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Determinants of Contraceptive Use among Married Teenage Women and Newlywed Couples

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Operations Research Project
Health and Population Extension Division

1998



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Table of Contents

	Page
Abstract	vi
Introduction	1
Review of National Trends and Levels in Teenage Marriage, Fertility and Contraceptive Use in Bangladesh	1
Methods and Data	6
Findings	8
Use of contraceptive methods	8
Women's education	10
Women's religion	11
Number of living children	11
Duration of marriage	12
Family planning field worker contact.....	13
Health and family welfare centre visit	15
Primary reasons for non-use of contraceptives	15
Knowledge of methods before marriage	17
Desire for a subsequent child	17
Complications experienced during pregnancy and their relation to contraceptive use	19
Intention to use contraceptives	20
Satellite clinic visit	21
Mobility of women	22
Desired family size	23
Logistic Regression Analysis	23
Discussion and Conclusion	29
References	34

Tables:

	Page
Table 1. Percentage of sociodemographic characteristics of the sample of married women by age	8
Table 2. Percentage of MWRA currently using contraceptives by method and age group	9
Table 3. Percentage of married women ever using and currently using contraceptives by education and age group	10
Table 4. Percentage distribution of respondents ever and currently using contraceptives by religion and age group	11
Table 5. Percentage of women ever using and currently using contraceptives by number of living children and woman's age group	12
Table 6. Percentage of women ever using and currently using modern contraceptives according to duration of married life and age group	13
Table 7. Percentage of women ever using and currently using contraceptives according to contact status of family planning field workers.....	14
Table 8. Percentage of married women of reproductive age (MWRA) currently using contraceptives by whether they ever visited the Health and Family Welfare Centre and age	15
Table 9. Percentage distribution of primary reasons given for not currently using modern family planning methods by age group among non-users	16
Table 10. Percentage of current contraceptive use status according to family planning knowledge prior to marriage.....	17
Table 11. Percentage distribution of respondents who desired more children, by desired interval from previous child, and age group .	18
Table 12. Percentage of women currently using contraceptives by whether or not they have ever suffered from complications during pregnancy, or childbirth, and age group	20

Tables <i>(continued)</i>	Page
Table 13. Percentage distribution of respondents who were not using contraceptives at the time of interview, by age and intention to use modern contraceptive methods in the future	21
Table 14. Percentage of women currently using contraceptives by whether they have ever visited a Satellite Clinic (SC) and age	22
Table 15. Percentage of women currently using contraceptives by whether they have permission to go out for any reason, and age	22
Table 16. Mean desired family size by age group	23
Table 17. Effects of sociodemographic and programmatic factors on current contraceptive use and on intention to use modern methods in the future among the currently married women aged 10-49 years: odds ratios from multiple regression analysis	24
Table 18. Effect of sociodemographic and programmatic factors on current contraceptive use and on intention to use modern methods in the future among women having less than 3 years of marital duration: odd ratios from multiple logistic regression	27
Table 19. Effects of sociodemographic and programmatic factors on current contraceptive use and on intention to use modern methods in the future among teenage married women (aged less than 20 years): odds ratios from multiple logistic regression	28

Figures:

Page

Figure 1. Percentage of females ever married by age group, Bangladesh, 1975-1997	3
Figure 2. Selected age-specific fertility rates for women, Bangladesh, 1975-1997	3
Figure 3. Unmet need for family planning services among currently married women, by age group, Bangladesh, 1996-1997	4
Figure 4. Framework of the determinants of contraceptive use objective...	7
Figure 5. Percentage distribution of couples according to visit status by family planning field workers	14
Figure 6. Percentage of married women who have a fatalistic or uncertain attitude towards the number of children they will bear in the future	19

Abstract

Teenage and newlywed couples in rural areas of Bangladesh are often underserved by family planning (FP) service providers. This happens because: i) the young women lack knowledge about contraceptive methods and where to obtain; ii) the young women have restricted access to FP and health services due to *pardah*, financial constraints; and iii) the family planning service providers – especially the field workers – failed to realize the need of their services for the young women and newlyweds.

The purpose of this study was to examine the sociodemographic and programmatic determinants of contraceptive use and non-use among the married teenage women and newlywed couples.

Data on 13, 515 rural married women of reproductive age were collected from surveys conducted during September-December 1993 and October 1994-June 1995, in six rural thanas of Bangladesh – the field sites or comparison areas of the MCH-FP Extension Project (Rural) of the International Centre for Diarrhoeal Disease Research, Bangladesh. Cross-tabulations and logistic regression were used for assessing the association between the contraceptive use and the demographic, socioeconomic, and programmatic variables, with special focus on contraceptive use behaviour of the newlyweds (couples married less than three years) and married teenage women aged less than 20 years.

The fieldworker contact rates were substantially lower for the teenage married women and newlyweds compared to those of other age groups. It was found, moreover, that the teenage and newlywed women who had not yet given birth to any children were highly unlikely to use contraception, because most of them wanted to have children soon after marriage. Overall, the desired family size was lower among the younger married women than the other age groups. Furthermore, current non-users' intention to use modern contraceptives in the future was significantly higher among the teenage married women than the older non-using women. It was observed that once the teenage women and newlyweds have had a child, contraceptive use prevalence rises to a level comparable to that of women in their twenties.

The analysis indicates that the FP workers should give more attention to the newlywed couples and teenage married women. Successful side-effect management and husband's involvement in FP could increase contraceptive use among these underserved groups. Teenage and newlywed women need counselling on appropriate contraceptive methods and on social and health advantages of delayed childbearing.

Introduction

Despite varieties of socioeconomic challenges facing Bangladesh in recent years, the Bangladesh National Family Planning Programme has made remarkable strides toward a higher quality of life for its people. One substantial improvement is the increased contraceptive use from about 7 percent in 1975 to 49 percent in 1996-1997 (Mitra *et. al.*, 1997). During the same period, the total fertility rate has declined from 6.3 to 3.3 births per woman.

Some elements that have contributed to the success of the programme are: i) strong political commitment to the family planning (FP) programme by each successive government; ii) successful promotion of the small family norm through information, education and motivational activities and other multisectoral programmes; iii) establishment of a FP service-delivery network nationwide; iv) increased involvement of non-government organizations (NGOs) to supplement and complement the government's efforts; v) policy and programmatic flexibility in response to emerging needs; and vi) strong support given by the international aid community (Mitra *et. al.*, 1994). Khuda and Barkat (1994) reported that the success of the Bangladesh FP programme has been achieved through five distinct phases: i) voluntary activities without government support (1953-1955); ii) voluntary activities with limited government support (1955-1960); iii) the first national FP programme (1960-1965); iv) the government-expanded FP programme (1965-1970); and v) a broad-based multi-sectoral population and FP programme, after the independence of country in 1971.

The population growth rate remains at 1.8 percent per annum which is still high. In 1994, the contraceptive prevalence rate (CPR) was 44.6 percent (for any method), and the total fertility rate (TFR) was estimated at 3.4 births per woman (Mitra *et. al.*, 1994). To reach the Government of Bangladesh's goal of achieving replacement fertility by the year 2005, a further increase in the CPR will be necessary.

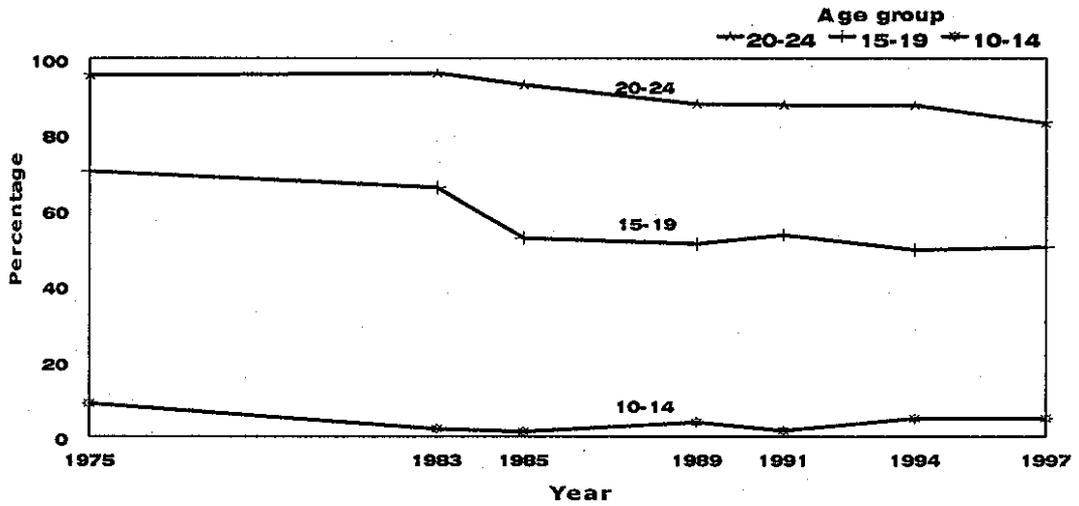
Review of National Trends and Levels in Teenage Marriage, Fertility and Contraceptive Use in Bangladesh

The fertility of adolescents and young adults is influenced by many of the same proximate determinants that affect the fertility of older women of reproductive age. These include use of contraceptive methods, prevalence of spontaneous and

induced abortion, coital frequency, prevalence of primary and secondary sterility/infertility and so on. In Bangladesh, very little research has been conducted on sexual and reproductive health behaviour of unmarried young adult females or males. One study, conducted by the Population Council in late 1996, reported that 6 percent of the unmarried girls had premarital sexual intercourse before they reach the age of 18 years, compared to 38 percent of the unmarried boys (Haider *et. al.*, 1997). Thus, it appears that most of teenage sexual activity still occurs within the context of marriage in rural Bangladesh. The situation in urban areas, however, is quite different. Here, 88 percent of the unmarried males and 35 percent of the unmarried females reported to have been sexually active by the age of 18 years. Before presenting results of our study in the Operations Research Project's (ORP) sites, we would like to provide a brief overview of the general levels and trends in marriage, fertility, and contraceptive use among teenagers of Bangladesh as a whole, which are based on the Women Fertility Survey (WFS), Contraceptive Prevalence Survey (CPS), and Bangladesh Demographic and Health Survey (BDHS) conducted in Bangladesh over the past two decades.

Figure 1 shows the trends in the proportions of ever married age for Bangladesh as a whole from 1975 to 1997. The proportion of females ever married among the 10-14 year of age group has fluctuated, declining from 9 percent in 1975 to 5 percent in 1996-1997 (WFS, CPS, BDHS). However, the proportion of females ever married among the 15-19 year age group, however, decreased from 70 percent in 1975 to 50 percent in 1997. The proportion of females ever married declined from 95 percent in 1975 to 83 percent among the 20-24 year age group in 1997. Thus, the average age-at-marriage has been rising, although this still remains very low. The mean age at first marriage is now over 17 years (1996-1997). Nevertheless, Figure 1 shows that very little change has occurred in the actual proportion of married teenage women since 1989, indicating that very little progress has been made in this area during the past decade.

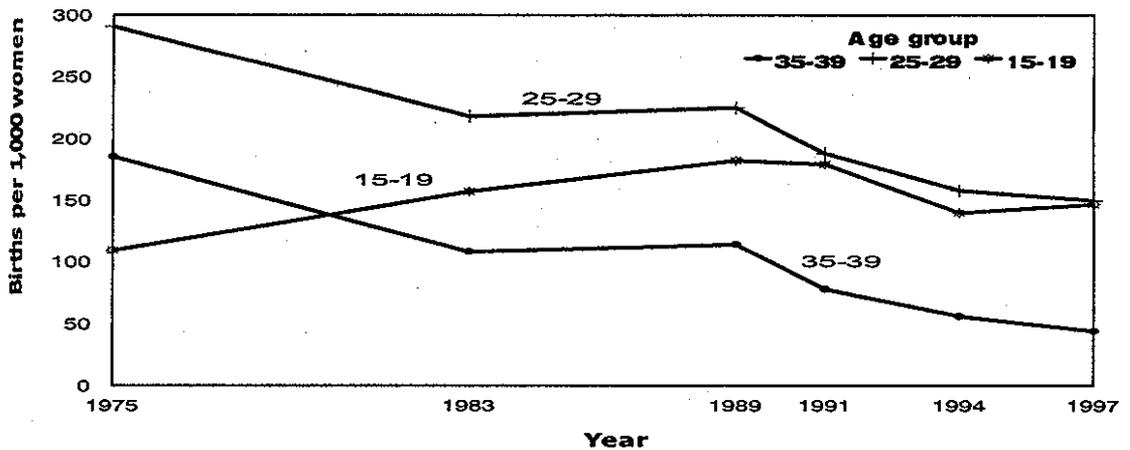
Fig.1. Percentage of females ever married by age group, Bangladesh, 1975-1997



Source: 1975 WFS, 1983-1985 CPS, 1989 BFS, 1993-94 and 1996-97 BDHS

Age-specific fertility among the women aged 15-19 years fluctuated from a low of 109 births per 1,000 women for the 1971-1975 period of the liberation war and the famine that followed, reaching a peak of 182 per 1,000 in 1989, dropping to 140 per 1,000 in 1993-1994, and increasing again by about 5 percent to 147 in 1996-1997 (Fig. 2).

Fig.2. Selected age-specific fertility rates for women, Bangladesh, 1975-1997



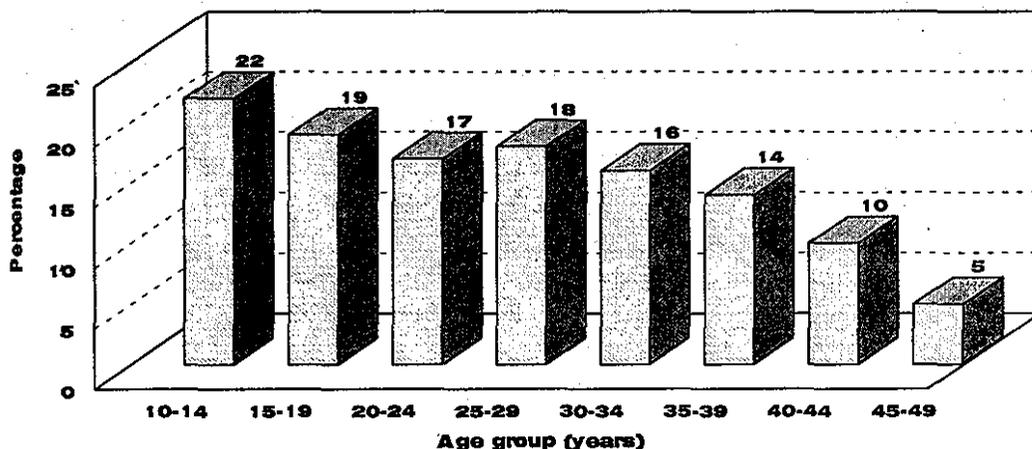
Source: 1975 WFS, 1983 CPS, 1989 BFS, 1993-1994 and 1996-1997 BDHS

The proportionate contribution of teenage fertility to total fertility has risen steadily from 9 percent in 1971-1975 period to 18 percent in 1989, to 21 percent in 1993-1994, and to 22 percent in 1996-1997. Thus, in 1996-1997, almost one-fourth of all fertility in Bangladesh was attributable to teenage women. Part of this trend is due to the more dramatic decline in fertility among the older women of reproductive age because of the successful delivery of FP services to this group.

Current use of contraception nationally as well as in the Operation Research Project's study sites is substantially lower among the teenage married women than the older married women of reproductive age (MWRA). Not surprisingly, the teenage married women rely mostly on relatively temporary methods such as, pill, condom, periodic abstinence, and withdrawal. Between 1993-1994 and 1996-1997, current use of any method declined from 22 percent to 16 percent among the married women aged 10-14 years, and has increased from 25 percent to 33 percent among the married women aged 15-19 years. For all MWRA, the CPR increased from 45 to 49 percent over the same period.

According to the BDHS 1996-1997, the unmet need for FP services was highest among the 10-14 and 15-19 year age groups of married women, at 22 and 19 percent respectively (Fig. 3). The vast majority of this unmet need for FP services was for spacing purposes. For the other age groups, beginning from 25-29 year the total unmet need for FP (for spacing and for limiting) ranged from 5 to 18 percent.

Fig.3. Unmet need for family planning services among currently married women, by age group, Bangladesh, 1996-1997



Source: BDHSS 1996-1997

Unmet need for spacing is a variable representing the number of women who experienced mistimed pregnancies, amenorrheic women whose last previous births were mistimed, and who are neither pregnant nor amenorrheic and are not using any FP method, but say they want to wait two or more years for a subsequent child. Also included in unmet need for spacing are women who are not sure whether they want another child or who want another child, but are not sure when to have the birth. Excluded from the unmet need category are infecund or menopausal women and women who have not had sexual intercourse in the four weeks prior to the interview.

The CPR for the married women aged less than 20 years is only 24 percent compared to the CPR of 44 percent for the women aged 20-29 years (Mitra *et. al.*, 1994). This indicates that much of the increased contraceptive prevalence is attributable to the higher rates of contraceptive use and FP acceptance among the relatively older, higher parity couples. Married women aged less than 25 years represent over one-third of the country's reproductive-aged women and this group will have a tremendous influence on contraceptive prevalence and fertility during the next ten years (Pinkham *et. al.*, 1995). Social factors, particularly pressure to have children soon after marriage, shall have to be addressed. The average age at marriage for women has risen steadily from 16 years in 1975 to almost 18 years in 1989, but has changed little since then. This increase in mean age at marriage has contributed to a decrease in fertility at young ages. The demographic importance of this group, however, cannot be denied, considering the relatively young age structure of the population, and current contraceptive trends. Clearly, a better understanding of this population subgroup with respect to FP service requirements is needed (ICDDR,B, 1994).

The teenage and generally lower parity women are not well served by the existing FP service-delivery system. The female fieldworkers who currently provide FP services at the door-step level are reluctant to visit this group of potential acceptors. Only one of every five MWRA and aged less than 20 years had been visited by the female FP worker (FWA) during the past six months (MOHFW, 1994). Recent successful efforts by several NGOs to provide FP services to newly-married couples are suggestive of a demand for FP and reproductive health services among this population.

It is, therefore, imperative to examine the influence of sociodemographic and programmatic variables on method use among couples aged less than 20 years. In this study, data from a cross-sectional, in-depth survey were used. Data were collected by the MCH-FP Extension Project (Rural) of the International

Centre for Diarrhoeal Disease Research, Bangladesh, (ICDDR,B), now called the Operations Research Project (ORP) since August 1997. The methodology and data collection procedure is described in the following section. In the findings, cross-tabulations and multivariate regressions have been used for examining the effect of social, demographic and programmatic variables on contraceptive use among young MWRA and newlywed couples. For the purpose of this study, teenage women and newlywed couples mean married women aged less than 20 years, and married women with less than three years of marital duration respectively. We will use these definitions for the remainder of the analysis.

For our study, we have restricted our analysis to the assessment of the sociodemographic and programmatic determinants of contraceptive use behaviour among married teenage women living in selected rural areas (excluding urban and unmarried female and male teenagers from the analysis).

A conceptual framework of the determinants of contraceptive use is shown in Figure 4 which applies for teenage women equally as well as it does for the other age groups of MWRA. Demographic, socioeconomic, cultural and programmatic factors affect contraceptive use through their influence on an individual's knowledge of contraception, motivation to use contraception, and social, physical, and economic access to FP services.

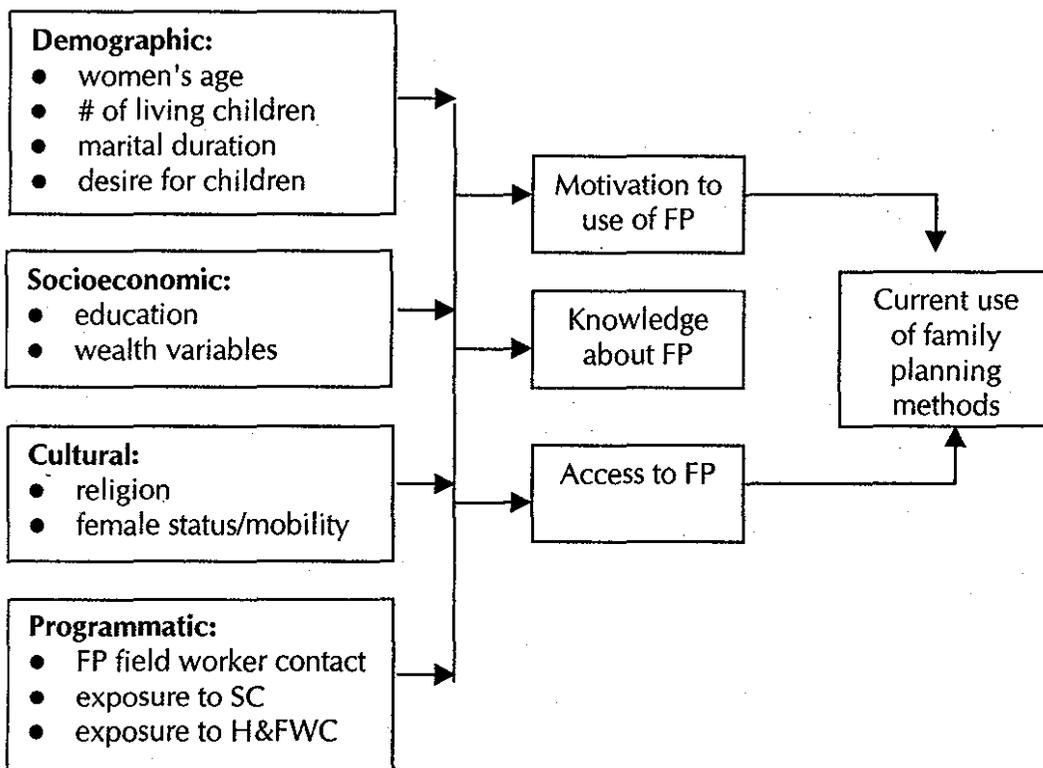
This study was carried out to determine the sociodemographic and programmatic variables that affect the use of modern contraceptive methods among teenage and newlywed couples.

Methods and Data

Data for this study were provided by the ICDDR,B's MCH-FP Extension Project (Rural) which has been maintaining a longitudinal surveillance system, known as the Sample Registration System (SRS), since its inception in 1982. A two-stage cluster sample was drawn from the SRS. Within each thana chosen for the project, a sample of unions (administrative sub-units consisting of a population of approximately 25,000 each) was selected randomly as a first stage in the cluster-sampling procedure. Then, from these clusters, households were randomly selected. An in-depth survey was conducted in the SRS unions with the sample of 13,515 women during September-December 1993 and October 1994 - June 1995. Data were collected from Abhoynagar, Bagerpara, and

Keshebpur thanas of Khulna division, Sirajganj sadar thana of Rajshahi division, and Mirsarai and Satkania thanas of Chittagong division.

Fig. 4. Framework of the determinants of contraceptive use objective



The trained and highly experienced interviewers collected data, using a structured questionnaire, under continuous field supervision. Editing of data was done at the field level to immediately rectify inconsistencies, if any. The in-depth survey collected data on socioeconomic, demographic, reproductive health, and programmatic variables. We used the CPR as the dependent variable, and sociodemographic and programmatic variables as the independent variables.

Several logistic regression models, including tests for interactions, were tested to assess the key determinants of current contraceptive method use and of

the intention to use modern contraception in the future. The three preferred models i.e. for all MWRA, for newlyweds married less than three years, and married for teenage women aged 13-19, shown in Table 17, 18, and 19 respectively, included 11 independent variables.

Findings

In this study, we have examined contraceptive use patterns as it varies with sociodemographic and programmatic variables. Table 1 shows socio-demographic characteristics of the 13,515 married women by age. The proportion of married women with no living children, those who had been married less than three years, or who were never contacted by a FP fieldworker all decreased dramatically with the increasing age. There was also a sharp increase in the proportion of women in the age range from 18-19 to 30 years and over who have never attended school.

Table 1. Percentage of sociodemographic characteristics of 13,515 married women by age

Age group (years)	Variables					Total no. of women
	No schooling	Muslims	No living children	Women married < 3 years	Never contacted by FP* workers	
≤15	49.7	89.0	94.2	96.8	54.8	155
16-17	43.6	86.3	72.9	73.6	34.9	533
18-19	43.2	88.2	63.7	31.6	25.0	908
20-24	51.0	85.5	14.7	7.3	16.5	2,609
25-29	59.3	84.7	5.3	1.0	11.1	2,672
30+	67.3	83.0	1.6	0.1	9.6	6,618
Total	59.8	84.4	11.6	7.9	14.0	13,515

*FP – Family Planning

Use of contraceptive methods

Table 2 shows that at the time of the survey, 40 percent of the surveyed MWRA were currently using a contraceptive method in the six thanas included in the

sample area. Only one (Abhoynagar) of the six thanas in the survey sample was an active MCH-FP Extension Project intervention thana at the time of the survey. The survey sample was not, however, intended to be representative of the country as a whole. It includes project comparison thanas and thanas from the low-performing Chittagong division.

Table 2. Percentage of MWRA currently using contraceptives by method and age group

Age group (years)	Not using	Total using	Currently using							Total no. of women
			Con-dom	Pill	Inject-ables	Steri-lization	IUD	Total Modern	Total Traditional	
≤15	93.6	6.5	1.9	2.6	1.9	0.0	0.0	6.5	0.0	155
16-17	87.7	12.3	1.8	5.6	2.4	0.0	0.9	10.7	1.6	553
18-19	78.1	21.9	2.2	10.5	4.6	0.2	1.5	19.1	2.9	908
20-24	69.9	30.1	2.1	15.4	7.0	0.5	2.0	27.0	3.1	2609
25-29	59.0	41.0	2.9	17.0	9.4	3.5	3.4	36.3	4.7	2672
30+	51.1	48.9	3.0	14.2	7.9	14.2	2.6	41.9	7.1	6618
Total:	% 60.1	39.9	2.7	14.3	7.5	7.7	2.5	34.7	5.3	100.00
	N 8,120	5,395	362	1,927	1,017	1,046	334	4,686	709	13,515

Of those women currently using contraception, the majority were using modern methods. Slightly over 5 percent were using traditional methods. The use of contraception increased with age. The most popular method used at all ages was the pill (14.3%), and the least popular method was the intra-uterine device (IUD) (2.5%). Prevalence of injectables and sterilization was also low, although each increased substantially with age. The use of injectables (7.5%) in the Project areas was higher than the national average (4.5%). In most areas of the country, injectables are available only at static centres through paramedics. In the Project areas, however, non-paramedics – female FP grassroots-level workers, the FWAs – administer injectables at the doorstep. This availability has noticeably raised the prevalence of injectable use in the Project areas. Condom use was very low (2.7%). Traditional methods were not reportedly used by the women aged 15 years or younger, but a consistent rise was observed with each subsequently older age group. Only 2.2 percent of the women aged less than 20 years were using traditional methods.

The use of modern methods among the MWRA aged less than 20 years was only 17 percent, whereas it was 27 percent among the 20-24-year age group, and 36 percent among the 25-29-year age group. That is, modern

method use is more than twice as prevalent among the women aged 25-29 years as it is among the women aged less than 20 years. This indicates that the young married women were either eager and/or pressured by relatives to have children soon after marriage. In either case, the resulting effect was that the use of contraceptives was low among this group. Current efforts are directed toward raising the level of contraceptive use among these women.

Women's education

Female education has emerged as the single most important variable affecting the contraceptive use. Overall, 40 percent of all women in the sample have received some formal schooling, and only three percent have exceeded tenth grade.

Table 3 shows that ever-use and current contraceptive use in all age groups increase with increase in education, except among women aged 20-24 years; one-third of the educated women were using contraceptives regardless of the level of schooling completed.

Table 3. Percentage of married women ever using and currently using contraceptives by education and age group

Age group (years)	Status of wife's education in years completed												Total no. of women
	No education			1-5			6-9			10+			
	Ever-use %	Current use %	N	Ever-use %	Current use %	N	Ever-use %	Current Use %	N	Ever-use %	Current use %	N	
≤15	11.7	5.2	77	23.6	5.5	55	21.7	13.0	23	*	*	0	155
16-17	16.6	7.5	241	25.3	12.4	194	31.3	21.4	112	*	*	6	553
18-19	37.2	19.9	392	42.7	22.2	302	42.4	24.9	177	46.0	27.0	37	908
20-24	54.8	26.4	1,331	61.1	34.5	704	58.7	33.1	441	60.2	33.8	133	2,609
25-29	67.3	38.2	1,585	74.5	43.2	702	73.6	45.4	280	85.7	57.1	105	2,672
30+	66.0	45.3	4,452	75.9	54.8	1,615	88.0	63.0	443	92.6	67.6	108	6,618
Total: % N	62.0	38.1	59.8 8,078	66.4	42.2	26.4 3,572	65.7	42.2	10.9 1,476	74.3	48.8	2.9 389	13,515

* Indicates fewer than 10 individuals (percentage not shown).

With regard to contraceptive use, not much difference was observed between the husband's and the wife's corresponding levels of education. Almost 60 percent of the women had received no formal schooling, while 44 percent of the husbands had received no formal schooling (data not shown).

Women's religion

Contraceptive use has also been examined according to religion (Muslim vs. non-Muslim). Eighty-four percent of the respondents were Muslim.

Table 4 shows that, of all age groups, 62 and 73 percent of the Muslim and non-Muslim respondents respectively had ever used contraceptives. Within both religious groups, ever-use increased with age. A dramatic increase in ever-use for the Muslim women occurred in the 18-19 year age group, after which the rate went upward with the respondent's age. Among the non-Muslims (mostly Hindu women), this dramatic increase occurred slightly later, at the age of 20-24 years, after which the rate similarly continued to increase. Of the entire group of the Muslim respondents, 37 percent were currently using contraceptives (lowest - 7.3% for the 15-year-and-under age group; highest - 44.9% for the 30+ age group). Of the entire group of non-Muslim users, 54.7 percent were currently using contraceptives. Of the women in the 15-year-and-under age group, no one was using methods. The highest usage (68.4%) was among the 30 years and-over age group of non-Muslims. Prevalence was generally higher among non-Muslims than Muslims.

Table 4. Percentage distribution of respondents ever and currently using contraceptives by religion and age group

Age group (years)	Religion						Total no. of women
	Muslim			Non-Muslim			
	Ever-use %	Current use %	N	Ever-use %	Current use %	N	
≤15	18.1	7.3	138	11.8	0.0	17	155
16-17	22.9	12.0	477	22.4	14.5	76	553
18-19	41.0	21.9	801	36.5	22.4	107	908
20-24	56.5	29.0	2,231	61.1	36.5	378	2,609
25-29	69.6	39.1	2,264	76.0	51.7	408	2,672
30+	67.5	44.9	5,493	84.2	68.4	1,125	6,618
Total:	62.0	37.2	11,404	73.2	54.7	2,111	13,515

Number of living children

The CPR, as expected, was higher among the MWRA who had children than those without any children. Table 5 compares the CPR of women with no children to the CPR of women with one or more living children.

Table 5. Percentage of women ever using and currently using contraceptives by number of living children and woman's age group

Age group (years)	No living children			One or more living children			Total no. of women
	Ever-use %	Current use %	N	Ever-use %	Current use %	N	
≤15	15.1	4.8	146	*	*	9	155
16-17	17.1	5.5	403	38.0	30.7	150	553
18-19	23.0	7.1	378	52.8	32.5	530	908
20-24	18.5	3.7	383	64.2	34.6	2,226	2609
25-29	23.9	7.0	142	73.2	42.9	2,530	2,672
30+	22.9	6.4	109	71.1	49.6	6,509	6,618
Total:	19.7	5.6	1,561	69.0	44.4	11,954	13,515

* Indicates fewer than 10 cases (percentage not shown).

Ever-use among the women who had children was more than three times higher (69%) than it was among the women who had no children (19.7%). At the time of the interview, the CPR was 44.4 percent among the MWRA with one or more living children. This figure was much lower (5.6%) among the MWRA who had no children. Table 5 shows that the CPR increased with age among the women who had one or more living children. No consistent pattern was observed, however, for the women who had no children. In the 20-24 year age group, a drop in contraceptive use was observed among those women who had no living children. One reason for this may be that at this age, more women want to have their first child, and thus, establish the family. The very low CPR among the respondents who have no children may reflect the desire among the newlyweds for children soon after marriage, the continued desire for at least one child in the early reproductive years, or the perceived lack of need for contraceptives due to infertility.

Duration of marriage

Contraceptive use was positively related to the duration of married life. Table 6 presents the respondents' duration of married life, by their age group and contraceptive use status.

Of all of the respondents at the time of the interview, the CPR was 42.4 percent when the duration of married life was more than three years compared to only 11.5 percent when the duration of married life was less than three years (Table 6). Only 22.8 percent of the women who had been married less than three years had ever used a contraceptive method. Women who had been

married longer than three years, on the other hand, were almost three times as likely (66.8%) to have ever used a method.

Table 6. Percentage of women ever using and currently using modern contraceptives according to duration of married life and age group

Age group (years)	Married life <3 years			Married life 3+ years			Total no. of women
	Ever-use %	Current use %	N	Ever-use %	Current use %	N	
≤15	16.7	6.7	150	*	*	5	155
16-17	21.1	11.3	407	27.4	15.1	146	553
18-19	25.4	13.2	287	47.3	25.9	621	908
20-24	26.7	13.1	191	59.9	31.4	2,418	2,609
25-29	28.6	14.3	28	71.0	41.3	2,644	2,672
30+	*	*	4	70.4	49.0	6,614	6,618
Total	22.8	11.5	1,067	66.8	42.4	12,448	13,515

* Indicates fewer than 10 cases (percentage not shown).

Family planning fieldworker contact

Family planning fieldworker contact is an important motivational means which can be used when change in contraceptive behaviour of a population is desired. Table 7 shows fieldworker visitation as it is related to contraceptive use. Over two-thirds (69%) of all women in the survey sample had been visited by a FP fieldworker in the previous six months, while about 61 percent of the married women aged less than 20 years had been visited within the previous six months.

Table 7 indicates that there is a positive correlation between FP fieldworker contact and contraceptive use. The respondents are divided into three categories: never contacted, contacted seven or more months ago, and contacted within the previous six months. Of those respondents who had been contacted seven or more months ago, and during the previous six-month period, ever-use was 60 percent and 71.5 percent respectively. Of the respondents who had never been contacted, ever-use was only 26.5 percent. Only 14.5 percent of the clients who had never been contacted were currently using a method. Of the respondents who had been visited more than six months prior to and within the previous six months, 34.2 percent and 46.4 percent were using contraceptives respectively. This demonstrates the positive impact that fieldworker contact can have on contraceptive use.

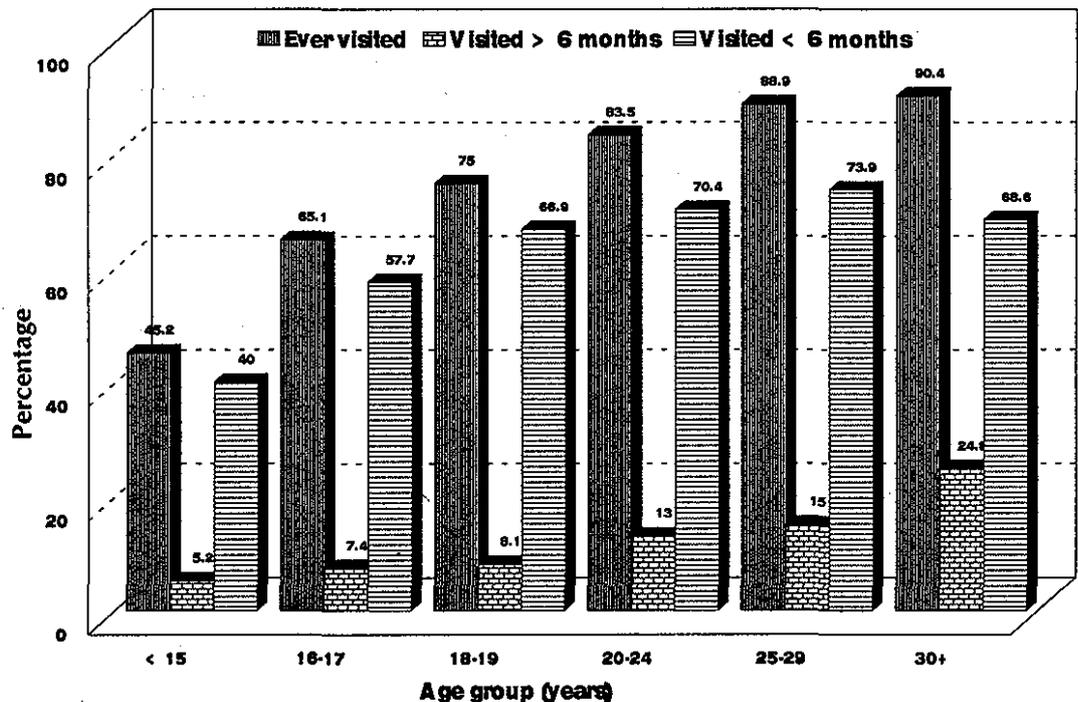
Table 7. Percentage of women ever using and currently using contraceptives according to contact status of family planning fieldworkers

Age group (years)	FWA never contacted			≥6 months			< 6 months			Total no. of women
	Ever-use	Current use	N	Ever-use	Current use	N	Ever-use	Current use	N	
	%	%		%	%		%	%		
≤15	12.9	7.2	85	*	*	8	24.2	6.5	62	155
16-17	7.8	4.2	193	17.1	4.9	41	32.6	18.2	319	553
18-19	18.1	9.3	227	37.8	14.9	74	49.1	27.5	607	908
20-24	26.0	11.8	431	52.1	19.1	340	65.8	36.4	1,838	2609
25-29	37.4	15.5	297	62.3	29.9	401	77.2	47.1	1,974	2,672
30+	32.4	21.7	636	63.9	41.0	1,442	77.7	55.3	4,540	6,618
Total:	26.5	14.5	1,869	60.0	34.2	2,306	71.5	46.4	9,340	13,515

* Indicates fewer than 10 cases (percentage not shown).

Figure 5 shows contact of FP fieldworkers by age of MWRA. Younger, married women are clearly much less likely to ever have been contacted by a FP fieldworker or to have been contacted within the previous six months.

Fig.5. Percentage distribution of couples according to visit status by family planning field workers



Health and family welfare centre visit

The Health and Family Welfare Centre (H&FWC) is a static service centre at the union level that serves the population of the union, especially mothers and children. The services are provided by the paramedics posted at the centre

Table 8 indicates that half of the total respondents had ever visited an H&FWC. However, less than one-third of the married women aged less than 20 years had ever visited the H&FWC. The contraceptive use rate among the married women who had ever visited the H&FWC is 48 percent, whereas it is 32 percent for the women who had never visited the H&FWC. Higher contraceptive use among the women who visited the H&FWC compared to women who had not visited the H&FWC was observed for all age groups.

Table 8. Percentage of married women of reproductive age (MWRA) currently using contraceptives by whether they ever visited the Health and Family Welfare Centre and age

Age group (years)	MWRA currently using contraception				Total no. of women
	Never visited H&FWC		Ever visited H&FWC		
	%	N	%	N	
≤15	5.2	116	10.3	39	155
16-17	10.9	384	15.4	169	553
18-19	17.5	596	30.5	312	908
20-24	24.9	1,461	36.8	1,148	2,609
25-29	35.9	1,190	45.1	1,482	2,672
30+	41.1	3,011	55.5	3,607	6,618
Total	32.3	6,758	47.6	6,756	13,515

Primary reasons for non-use of contraceptives

Non-use of contraceptive methods were asked for reasons for not using contraceptives. Table 9 presents the primary reasons given for not using modern FP methods.

Table 9. Percentage distribution of primary reasons given for not currently using modern family planning methods by age group among non-users*

Reasons	Age group (years)						Total	
	≤15	16-17	18-19	20-24	25-29	30+	%	N
Want child	66.9	50.4	36.7	28.6	22.0	9.7	21.6	1,910
Health reasons								
Health concerns	0.0	1.6	2.9	3.0	5.6	8.5	5.8	509
Side-effects	1.4	2.8	5.2	7.7	11.7	17.1	12	1,057
Difficult to get pregnant	3.5	0.4	1.0	1.1	2.1	3.9	2.5	222
Objections								
By husband	4.8	3.0	3.7	3.3	3.8	7.3	5.1	454
Religion	0.7	0.2	0.5	0.8	1.8	4.8	2.7	236
Not at Risk								
Currently pregnant	17.9	25.1	23.8	22.9	18.4	7.1	15.3	1,348
PPA/PAA†	2.1	11.3	17.3	21.8	21.3	11.0	15.7	1,385
Infrequent sex/ husband away	0.0	2.8	5.4	7.4	9.2	8.7	7.8	686
Access								
Limited access to supplies	1.4	1.2	1.2	0.9	1.4	0.8	1.0	88
Others**	1.4	1.0	2.3	2.4	2.8	21.2	10.6	932
Total: %	100	100	100	100	100	100	100	
N	145	494	735	1,905	1,703	3,845		8,827***

* Excludes pregnant women.

** Others include family objections, high cost, does not like modern methods, too old to get pregnant, uterus removed, no longer menstruates, no suitable method available, lack of knowledge, opposed to FP, does not know the reason, use of traditional method.

*** Frequency missing = 4,688.

† Post-partum amenorrhea/post-abortion ammenorrhea.

The most frequently cited reason for non-use (21.6%) of contraceptives was the desire for additional children, which was inversely related to the age of the respondents. Sixty-seven percent of the non-contracepting women aged 15 years or younger wanted additional children, whereas only 10 percent of the non-contracepting women aged over 30 years wanted more children. Another frequently cited group of reasons (38.8%) for not using modern contraceptives was that the respondents were "not at risk" (i.e. either pregnant, postpartum amenorrhea/post-abortion amenorrhea, or practising infrequent sex). Side-effects of contraceptives were one of the most important reasons (12%) for not using methods. And, although health workers have often attributed non-use to

religious reasons, it was found that only 2.7 percent of the respondents actually stated this reason. Husband's objections as a reason for not using modern methods were given by 5.1 percent of the respondents. Only one percent gave limited access as a primary reason for non-use.

Knowledge of family planning methods before marriage

The respondents were asked whether or not they knew about FP methods before marriage. It was expected that knowledge of methods before marriage would lead to higher method use after marriage.

Table 10 indicates that more than 80 percent of the women aged less than 20 years had heard about FP methods before marriage. But knowledge of methods before marriage does not necessarily lead to higher method use among the married women aged less than 20 years, indicating a comparatively strong desire for children directly after marriage among the younger women.

Table 10. Percentage of current contraceptive use status according to family planning knowledge prior to marriage

Age group (years)	Yes		No		Total no. of women
	Current contraceptive use	Knowledge of FP prior to marriage	Current contraceptive use	No knowledge of FP prior to marriage	
≤15	*	87.1	*	12.9	155
16-17	12.3	87.0	*	13.0	553
18-19	22.2	83.1	20.5	16.9	906
20-24	30.5	76.4	28.9	23.6	2,609
25-29	39.1	56.4	43.4	43.5	2,671
30+	53.0	21.7	47.9	78.2	6,613
Total:	34.8	46.7	44.5	53.3	13,507 **

* Indicates fewer than 10 cases (percentage not shown).

** Frequency missing = 8.

Desire for a subsequent child

All respondents, except those who were sterilized, pregnant, or wanted no more children, were asked when they wanted their next child. This interval was measured with respect to the birth of a previous child.

Table 11 indicates that 41.4 percent of the respondents desired their next child after a two-year interval. Twenty-eight percent wanted their next child within one year. Only 13 percent wanted children within an interval of 13-24 months. Seventeen percent of the women did not see the decision as theirs' to make. Many said that it was up to God to decide if and when they would have another child. It is worth noting that this attitude – or fatalism – was more common in the older age group. Only 4.6 percent of the married women aged less than 16 years adhered to fatalism, whereas this figure was almost four times higher (17%) among the women in the 25-29-year age group. Fatalism and uncertainty were even higher (34.6%) among those women who were aged over 30 years.

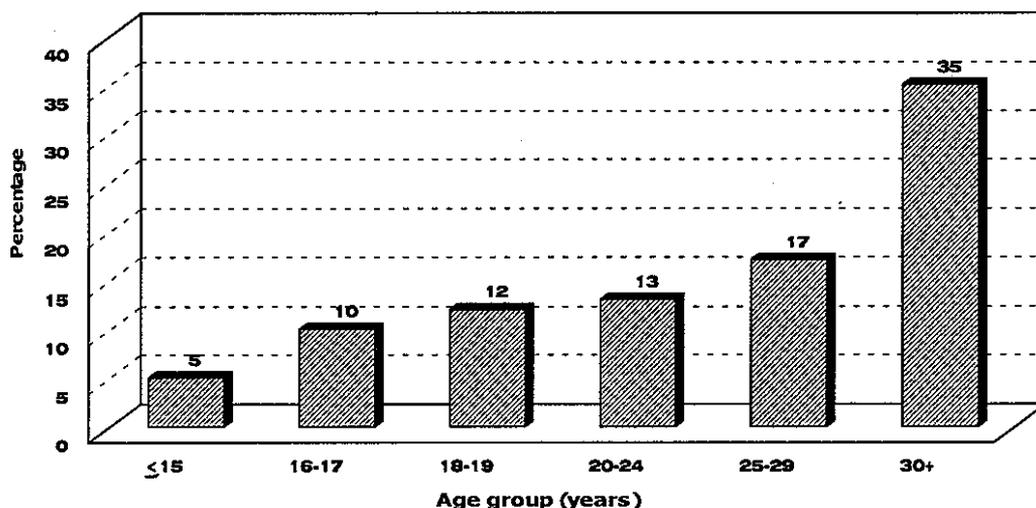
Table 11. Percentage distribution of respondents who desired more children, by desired interval from previous child, and age group

Desired interval between births	Age group (years)						Total	
	≤15	16-18	18-19	20-24	25-29	30+	%	N
Within 12 months	35.9	37.8	27.3	24.2	26.6	34.4	28.4	1,552
13-24 months	22.9	15.1	10.5	12.8	14.5	10.9	13.0	707
25+ months	36.6	37.6	50.0	50.3	41.7	20.2	41.4	2,261
Up to God or uncertain	4.6	9.6	12.2	12.7	17.3	34.6	17.2	940
Total : %	100	100	100	100	100	100	100	
N	131	450	752	1,873	1,262	992		5,460*

* Frequency missing = 8,055, including sterilized and pregnant women and women wanting no more children

Figure 6 shows the distribution of women who adhere to a fatalistic belief system. These women believe that family size and timing are not a question of desire, but are determined by God.

Fig.6. Percentage of married women who have a fatalistic or uncertain attitude towards the number of children they will bear in the future (n = 940)



Complications experienced during pregnancy and their relation to contraceptive use

It has been suggested that a woman who suffers from complications during or after a pregnancy may be more likely to use FP methods, either to space or to limit future births. Table 12 presents data illustrating the relationship between a history of pregnancy and/or delivery complications and subsequent contraceptive-use behaviour.

Contraceptive use was much lower among the women who had never been pregnant or if the age of their youngest child was greater than five years compared to the women who had been pregnant during the previous five years, (Table 12). A consistent pattern was observed among the women who had ever been pregnant. Of the women who had never been pregnant, or whose last child was aged five years or over, only 13.1 percent were currently using contraceptive methods. Contrary to our hypothesis, women who experienced complications during or after childbirth were more likely to use modern contraceptive methods (33.5%) than those who experienced no childbirth-related complications (53.4%). This was true in all age groups of women who had ever been pregnant.

Table 12. Percentage of women currently using contraceptives by whether or not they have ever suffered from complications during pregnancy, or childbirth, and age group

Age group (years)	Never pregnant and/or last child's age > 5 years		Ever pregnant				Total no. of women
			With complications		Without complications		
	%	N	%	N	%	N	
≤15	*	7	*	1	*	2	10
16-17	0.4	21	0.3	15	0.6	32	68
18-19	0.4	22	1.1	61	2.2	116	199
20-24	0.3	14	4.7	252	9.6	519	785
25-29	0.8	44	7.8	423	11.6	628	1,095
30+	11.1	600	19.6	1,056	29.3	1,582	3,238
Total:	13.1	708	33.5	1,808	53.4	2,879	5,395 **

* Indicates fewer than 10 cases (percentage not shown).

** Frequency missing = 8,120.

Intention to use contraceptives

The respondents, except those who were currently using methods, were asked whether they intended to use modern FP methods in the future. Table 13 shows that 63.2 percent of the respondents had intentions to use modern FP methods some time in the future. Nearly 4.7 percent of the respondents stated that they were not sure whether or not they would use a modern method in the future, while one-third (32%) stated that they did not intend to use a modern method in the future.

The intention to use methods in the future consistently decreased with age. The highest proportion (95%) of non-users who expressed interest in the future use of modern contraceptive methods was among the 15-year of age or younger group, and the lowest proportion (36.3%) was among the women aged 30 years or over.

Uncertainty with regard to method use also appeared to be slightly higher in the older age groups. Of the women aged less than 20 years, a large proportion expressed an intention to use modern methods in the future. However, a dramatic contrast was observed among the women aged 30 years

and over. This indicates that the overwhelming majority of the younger MWRA are interested in using modern FP methods. If this intention is interpreted as potential future demand, the table clearly indicates a high future demand for contraceptives among the women who are now aged less than 20 years.

Table 13. Percentage distribution of respondents who were not using contraceptives at the time of interview, by age and intention to use modern contraceptive methods in the future

Age group (years)	Future intention			Total no. of non-users	Total No. of women
	Saying Yes	Saying No	Don't know		
≤15	94.5	*	*	145	155
16-17	93.1	3.6	3.2	494	553
18-19	89.0	6.9	4.1	735	908
20-24	86.2	9.6	4.2	1,903	2,609
25-29	75.8	19.1	5.1	1,703	2,672
30+	36.3	58.5	5.2	3,845	6,618
Total:	63.2	32.1	4.7	8,825**	13,515

* Indicates fewer than 10 cases (percentage not shown).

** Frequency missing = 4,690.

Satellite clinic visit

The Satellite Clinic (SC) serves the community people usually close to their homes. It is run by a female paramedic who provides maternal and child health and FP services. It was expected that the CPR would be higher among those eligible couples who visit the centre.

Table 14 reveals that less than one-fourth of all the respondents had ever visited the SC. The contraceptive use rate was 1.5 times higher among those women who had visited the SC (51%) compared to 37 percent of the women who never visited the SC. Slightly less than one-fifth of the respondents aged less than 20 years had visited the SC. This may be the case either because the mobility of young women is restricted or because they are not aware of the SC, or because they do not think that they need the services offered at the SC. In all age groups, except the 15-year and under category, the contraceptive use rate was remarkably high among the women who had visited the SC than those who did not:

Table 14. Percentage of women currently using contraceptives by whether they have ever visited a Satellite Clinic (SC) and age

Age group (years)	Women currently using contraceptives				Total no. of women
	Ever visited SC		Never visited SC		
	%	N	%	N	
≤15	4.8	21	6.7	134	155
16-17	21.2	85	10.7	468	553
18-19	37.0	208	17.4	700	908
20-24	40.3	630	26.8	1,979	2,609
25-29	51.4	700	37.3	1,972	2,672
30+	60.4	1,449	45.7	5,169	6,618
Total:	51.2	3,093	36.6	10,422	13,515

Mobility of women

More than 90 percent of the married women had permission to leave the home for one reason or the other. This was also even true in case of younger women, which indicates that women's mobility may be less restrictive than it was in the past. It was thought that the women who had permission to go out would use FP services more than the women who had no permission to go out. Table 15 reveals that, indeed, women who had permission to go out were about two times as likely to be using contraceptives as women who had no permission to go out. This means that women's mobility has a positive impact on contraceptive method use. A consistent rise in method use was also observed with the increase in age.

Table 15. Percentage of women currently using contraceptives by whether they have permission to go out for any reason, and age

Age group (years)	Women currently using contraception				Total no. of women
	Permitted to go out		Not permitted to go out		
	%	N	%	N	
≤15	7.4	136	0.0	18	154
16-17	13.1	497	5.4	56	553
18-19	23.0	839	8.7	69	908
20-24	31.1	2,428	17.1	181	2,609
25-29	42.0	2,529	23.8	143	2,672
30+	50.2	6,218	29.8	400	6,618
Total:	41.1	12,647	22.3	867	13,514*

* Missing Frequency = 1

Desired family size

The respondents were asked about how many children they would prefer to have during their entire life. (Women who were sterilized or pregnant were not asked this question.) Table 16 shows the mean desired family size according to the age of the respondents, for those women who gave a numerical response.

The lowest mean desired family size was 2.3 for the age group ≤ 15 years (Table 16) and the highest mean desired family size was 3.0 for the women aged 30 years and over. The mean desired family size among the respondents aged less than 20 years was 2.3-2.4 children, whereas this mean rises considerably from the age 25 years and above, indicating that the preferred number of children is higher among the older age group. The overall mean desired family size has been recorded at 2.5 for Bangladesh as a whole (Mitra *et al.*, 1994). This study indicated a slightly higher mean desired family size at, i.e. 2.8 children per woman in the study area.

Table 16. Mean desired family size by age group

Age group (years)	N	Mean desired family	Standard
≤ 15	129	2.3	0.6
16-17	446	2.4	0.7
18-19	768	2.4	0.7
20-24	2,264	2.5	0.7
25-29	2,371	2.7	0.8
30+	5,637	3.0	0.9
Total	11,615*	2.8	0.8

* Excludes pregnant and sterilized women, and women who gave non-numerical responses (e.g. up to God; uncertain)

Logistic Regression Analysis

Table 17-19 show the logistic regression estimates of the effects of selected sociodemographic and programmatic factors on current contraceptive use and on intention to use modern contraceptive methods in the future. In the first model, we included all the variables, including age and marital duration. In the second and third models, we selected women with marital duration of less than three years and women who were aged less than 20 years respectively. Interaction terms, such as the interaction between woman's age and fieldworker visit, were

tested in the models. These were not found to be statistically significant and were, therefore, excluded from the models.

The results were in the expected direction for most variables in the regression on current use (Table 17). A marriage duration of three years or more was shown to have a positive effect on current contraceptive use. It is likely that by the time a woman has been married for three years, she has already begun to bear children. Also, having living children has a significant positive association with current contraceptive use. Fieldworker contact has a significant positive effect as well on current contraceptive use. Similarly, education, regardless of level, has a positive effect on contraceptive use.

Table 17. Effects of sociodemographic and programmatic factors on current contraceptive use and on intention to use modern methods in the future among the currently married women aged 10-49 years: odds ratios from multiple logistic regression analysis

Independent variable	Current user of modern method: odds ratios (n=12,972)	Intention to use modern method in future: odds ratios (n=7,921)
Age (in years)		
≤15	0.96	0.60
16-17	0.87	1.34
18-19	0.92	1.15
20-24 (RC) †	1.00	1.00
25-29	1.45***	0.57***
30+	1.81***	0.13***
Marriage duration (in years)		
≤3 (RC)	1.00	1.00
>3	1.30+	0.25***
Field workers' visit		
No visit (RC)	1.00	1.00
Visited	2.68**	1.16+
Woman's education		
No education (RC)	1.00	1.00
Primary level	1.36***	1.00
Secondary level	1.72***	1.23+
Higher than secondary	2.63***	1.55+
Religion		
Muslim	0.51***	1.06
Non-Muslim (RC)	1.00	1.00
Living children		
No child (RC)	1.00	1.00
Living children	4.00***	1.12

Continued...

Table 17 (continued)

Independent variable	Current user of modern method: odds ratios (n=12,972)	Intention to use modern method in future: odds ratios (n=7,921)
Family planning knowledge prior to marriage		
Not knowledge (RC)		1.00
Knowledgeable		2.38***
Next child desired		
Do not desire (RC)	1.00	1.00
Within 24 months	0.35***	1.72***
25+ months	1.18**	2.20***
Up to God/uncertain	0.08***	0.39***
Ever visited Satellite Clinic		
Never visited (RC)	1.00	1.00
Visited	1.46***	1.05
Ever visited H&FWC		
Never visited (RC)	1.00	1.00
Visited	1.53***	1.41***
Has permission to go out		
Not permitted (RC)	1.00	1.00
Permitted	1.41***	1.74***

+p<0.10; * p<0.05; ** p<0.01; *** p<0.001; † RC= Reference category

The non-Muslim women had significantly higher current-use than the Muslim women. Women who desired more children were significantly less likely to be currently using than those who wanted to delay their next birth for 25 or more months. Ever visit to the SC or H&FWC was also positively associated with current use of contraception. Another important finding was that the married women aged 20-24 years were not significantly more likely to be using modern contraceptives than the teenage married women, once other important variables had been controlled, such as parity and marital duration.

The regression analysis for intention to use modern FP methods in the future showed that, of the non-contracepting women, a higher proportion of younger women aged less than 25 years were interested in future contraceptive use than women aged 25 years and over. The duration of marriage had a significant negative association to intention to use in the future. Fieldworker's visit had a significant positive effect on the intention to use modern contraceptives in the future. Other variables, such as increasing levels of education, except primary level and having living children, had significant positive effects on the intention to use contraceptives in the future.

Fieldworkers' contact, women's education level, and parity had a significant positive effect on current contraceptive use among women married for less than three years (Table 18). The effects of some programmatic variables in the multivariate analyses, such as ever visited satellite clinic and H&FWC, may have positive effects on contraceptive use, but these effects were not significant in the model.

There is evidence that women's contact with the fieldworkers and having permission to go out of the home are positively associated with intention to use modern methods in the future, among women married for less than three years.

The analysis of the effects of sociodemographic and programmatic variables on current use and future intended use of modern contraceptives among the women aged less than 20 years is shown in Table 19. Fieldworker contact, women's level of education, parity, and previous visits to a SC or an H&FWC showed significant positive relationships to current contraceptive use. The direction of causality is not clear, however, in the relationships between exposure to programme services and current contraceptive use. For example, exposure to fieldworkers, SCs and H&FWCs may have led to the adoption of contraceptive use, or it could also be that the need for FP services led young women to seek these health service outlets.

With regard to intention of the young women aged less than 20 years to use modern methods in the future, significant positive relationships were observed between intention to use in the future and parity, knowledge about FP prior to marriage, and having permission to go out of the home.

Table 18. Effects of sociodemographic and programmatic factors on current contraceptive use and on intention to use modern methods in the future among women having less than 3 years of marital duration: odds ratios from multiple logistic regression

Factor	Current use of modern method: odd ratios (n = 1,040)	Intention to use modern method (non-users): odd ratios (n = 905)
Field workers' contact		
No contact (RC)†	1.00	1.00
Contacted	2.15**	2.13+
Women's education		
No education (RC)	1.00	1.00
Primary level	2.02*	0.89
Secondary level	3.35***	1.16
Religion		
Non-Muslim (RC)	1.00	1.00
Muslim	0.83	0.68
Living children		
No child (RC)	1.00	1.00
Living children	3.93***	1.18
Family planning knowledge prior to marriage		
No knowledge (RC)	1.00	1.00
Knowledgeable	0.77	1.80
Ever visited Satellite Clinic		
Never visited (RC)	1.00	1.00
Visited	1.39	0.87
Ever visited H&FWC		
Never visited (RC)	1.00	1.00
Visited	1.23	1.07
Woman has permission to go out		
No permission (RC)	1.00	1.00
Permitted	1.86	2.19+

+p<0.10; * p<0.05; ** p<0.01; *** p<0.001;

† RC = Reference category

Table 19. Effects of sociodemographic and programmatic factors on current contraceptive use and on intention to use modern methods in the future among teenage married women (aged less than 20 years): odds ratios from multiple logistic regression

Independent variable	Current use of modern method: odds ratios (n = 1,606)	Intention to use modern method (non-users): odds ratios (n = 1,321)
Age (in years)		
≤ 15	0.66	0.42+
16-17	0.78	1.00
18-19 (RC) †	1.00	1.00
Marriage duration (in years)		
≤ 3 (RC)	1.00	1.00
>3	1.26	0.26***
Field workers' contact		
No contact (RC)	1.00	1.00
Contacted	2.35***	1.08
Women's education		
No education (RC)	1.00	1.00
Primary level	1.27	1.00
Secondary level	2.09***	0.89
Religion		
Non-Muslim (RC)	1.00	1.00
Muslim	0.85	0.6
Living children		
No child (RC)	1.00	1.00
Living children	2.06**	0.72
Family planning knowledge prior to marriage		
No knowledge (RC)	1.00	1.00
Knowledgeable	1.00	2.29**
Ever visited Satellite Clinic		
Never visited (RC)	1.00	1.00
Visited	1.47*	0.84
Ever visited H&FWC		
Never visited (RC)	1.00	1.00
Visited	1.54**	1.66+
Woman has permission to go out		
No permission (RC)	1.00	1.00
Permitted	1.45	2.19*
Next child desired		
Do not desire (RC)	1.00	1.00
Within 24 months	2.29*	0.46+
25+ months	9.55***	0.75
Up to God/uncertain	0.88	0.07***

+p<0.10; * p<0.05; ** p<0.01; *** p<0.001;

† RC = Reference category

Discussion and Conclusion

Overall, the findings showed that a very small percentage of young, married women aged less than 20 years were currently using modern contraceptives. Moreover, only a nominal percentage used traditional methods. Relatively younger, newlywed, and lower-parity women were reluctant to use contraceptive methods early in their reproductive years. If this is true throughout the country, the current high levels of contraceptive use primarily reflect use by older women who have been married for some time and already have living children. It was also found that the demand for additional children is stronger among the relatively younger women, although the overall mean desired family size is lower among this group. Another finding that makes the young, newlywed group unique is their overwhelmingly high intention to use contraception in the future. Over 90 percent of the MWRA aged less than 20 years were willing to use contraceptive methods in the future. Furthermore, women who already had living children are much more likely to use contraceptives than those who did not. The strong desire for at least some children and/or substantial social pressure to bear children directly after marriage are existing norms that favour the early establishment of a family. The advantages of young, teenage married women to delay the onset of childbearing, i.e. for health reasons (until her body matures) or so she can finish her education or adjust to married life, may not be known by the woman or her husband and his family.

The results of our study also indicate that the majority of the women expressed a desire to space their children. Fatalism is a factor related to lower contraceptive use among some women, but it is more common among the older women than in the younger, newlywed groups.

Overall, the positive effect of formal schooling on modern contraceptive use is pronounced. However, knowledge of FP prior to marriage does not appear to translate into higher current use. The existing social pressures to have children soon after marriage may be the dominant factor in determining contraceptive use among the younger, newlywed group. Qualitative in-depth interviews and focus group discussions may help illuminate the reasons for non-use and fertility desires and fertility decision-making processes among the young and newlywed couples.

This study, in line with several other studies, found that the CPR was markedly higher among the women who were regularly visited by the FP workers (Phillips *et. al.*, 1993; Hossain *et.al.*, 1993). Women in the target age group (e.g.

women aged less than 20 years), however, were found to have been contacted less frequently by the FP fieldworkers than the other groups. The reasons for this could be that under the current system, the fieldworkers receive little incentive or encouragement to visit the homes of young married women and newlyweds or assume that a need for FP services does not exist among the young and newlywed couples.

Female education emerged as the single most important variable, affecting contraceptive use among the married couples. Education contributes to delay marriage, which also has a direct effect on fertility, by postponing a woman's childbearing career. Postponing marriage would be one way to curb the norm of early motherhood. Unfortunately, this approach cannot be used in case of women who have already married and entered their childbearing careers. For the female population who have not yet entered into the childbearing age, education should be emphasized as a prudent alternative to an early marriage and early childbearing.

Two encouraging findings were: i) overwhelmingly positive perceptions of the young and newlywed women about FP as reflected in the high proportion intending to use modern contraception in the future; and ii) the relatively weaker influence of the fatalistic attitude about childbearing and family size among the young and newlywed women.

Although, fieldworker contact was found to have a significant positive effect on current contraceptive use, over 30 percent of the married teenage women surveyed were never contacted by any FP worker. A strengthened field effort could, therefore, have a positive effect on this target group. Current efforts focus on contraceptive adoption after the birth of first child which helps ensure spacing and possibly limiting of future births, resulting in an overall fertility reduction. However, young and newlywed couples should be made aware of some social, economic, health and psychological advantages of delaying the onset of childbearing after marriage (especially women aged less than 18 years) and the advantages of spacing births farther apart. Many married teenage women aged less than 18 years require time to become emotionally, socially and/or physically mature enough to bear and raise children. Husbands of these teenage women should also be made aware of the health advantages of delaying childbearing until they (wives) reach their twenties.

These findings may have important implications for the Bangladesh FP programme. Although the FP programme has focused on MWRA, services for married women aged less than 20 years and newlyweds apparently have not

been emphasized. To meet the FP and other reproductive health needs of young women better, the following additional actions should be considered:

- FP fieldworkers should make greater efforts to extend their services to relatively younger newlywed and childless couples.
- Supervisors of fieldworkers may need to be oriented more toward this target group and address their special service needs. Expansion of maternal and child health (MCH) and FP services to this target group, especially motivation, counselling, side-effects management, RTI/STD/HIV/AIDS prevention and antenatal care, is also needed. This can be accomplished by involving NGOs more and by providing government fieldworkers with additional training in these areas.
- The programme needs to undertake additional IEC efforts to ensure that the young and newlywed husbands participate in FP and avail of reproductive health services as and when needed.
- Targeted IEC efforts should be made to inform adolescents and young women and men about the advantages of delayed marriage and childbearing, and about available FP and health services in the community.
- A supportive structure need to be developed at the community level aiming at increasing the educational attainment of females and discourage the early marriage and childbearing.

The following five findings from the Project data and review of the 1996-1997 BDHS data suggest a high demand for FP services among teenage women:

- a. There is a high proportion of teenage married women who want to delay their next pregnancy;
- b. There is a high proportion of teenage married women who learned about FP prior to their marriage;
- c. There is a very high proportion (over 90%) of teenage married women who intend to use modern contraception in the future;
- d. There is a low mean desired family size among teenage married women (about 2.3 children per woman, on average); and
- e. There is a much weaker influence of the fatalistic attitudes about childbearing and family size among the teenage married women.

On the other hand, there were five findings, which indicate that more effort is needed to improve the provision of FP services to teenagers and newlyweds. These are:

- a. There is a high unmet need for contraceptive methods, primarily for spacing purposes, among the married teenage women;
- b. There is a high proportion of teenage married women who have never been contacted by FP fieldworkers;
- c. There is a high proportion of teenage married women who have never been exposed to a SC or H&FWC;
- d. There is a lower level of mobility among the teenage married women (i.e. permission to go out of the home); and
- e. The recent national level data show an apparent increase in teenage fertility between 1993-1994 and 1996-1997.

Interventions related to teenage health and fertility in Bangladesh are being tested by several NGOs, such as CFWP, BRAC, Pathfinder and government organizations. Most of these interventions are in the form of adolescent family life education, targeting unmarried adolescent girls and, to a lesser extent, adolescent boys; orientations of married teenage women and young newlywed couples to FP (with the message to young women to delay first pregnancy at least until they reach the age of 20 years); or interventions to improve the health and nutrition status of adolescents through special health services targeting adolescents. However, there is a lack of behavioural research data on sexual activity, fertility, FP, STDS and health-seeking behaviour for unmarried teenage and young adult women and men. Moreover, evaluations of the few existing reproductive health interventions targeting adolescents and young adults are non-existent or inadequate. This warrants to undertake research in the future. Fortunately, the ICDDR,B's Operations Research Project has recently initiated reproductive health operations research interventions targeting unmarried both male and female adolescents, as well as interventions focusing on married men and women, which will address some of the critical issues in FP, RTI/STD prevention and management and other areas of reproductive health.

Hossain *et al.* (1996) observed that an initial demand often depends upon outreach service provision to motivate and then sustain the contraceptive use.

Given the expressed contraceptive intentions of the teenage women and newlyweds, effective service provision could present FP as an option to them, thereby enhancing demand. Taking into account the maturity of the National FP programme and the need for sustainability, alternatives to the doorstep service-delivery approach have to be found out. However, continued targeted service delivery at the doorstep for the teenage women and newlyweds may significantly help meet the contraceptive needs among this typically less-mobile group. Furthermore, considering the large cohort of females entering into reproductive age, these efforts could have enormous implications for the reproductive health and well-being of those women who would reach reproductive age in Bangladesh.

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MCH-FP Extension Work at the Centre

An important lesson learned from the Matlab MCH-FP project is that a high CPR is attainable in a poor socioeconomic setting. In 1982, the MCH-FP Extension Project (Rural) with funding from USAID began to examine in rural areas how elements of the Matlab programme could be transferred to Bangladesh's national family planning programme. In its first year, the Extension Project set out to replicate workplans, and record-keeping and supervision systems, within the resource constraints of the government programme.

During 1986-89, the Centre helped the national programme to plan and implement recruitment and training, and ensure the integrity of the hiring process for an effective expansion of the work force of governmental Family Welfare Assistants. Other successful programme strategies scaled up or in the process of being scaled up to the national programme include doorstep delivery of injectable contraceptives, management action to improve quality of care, management information systems, and strategies to deal with problems encountered in collaborative work with local area family planning officials. In 1994, this project started family planning initiatives in Chittagong, the lowest performing division in the country.

The Centre and USAID, in consultation with the government through the Project's National Steering Committees, concluded an agreement for new rural and urban Extension Projects for the period 1993-97. Salient features include: improving management, quality of care and sustainability of the MCH-FP programmes, and providing technical assistance to GoB and NGO partners. In 1994, the Centre began an MCH-FP Extension Project (Urban) in Dhaka (based on its decade long experience in urban health) to provide a coordinated, cost-effective and replicable system of delivering MCH-FP services for Dhaka urban population. This important event marked an expansion of the Centre's capacity to test interventions in both urban and rural settings. The urban and rural extension projects have both generated a wealth of research data and published papers in international scientific journals.

In August 1997 the Centre established the Operations Research Project (ORP) by merging the two former MCH-FP Extension Projects. The ORP research agenda is focussed on increasing the availability and use of the high impact services included in the national Essential Services Package (ESP). In this context, ORP has begun to work with partners in government and NGOs on interventions seeking to increase coverage in low performing areas and among underserved groups, improve quality, strengthen support systems, enhance financial sustainability and involve the commercial sector.

ORP has also established appropriate linkages with service delivery partners to ensure that research findings are promptly used to assist policy formulation and improve programme performance.

The Division

The Health and Population Extension Division (HPED) has the primary mandate to conduct operations research, to disseminate research findings to program managers and policy makers and to provide technical assistance to GoB and NGOs in the process of scaling-up research findings to strengthen the national health and family planning programmes.

The Division has a long history of solid accomplishments in applied research which focuses on the application of simple, effective, appropriate and accessible health and family planning technologies to improve the health and well-being of underserved and population-in-need. There are various projects in the Division which specialize in operations research in health, family planning, environmental health and epidemic control measures. These cut across several Divisions and disciplines in the Centre. The Operation Research Project (ORP) is the result of merging the former MCH-FP Extension Project (Rural) and MCH-FP Extension Project (Urban). These projects built up a considerable body of research and constituted the established operations research element for child and reproductive health in the Centre. Together with the Environmental Health and Epidemic Control Programmes, the ORP provides the Division with a strong group of diverse expertise and disciplines to significantly consolidate and expand its operations research activities. There are several distinctive characteristics of these endeavors in relation to health services and policy research. For one, the public health research activities of these Projects are focused on improving programme performance which has policy implications at the national level and lessons for the international audience also. Secondly, these Projects incorporate the full cycle of conducting applied programmatic and policy relevant research in actual GoB and NGO service delivery infrastructure, dissemination of research findings to the highest levels of policy makers as well as recipients of the services at the community level; application of research findings to improve program performance through systematic provision of technical assistance; and scaling-up of applicable findings from pilot phase to the national program at Thana, Ward, District and Zonal levels both in the urban and rural settings.



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37