY LAND.....1 RENTED LAND.....2 SOMEONE ELSE'S LAND.....3	
708	As you know, women do all kinds of work. Some work on farms, others sell things in a market, or work in a business, or for the government. Some women are paid in cash or in kind for their work; others are not paid. Are you currently doing any of these things or any other work?	YES.....1 NO.....2 → 719	
709	What is your occupation, that is, what kind of work do you mainly do?	_____ ☐☐ _____	
710	CHECK 709: WORKS IN AGRICULTURE ☐ ↓ DOES NOT WORK IN AGRICULTURE ☐ → 712		
711	Do you work mainly on your own land or family land, or do you rent land, or work on someone else's land?	OWN/FAMILY LAND.....1 RENTED LAND.....2 SOMEONE ELSE'S LAND.....3	
712	In your current work, do you work for a member of your family, for someone else, or are you self-employed?	FOR FAMILY MEMBER.....1 FOR SOMEONE ELSE.....2 SELF-EMPLOYED.....3	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
713	Do you earn cash for this work? PROBE: Do you make money for working?	YES.....1 NO.....2	→715
714	Most of the time when you work for cash, do you decide how the money you earn will be used, or does someone else decide how your earnings are used?	RESPONDENT DECIDES.....1 SOMEONE ELSE DECIDES.....2 JOINTLY.....3	
715	Do you work all of the year or only during certain times of the year? PROBE: Is the work seasonal?	ALL OF THE YEAR.....1 ONLY SOME TIMES (SEASONAL).....2	
716	Do you work at home or away from home?	HOME.....1 AWAY.....2	
717	CHECK 215/216/218: HAS CHILD BORN SINCE BAISHAK 1395 AND LIVING AT HOME?	YES ☐ ↓ NO ☐	→719
718	Who usually takes care of (NAME OF YOUNGEST CHILD AT HOME) while you are working?	RESPONDENT.....01 HUSBAND/PARTNER.....02 OLDER CHILD(REN).....03 OTHER RELATIVES.....04 NEIGHBORS.....05 FRIENDS.....06 SERVANTS/HIRED HELP.....07 CHILD IS IN SCHOOL.....08 INSTITUTIONAL CHILDCARE.....09 OTHER_____ (SPECIFY) 10	
719	RECORD THE TIME	HOUR..... ☐☐ MINUTES..... ☐☐	

INTERVIEWER'S OBSERVATIONS
(To be filled in after completing interview)

Comments About Respondent: _____

_____

_____

Comments on Specific Questions: _____

_____

_____

Any Other Comments: _____

_____

SUPERVISOR'S OBSERVATIONS

_____

_____

_____

_____

Name of Supervisor: _____ Date: _____

EDITOR'S OBSERVATIONS

_____

_____

_____

_____

INSTRUCTIONS: ONLY ONE CODE SHOULD APPEAR IN ANY BOX. FOR COLUMNS 1, AND 3 ALL MONTHS SHOULD BE FILLED IN.

INFORMATION TO BE CODED FOR EACH COLUMN

COL.1: Births, Pregnancies, Contraceptive Use
- B BIRTHS
- P PREGNANCIES
- T TERMINATIONS

- 0 NO METHOD
- 1 PILL
- 2 IUD
- 3 INJECTIONS
- 4 CONDOM
- 5 FEMALE STERILIZATION
- 6 MALE STERILIZATION
- 7 PERIODIC ABSTINENCE
- 8 WITHDRAWAL
- W OTHER_____ (SPECIFY)

COL.2: Discontinuation of Contraceptive Use
- 1 BECAME PREGNANT WHILE USING
- 2 WANTED TO BECOME PREGNANT
- 3 HUSBAND DISAPPROVED
- 4 SIDE EFFECTS
- 5 HEALTH CONCERNS
- 6 ACCESS/AVAILABILITY
- 7 WANTED MORE EFFECTIVE METHOD
- 8 INCONVENIENT TO USE
- 9 INFREQUENT SEX/HUSBAND AWAY
- C COST
- F FATALISTIC
- A DIFFICULT TO GET PREGNANT/MENOPAUSE
- D MARITAL DISSOLUTION/SEPARATION
- W OTHER_____ (SPECIFY)
- K DON'T KNOW

COL.3: Marriage
- X MARRIED
- 0 NOT MARRIED

				1	2		3		
	12	CHOITRA	01				03	MAR	1
	11	FALGUN	02				02	FEB	8
	10	MAGH	03				01	JAN	4
	09	POUSH	04				12	DEC	
	08	AGRAHAYAN	05				11	NOV	
1	07	KARTIK	06				10	OCT	
4	06	ASHWIN	07				09	SEP	
0	05	BADHRA	08				08	AUG	
0	04	SRABAN	09				07	JUL	
	03	ASHAR	10				06	JUN	1
	02	JAISTHA	11				05	MAY	9
	01	BAISHAK	12				04	APR	9
									3
	12	CHOITRA	13				03	MAR	
	11	FALGUN	14				02	FEB	
	10	MAGH	15				01	JAN	
	09	POUSH	16				12	DEC	
	08	AGRAHAYAN	17				11	NOV	
1	07	KARTIK	18				10	OCT	
3	06	ASHWIN	19				09	SEP	
9	05	BADHRA	20				08	AUG	
9	04	SRABAN	21				07	JUL	
	03	ASHAR	22				06	JUN	1
	02	JAISTHA	23				05	MAY	9
	01	BAISHAK	24				04	APR	9
									2
	12	CHOITRA	25				03	MAR	
	11	FALGUN	26				02	FEB	
	10	MAGH	27				01	JAN	
	09	POUSH	28				12	DEC	
	08	AGRAHAYAN	29				11	NOV	
1	07	KARTIK	30				10	OCT	
3	06	ASHWIN	31				09	SEP	
9	05	BADHRA	32				08	AUG	
8	04	SRABAN	33				07	JUL	
	03	ASHAR	34				06	JUN	1
	02	JAISTHA	35				05	MAY	9
	01	BAISHAK	36				04	APR	9
									1
	12	CHOITRA	37				03	MAR	
	11	FALGUN	38				02	FEB	
	10	MAGH	39				01	JAN	
	09	POUSH	40				12	DEC	
	08	AGRAHAYAN	41				11	NOV	
1	07	KARTIK	42				10	OCT	
3	06	ASHWIN	43				09	SEP	
9	05	BADHRA	44				08	AUG	
7	04	SRABAN	45				07	JUL	
	03	ASHAR	46				06	JUN	1
	02	JAISTHA	47				05	MAY	9
	01	BAISHAK	48				04	APR	9
									0
	12	CHOITRA	49				03	MAR	
	11	FALGUN	50				02	FEB	
	10	MAGH	51				01	JAN	
	09	POUSH	52				12	DEC	
	08	AGRAHAYAN	53				11	NOV	
1	07	KARTIK	54				10	OCT	
3	06	ASHWIN	55				09	SEP	
9	05	BADHRA	56				08	AUG	
6	04	SRABAN	57				07	JUL	
	03	ASHAR	58				06	JUN	1
	02	JAISTHA	59				05	MAY	9
	01	BAISHAK	60				04	APR	8
									9
	12	CHOITRA	61				03	MAR	
	11	FALGUN	62				02	FEB	
	10	MAGH	63				01	JAN	
	09	POUSH	64				12	DEC	
	08	AGRAHAYAN	65				11	NOV	
1	07	KARTIK	66				10	OCT	
3	06	ASHWIN	67				09	SEP	
9	05	BADHRA	68				08	AUG	1
5	04	SRABAN	69				07	JUL	9
	03	ASHAR	70				06	JUN	8
	02	JAISTHA	71				05	MAY	8
	01	BAISHAK	72				04	APR	

BANGLADESH DEMOGRAPHIC AND HEALTH SURVEY 1993-94
HUSBAND QUESTIONNAIRE

DIVISION _____

DISTRICT _____

UPAZILA/THANA _____

UNION _____

VILLAGE/MOHALLA/BLOCK _____

CLUSTER NUMBER.....

HOUSEHOLD NUMBER.....

DHAKA/CHITTAGONG=1, SMALL CITY=2, TOWN=3, VILLAGE=4.....

NAME OF HOUSEHOLD HEAD _____

NAME AND LINE NUMBER OF HUSBAND _____

NAME AND LINE NUMBER OF WIFE _____

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE				DAY / MONTH** / YR 1 9 9
INTERVIEWER'S NAME				NAME
RESULT *				RESULT
NEXT VISIT: DATE / TIME				TOTAL NUMBER OF VISITS

***RESULT CODES:

1 COMPLETED
2 NOT AT HOME
3 POSTPONED
4 REFUSED
5 PARTLY COMPLETED
6 INCAPACITATED
7 OTHER _____ (SPECIFY)

	FIELD EDITED BY	OFFICE EDITED BY	KEYED BY	KEYED BY
NAME / DATE				

** MONTH:

01 JANUARY
02 FEBRUARY
03 MARCH
04 APRIL
05 MAY
06 JUNE
07 JULY
08 AUGUST
09 SEPTEMBER
10 OCTOBER
11 NOVEMBER
12 DECEMBER

SECTION 1. RESPONDENT'S BACKGROUND

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	TO
101	RECORD THE TIME.	HOUR..... ☐☐ MINUTES..... ☐☐	
102	How long have you been living continuously in (NAME OF CURRENT PLACE OF RESIDENCE)?	YEARS..... ☐☐ ALWAYS.....95 VISITOR.....96 → 103	
102A	Just before you moved here, did you live in a city, in a town, or in the countryside?	CITY.....1 TOWN.....2 COUNTRYSIDE.....3	
103	In what month and year were you born? USE CODES BELOW FOR MONTHS. IF HE DOES NOT KNOW, WRITE 'D K' IN BOXES.	BENGALI MONTH *.....1 ☐☐ YEAR..... 1 3 ☐☐ ENGLISH MONTH**.....2 ☐☐ YEAR..... 1 9 ☐☐	
104	How old are you? COMPARE AND CORRECT 103 AND/OR 104 IF INCONSISTENT.	AGE IN COMPLETED YEARS... ☐☐	
105	Have you ever attended school?	YES.....1 NO.....2 → 109	
106	What is the highest level of school you attended: primary, secondary, or higher?	PRIMARY.....1 SECONDARY.....2 COLLEGE/UNIVERSITY.....3	
107	What is the highest class you completed?	CLASS..... ☐☐	
108	CHECK 106: PRIMARY ☐ ↓ SECONDARY OR COLLEGE ☐ → 110		
109	Can you read and write a letter in any language easily, with difficulty, or not at all?	EASILY.....1 WITH DIFFICULTY.....2 NOT AT ALL.....3 → 111	
110	Do you usually read a newspaper or magazine at least once a week?	YES.....1 NO.....2	
111	Do you usually listen to the radio at least once a week?	YES.....1 NO.....2	

* BENGALI MONTHS:

01 BAISHAK	05 BADHRA	09 POUSH
02 JAISTHA	06 ASHWIN	10 MAGH
03 ASHAR	07 KARTIK	11 FALGUN
04 SRABAN	08 AGRAHAYAN	12 CHOITRA

** ENGLISH MONTHS:

01 JANUARY	05 MAY	09 SEPTEMBER
02 FEBRUARY	06 JUNE	10 OCTOBER
03 MARCH	07 JULY	11 NOVEMBER
04 APRIL	08 AUGUST	12 DECEMBER

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
112	Do you usually watch television at least once a week?	YES.....1 NO.....2	
113	What is your religion?	ISLAM.....1 CHRISTIANITY.....2 HINDUISM.....3 BUDDHISM.....4 OTHER_____5 (SPECIFY)	
114	What kind of work do you mainly do?	_____ ☐☐ _____ _____	
115	CHECK 114: WORKS IN AGRICULTURE ☐ → 116 DOES NOT WORK IN AGRICULTURE ☐ → 201		
116	Do you work mainly on your own land, or do you rent land, or do you work on someone else's land?	HIS/FAMILY LAND.....1 RENTED LAND.....2 SOMEONE ELSE'S LAND.....3	

SECTION 2. REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
201	Do you have any sons or daughters who are now living with you?	YES.....1 NO.....2	>203
202	How many sons live with you? And how many daughters live with you? IF NONE ENTER '00'.	SONS AT HOME..... DAUGHTERS AT HOME.....	
203	Do you have any sons or daughters who do not live with you?	YES.....1 NO.....2	>205
204	How many sons are alive but do not live with you? And how many daughters are alive but do not live with you? IF NONE ENTER '00'.	SONS ELSEWHERE..... DAUGHTERS ELSEWHERE.....	
205	Have you ever had a son or daughter who was born alive but later died?	YES.....1 NO.....2	>207
206	In all, how many boys have died? And how many girls have died? IF NONE ENTER '00'.	BOYS DEAD..... GIRLS DEAD.....	
207	SUM ANSWERS TO 202, 204, AND 206, AND ENTER TOTAL. IF NONE ENTER '00'.	TOTAL.....	
208	CHECK 207: Just to make sure that I have this right: you have TOTAL ____ children born alive during your life. Is that correct? YES ☐ NO ☐ > PROBE AND CORRECT 201-206 AS NECESSARY		

H-4

SECTION 3: CONTRACEPTION

301 Now I would like to talk about family planning - the various ways or methods that a couple can use to delay or avoid a pregnancy. Which ways or methods have you heard about?

CIRCLE CODE 1 IN 302 FOR EACH METHOD MENTIONED SPONTANEOUSLY.
THEN PROCEED DOWN THE COLUMN, READING THE NAME AND DESCRIPTION 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 303-304 BEFORE PROCEEDING TO THE NEXT METHOD.

		302 Have you ever heard of (METHOD)? READ DESCRIPTION OF EACH METHOD	303 Have you ever used (METHOD)?	304 Do you know where a person could go to get (METHOD)?
01	PILL, MAYA Women can take a pill every day.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	YES.....1 NO.....2
02	IUD, COPPER T Women can have a loop or coil placed inside them by a doctor or a nurse.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	YES.....1 NO.....2
03	INJECTIONS Women can have an injection by a doctor or nurse which stops them from becoming pregnant for several months.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	YES.....1 NO.....2
04	CONDOM, RAJA Men can use a rubber sheath during sexual intercourse.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	YES.....1 NO.....2
05	FEMALE STERILIZATION, TUBAL LIGATION, TL Women can have an operation to avoid having any more children.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	Has your wife had an operation to avoid having any more children? YES.....1 NO.....2	YES.....1 NO.....2
06	MALE STERILIZATION, VASECTOMY Men can have an operation to avoid having any more children.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	Have you ever had an operation to avoid having any more children? YES.....1 NO.....2	YES.....1 NO.....2
07	SAFE PERIOD, COUNTING DAYS, CALENDAR, RHYTHM METHOD Couples can avoid having sexual intercourse on certain days of the month when the woman is more likely to become pregnant.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	*Do you know where a person* can obtain advice on how to use the safe period? YES.....1 NO.....2
08	WITHDRAWAL Men can be careful and pull out before climax.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	
09	Have you heard of any other ways or methods that women or men can use to avoid pregnancy? 1 _____ (SPECIFY) 2 _____ (SPECIFY) 3 _____ (SPECIFY)	YES/SPONT.....1 NO.....3	YES.....1 NO.....2 YES.....1 NO.....2 YES.....1 NO.....2	

305 CHECK 303: NOT A SINGLE "YES" (NEVER USED) ☐ ; AT LEAST ONE "YES" (EVER USED) ☐ → SKIP TO 309

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
306	Have you or your wife ever used anything or tried in any way to delay or avoid getting pregnant?	YES.....☐ NO.....☐	→386G
308	What have you used or done? CORRECT 303-305 (AND 302 IF NECESSARY).		
309	What was the first method you ever used?	PILL.....01 IUD.....02 INJECTIONS.....03 CONDOM.....04 FEMALE STERILIZATION.....05 MALE STERILIZATION.....06 SAFE PERIOD, COUNTING DAYS.....07 WITHDRAWAL.....08 OTHER_____09 (SPECIFY)	
311	How many living children did you have at that time, if any? IF NONE, RECORD '00'.	NUMBER OF CHILDREN..... ☐☐	
311A	CHECK 303: MAN NOT STERILIZED ☐ V MAN STERILIZED ☐		→315A
314	Are you or your wife currently doing something or using any method to delay or avoid getting pregnant?	YES.....1 NO.....2	→322C
315 315A	Which method are you using? CIRCLE '06' FOR MALE STERILIZATION.	PILL.....01 IUD.....02 INJECTIONS.....03 CONDOM.....04 FEMALE STERILIZATION.....05 MALE STERILIZATION.....06 SAFE PERIOD, COUNTING DAYS.....07 WITHDRAWAL.....08 OTHER_____09 (SPECIFY)	→321
316	At any time during the same month, do you regularly use any method other than (CURRENT METHOD)?	YES.....1 NO.....2	→318
317	Which method is that?	PILL.....01 IUD.....02 INJECTIONS.....03 CONDOM.....04 SAFE PERIOD, COUNTING DAYS.....07 WITHDRAWAL.....08 OTHER_____09 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
318	CHECK 315: USING CONDOM ☐	USING PILL, IUD, OR INJECTION ☐	→323
		USING SAFE PERIOD WITHDRAWAL, OR OTHER TRADITIONAL METHOD ☐	→326
320	Please show me the package of condoms that you are using.	PACKAGE SEEN.....1 BRAND NAME_____ ☐☐ PACKAGE NOT SEEN.....2	→320C
320A	Why can't you show me the package of condoms that you are using?	WIFE KEEPS.....1 RAN OUT.....2 OTHER_____3 (SPECIFY)	
320B	SHOW BRAND CHART FOR CONDOMS: Please tell me which of these is the brand of condoms that you are using.	BRAND NAME_____ ☐☐ DOES NOT KNOW.....98	
320C	How much did the condom you last used cost?	COST..... ☐☐.☐☐ PARTNER OBTAINED.....9995 FREE.....9996 DOES NOT KNOW.....9998	
320D	Do you use a condom every time that you have sexual intercourse or only sometimes?	EVERY TIME.....1 ONLY SOMETIMES.....2	
320E	How many times have you used condoms during the last one month?	NUMBER OF TIMES..... ☐☐	→323
321	In what month and year was the sterilization operation performed? USE CODES BELOW FOR MONTHS.	BENGALI MONTH *.....1 ☐☐ YEAR..... 1 ☐☐ ENGLISH MONTH**.....2 ☐☐ YEAR..... 1 9 ☐☐	
322A	Do you regret that (you/your wife) had the operation not to have any more children?	YES.....1 NO.....2	→323A
322B	Why do you regret it?	RESPONDENT WANTS ANOTHER CHILD..1 PARTNER WANTS ANOTHER CHILD.....2 SIDE EFFECTS.....3 OTHER REASON_____4 (SPECIFY)	→323A
322C	Which method of family planning did you use most recently?	PILL.....01 IUD.....02 INJECTIONS.....03 CONDOM.....04 SAFE PERIOD, COUNTING DAYS.....07 WITHDRAWAL.....08 OTHER_____09 (SPECIFY)	→325J

* BENGALI MONTHS:

01 BAISHAK	05 BADHRA	09 POUSH
02 JAISTHA	06 ASHWIN	10 MAGH
03 ASHAR	07 KARTIK	11 FALGUN
04 SRABAN	08 AGRAHAYAN	12 CHOITRA

** ENGLISH MONTHS:

01 JANUARY	05 MAY	09 SEPTEMBER
02 FEBRUARY	06 JUNE	10 OCTOBER
03 MARCH	07 JULY	11 NOVEMBER
04 APRIL	08 AUGUST	12 DECEMBER

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
323	Where did you obtain (METHOD) the last time?	PUBLIC SECTOR HOSPITAL/MEDICAL COLLEGE.....11 FAMILY WELFARE CENTRE.....12 THANA HEALTH COMPLEX.....13 SATELLITE CLINIC.....14 MEDICAL PRIVATE SECTOR PRIVATE CLINIC, DOCTOR.....21 TRADITIONAL DOCTOR.....22 PHARMACY.....23 OTHER PRIVATE SECTOR SHOP.....31 FRIENDS/RELATIVES.....32 FIELDWORKER, FWA.....41	→325A
323A	Where did the sterilization take place? _____ (NAME OF PLACE)	OTHER _____ 51 (SPECIFY) DOES NOT KNOW..... 98	
323B	Did you pay for the service you received there?	YES.....1 NO.....2 DOES NOT KNOW.....8	
323C	CHECK 322C OR 315: USING (USED) PILLS OR CONDOMS ☐ ↓ USING (USED) OTHER METHOD ☐		→325J
325	Who obtained the (pills/condoms) the last time you got them?	RESPONDENT.....1 WIFE.....2 SON/DAUGHTER.....3 OTHER RELATIVE.....4 OTHER _____ 5 (SPECIFY)	→325B
325A	Have you yourself ever been to a health facility, a doctor, or a shop to get (pills, condoms)?	YES.....1 NO.....2	→325J
325B	Did anyone there ever tell you about side effects or other problems that you might have using this method?	YES.....1 NO.....2 CANNOT REMEMBER.....8	
325C	Did anyone there ever tell you about other methods that you might use?	YES.....1 NO.....2 CANNOT REMEMBER.....8	
325H	Did you get the method that you wanted?	YES.....1 NO.....2	→325J
325I	Which method did you want?	PILL.....01 IUD.....02 INJECTIONS.....03 CONDOM.....04 FEMALE STERILIZATION.....05 MALE STERILIZATION.....06 SAFE PERIOD, COUNTING DAYS.....07 WITHDRAWAL.....08 OTHER _____ 09 (SPECIFY)	
325J	When a couple is making a decision, sometimes the husband has more influence, sometimes the wife has more influence and sometimes other people have more influence. In your family, who had the most influence in deciding to use family planning the first time you used a method?	RESPONDENT HAD MORE INFLUENCE...1 WIFE HAD MORE INFLUENCE.....2 BOTH HUSBAND AND WIFE EQUAL.....3 OTHER RELATIVE.....4 OTHER _____ 5 (SPECIFY)	
325K	CHECK 314: CURRENTLY USING A METHOD ☐ ↓ NOT USING A METHOD (OR BLANK) ☐		→328G

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	GO TO
326	What is the main reason you decided to use (CURRENT METHOD FROM 315) rather than some other method of family planning?	FAMILY PLAN. WORKER RECOMMEND..01 FRIEND/RELATIVE RECOMMENDED....02 SIDE EFFECTS OF OTHER METHODS..03 CONVENIENCE.....04 ACCESS/AVAILABILITY.....05 COST.....06 WANTED PERMANENT METHOD.....07 HUSBAND PREFERRED.....08 WANTED MORE EFFECTIVE METHOD...09 OTHER_____10 (SPECIFY) DOES NOT KNOW.....98	→347
328G	What is the main reason you are not using a method to delay or avoid pregnancy?	WANTS CHILDREN.....01 LACK OF KNOWLEDGE.....02 PARTNER OPPOSED.....03 COST TOO MUCH.....04 SIDE EFFECTS.....05 HEALTH CONCERNS.....06 HARD TO GET METHODS.....07 RELIGION.....08 OPPOSED TO FAMILY PLANNING.....09 FATALISTIC.....10 OTHER PEOPLE OPPOSED.....11 INFREQUENT SEX/WIFE AWAY.....12 DIFFICULT TO GET PREGNANT.....13 MENOPAUSAL/HAD HYSTERECTOMY....14 INCONVENIENT.....15 MENSTRUATION NOT RETURNED.....16 BREASTFEEDING.....17 OTHER_____18 (SPECIFY) DK.....98	
328H	Do you know where you can obtain a method of family planning?	YES.....1 NO.....2	→347
328I	Where is that? _____ (NAME OF PLACE)	PUBLIC SECTOR HOSPITAL/MEDICAL COLLEGE.....11 FAMILY WELFARE CENTRE.....12 THANA HEALTH COMPLEX.....13 SATELLITE CLINIC.....14 MEDICAL PRIVATE SECTOR TRADITIONAL DOCTOR.....21 QUALIFIED DOCTOR.....22 PHARMACY.....23 OTHER PRIVATE SECTOR SHOP.....31 FRIENDS/RELATIVES.....32 FIELDWORKER, FWA.....41 OTHER_____51 DOES NOT KNOW..... 98	
347	CHECK 310, 323, AND 328G: SATELLITE CLINIC NOT MENTIONED ☐ ↓ SATELLITE CLINIC MENTIONED ☐		→348
347A	In some places, there is a clinic set up for a day or part of a day in someone's house or in a school. This is called a satellite clinic. During the past 3 months was there any such clinic in your village/mohalla?	YES.....1 NO.....2 DOES NOT KNOW.....8	→348 →348
347B	Did you ever visit such a clinic?	YES.....1 NO.....2	→348
347C	What services did they provide? CIRCLE ALL MENTIONED.	FAMILY PLANNING METHODS.....A IMMUNIZATION.....B CHILD GROWTH MONITORING.....C OTHER_____D DOES NOT KNOW.....E	
348	In the last month, have you heard or seen a message about family planning on: the radio? television? a billboard? a poster?	YES NO RADIO.....1 2 TELEVISION.....1 2 BILLBOARD.....1 2 POSTER.....1 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
349	Is it acceptable or not acceptable to you for information to be provided on the radio about: the pill? condoms? injections? IUDs (coil, loop)? sterilization (TL)?	YES NO PILLS.....1 2 CONDOMS.....1 2 INJECTIONS.....1 2 IUD.....1 2 STERILIZATION, TL.....1 2	
350	During the last six months has anyone visited you in your house to talk to you about family planning or to give you any family planning method?	YES.....1 NO.....2 DOES NOT KNOW.....8	
351	Has a family planning worker visited you in the last six months for another reason?	YES.....1 NO.....2 → 358 DOES NOT KNOW.....8 → 358	
352	How many times did a family planning worker visit you in the last six months?	TIMES..... ☐☐ DOES NOT KNOW.....98	
353	When was the last visit? IF LESS THAN ONE MONTH AGO, WRITE '00'.	MONTHS AGO..... ☐☐ DOES NOT KNOW.....98	
354	Did you receive any family planning supplies from the fieldworker during the last visit?	YES.....1 NO.....2 → 357	
355	What supplies did you receive?	PILLS.....1 CONDOMS.....2 WIFE GOT INJECTION.....3 → 357 OTHER_____ 4 → 357 (SPECIFY)	
356	How many cycles/condoms?	CYCLES/CONDOMS..... ☐☐	
357	Thinking back to all the visits you have ever had from family planning workers, which methods of avoiding pregnancy did they discuss with you? CIRCLE ALL MENTIONED.	PILLS.....A IUD, LOOP.....B INJECTION.....C CONDOMS.....D FEMALE STERILIZATION.....E MALE STERILIZATION.....F NEVER DISCUSSED.....G	
358	Do you think that most of the men you know use some kind of family planning method?	YES.....1 NO.....2 DOES NOT KNOW.....8	
359	Have you ever recommended family planning to a friend, relative, or anyone else?	YES.....1 NO.....2	
360	In the past 12 months, have you visited a health facility for any reason?	YES.....1 NO.....2 → 401	
361	Did anyone at the health facility speak to you about family planning methods?	YES.....1 NO.....2	

SECTION 4. MARRIAGE

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
401	Have you been married only once or more than once?	ONCE.....1 MORE THAN ONCE.....2	
402	In what month and year did you start living with your (first) wife?	BENGALI MONTH *.....1 [ ][ ] YEAR..... [1][3][ ][ ]	→404
		ENGLISH MONTH**.....2 [ ][ ] YEAR..... [1][9][ ][ ]	→404
403	How old were you when you started living with her?	AGE..... [ ][ ] DOES NOT KNOW AGE.....98	
406	Now we need some details about your sexual activity in order to get a better understanding of family planning and fertility. When was the last time you had sexual intercourse?	NEVER.....000 DAYS AGO.....1 [ ][ ] WEEKS AGO.....2 [ ][ ] MONTHS AGO.....3 [ ][ ] YEARS AGO.....4 [ ][ ] BEFORE LAST BIRTH.....996	
408	PRESENCE OF OTHERS AT THIS POINT.	YES NO CHILDREN UNDER 10.....1 2 WIFE.....1 2 OTHER MALES.....1 2 OTHER FEMALES.....1 2	

* BENGALI MONTHS:

01 BAISHAK	05 BADHRA	09 POUSH
02 JAISTHA	06 ASHWIN	10 MAGH
03 ASHAR	07 KARTIK	11 FALGUN
04 SRABAN	08 AGRAHAYAN	12 CHOITRA

** ENGLISH MONTHS:

01 JANUARY	05 MAY	09 SEPTEMBER
02 FEBRUARY	06 JUNE	10 OCTOBER
03 MARCH	07 JULY	11 NOVEMBER
04 APRIL	08 AUGUST	12 DECEMBER

SECTION 5. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
501	CHECK 315: NEITHER STERILIZED ☐ → SHE OR HE STERILIZED ☐		→510
502	Now I have some questions about the future. Would you like to have a (another) child or would you prefer not to have any more children?	HAVE A (ANOTHER) CHILD.....1 NO MORE/NONE.....2 SAYS WIFE CAN'T GET PREGNANT....3 UNDECIDED OR DK.....8	→504
503	How long would you like to wait from now before the birth of a (another) child?	MONTHS.....1 ☐☐ YEARS.....2 ☐☐ SOON/NOW.....995 OTHER _____ 996 (SPECIFY) DK.....998	
504	CHECK 314: USING A METHOD? NO ☐ → YES ☐		→510
505	Do you intend to use a method to delay or avoid pregnancy within the next 12 months?	YES.....1 NO.....2 DK.....8	→507
506	Do you intend to use a method at any time in the future?	YES.....1 NO.....2 DK.....8	→509 →509
507	When you use a method, which method would you prefer to use?	PILL.....01 IUD.....02 INJECTIONS.....03 CONDOM.....04 FEMALE STERILIZATION.....05 MALE STERILIZATION.....06 CALENDAR, COUNTING DAYS.....07 WITHDRAWAL.....08 OTHER _____ 09 (SPECIFY) UNSURE.....98	→510
508	Where can you get (METHOD MENTIONED IN 507)? _____ (NAME OF PLACE)	PUBLIC SECTOR HOSPITAL/MEDICAL COLLEGE.....11 FAMILY WELFARE CENTRE.....12 THANA HEALTH COMPLEX.....13 SATELLITE CLINIC.....14 MEDICAL PRIVATE SECTOR TRADITIONAL DOCTOR.....21 QUALIFIED DOCTOR.....22 PHARMACY.....23 OTHER PRIVATE SECTOR SHOP.....31 FRIENDS/RELATIVES.....32 FIELDWORKER, FWA.....41 OTHER _____ 51 (SPECIFY) DOES NOT KNOW..... 98	→510

H-12

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
509	What is the main reason you do not intend to use a method?	WANTS CHILDREN.....01 LACK OF KNOWLEDGE.....02 PARTNER OPPOSED.....03 COST TOO MUCH.....04 SIDE EFFECTS.....05 HEALTH CONCERNS.....06 HARD TO GET METHODS.....07 RELIGION.....08 OPPOSED TO FAMILY PLANNING.....09 FATALISTIC.....10 OTHER PEOPLE OPPOSED.....11 INFREQUENT SEX.....12 DIFFICULT TO GET PREGNANT.....13 MENOPAUSAL/HAD HYSTERECTOMY....14 INCONVENIENT.....15 OTHER_____16 (SPECIFY) DK.....98	
510	Do you think that your wife approves or disapproves of couples using a method to avoid pregnancy?	APPROVES.....1 DISAPPROVES.....2 DOES NOT KNOW.....8	
511	How often have you talked to your wife about family planning in the last year?	NEVER.....1 ONCE OR TWICE.....2 MORE OFTEN.....3	
512	Have you and your wife ever discussed the number of children you would like to have?	YES.....1 NO.....2	
513	Do you think your wife wants the same number of children that you want, or does she wantmore or fewer than you want?	SAME NUMBER.....1 MORE CHILDREN.....2 FEWER CHILDREN.....3 DK.....8	
514	Do you allow your wife to go out alone (or with your children) to buy household items or visit relatives?	YES, ALONE.....1 YES, WITH CHILDREN.....2 NOT ALLOWED TO GO OUT.....3 OTHER_____4	
515	In general, do you approve or disapprove of couples using a method to avoid pregnancy?	APPROVES.....1 DISAPPROVES.....2	
516	CHECK 216: HAS LIVING CHILD(REN) ☐ → If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be? NO LIVING CHILD(REN) ☐ → If you could choose exactly the number of children to have in your whole life, how many would that be? RECORD SINGLE NUMBER OR OTHER ANSWER.	NUMBER..... ☐☐ OTHER ANSWER_____96 (SPECIFY)	
517	How many of these would you like to be boys and how many would you like to be girls?	BOYS..... ☐☐ GIRLS..... ☐☐ EITHER..... ☐☐ UP TO GOD.....95 OTHER_____96 (SPECIFY)	
518	RECORD THE TIME	HOUR..... ☐☐ MINUTES..... ☐☐	

INTERVIEWER'S OBSERVATIONS
(To be filled in after completing interview)

Comments About Respondent: _____

_____

_____

Comments on Specific Questions: _____

_____

_____

Any Other Comments: _____

_____

SUPERVISOR'S OBSERVATIONS

_____

_____

_____

_____

Name of Supervisor: _____ Date: _____

EDITOR'S OBSERVATIONS

_____

_____

_____

_____

BANGLADESH DEMOGRAPHIC AND HEALTH SURVEY 1993-94
SERVICES AVAILABILITY QUESTIONNAIRE

DIVISION _____

DISTRICT _____

UPAZILA/THANA _____

UNION _____

VILLAGE/MOHALLA/BLOCK _____

CLUSTER NUMBER.....

DHAKA/CHITTAGONG=1, SMALL CITY=2, TOWN=3, VILLAGE=4..

INTERVIEWER NAME _____

DATE QUESTIONNAIRE IS COMPLETED..... DAY

MONTH**

YEAR 1 9 9

INFORMANTS WHO PROVIDED INFORMATION:
(WRITE POSITION, E.G., VILLAGE LEADER, FWA)

1. _____

2. _____

3. _____

4. _____

5. _____

	FIELD EDITED BY	OFFICE EDITED BY	KEYED BY	KEYED BY
NAME				
DATE				

** MONTH:

01 JANUARY	05 MAY	09 SEPTEMBER
02 FEBRUARY	06 JUNE	10 OCTOBER
03 MARCH	07 JULY	11 NOVEMBER
04 APRIL	08 AUGUST	12 DECEMBER

I. GENERAL DESCRIPTION

NO.	QUESTIONS	CODING CATEGORIES	SKIP TO
1	How far is it from here to the thana headquarters in miles? IF LESS THAN 1 MILE, WRITE '00'.IF 97 MILES OR MORE, WRITE 97 IF UNKNOWN RECORD '98'(BUT TRY TO GET AN ESTIMATE).	MILES..... ☐☐	
2	How far is it from here to the district headquarters in miles IF LESS THAN 1 MILE, WRITE '00'.IF 97 MILES OR MORE, WRITE 97 IF UNKNOWN RECORD '98'(BUT TRY TO GET AN ESTIMATE).	MILES..... ☐☐	
3	In this village/mohalla, are there any mother's clubs or ladies associations?	YES.....1 NO.....2	
4	In this village/mohalla, is there a Grameen Bank?	YES.....1 NO.....2	
5	In this village/mohalla, are there any cottage industries of BSIC?	YES.....1 NO.....2	
6	In this village/mohalla, is there any cooperative society?	YES.....1 NO.....2	
7	In this village/mohalla, are there any NGOs having income-generating activities?	YES.....1 NO.....2	
8	In this village/mohalla, is there a television for the community?	YES.....1 NO.....2	
9	What proportion of the households in this village/mohalla live in one room?	ALL/ALMOST ALL.....1 MOST/MORE THAN HALF.....2 LESS THAN HALF.....3 VERY FEW/NONE.....4	
10	What proportion of the households in this village/mohalla live in non-pukka houses?	ALL/ALMOST ALL.....1 MOST/MORE THAN HALF.....2 LESS THAN HALF.....3 VERY FEW/NONE.....4	
11	Please tell me if the following things are in this village/mohalla.	MILES	
	Is there a Madrasha here? IF YES, WRITE "00". IF NO, ASK: How far is it to the nearest Madrasha? IF DON'T KNOW, PUT 98.	MADRASHA SCHOOL..... ☐☐	
	Is there a primary school here?	PRIMARY SCHOOL..... ☐☐	
	Is there a high school here?	HIGH SCHOOL..... ☐☐	
	Is there a post office here?	POST OFFICE..... ☐☐	
	Is there a daily market here?	DAILY MARKET..... ☐☐	
	Is there a weekly market here?	WEEKLY MARKET..... ☐☐	
	Is there a cinema here? NOTE: FOR EACH, IF IN VILLAGE/MOHALLA, WRITE "00". IF NOT IN VILLAGE/MOHALLA, ASK HOW FAR. WRITE IN MILES. IF DO NOT KNOW, WRITE "98". IF MORE THAN 97, WRITE "97"	CINEMA..... ☐☐	

II. COMMUNITY-BASED SERVICES

NO.	QUESTIONS	CODING CATEGORIES	SKIP TO
12	Is there a family planning worker who visits this village/mohalla? PROBE: Does a woman come to visit houses here to talk about family planning?	YES.....1 NO.....2	→ 7
13	What services does this family planning worker provide?		
	a: Information about family planning?	FAMILY PLANNING INFORMATION: YES.....1 NO.....2 DO NOT KNOW.....8	
	b: Family planning methods?	FAMILY PLANNING METHODS: YES.....1 NO.....2 DO NOT KNOW.....8	
	c: Helps at the temporary clinic they have sometimes in someone's house (satellite clinic)?	HELPS AT SATELLITE CLINIC YES.....1 NO.....2 DO NOT KNOW.....8	
	d: Takes women to clinic/hospital?	TAKES TO CLINIC/HOSPITAL YES.....1 NO.....2 DO NOT KNOW.....8	
	e: Takes children for immunizations?	TAKES CHILDREN FOR IMMUNIZATION: YES.....1 NO.....2 DO NOT KNOW.....8	
	f: Vitamin A capsules for children?	VITAMIN A CAPSULES: YES.....1 NO.....2 DO NOT KNOW.....8	
14	Where does the family planning worker live? IF OUTSIDE VILLAGE/MOHALLA, GET DIRECTIONS.	_____ _____ *(NAME OF CBD WORKER)*	
15	How long has this family planning worker been working in this village/mohalla? IF LESS THAN ONE YEAR, WRITE "00".	YEARS..... ☐☐ DOES NOT KNOW.....98	
16	Was there another family planning worker before the current one?	YES.....1 NO.....2	→ 7
17	How long ago did the first family planning worker start to work in this village/mohalla? IF LESS THAN ONE YEAR, WRITE "00".	YEARS AGO..... ☐☐ DOES NOT KNOW.....98	
18	Is there any health worker working in this village/mohalla?	YES.....1 NO.....2	→ 10

NO.	QUESTIONS	CODING CATEGORIES	SKIP TO
19	What services does this health worker provide? a: Health information/education? b: Immunizations for children? c: Oral rehydration packets (Orsaline)? d: Vitamin A capsules for children?	HEALTH INFORMATION: YES.....1 NO.....2 DO NOT KNOW.....8 IMMUNIZATIONS: YES.....1 NO.....2 DO NOT KNOW.....8 ORS PACKETS: YES.....1 NO.....2 DO NOT KNOW.....8 VITAMIN A CAPSULES: YES.....1 NO.....2 DO NOT KNOW.....8	
20	In addition to those you mentioned, is there any other family planning or health worker who works in this village/mohalla?	YES.....1 NO.....2 → 10 DOES NOT KNOW.....8 → 10	
21	What services does this person provide?	_____ _____	
22	Is there anyone in this village/mohalla who sells family planning methods from his or her house?	YES.....1 NO.....2 → 10 DOES NOT KNOW.....8 → 10	
23	Which methods does he/she sell? CIRCLE ALL MENTIONED.	PILL.....A CONDOM.....B IUD.....C OTHER_____D (SPECIFY)	
24	In some places, there is a clinic which is set up temporarily in someone's house or a school on certain days to provide health and family planning services to mothers and children. This is called a satellite clinic. Is there ever a clinic like this held in this village/mohalla?	YES.....1 NO.....2 → 10 DOES NOT KNOW.....8 → 10	
25	Is there a clinic like this held nearby to this village/mohalla? IF YES: How far away is the place where they have the clinic?	YES.....1 NO.....2 → 10 DOES NOT KNOW.....8 → 10 MILES..... ☐☐	
26	What services are available from this temporary satellite clinic? CIRCLE ALL MENTIONED.	FAMILY PLANNING PILL.....A CONDOM.....B IUD INSERTIONS.....C FAMILY PLANNING INJECTIONS.....D IMMUNIZATIONS.....E ORAL REHYDRATION PACKETS.....F VITAMIN A CAPSULES.....G WEIGHING CHILDREN.....H CHECKING PREGNANT WOMEN.....I OTHER_____J (SPECIFY)	
27	How frequently are these temporary clinics held?	NO.OF TIMES ☐☐ PER MONTH.1 YEAR..2	
28	How far away is the nearest Family Welfare Center?	MILES..... ☐☐	
28	How far away is the nearest hospital or thana health complex?	MILES..... ☐☐	

III. INTERVIEW WITH FAMILY WELFARE ASSISTANT

NO.	QUESTIONS	CODING CATEGORIES	SKIP TO
1	WERE YOU ABLE TO INTERVIEW THE FWA IN THIS VILLAGE/MOHALLA?	YES.....1 NO.....2	→ 14
2	WHY NOT?	NO FWA WORKS HERE.....1 NOT AT HOME.....2 OTHER_____3 (SPECIFY)	
3	We are doing a survey to determine the types of family planning and health services that are available in this area. I would like to ask you a few questions. Which organization do you work for?	BANGLADESH GOVERNMENT/MOHFW.....1 NON-GOVERNMENTAL ORGANIZATION...2 IF NGO, WRITE ORGANIZATION NAME: _____ _____	
4	Do you work full-time or part-time?	FULL TIME.....1 PART TIME.....2	
5	How long have you been working in this village/mohalla? IF LESS THAN 1 YEAR, WRITE "00".	YEARS..... ☐☐	
6	What services do you provide? FIRST CIRCLE "1" FOR ALL SERVICES SHE MENTIONS SPONTANEOUSLY. FOR THOSE SHE DOES NOT MENTION, PROBE AND CIRCLE EITHER "2" OR "3", AS APPROPRIATE.	YES SPONT / YES PROBED / NO FAMILY PLANNING INFORMATION.....1 2 3 FP METHODS.....1 2 3 TAKES WOMEN TO CLINIC.1 2 3 TAKES CHILDREN TO GET IMMUNIZED.....1 2 3 GIVES VITAMIN A.....1 2 3 OTHER_____ _____ (SPECIFY)	
7	Do you keep a list of all the households living in your assigned area?	YES.....1 NO.....2	
8	Did you receive any basic training before you started working as a family planning worker?	YES.....1 NO.....2	
9	How long did that basic training last? IF LESS THAN ONE WEEK, WRITE "00". IF SHE DOES NOT REMEMBER, WRITE "98".	WEEKS..... ☐☐	
10	What did the training cover? CIRCLE ALL MENTIONED.	SIDE EFFECTS OF METHODS.....A HOW METHODS WORK.....B INTERPERSONAL COMMUNICATIONS....C RECORD KEEPING.....D OTHER_____E (SPECIFY)	
11	Since that time, have you attended any refresher course or any other training related to your job?	YES.....1 NO.....2	

NO.	QUESTIONS	CODING CATEGORIES	SKIP TO
12	Do you go on household visitation every day?	YES.....1 NO.....2	
13	On the days that you go for household visitation, how many hours do you usually spend visiting households?	HOURS..... ☐☐	
14	How many households do you usually visit on the days that you go on household visitation?	NUMBER OF HOUSEHOLDS.... ☐☐	
15	When you visit in the households, do you explain about all family planning methods, or do you just discuss the pill and condom?	EXPLAINS ALL METHODS.....1 ONLY PILL AND CONDOM.....2	
16	If one of your clients has a problem with a method, what do you do? DO NOT READ CODES. CIRCLE ALL MENTIONED.	TRY TO HELP HER MYSELF.....A TELL HER TO GO TO CLINIC.....B DISCUSS WITH MY SUPERVISOR.....C OTHER_____D (SPECIFY)	
17	Can you please describe for me what are the possible side effects of using the pill?	_____ _____	
18	If a woman forgets to take a pill one day, what should she do?	_____ _____	
19	Can you please describe for me what are the possible side effects of using the injection?	_____ _____	
20	Do you have any problems with storage of the methods you distribute?	YES.....1 NO.....2	
21	How often do you run out of supplies of pills?	FREQUENTLY.....1 SOME TIMES.....2 ALMOST NEVER.....3	

IV. INTERVIEW WITH FAMILY WELFARE VISITOR

NO.	QUESTIONS	CODING CATEGORIES	SKIP TO
1	WERE YOU ABLE TO INTERVIEW THE FWV THAT IS NEAREST TO THIS VILLAGE/MOHALLA?	YES.....1 NO.....2	→ 14
2	WHY NOT?	FWC IS TOO FAR.....1 FWC HAS NO FWV.....2 FWV IS NOT AVAILABLE.....3 OTHER_____4 (SPECIFY)	
3	We are doing a survey to determine the types of family planning and health services that are available in this area. I would like to ask you a few questions. How long have you been working at this Family Welfare Center?	YEARS..... ☐☐	
4	How long ago was this FWC established?	YEARS AGO..... ☐☐	
5	What services are available at the FWC? CIRCLE ALL MENTIONED. YOU MAY READ CODES TO HER.	FAMILY PLANNING INFORMATION.....A FAMILY PLANNING METHODS.....B MENSTRUAL REGULATION.....C ANTENATAL CARE.....D CHILDREN'S IMMUNIZATIONS.....E ORAL REHYDRATION (ORS).....F GROWTH MONITORING.....G OTHER_____H _____ (SPECIFY)	
6	What staff are working at this FWC? I mean how many medical officers and medical assistants, etc. work here?	MEDICAL OFFICERS..... ☐ MEDICAL ASSISTANTS..... ☐ FAMILY WELFARE VISITORS..... ☐ PHARMACISTS..... ☐ OTHER MEDICAL STAFF..... ☐ _____ (SPECIFY)	
7	Which of the following services do you yourself provide: family planning information? family planning services? Which ones: the pill? IUD insertions? injections? condoms? menstrual regulation? antenatal care? child immunisations? oral rehydration? growth monitoring?	YES NO FAMILY PLAN. INFORMATION...1 2 FAMILY PLANNING SERVICES...1 2 PILL.....1 2 IUD INSERTIONS.....1 2 INJECTIONS.....1 2 CONDOMS.....1 2 MENSTRUAL REGULATION.....1 2 ANTENATAL CARE.....1 2 CHILD IMMUNISATIONS.....1 2 ORAL REHYDRATION.....1 2 GROWTH MONITORING.....1 2	
8	Do you organize satellite clinics?	YES.....1 NO.....2	

NO.	QUESTIONS	CODING CATEGORIES	SKIP TO
9	How often do you hold satellite clinics?	NO.OF TIMES ☐☐ PER MONTH	
10	Which of the following services are usually offerred at the satellite clinic: family planning information? family planning services? Which ones: the pill? IUD insertions? injections? condoms? menstrual regulation? antenatal care? child immunisations? oral rehydration? growth monitoring?	YES NO FAMILY PLAN. INFORMATION...1 2 FAMILY PLANNING SERVICES...1 2 PILL.....1 2 IUD INSERTIONS.....1 2 INJECTIONS.....1 2 CONDOMS.....1 2 MENSTRUAL REGULATION.....1 2 ANTENATAL CARE.....1 2 CHILD IMMUNISATIONS.....1 2 ORAL REHYDRATION.....1 2 GROWTH MONITORING.....1 2	
11	Do you ever go to an individual client's house to insert IUDs?	YES.....1 NO.....2	
12	Do you ever go to an individual client's house to give her an injection?	YES.....1 NO.....2	
13	Do you have any problems in organizing satellite clinics?	YES.....1 NO.....2	
14	What problems do you have?	_____ _____	
15	Since you were first trained, did you attend any refresher course or any other training related to your job?	YES.....1 NO.....2	
16	Did you ever receive training on how to insert IUDs?	YES.....1 NO.....2	
17	Did you ever receive training on menstrual regulation?	YES.....1 NO.....2	
18	Did you ever receive training on how to deal with side effects of contraceptive methods?	YES.....1 NO.....2	
19	When a woman comes to you for family planning advice, do you explain about all family planning methods or do you only tell her about one or two methods?	EXPLAINS ALL METHODS.....1 ONLY ONE OR TWO.....2	
20	Can you please describe for me what are the possible side effects of using the pill?	_____ _____	
21	If a woman forgets to take a pill one day, what should she do?	_____ _____	
22	Can you please describe for me what are the possible side effects of using the injection?	_____ _____	
23	If a woman has an appointment to have her next injection on a certain day and she comes 3 or 4 days late, do you give her the injection or do you tell her to come back after her her next menstrual period?	GIVE HER INJECTION THEN.....1 TELL HER TO WAIT UNTIL PERIOD...2	