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Knowledge of Men about Reproductive Health Issues and Services in Bangladesh

Ali Ashraf
Cristóbal Tuñón
Yousuf Hasan
Masud Reza
Nirod Chandra Saha
Barkat-e-Khuda



2000

Operations Research Project
Health and Population Extension Division
ICDDR,B: Centre for Health and Population Research



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**CENTRE
FOR HEALTH AND
POPULATION RESEARCH**

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Glossary

AIDS	Acquired Immunodeficiency Syndrome
BCC	Behaviour Change Communication
BDHS	Bangladesh Demographic and Health Survey
EOC	Emergency Obstetric Care
EPI	Expanded Programme on Immunization
ESP	Essential Services Package
FWV	Family Welfare Visitor
GoB	Government of Bangladesh
GOD	Government Outdoor Dispensary
HIV	Human Immunodeficiency Virus
HPSP	Health and Population Sector Programme
ICDDR,B	International Centre for Diarrhoeal Disease Research, Bangladesh
ICPD	International Conference on Population and Development
IEC	Information, Education and Communication
IUD	Intra-uterine Device
MCH	Maternal and Child Health
MWRA	Married Women of Reproductive Age
NIPHP	National Integrated Population and Health Programme
ORT	Oral Rehydration Therapy
RD	Rural Dispensary
RTI	Reproductive Tract Infection
STD	Sexually Transmitted Disease
UHC	Upazila Health Complex
H&FWC	Health and Family Welfare Centre
USAID	United States Agency for International Development

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Abstract

Background: In Bangladesh, although men are the important decision-makers within the household, their roles in the reproduction process have not been investigated extensively. Few interventions that addressed the needs of men's reproductive health have focused on the promotion of male contraception, safer sexual practices, establishment of male-only sexual health clinics, and separate clinic hours for males. Studies on male reproductive health-related issues have narrowly focused on the prevalence of sexually transmitted diseases.

The Operations Research Project (ORP) of the ICDDR,B: Centre for Health and Population Research has been field-testing interventions to improve reproductive health services in both rural and urban areas of Bangladesh. These interventions also address reproductive health needs of men.

Objectives: The study assessed the knowledge, perceptions, and practices of married men regarding selected reproductive health issues.

Methodology: The ORP maintains a longitudinal surveillance of approximately 24,000 married women of reproductive age (MWRAs). During April-June 1999, the trained male interviewers collected data from the spouses of 12,197 rural and 2,619 urban MWRAs. The study was conducted in several rural unions of Jessore and Chittagong districts and 2 urban locations of Dhaka city. A 2-stage cluster-sampling design was used for identifying the respondents.

Results: Results of the study showed that more than 90% of the rural and urban men had knowledge about menstrual hygiene, need of antenatal care visits, and immunization during pregnancy. A little more than half of them could mention about the benefits of antenatal care visits and immunization with TT. The majority (87%) of the men accorded little importance to postnatal visits. Although all men were aware of, at least, one symptom of pregnancy, but 55% of the men were not aware of complications associated with pregnancy and post-delivery with a notable difference between rural and urban areas. Surprisingly, 68% of the men in both rural and urban areas had knowledge about delivery-related complications. The traditional birth attendants were preferred as an ideal delivery attendant, and own home was preferred as an ideal place of delivery by most men in both rural and urban areas. Although an upward trend of antenatal visits was observed when compared their last pregnancy with the recent past, the spouses of 68% of the men did not make the recommended number of antenatal care visits to a health centre during their most recent pregnancy. The spouses of those men who did not comply the referrals made by the field workers, 88% did not feel that it was necessary. Eighty-five percent of the urban and rural men considered postnatal care contacts with health staff as, probably, harmful to both mothers and children.

Unqualified practitioners were the first source of care for all kinds of health problems in the rural areas. However, in the urban areas, the first source of care was trained professionals in both public and private sectors. Pharmacies were also an important source of care for the urban men. Men reported a high rate (over 90%) of healthcare attention for themselves and for their children (60%) compared to their spouses (50%) during the last sickness episode.

Demand for additional children and gender preference was uniform in both rural and urban areas. Sixty-eight percent of the men in both rural and urban areas favoured at least 2 years as waiting time to have a child after marriage. More men favoured female methods for the newly-weds. Men showed a tendency to report high use of modern contraceptives by their spouses, if they were not using contraceptives, and the use of traditional methods in their own case, if their spouses were not using contraceptive methods. More men could report about the advantages and disadvantages of injectables compared to intra-uterine device. Although men could report the advantages of vasectomy and tubectomy as an easy-to-use and effective method, they had more concerns about performance of sexual act in the case of vasectomy.

Ninety percent of the men in both rural and urban study areas had access to mass media. Electronic, print media, and interpersonal communication were the main sources of knowledge.

Conclusion: Findings of the study showed that decisions to have children and discontinue the use of contraceptives have been made by men jointly with their spouses regardless of their level of knowledge. While seeking medical consultation for obstetric-related complications, men usually made the decision. The low knowledge of men about dangers and potential pregnancy-related complications could be a major factor in making timely decisions to seek improved medical care for emergency obstetric conditions. Programmes and interventions to improve the use of reproductive health services need to address the information needs of men. Without meeting this need, interventions may not have a major impact on family health.

Introduction

Background

Most societies, at present and in the recent past, have been patriarchal, and men have enjoyed a relatively higher status compared to women. Hierarchies and segregation in roles and status have conditioned men, and perhaps also women, to regard issues relating to childbearing and rearing as an exclusive female domain. In general, men remain the key figure in domestic decision-making in most developing countries, and in particular, in the South Asian region. The influence of men in their families and communities of these countries is often considered to be much more than half (1). Married men of these countries have social and economic roles, first as a husband and then as a father, in the formation of the family, child education, health, and nutrition of the family members, and finally as a father-in-law. These men are compelled to take up these roles without any education on family life, thereby becoming the important decision-makers in the process of reproduction. However, sexually-active unmarried men have limited opportunities to perform social and economic roles. The roles of married and unmarried men have neither been intensively investigated nor have they been considered as the primary subject of reproductive health programmes.

In countries of the South Asian region, as in other parts of the world, a generalized view of men as providers of economic support and women as caretakers of family members has had important effects on the design of past programme activities concerning the reproductive issues. The relative exclusion of men from programmatic activities in the field of reproductive health also occurred, because reproductive life-span of a man is not as clearly defined as that of a woman. Women generally remain at home in countries of the subcontinent, and are, thus, a ready-made captive subject for programme interventions (2). These effects are evident in 3 specific areas: First, the volume of research concerning on male reproductive health issues is considerably fewer than the number of studies on female issues. Secondly, service-delivery strategies adopted by national programmes have emphasized contact with females in their own households or in special clinics for maternal and child health (MCH) care. Finally, the exclusion of males from the activities of reproductive health programmes is also evident in the criteria for measuring success, e.g. condom use, emphasis on female methods, in the past programme activities.

Target-oriented fertility control and family-planning programmes have focused on married women of reproductive age (MWRA) as the primary subject in assessing the achievement of demographic objectives. Sexually-active males have now been receiving attention as a priority group for reproductive health services because of their own health issues and the potential effects of their sexual behaviour on the reproductive health of their female partners. The role men play

as partners has different connotations, and can vary widely among different subcultures and social strata. This is partly because married and unmarried men can be sexually active without actually being married, within or outside marriage, and can also have multiple sexual partners. Following the International Conference on Population and Development (ICPD) held in Cairo in 1994 and the Fourth World Conference on Women held in Beijing in 1995, an increased recognition has been accorded, globally, to the need for men to share more responsibility in reproductive health matters. This can be done by taking a more active role in planning pregnancy, seeking healthcare in the case of adverse pregnancy outcomes, reproductive tract infections (RTIs), in preventing sexually transmitted diseases (STDs), human immunodeficiency virus (HIV) infections, and acquired immunodeficiency syndrome (AIDS).

Demographic studies have examined men from a narrow perspective. The narrow range of approach in studying men reflects the fact that it has not been dealt with consistently or well with the topic of gender (2). There is a growing appreciation of the need to increase activities targeted to males. Men are now included in many national demographic health surveys, particularly due to the emergence of STDs/HIV/AIDS, which are major social concerns (3). Men may suffer from reproductive ill-health, particularly from STDs and HIV/AIDS. Thus, while recognizing that the main burden of reproductive ill-health falls on women, strategies to improve reproductive health must also take into account the concerns, needed roles, and responsibilities of males (4). During the past several years, only a few studies have been carried out on sexual behaviour of men, describing male involvement in pre- and extra-marital sex and their experience with STDs. Limited information is available concerning where men go for diagnosis and treatment of STDs, treatment of perceived sexual dysfunction, or urological problems. The programme managers of most service-providing organizations tend to think of reproductive health simply as a set of preventive measures, diagnoses, and treatment of RTIs and STDs (5).

Male and Reproductive Health Issues

The issue of male involvement in women's healthcare has increasingly been recognized, and has now become the topic of many and varied intervention activities in several countries. The use of male methods, such as condom, vasectomy, and withdrawal, has long been considered an indicator to describe "male involvement" and "male participation" in family planning. Other commonly-used terms are "male responsibility," "men's programme," "engaging and serving men," and "men as partners." Male responsibility in reproductive health has been identified as an important area of research and programme intervention. Men's "reproductive responsibilities" is a stronger term which implies that men are obligated to carry out certain activities, and can, therefore, be held accountable for

their actions (6). Two international conferences mandated that men's constructive roles be made part of the broader reproductive health agenda. To clarify, the ICPD Programme of Action notes, "special efforts should be made to emphasize men's shared responsibility and promote their active involvement in responsible parenthood, sexual and reproductive behaviour, including family planning; prenatal, maternal and child health; prevention of STDs, including HIV; and prevention of unwanted and high-risk pregnancies, shared control and contribution in family income, children's education, health, nutrition; and recognition and promotion of equal value of children of both sexes" (7). Such a conceptualization has broadened the role of men in reproductive healthcare well beyond their participation in fertility control. Male involvement, thus, does not just mean promoting the use of male method of contraception rather it means that men have a supporting role to play for their families to promote gender equality, education of girls, empowerment of women, and share child-rearing activities and sexuality (8).

Men and Women in Bangladesh Society

Bangladesh society is known to be male-dominated. A married or unmarried woman is identified as the wife or daughter of a man in all social interactions. Most national policy-makers and programme managers, involved with health service-delivery, including healthcare providers, employees in both public and private sectors, community leaders, and Members of the Parliament, are male. According to the article 27 of the Constitution of People's Republic of Bangladesh, "All citizens are equal before the law and entitled to equal protection of law." Furthermore, article 28(2) states, "Women shall have equal rights with men in all spheres of the state and public life"(9). But in the case of property inheritance the respective religious principles and practices are followed. The male child receives preference in intra-household food distribution (10). Many married working women in Bangladesh are obligated to deposit their monthly income to their husbands, which can lead to a compromise for peaceful family life. The parents of men have a claim of the share of income of their sons, but daughters, once married, are supposed to support their husbands' families.

During the past several years, there has been some attempts to make a balance in rights of women both socially and politically. Empowerment initiatives of women have focused on access to credit facilities to earn profit from income-generating activities and employment opportunity in the garments industry, construction sector in the urban area, and fish-processing and tea industry in the rural area. Employment opportunities have undoubtedly increased the mobility of adolescent girls and women. The participation of women in the labour force is estimated to be 42%. About 6 million women are estimated to be involved with income-generating activities under the micro-credit programme, and 44,000

women contested in the last election of the local bodies (11). During the past 10 years, the Government of Bangladesh has emphasized to raising the literacy rate of females. Some innovative programmes, such as food for education, stipends for girl students, and tuition-free schooling, have been introduced to encourage the rural parents to send their daughters to school. Females are also encouraged to contest in the local and national-level elections. It is not yet known how much these efforts have contributed to changing the image of a male-dominated society.

Limited information is available about the consequences of male domination, but an impression of its consequence on many key reproductive health issues can be made from coverage in the media, anecdotal information, and a growing number of studies. Women in Bangladesh are usually victims of acid attack, trafficking, rape, unauthorized lashing, dowry, sexual assaults, and kidnapping. There have been 16,000 reported episodes of such victimization between 1995 and 1999 (12). Men are often portrayed in movies as gangsters, involved in episodes of violence and rape, or as rescuers of females. Men are often not punished for any pre- or extra-marital acts of sexual intercourse. Results of studies have shown that pre- and extra-marital acts of sexual intercourse occur in rural Bangladesh (13). Women are often accused by influential males of being a "bad woman" or "prostitute," and lashed or fined for collaboration in pre- or extra-marital acts of sexual intercourse, in the name of *shalish* (trial) for involvement in *zina* (illicit sex). They may even be forced to leave the area of their residence. On the other hand, males are often not criticised or punished for pre- or extra-marital acts of sexual intercourse. Rather, the parents of the girls are often advised to remain quiet. A common proverb is, "I have freed my bull to graze around, and you should keep your cow tied with a rope to keep away from the sexual aggression of my bull," if the male is the son of an influential person. Men are not recognized for their infertility, but women are blamed for infertility and socially identified as "*bondha*" (barren woman). Men are encouraged to take a second wife, but it is not socially appreciated if a woman wants to take a second husband. There is no male-related synonym for bad women, *bondha* (infertile), and prostitute.

Behaviour of men is largely based on masculinity which men learn from their parents, peers, and mass media, and by observing other adults (14). It is known that the learning process of sexuality begins from the adolescent period when the boys experience nocturnal emissions and the practice of masturbation. This was evident from a recent study of adolescents conducted by the Operations Research Project (ORP) of the ICDDR,B. The study found that the boys were worried about the size and shape of their penis and experienced semen discharge through night emission (15). Sexually-active men are believed to have a more aggressive sexual appetite than women, and remain more concerned about their sexuality. They receive their sexual education through varied sources, such as less-

frequent observation of sexual intercourse of animals, canvassers who sell special products that increase the sexual capacity of males and discuss these at public gatherings, and wide availability of leaflets, pamphlets, movie posters, and numerous advertisements in newspapers focusing mostly on male sexual concerns. Adult men often drink thick herbal products soaked in water on a busy street corner to keep their body cool, and these are believed to strengthen sexual capacity. All these sociocultural factors have contributed to the development of a sense of superiority among men, and have led them to make decisions 'for' their wives instead of 'with' them (14).

In the light of the ICPD definitions and policy recommendations, the Government of Bangladesh has formulated the Fifth Health and Population Sector Programme (HPSP) 1998-2003. The government has been implementing the components of reproductive health services included in the programme through an Essential Services Package (ESP) to improve family health. Non-government organizations (NGOs) under the National Integrated Population and Health Programme (NIPHP), funded by the United States Agency for International Development (USAID), have also included reproductive health in their service-delivery strategies. Men, along with other special groups, such as adolescents, non-pregnant and non-lactating women, and pre-menopausal women, have been identified as under-served demographic groups under HPSP and NIPHP (16,17). The term 'under-served' means that appropriate services are seldom available at the existing programmes outlets, and the services are not fully used. Thus, males have become an under-served group for many programmatic and cultural reasons. The past service-delivery strategy of the government or NGOs appears to have pushed men away from participating in reproductive health services. This situation has been reinforced by the predominant cultural attitude that men do not need to take any responsibility or initiative with regard to the reproductive health needs of the family.

Till today, no major efforts have been made to include men, as an essential partner, in reproductive health services. Besides, all innovative attempts have been made mostly to increase the use of contraceptives by females. Despite Bangladesh's remarkable achievement in raising the overall prevalence (49%) of contraceptive use, it has still been ranked as "weak" alongside India. With regard to measures for promoting male involvement, Nepal and the Philippines have adopted a strategy where men and women share responsibility and support in decision-making about the use of family-planning methods and other reproductive health services. The situation is more favourable in Indonesia than in Bangladesh (18).

The available data do not provide in-depth information on key issues, such as relations among men and women, men's supporting role in relation to sharing responsibility in pregnancy planning, prevention of unwanted pregnancy,

participation in child-rearing activities at home and taking their children for routine immunization, and motivational factors. The data also do not reflect the knowledge of men about menstrual hygiene of adolescent daughters and wives, when to seek qualified medical consultation for pregnancy or delivery-related complications and the way men relate to this issue, and the extent of male involvement in reproductive health services.

Objectives

The purpose of this paper is to highlight the current status of knowledge, attitudes, and practices of married men regarding reproductive health issues and services in Bangladesh. The ORP is exploring the ways to strengthen the male-involvement component of several interventions by generating expanded support of males for selected reproductive health issues.

The overall objective of this study was to investigate: to what extent married men are aware of issues relating to safe motherhood, family planning, fertility, and fatherhood in rural and urban areas. The specific objectives were to:

- assess the knowledge of married men about girl's age at menarche and maintenance of menstrual hygiene, perceived need for antenatal care, immunization with tetanus toxoid during pregnancy, obstetric complications, postnatal care, delivery attendant, and place of delivery,
- identify sources in use and reasons for non-use of safe motherhood services for obstetric complications,
- identify the participation of family members in decision-making during emergency obstetric conditions,
- identify perceptions of men about family planning, fertility issues, use of family-planning services, and decision-making in the use and non-use of contraceptives, and
- identify responsiveness and participation of men in child-rearing activities, curative care, and family planning.

Methodology

The ORP has been field-testing various interventions to improve reproductive health services in rural and urban areas. The rural intervention site is located in Abhoynagar upazila (population of the subdistrict is about 270,000) of high-performing Jessore district (population of the district is about 3,000,000) and Mírsarai and Patiya upazilas of the low-performing Chittagong district. Keshobpur

upazila of Jessore district and Satkania and Lohagara of Chittagong district are the comparison areas for the rural sites. Sher-e-Banglanagar is the urban intervention area, and Lalbagh is the urban comparison area in Dhaka city.

The ORP maintains a longitudinal surveillance of approximately 24,000 MWRA in several rural unions and 2 urban locations of its intervention areas. The MWRA are routinely interviewed about their demographic events and use of project interventions. For this study, trained male interviewers collected data from 12,197 spouses of MWRA from the rural and 2,619 spouses from 2 urban sites under the longitudinal surveillance system of ORP from April to June 1999. A 2-stage cluster-sampling design was used. In the first stage, a random sample of unions (average population of a union is 27,000) was identified. In the second stage, a complete list of households was made, and a random sample of households was selected. Each household had equal probability for inclusion in the sample. The details of the sampling procedure have been described elsewhere (19). The interviewers had difficulty in finding men, since they were not available at home during day time. Therefore, prior appointments and repeated home visits in the evening were made to interview the males. Sixty-four percent of married men originally sampled from the rural area were interviewed while the coverage was 95% in the two urban areas.

Limitations of the Study

Although unmarried men represent an important challenging target population for reproductive health programmes, the major focus of this study was married men. No data on knowledge of RTIs, STDs, and AIDS and their modes of transmission were collected. A longer recall period was used for collecting morbidity data and the use of reproductive health services. A broad classification was used for defining diarrhoeal and respiratory diseases for children and uro-genital, obstetrical and gynaecological conditions for males and females. Data on child-rearing activities performed during the past week and decision-making in reproductive health issues were retrospective in nature.

Results

Sociodemographic and Economic Characteristics

Data on sociodemographic and economic characteristics of married rural and urban men and their spouses have been presented in Table 1.

Table 1. Sociodemographic and economic characteristics of rural and urban men and their spouses

Variable	Rural (n=12,197)	Urban (n=2,619)
Age (in years)		
<29	13.1	22.2
30-34	15.6	17.4
35-39	18.6	18.8
40-44	16.2	15.4
45-49	13.9	12.3
50+	22.6	14.0
Age of spouse (in years)		
<20	6.9	12.4
20-24	17.5	21.3
25-29	19.2	21.0
30-34	17.4	17.8
35-39	17.1	14.2
40+	21.9	13.3
Education		
None	38.5	48.2
Less than primary level	18.0	15.3
Above primary level	43.5	36.5
Education of spouse		
None	45.4	52.4
Less than primary level	16.9	15.2
Above primary level	37.6	32.4
Occupation		
Farming	30.4	
Monthly salaried job	13.6	24.9
Business (any type)	22.3	28.9
Skill-based job/abroad/driving	10.4	31.8
Day labourer	15.3	8.2
Others/study/no job	7.9	6.2
Mobility		
Sometimes away	23.1	15.1
Always at home	76.9	84.9
Land-holding status (in decimal)		
No land	36.9	88.1
<50	16.2	11.8
50-99	13.8	0.2
100+	33.1	0.04
Expenditure		
Less than Tk 3,000	42.0	31.6
Tk 3,000-4,999	37.2	42.3
More than Tk 5,000	20.7	26.1

Demography: The percentage of men in less than 29-year-age group was lower in the rural area than the urban area, whereas the percentage of men aged over 50 years was higher in the rural area than the urban area. However, an identical pattern among 29-49-year-age group was observed in both urban and rural areas. Men from the younger age group were not available at home during the interview due to their occupational responsibility. On the other, men in the higher age group had less-occupational responsibility, and were more available at home.

Education: The influence of literacy on the overall health status of the family has been sufficiently demonstrated. Low literacy among females was observed in all the areas, which is consistent with the last Bangladesh demographic and health survey 1996-1997 (BDHS) data (19). The percentage of females without education was higher than males in both rural and urban areas. Education below the primary level was almost similar between men and their spouses. Education above the primary level was higher among men in all the areas.

Occupation: Farming was the primary occupation of men in the rural area, followed by business, day labour, and monthly-salaried job. Construction work, plumbing, motorized and non-motorized vehicle driving, business, and monthly-salaried job that required skills were the primary occupations of men in the urban area.

Mobility: Almost all the adult males in Bangladesh have unrestricted mobility. The majority of men stay at home every day of a given month in the study areas. Twenty-three percent of the rural and 15% of the urban men stayed away from home for occupational reasons. They were mostly vehicle drivers and skilled labourers.

Land-holding status: In this study, 37% of the households were landless, and one-third had more than 100 decimal of land. In the urban area, 88% of the households were landless, 12% had some land, and most of them had less than 50 decimal.

Monthly expenditure: Monthly household-expenditure data were used as another indicator of socioeconomic status. The monthly expenditure of the majority (78%) of households in both rural and urban areas was below Taka 5,000.00. Twenty-one percent of the households in the rural area and 26% in the urban area reported a monthly expenditure of over Taka 5,000.00. It was reported that a substantial part of the income of urban men has been spent for rental purpose, which was not the case in the rural area.

Knowledge on Reproductive Health Issues and Services

In this study, the knowledge of men on some selected reproductive health issues has been assessed, the results of which are briefly described below.

Menstrual hygiene: Unhygienic practices during menstruation can contribute to an increased prevalence of some preventable RTIs. Intervention on improvement in menstrual hygiene would require the support of men particularly for the health of adolescents. All men in the sample were asked about the girls' age of menarche. The kinds of materials used by the spouse or daughters of the respondents were not investigated. They were also asked about the type of absorbing materials used during menstruation. Ninety-three percent of men in the rural and urban areas had knowledge about girls' age of menarche, and a little over 50% of men, in all the study areas, reported 12 years. However, the responses by more than 40% of the men ranged from 13 to 16 years in both rural and urban areas as shown in Table 2. The main source of men's knowledge was their spouse, followed by personal observation and friends in all the study areas.

Fifty-eight percent of the men in the rural area and 53% of the men in the urban area reported that old cloth was used as absorbing material during menstruation. The knowledge of using menstrual pads and cotton balls was 48% among men in the urban area and 17% in the rural area. Washing with soap and water or plain water was also considered as a hygienic method by men in both rural and urban areas.

Table 2. Percentage of rural and urban men having knowledge about girls' age of menarche and maintenance of menstrual hygiene

Variable	Rural	Urban
Have knowledge	(n = 12,197)	(n = 2,619)
Yes	92.5	94.3
No	7.5	5.7
Age of girls (years)	(n = 11,283)	(n = 2,470)
< 12	5.0	4.8
12	56.1	53.9
13	16.6	21.0
14	13.2	13.1
15+	17.2	13.3
Source of knowledge*		
Own observation	45.2	62.9
Spouse	47.0	44.3
Friends	23.1	16.2
Mother-in-law	4.1	2.9
Others	2.5	1.9
Materials used*		
Old cloth	63.1	55.9
Cotton ball	6.9	22.4
Menstrual pad	13.3	28.5
Soap and water	8.8	4.1
Plain water	9.0	3.5
Others	7.1	6.0

* Multiple responses were allowed

Need and benefits for antenatal care, TT immunization and postnatal care visits: The knowledge of men about the need for and potential benefits of antenatal care (ANC) visit and immunization with tetanus toxoid (TT) during pregnancy and need for postnatal care (PNC) visit have been presented in Table 3.

Table 3. Percentage of rural and urban men having knowledge about the need for and benefits of ANC visit and TT immunization and need for PNC visit

Variable	Rural	Urban
ANC visit	(n = 12,197)	(n = 2,619)
Needed	94.5	95.9
Not needed	5.5	4.1
TT immunization		
Needed	95.0	93.4
Not needed	5.0	6.6
PNC visit		
Needed	12.7	14.2
Not needed	87.3	85.8
Benefits of ANC visit	(n = 11,526)	(n = 2,512)
Check-up/advice	53.7	63.4
Good for mother and child	26.7	18.5
Determine position of baby	13.9	15.6
To get TT shot	2.2	2.5
Others	3.5	-
Benefits of TT immunization		
Protects both mother and child	58.1	57.7
Protects mother only	12.8	12.9
Protects baby only	9.9	13.5
Good for health	10.1	12.2
Others	9.1	4.7

In this survey, a higher proportion of men in both rural and urban areas had knowledge about the need for ANC visit and immunization with TT.

The majority of men in both rural and urban areas felt that ANC visits, providing regular check-ups and advice, would help ensure safe delivery and that such visits are good for mother and child, and the position of the baby can be determined.

About 58% of the men in the study areas stated that TT could protect both mother and baby from tetanus. Another 13% felt that TT could protect mothers from tetanus. Ten percent in the rural area and 14% in the urban area reported that TT could protect only the baby from tetanus.

Although the need for at least one postnatal care (PNC) visit is strongly promoted by the programme, more than 85% of men in both rural and urban areas gave little importance on the need for PNC visit, and the vast majority stated that

such a visit was not necessary. In fact, the need for such a visit was often forgotten immediately right after delivery, because attention of all family members was usually diverted to the newborns. Besides, the mothers are often advised by the family members to remain at home to complete 40 days of the confinement cycle for sociocultural reasons. The benefits of PNC visits for postpartum contraception purposes were also not recognized by men. Since men did not recognize the benefits of PNC visits, no assessment of their knowledge on this issue was made.

Pregnancy and delivery-related complication: Male's knowledge about pregnancy symptoms, complications associated with pregnancy, delivery, post-delivery, and commonly-cited symptoms for all of these conditions are presented in Table 4.

Pregnancy symptoms: More than 95% of the men in the rural and urban areas were aware of few symptoms of pregnancy. The pregnancy symptoms most often mentioned by them were vomiting, amenorrhoea, and intolerance of normal food.

Pregnancy complications: More than 50% of the men in the rural areas and 70% in the urban areas had no knowledge about the pregnancy-related complications. Of those reporting to have knowledge, only a very small number of men could mention some symptoms. Swelling of legs/blurred vision, excessive vomiting, and anaemia were most often cited.

Delivery-related complications: More than 30% of the men in the rural and urban areas had no knowledge about the complications associated with delivery. Prolonged labour, excessive bleeding, retained placenta, and perennial tears were the most often cited reasons.

Post-delivery-related complications: More than 60% of the men in the rural areas and about 80% in the urban areas had no knowledge about postpartum complications. Of those having knowledge, a small number could cite some symptoms. Excessive bleeding, convulsions, and fever for more than 3 days were the most cited post-delivery-related complications.

Table 4. Percentage of rural and urban men having knowledge about symptoms of pregnancy and complications associated with pregnancy, delivery, and post-delivery

Variable	Rural	Urban
Pregnancy symptoms	(n = 12,197)	(n = 2,619)
Yes	99.4	99.8
No	0.6	0.2
Commonly-cited pregnancy symptoms*	(n = 12,124)	(n = 2,614)
Vomiting	59.9	76.3
Amenorrhoea	56.3	57.3
Intolerance of normal food	49.1	57.3
Pregnancy complications	(n = 12,197)	(n = 2,619)
Yes	48.9	29.3
No	51.1	70.7
Commonly-cited pregnancy complications*	(n = 5,964)	(n = 767)
Swelling of legs/blurred vision	32.1	50.9
Excessive vomiting	31.9	31.1
Anaemia	22.7	29.4
Delivery complications*	(n = 12,197)	(n = 2,619)
Yes	69.3	62.7
No	30.7	37.3
Commonly-cited delivery complications*	(n = 8,453)	(n = 1,642)
Prolonged labour	75.2	75.9
Excessive bleeding	70.0	77.4
Perineal Tear	43.9	40.4
Post-delivery complications*	(n = 12,197)	(n = 2,619)
Yes	37.7	20.4
No	63.3	79.6
Commonly-cited post-delivery complications*	(n = 4,598)	(n = 534)
Excessive bleeding	22.0	12.0
Convulsions	15.3	9.5
Fever for three days or more	8.5	1.6

* Multiple responses were allowed

Knowledge of sources of obstetric care: Considering the high maternal mortality in Bangladesh, outreach workers of both government and NGOs were used for promoting the practice of institutional delivery. The Health and Family Welfare Centre (H&FWC) is supposed to be equipped to provide basic essential obstetric care (EOC) and to perform deliveries by a paramedic called Family Welfare Visitor

(FWV), while the facilities at some upgraded Upazila Health Complexes (UHCs) have been introduced in the rural areas to manage emergency complications. The availability of safe-motherhood services from the network of mobile satellite clinics (SCs) and Expanded Programme on Immunization (EPI) spots, H&FWC, and UHC for the rural population was assessed by asking about their ever-visit to each of the facilities. Responses are presented in Table 5. The overall knowledge of the men about the availability of obstetric services in the rural area was quite high. One-third of the men had knowledge about the H&FWC. More than 80% of the rural men visited the UHC at least once. One-third of men in the rural area reported that they had visited the H&FWC. Men also did not consider that these facilities were accessible to them. Men visited the combined SCs and EPI sites mainly for child immunization.

Other facilities are mostly district-level hospitals in the urban areas, and there was a sharp contrast, as expected, with the majority of urban men having knowledge about the district and institutional hospitals for obstetric care, followed by the Maternal Child Welfare Centres (MCWCs). Other than government facilities, several clinics, dispensaries, and hospitals, operated by local municipalities, city corporations, NGOs, and private for-profit organizations were available for the urban population. The ever-visit to hospitals and dispensaries was higher in the urban area.

Table 5. Percentage of rural and urban men having knowledge about source of obstetric care and ever-visit to any health facilities

Variable	Obstetric care*		Ever-visit*	
	Rural (n=12,197)	Urban (n=2,619)	Rural (n=12,197)	Urban (n=2,619)
Source				
UHC/RD/MCWC	91.2	29.5	81.4	21.3
Other hospitals	19.6	90.1	38.4	80.2
H&FWC/GOD	32.7	1.1	33.2	0.8
Satellite Clinic+ EPI	-	-	3.9	3.0
Pharmacy	-	-	6.2	3.0

*Multiple responses were allowed

Use and Reasons for Non-use of Reproductive Health Services

Antenatal care services: The men whose spouses delivered babies were asked about the number of ANC visits made during their last or most recent past pregnancy. Despite high knowledge of favourable attitudes and the importance attached by men on ANC visits, during the recent past pregnancy, the wives of 70% of the rural and 65% of the urban men either did not make any or 3

recommended ANC visits as shown in Table 6. Despite the problem of recall bias with regard to last pregnancy, there still was an upward trend of more ANC visits over time.

Table 6. Percentage of rural and urban men who used ANC services by their spouses

Variable	Recent past pregnancy		Last pregnancy	
	Rural (n=1,647)	Urban (n=383)	Rural (n=10,186)	Urban (n=2,114)
ANC visit				
None	29.8	31.3	48.6	43.8
Less than 3	38.1	31.1	26.3	24.4
3 or more	31.1	34.7	23.0	28.4
Do not remember	1.0	2.9	2.1	3.4

Curative care during obstetric complications: All men were asked whether their spouses had experienced any complications during the last or the recent past pregnancy. Twelve percent of the men in the rural and 11% in the urban area reported that their spouses had experienced obstetric complications during last pregnancy. The spouses of about 16% of the men in both rural and urban areas experienced obstetric complications during the recent past pregnancy (Table 7). Complications associated with delivery of the recent past and the last pregnancy were highest in both rural and urban areas with a higher proportion in the urban area.

Table 7. Percentage of rural and urban men who reported complications associated with the recent past and the last pregnancy experienced by their spouses

Variable	Rural	Urban
Recent past complications*	(n=259)	(n=67)
Pregnancy	36.4	26.9
Delivery	66.0	71.6
Post-delivery	28.6	13.4
Last complications*	(n=1,207)	(n=227)
Pregnancy	32.1	23.8
Delivery	67.4	77.5
Post-delivery	29.5	11.0

*Multiple responses were allowed

The consultation pattern for curative care during complications associated with the most recent past pregnancy is shown in Table 8.

Table 8. Percentage of rural and urban men who used services during complications associated with the recent last pregnancy of their spouses

Type of practitioner	Rural (n=259)	Urban (n=67)
Pregnancy-related complications*	(n=95)	(n=18)
Consulted none	7.4	11.1
Unqualified practitioner	22.1	22.2
Qualified practitioner	71.5	77.9
Delivery-related complications*	(n=171)	(n=48)
Consulted none	15.8	10.4
Unqualified practitioner	32.2	18.8
Qualified practitioner	65.2	72.4
Post-delivery-related complications*	(n=74)	(n=9)
Consulted none	14.2	-
Unqualified practitioner	44.6	-
Qualified practitioner	43.2	-

*Multiple responses were allowed

When pregnancy-related complications developed, qualified practitioners were consulted in more than 70% of the cases in both rural and urban areas. In nearly a quarter of the cases, only unqualified practitioners were consulted in both the areas.

In the case of delivery-related complications, qualified practitioners were consulted in more than 65% of the cases in both the areas, but unqualified practitioners were more consulted in the rural area compared to the urban area.

Unqualified practitioners were more consulted in case of post-delivery-related complications in the rural areas compared to urban areas. The numbers of cases are too small to report percentage compared to the rural area. Although not shown in the table, 2 important observations can be made here: the services of FWVs were used by calling at home in the rural area, and the use of services from pharmacy was made in the management of complications in the urban area. It appeared that higher use of qualified practitioners was made for obstetric complications in the urban area. This was due to grouping of all service providers of the different institutional facilities.

Curative care during last sickness: All men were asked to name 3 sources of services in order of preference for general healthcare. Almost an identical pattern appeared to be evident in the use of both unqualified and qualified practitioners as a first source in the urban area.

All men were asked whether there was any sickness of their own, spouse, and children during the study. Similar questions were asked to all men who had sick children aged less than 2 years with a recall period of 2 weeks. For illness of men and their spouses, the recall period was one month. Data on the nature of sickness, sources of medical care, and the role of men in the process of seeking medical care were also collected. There are known inherent limitations of asking of these types of questions in this kind of survey because of the length of the recall period and definition of sickness to be reported. However, an inference can be made. A broad classification of the reported sicknesses has been made. Three broad categories, such as respiratory diseases (fever, cough and breathing difficulty), diarrhoeal diseases (more than 3 stools and bloody stools a day), and others, have been used in the case of children; uro-genital (painful urination, any discharge, external ulcer in vulva), obstetric and gynaecological (pregnancy and amenorrhoea), and others for their spouses; and 2 categories, such as uro-genital (painful urination, ulcer in genitalia, any sexual problem) and others, were used for men.

Nearly one-third of the children in the rural and a quarter in the urban area were reported to be sick (Table 9). Respiratory diseases were higher compared to diarrhoeal diseases and other conditions among children in both rural and urban areas. Medical care was sought for 59% in the rural area and 62% in the urban area. In the rural area, 53% of the cases used unqualified practitioners, followed by qualified practitioners or the UHC. In the urban areas, 47% of the cases had consultation from pharmacy followed by a qualified practitioner. Only in 10% of the cases, NGOs and private clinics were used. About 90% of these men had accompanied their children for curative care.

Table 9. Percentage of rural and urban men reporting type of sickness of their children

Variable	Rural	Urban
Child sickness reported	(n = 12,197)	(n = 2,619)
Yes	31.7	24.4
No	68.3	75.6
Nature of sickness	(n = 3,872)	(n = 640)
Respiratory diseases	47.4	46.4
Diarrhoeal diseases	18.9	15.5
Others	33.7	38.1
Medical care sought	(n = 3,872)	(n = 640)
Yes	58.5	61.9
No	41.5	28.1
Type of practitioners consulted	(n = 2,264)	(n = 396)
Unqualified practitioners	53.1	18.6
Qualified practitioners	37.7	21.4
NGO/private clinics	1.9	9.8
Pharmacies	0.3	46.7
Others	7.0	3.5
Accompanied for curative care	(n = 2,268)	(n = 396)
Yes	89.3	89.6
No	10.7	10.4

Thirty-one percent of the spouses in the rural and 22% in the urban area were sick (Table 10). Although a very low number of men reported about obstetrics and gynaecological and uro-genital problems of their spouses, these problems were more prevalent among the spouses in the urban area than the rural area. For treatment of problems 43% of the spouses consulted unqualified practitioners, followed by qualified practitioners, in the rural area. Thirty-six percent of the cases used pharmacies, followed by qualified practitioners, in the urban area. Less than 10% of the cases used NGO facilities in both the areas. Medical care was sought for 50% of the men in the rural area and 48% in the urban area. The majority (72%) of these men reported to have accompanied their spouses for curative care.

Table 10. Percentage of rural and urban men reporting type of sickness of their spouses

Variable	Rural	Urban
Sickness of spouse	(n = 12,197)	(n = 2,619)
Yes	31.1	21.9
No	68.9	78.1
Nature of sickness	(n = 3,791)	(n = 573)
Uro-genital	0.8	1.4
Obstetrics and gynaecological	1.6	3.1
Others	97.6	95.5
Medical care sought		
Yes	49.6	48.2
No	50.4	51.8
Type of practitioners consulted	(n = 1,879)	(n = 275)
Unqualified practitioners	42.8	12.7
Qualified practitioners	36.6	32.6
NGO/private clinics	4.5	8.8
Pharmacies	14.9	35.6
Others	1.2	10.3
Accompanied for curative care		
Yes	70.0	80.4
No	30.0	19.6

Little more than one-third of the men in the rural area and one-third in the urban area were reported to be sick (Table 11). A higher number of men reported to suffer from the uro-genital problem in the urban area. Medical care was sought by more than 90% in both the areas. Eighty-two percent of the men consulted both unqualified practitioners and pharmacies in the rural area; 75% visited pharmacies, and 12% cases consulted qualified practitioners in the urban area. It was observed that the consultation with qualified practitioner and pharmacies was higher in the urban area.

Table 11. Percentage of rural and urban men reporting type of sickness of their own

Variable	Rural	Urban
Sickness of own	(n = 12,197)	(n = 2,610)
Yes	38.3	32.5
No	61.7	67.5
Nature of sickness	(n = 4,674)	(n = 915)
Uro-genital	0.8	1.4
Others	99.2	98.6
Medical care sought		
Yes	92.1	93.2
No	7.8	6.8
Type of practitioner consulted	(n = 4,300)	(n = 851)
Unqualified practitioners	33.6	6.9
Qualified practitioners	15.0	11.8
NGO/private clinics	2.6	2.4
Pharmacies	48.0	75.3
Others	0.8	3.6

All men were asked whether their spouses were referred to make ANC visits by any outreach worker during their recent past pregnancy. Table 12 shows the compliance pattern and the reasons for no ANC and PNC visits.

Table 12. Reasons for non-compliance of ANC and PNC visits reported by urban and rural men

Variable	Rural	Urban
Referred for ANC visit	(n = 1,647)	(n = 383)
Yes	33.9	30.5
No	66.1	69.5
Whether made ANC visit	(n = 559)	(n = 117)
Yes	85.9	83.8
No	14.1	16.2
Reasons for no ANC visit*	(n = 79)	(n = 19)
Did not consider important	87.3	89.5
Distance/transport cost	3.0	21.1
Others	11.0	0.0
Reasons for no PNC visit*	(n = 86)	(n = 9)
Can harm newborn and mother	85.7	76.6
Against family tradition/family objection	19.2	22.1
Spouse is physically weak to travel	19.1	11.2

*Multiple responses were allowed

Reasons for no ANC and PNC visit: Nearly one-third of the spouses reported about being referred during the recent past pregnancy, and a large majority (85%) of the spouses complied with the referral. Of those who did not make the recommended number of ANC visits or no ANC visit at all, more than 87% of the men stated that such visits were not important. However, in the urban area, transport cost was mentioned as a key reason for not making such visits. Although men were supportive of postnatal visits, more than 78% of them in both the areas felt that this would harm both newborn and mother.

Views of the men about the ideal number of ANC visits, need for pre-arrangement of trained delivery attendants, and place of delivery, whose spouses delivered babies within one year of survey were obtained. The spouses of 1,647 men in the rural area and 383 in the urban area who delivered babies within one year of survey were interviewed, and 95% of them provided their opinions. The results are presented in Table 13.

Table 13. Percentage of rural and urban men having knowledge about the ideal number of ANC visits, ideal delivery attendant, and place of delivery

Variable	Rural	Urban
Ideal number of ANC visit	(n=1,586)	(n=361)
3 or more	82.1	81.1
Less than 3	14.7	16.1
No visit required	3.2	2.8
Ideal delivery attendant*	(n=1,543)	(n=371)
Trained provider	7.8	11.1
Traditional birth attendant/ <i>dai</i>	64.2	65.0
Trained traditional birth attendant	18.2	14.8
Family Welfare Assistant	0.5	0.0
Others	0.9	0.6
Can not remember	8.4	8.6
Ideal place for delivery		
Own house	81.4	79.8
Hospital/clinic	6.2	11.3
Parent's house of the spouse	0.9	1.1
Can not remember	11.5	7.8

*Multiple response were allowed

Over four-fifths of the men in both rural and urban areas felt that 3 or more ANC visits should be made during a pregnancy. There were men in both the areas, who thought less than 3 ANC visits were sufficient, and another 3% in both the rural and urban areas felt that no visit was required.

The majority (65%) of the men in both the areas considered both trained and untrained traditional birth attendant (TBAs) as ideal attendants. Men in both the areas emphasized the use of trained persons, such as FWV/paramedics, nurses, and qualified practitioners.

Untrained relatives and TBAs attended the majority of the deliveries at home. The 1996-1997 BDHS data showed that only 8% of the deliveries were medically assisted [20]. About 80% of the men preferred own house as a place of delivery and untrained provider as delivery attendant. The majority (65%) of the men in both rural and urban areas expressed the need to fix a place for delivery beforehand. Although a small proportion higher in the rural area, felt that this was not needed. The majority (80%) of the men in both the areas recommended own house and hospitals as the ideal places for delivery.

Decision-making during obstetric conditions: Available data on decision-making gathered mostly from the MWRA's do not truly reflect men's opinion. Decision-making pattern may influence the use of many reproductive health services. A

uniform pattern of decision-making was observed among men in both rural and urban areas. In case of seeking medical consultation for complications associated with the last and the recent past pregnancy, delivery and post-delivery, men were the decision-makers (Table 14). Other family members also contributed to taking decisions for seeking medical consultation.

Table 14. Patterns of decision-making reported by men during emergency obstetric conditions

Variable	Rural		Urban	
	Last (n = 228)	Recent past (n = 95)	Last (n = 36)	Recent past (n = 18)
Pregnancy complications				
Spouse	3.9	2.0	5.6	5.6
Self	74.6	71.6	69.4	66.7
Both	1.7	7.4	11.1	16.7
Others	19.7	19.0	13.9	11.0
Delivery complications	(n = 725)	(n = 171)	(n = 154)	(n = 48)
Spouse	2.3	4.0	1.9	2.0
Self	70.1	69.0	62.3	60.0
Both	1.2	2.0	3.9	2.0
Others	26.3	26.0	31.8	35.0
Post-delivery complications	(n = 128)	(n = 74)	(n = 18)	(n = 9)
Spouse	3.8	3.0	-	-
Self	75.8	78.0	77.8	55.6
Both	2.7	1.0	5.6	-
Others	17.6	18.0	16.7	44.4

Use of contraceptives: Table 15 shows the pattern of contraceptive use by men and their spouses in both rural and urban areas. The percentage of ever-users was higher in the urban area compared to the rural area. The overall use of male method and traditional method was also higher in the urban area. Female method was more used in the rural area than in the urban area.

Table 15. Ever-use and current use of contraceptive methods in rural and urban areas

Methods	Rural (n = 12,197)	Urban (n = 2,619)
Currently using any method	61.5	63.6
Condom	3.8	6.9
Vasectomy	0.6	0.5
Withdrawal	1.2	0.6
Total male method	5.6	8.0
Periodic abstinence	0.3	0.1
Total female method	48.0	45.3
Traditional	7.5	10.2
Ever-use any method	79.7	84.8

Reasons for discontinuation of contraceptive use and non-use of contraceptive have been presented in Table 16.

Discontinuing contraceptive use: All past users were asked to mention the reasons for discontinuation of contraceptive use. Health reasons/side-effects were cited by 51% of the men in the rural area and 49% in the urban area as principal reasons for discontinuation. Demand for children was 18% in the rural area and 23% in the urban area. About 12% of both rural and urban men disliked and considered inconvenience to use contraceptive as the reasons for discontinuation.

Non-use of contraceptives: All never-users were asked to mention the reasons for non-use of contraceptives (Table 16). Desire for children was reported by one of third of men in both the areas. Religion was another major reason mentioned by 15% of the rural and 5% of the urban men.

Table 16. Reasons for discontinue contraceptives use and non-use of reproductive health services reported by rural and urban men

Variable	Rural	Urban
Discontinue contraceptives*	(n=6,523)	(n=1,466)
Health/side-effects	51.3	48.6
Want child	17.9	23.3
Disliked/inconveniences	11.8	11.7
Menopause	2.7	2.9
Wife got pregnant	2.8	2.9
Others	16.7	13.2
Non-use of contraceptives	(n=2,475)	(n=400)
Want children	38.4	36.6
Religion	15.1	4.5
Health concerns	6.7	4.5
Spouse opposed	7.2	7.0
Knows no method	5.1	1.6
Spouse pregnant	2.5	5.6
Infrequent sex	3.8	7.3
Postpartum/breast-feeding	3.8	7.1
Subfecund/infecund/menopause	6.7	7.8
Living abroad/no need	5.3	0.8
Others	5.4	5.8

*Multiple responses were allowed

The views of men about family-planning and fertility issues are important component of the reproductive health programme (Table 17).

Table 17. Views of rural and urban men on fertility and family-planning issues

Variable	Rural	Urban
Number of additional children	(n=2,751)	(n=656)
One	79.0	89.3
2 or more	19.4	9.1
Don't know /up to God	1.6	1.6
Waiting time to have next child		
< 12 months	13.2	15.5
12-23 months	19.8	11.2
24 months or more	67.0	73.3
Gender preference*		
Only son	39.0	32.8
Only daughter	13.7	15.2
Son and daughter	5.3	2.3
Either	39.3	47.9
Time to have children after marriage	(n=12,197)	(n=2,619)
Depends on age of woman	1.6	2.2
Immediately	4.0	3.2
After one year	15.2	8.4
After 2 years or more	77.5	85.7
Up to God/others	1.7	0.5
Contraceptives for the newly-weds*		
Any male method	29.2	38.5
Any female method	66.5	71.6
Others	4.3	4.6
Future method*	(n=2,359)	(n=374)
No method	53.2	48.4
Any male method	3.8	1.6
Any female method	24.3	19.5
Undecided	19.2	30.2
Any traditional	0.8	0.8

*Multiple responses were allowed

Number of additional children: All men having children were asked about the number of additional children that they want to have. Seventy-nine percent of the rural and 89% of the urban men expressed their desire to have one additional child. The desire for 2 or more children was higher in the rural area. A small proportion of both rural and urban men reported 'up to God.'

Waiting time to have next child: All men who expressed their desire to have additional children were asked to indicate when they want to have the next child. The majority of men in both the areas indicated 2 years or more which was, however, higher among urban men.

Gender preference: Thirty-nine percent of the rural and one-third of the urban men expressed their preference for son with low preference for daughter. Desire for either son or daughter was higher among men in the urban area compared to the rural area.

Time to have children after marriage: All men were asked about the ideal time to have children after marriage. Although a very small proportion of both rural and urban men reported that it depended on the age of women, some said that they wanted a child immediately after marriage; however, the majority of men mentioned a minimum of 2 years after marriage in both the areas.

Contraceptives for the newly-weds: Sixty-seven percent of the men in the rural area and 72% in the urban area recommended oral pill and injectables as the principal methods of family planning, followed by condom and injectables for the newly-weds. Traditional methods, such as withdrawal, azal, and periodic abstinence, were also recommended by 5% of the men in both the areas.

Intended contraceptive use in the future: All non-users were asked about the kind of contraceptives that they intend to use in the future. Only 4% of the men in the rural area and 2% in the urban area preferred to use male methods. On the other, 24% of the rural and 20% of the urban men rather preferred female methods for their spouses. Nineteen percent of the men in the rural area and 30% in the urban area were not sure.

Views of men about injectables and IUD: All men were asked to express their views about the advantages and disadvantages of clinical methods, such as injectables, IUD, vasectomy and tubectomy. The results are presented in Table 18. Although the majority (90%) of the men in both the areas claimed that they were aware of the advantages and disadvantages of clinical methods, nearly one-third of them in the rural area and more than 44% in the urban area could not precisely specify any advantage or disadvantage. Among those who could cite any advantage, more than 50% could specify advantages of injectables and IUD. The majority (52%) of these men in both the areas mentioned injectables and IUD as effective methods that provide long-term protection. Most men had better knowledge about injectables compared to IUD. More than 60% of men in both rural and urban areas could not specify any disadvantage. A smaller number of men cited bleeding, headache, and other health concerns as disadvantages.

Table 18. Views of rural and urban men about advantage and disadvantages of injectables and IUD

Method	Injectable		IUD	
	Rural (n=10,883)	Urban (n=2,452)	Rural (n=8,167)	Urban (n=1,791)
Advantages*				
Effective method/long-term protection	53.8	56.0	48.9	53.4
Easy to use/no need to use daily	13.2	9.7	3.9	1.7
Good method/no side-effects	8.7	8.4	3.5	3.0
Others	0.4	0.2	1.0	0.1
Could not specify	32.7	30.9	45.7	43.5
Disadvantages*				
Health concerns	21.1	20.9	6.2	4.8
Bleeding/menstrual problem	12.4	13.2	10.1	8.4
Headache/dizziness	17.6	10.9	3.4	1.0
Uncomfortable to use	1.0	0.4	8.8	7.7
Causes infection/cancer in uterus	1.2	0.6	10.2	8.4
Others	1.6	1.0	1.6	1.1
Could not specify	64.3	68.6	70.1	75.8

**Multiple responses were allowed*

Like injectables and IUD, more than 50% of the men in both the areas could not specify any advantage or disadvantage of vasectomy and tubectomy. Although more than 50% of them considered both forms of sterilization as an effective method, only about 12% used these two methods. This is due to concerns of men having loss of opportunity to have any more children. With regard to disadvantage, they had major concerns about infertility and sexuality in the form of loss of potency (Table 19). They perceived that vasectomy can also interfere in sexual performance as disadvantage. Similar concern was not reported in the case of tubectomy.

Table 19. Views of rural and urban men about advantages and disadvantages of male and female sterilization

Variable	Vasectomy		Tubectomy	
	Rural (n=9,097)	Urban (n=2,225)	Rural (n=11,541)	Urban (n=2,545)
Advantages*				
Effective method/long-term protection	50.1	53.8	54.4	65.2
Good method/no side-effects	5.5	1.9	8.2	6.6
Easy to use/no need to use daily	7.9	7.5	9.9	7.8
Others	2.5	0.2	3.1	0.3
Could not specify	39.7	38.7	32.0	24.6
Disadvantages*				
Irreversible/causes infertility	26.3	31.0	32.1	41.2
Health concerns	4.1	3.0	9.6	6.9
Interfere sexual performance	13.9	11.0	0.9	1.0
Against religion	7.5	6.0	2.1	1.1
Fear of surgical procedure/other difficulties	1.7	1.0	2.5	1.7
Other reasons	7.3	3.0	9.2	6.0
Could not specify	59.5	58.0	54.7	49.2

* Multiple responses were allowed

Sources of family-planning knowledge: Knowledge of men about all family-planning methods was above 90%. Their knowledge about traditional methods, such as periodic abstinence and withdrawal, was also higher when compared to that of females. Mass media/IEC materials and spouse/friends/relatives were the primary sources of knowledge about family planning for men in the rural area (Table 20). The role of spouse was more prominent in the rural area compared to the urban area. Contact with the government outreach workers was very low in both rural and urban areas. The role of outreach workers of NGOs was not prominent due to non-involvement of NGOs in the study areas. On the other hand, the 'spouses/friends/relatives as a source was prominent in both rural and urban areas.

Table 20. Source of knowledge of rural and urban men about contraceptive methods

Variable	Rural (n=12,197)	Urban (n=2,619)
Mass media/IEC material	40.3	58.5
Friends/relatives/neighbours	27.8	22.6
Spouse	25.2	16.6
User of method	-	-
GoB health and family planning personnel	3.5	0.1
NGO health and family planning personnel	-	-
Social/community leader	-	-
None/self	-	-
Others	3.2	4.2

Access to mass media: The results of 1998 national media survey have shown that there has been an increase in the ownership of radios and TVs in Bangladesh (21). The survey also reported that 67% of those who watch TV would accept advertising condom in Bangladesh Television. In this survey, access frequency of mass media was examined. The frequency of newspaper reading was higher in the rural area compared to the urban area. But more than 70% of the men had no access to newspapers, possibly, due to low literacy and their limited availability; newspapers were mostly available in tea stalls. The frequency of watching TV or listening to radio was higher in the urban area than in the rural area (Table 21). The opportunity of watching TV or listening to radio in the rural area was also limited.

Table 21. Percentage of rural and urban men having access to mass media

Variable	Rural (n = 12,197)	Urban (n = 2,619)
Read newspaper		
Never	28.0	12.0
Daily	14.0	31.0
Occasionally	58.0	57.0
Listen radio		
Never	58.0	61.0
Daily	12.0	16.0
Occasionally	30.0	23.0
Watch TV		
Never	24.0	15.0
Daily	19.0	23.0
Occasionally	57.0	62.0

Contraceptive-use decision-making pattern: Data were collected from men about having children, and discontinuation of past and current contraceptives (Table 22).

Despite the retrospective nature of the data, a uniform pattern of decision-making with respect to contraceptives was observed in both rural and urban areas. More than 87% of the men reported that the decision to have children had been made jointly with their spouses. More than 70% of the men also reported that they made a joint decision to discontinue to use the past and current contraceptives.

Table 22. Contraceptive-use decision-making pattern in rural and urban areas

Variable	Rural	Urban
Having children	(n = 12,162)	(n = 2,619)
Spouse	8.7	1.2
Self	2.7	1.1
Both	86.9	97.1
Others	1.7	0.6
Discontinuation of past use	(n = 6,499)	(n = 1,471)
Spouse	11.2	4.8
Self	15.8	8.9
Both	71.9	86.1
Others	1.1	0.2
Current use	(n = 7,493)	(n = 1,665)
Spouse	8.6	4.3
Self	17.7	11.2
Both	73.7	84.4
Others	1.0	0.1

Responsiveness and Participation of Men in Reproductive Health

The reported responsiveness and participation of men in reproductive health were examined. The selected indicators included whether the men (a) participated in child-rearing activities, (b) accompanied their child and spouse to a practitioner for curative care during recent illness and last obstetric complications, and (c) recommended family planning to their friends and willing to recommended family planning to their friends in both the areas. The chance of over-reporting cannot be ruled out; however, an inference of the responsiveness and participation can be made.

Child rearing: Two thousand two hundred and seventy-one rural and 529 urban fathers who had remained at home for the last 30 days preceding the survey and had children aged less than 2 years were asked about their child-rearing activities during a recall period of one week. Eighty percent of the fathers reported to have performed some kind of child-rearing activities during the past one week in both rural and urban areas (Table 23).

Table 23. Reported child-rearing activities performed by rural and urban men

Variable	Rural (n = 2,271)	Urban (n = 529)
Child-rearing activities*		
Feeding	44.2	52.2
Clean nose	46.1	39.1
Change nappy after urine/stool	27.7	23.6
Clean after defaecation	22.4	22.7
Giving bath to child	35.2	39.7
Wash children's cloth	22.0	24.8
Stay awake	31.0	23.6
Others	2.8	0.6

**Multiple responses were allowed*

Table 24 shows men's responsiveness and participation in obstetric complications, curative care, and family planning. Fifty-one percent of the rural and 63% of the urban men reported that they accompanied their spouses to the practitioner during last obstetric complications.

Seventy-nine percent of the rural and 60% of the urban men reported that they accompanied their spouses who were referred to the service provider who complied the referrals for antenatal care visit during recent past pregnancy.

The current users of family-planning methods were asked whether or not they have recommended their friends to use family-planning methods. Sixty-three percent of the rural and 74% of the urban men recommended their friends to use family-planning methods. Among those, reported negative were asked whether they would recommend their friends to use family-planning methods in the future. Fifty-six percent of the rural and 68% of the urban men reported that they would recommend their friends to use family-planning methods.

Table 24. Percentage of rural and urban men reporting accompaniment with their spouses to a practitioner, reasons for non-accompaniment during ANC visit, and recommend family-planning to friends

Variable	Rural	Urban
Accompanied during antenatal care visit	(n=480)	(n=98)
Yes	79.0	60.0
No	21.0	40.0
Accompanied during last obstetric complications	(n=1,207)	(n=227)
Yes	51.3	63.0
No	48.7	37.0
Recommended family planning to friends	(n=7,495)	(n=1,665)
Yes	63.4	74.1
No	36.6	25.9
Will recommend family planning to friends	(n=2,740)	(n=432)
Yes	56.4	67.6
No	43.6	32.4

Discussions

Results of the study showed that collection of data from men especially from the younger age group were difficult due to their unavailability at home during the interviewers' visit. The unavailability of people in the younger age group due to out-migration to the urban area and to the Middle Eastern countries influenced the data on this age group. Only limited information could be collected on what really men thought of many critical issues relating to reproductive health in this kind of survey.

The knowledge of men about menstrual hygiene varied between the rural and urban areas. Personal observation, spouses, and friends were the main sources of knowledge on the age of menarche and menstrual hygiene.

Men can foster safe motherhood by learning about pre- and postnatal care to improve family health (14). Involving men in women's healthcare has led to an increased use of pre- and postnatal care services in many countries. Greater number of visits to maternal health centres were made by women whose spouses had attended informal sessions at the clinics compared to the spouses who did not attend (22).

More than 90% of the rural and urban men were aware of the need of and reasons for making ANC visits and the need for TT immunization during

pregnancy, which was below 15% in both the areas when it was compared with knowledge of men about PNC visits. Little more than half of them had knowledge about the benefits of ANC visits and TT immunization.

The ignorance of men about reproductive morbidity of women is not uncommon in many cultures, including Bangladesh [2]. The practice of having first delivery at the parents' house is common, and the role of husband is to send his spouse to her parents' house and wait until delivery happens. Complications associated with pregnancy during different trimesters are not often considered a severe situation at the family level. Men tend to consider these conditions natural for pregnant women. Moreover, pregnant women often cannot escape the responsibility of household chores and prefer sharing their difficulties relating to pregnancy with elderly relatives or neighbours, instead of their spouses. Therefore, men may remain unaware of the symptoms, potentially leading to complications.

More than 60% of the men were aware of complications associated with delivery, which needs more investigation. Complications associated with deliveries are estimated to be 5-15% (23). Unless there is a life-threatening condition, the chance of men to get any knowledge about this situation is very limited, even if they want to know, and their interests are not socially welcomed. In most cases, they can only hear from the close female relatives or staff of the clinic or hospital about the final outcome be it at home or in the clinic or hospital where men have practically no or very restricted access.

The knowledge of men was, however, quite low in the case of complications associated with post-delivery. The occurrence of complication is not very common, and very few men may encounter this kind of problem. Lack of safe-delivery messages targeted to men and relatively infrequent occurrence of post-delivery complications can result in a low level of knowledge among men. The knowledge of men about sources of obstetric care is high in both rural and urban areas. Both qualified and unqualified practitioners were consulted for all kinds of obstetric complications.

Men reported a high rate (over 90%) of healthcare attention for themselves and for their children (60%) compared to their spouses (50%) during the last sickness episode. They also reported a low rate of accompaniment with their wives during the last obstetric condition. This issue needs more investigation. Unqualified practitioners were the first source of care for all kinds of health problems in the rural area. In the urban area, the first source of care was the trained professionals in both public and private sectors. Pharmacies were also an important source of care in the urban area.

Although an increasing trend of ANC visit was observed, non-compliance of referral for such visits was as well high. Seventy percent of the urban and rural men considered that PNC contacts with the health staff could harm both mothers

and children. Moreover, once the delivery ends with a positive outcome, the importance of PNC visit is often forgotten, unless there is any debilitating condition. The majority of men reported 3 or more ANC visits as ideal. However, the spouses of more than 65% of the men did not make the recommended number of ANC visits to the health centres during their recent past pregnancy, whereas 80% did not feel that it was at all necessary.

Despite the problem of over-reporting, there was sufficient evidence that the men were important decision-makers in emergency situation.

Over the last 2 decades, there has been a substantial increase in the use of contraceptives, but the increase has been mostly in female methods in Bangladesh. Despite an overall increase in contraceptive prevalence rate (CPR), the use of exclusively male methods did not increase in the rural area. According to the 1996-1997 BDHS data, the prevalence of strictly male methods (i.e. condom, vasectomy, and withdrawal) was 6.9%—about 14% of all methods used. A 7-fold increase in the use of female methods has occurred during the past 20 years. During the same period, the use of male methods has not increased substantially, and relative share of male methods has rather declined steadily from 22% of all methods used in 1975 to 14% in 1996-1997. The CPR as reported by rural men in this study was 61.5%, and for the urban area it was 63.6%. Use of condom in the rural area remained unchanged, but it nearly doubled in the urban area. Men showed a tendency to report high use of modern contraceptives by their spouses, if they were not using and the use of traditional methods in their own case, if their spouses were not using. Use of male methods was low. Health reasons/side-effects and demand for children were 2 prominent reasons shown by men for the discontinuation of contraceptives. Demand for children and religion were 2 prominent reasons for non-use of contraceptives. Although men could report the advantages of vasectomy as an easy-to-use and effective method, they, in practice, showed least interest for this method.

The majority of the men preferred a longer-waiting time to have children after marriage and to have next children. Men preferred both male and female methods for the newly-weds and future methods. Both oral pill and injectables are quite popular methods in Bangladesh. The national programme does not promote the use of injectables among women who do not have children. Men may not be aware of what methods are suitable for women without children. There was enough indication that men would support contraceptive use by their spouses, and an opportunity exists to promote the use of male methods during early part of their marital life. This is very important from programmatic point of view that men would support delaying the pregnancy of their spouses. There is an opportunity to segment these groups for promotion of contraceptive use.

Among the never users, a little more than half of the men would not use any method in the future. A higher proportion of the men in the urban area was

undecided. Men seemed to have insufficient knowledge about clinical methods. They were involved in joint decision-making about when to have children, and current use and discontinuation of contraceptive use.

One-fifth of the fathers did not perform any type of child-rearing activities during past one week preceding the survey.

Friends and mass media were the main sources of information about the availability of contraceptive methods for men. Other than mass media and friends/relatives and the spouses, who were also important sources of rural men's knowledge.

Conclusions

Considering the sensitivity of the topics included in reproductive health, an in-depth qualitative assessment of perceptions, knowledge, attitudes, sequential steps of decision-making, and practices of selected males (clients, social leaders, and providers) is likely to provide more insights into male interest in reproductive health issues and services.

Despite the importance and necessity of involving males in women's healthcare, it is still a difficult task. Many factors contributed to this difficulty, since very little is known about the reproductive health needs of males. It is difficult to draw any definite conclusion about interest of men on supporting reproductive health needs of women, because the data are based on the reporting by men. The over-reporting tendency of men in the use of contraceptives was widely documented in the BDHS 1996-1997.

The efforts so far made by the government and NGOs under the name of male involvement address only a part of the problem. Abundant IEC materials on family planning, including condom and vasectomy, are available for dissemination and use, but there are very few materials that focus on joint decision-making and equal responsibility.

Past evidence shows that 3 prominent mass communication approaches i.e. electronic media (radio, TV, and movies), print media (newspapers, posters, stickers, billboards, and leaflets), and interpersonal communication (field workers and healthcare providers) have succeeded in increasing awareness and use of MCH-FP services. The enormous capacity of mass media in reaching a larger audience cannot be debated. However, ownership, intensity of coverage, frequency, peak listening hours in the case of radio and TV, and interest in buying newspapers limit the purpose. Use of field workers to reach men was not effective due to non-availability of males at the time of field workers' visits, and the private nature of one-to-one contact between males and healthcare providers for any service has limited dissemination opportunity to reach the larger audience. The

ability to comprehend culturally-sensitive issues from printed materials remains to be assessed. It is not known whether without preparing the target audience, all 3 means will be effective for disseminating issues relating to sexual behaviour and sexual decision-making of males having implication on women's health. In the past, all promotional meetings organized for this purpose have been held as a ritual exercise.

Regardless of their level of knowledge about reproductive health issues, men were the important decision-makers. Programmes and interventions to improve the use of reproductive health services should address the information needs of men. Without meeting this need, any intervention is unlikely to have a major impact on family health.

Recommendations

The extent of sexual activity among adolescents is increasing, thereby increasing potential risk of STD transmission. In the past, educational programmes on reproductive health faced strong opposition as some people felt that pre-marital sex is being encouraged with this type of interventions. Reproductive health programmes are unlikely to increase the utilization of services without involving men in their design and implementation. Role of men in decision-making must be considered while designing any interventions on reproductive health issues to increase the use of services, particularly in the case of obstetric complications. The design of future interventions aiming at improving family health must focus on increasing general awareness on reproductive health issues.

It is well established that men are difficult to contact in both rural and urban settings. A well-designed, male-focused community-based IEC activity aiming at improving knowledge of men about reproductive health issues and services, increasing supportiveness among husbands for the reproductive health needs of their spouses, well-being of children, preventing STDs/AIDS, and using services by men should be undertaken.

Although the workplace of men may be an ideal venue to contact them, especially in the urban area, actual implementation of this approach is not easy. This requires adequate support of employers, which may be a cumbersome process, and may take an unusually long time. Small-scale awareness-raising activities at the workplace can be piloted in the urban area. Radio and TV can be used for broadcasting and telecasting special awareness programmes taking into consideration the peak listening hours, viewing hours and day of the week. Newspapers can also play a major role by putting only one common advertisement daily on the importance of prevention of AIDS.

Although the role of formal and informal leaders was not found to be prominent in the promotion of reproductive health issues, their recommendations should be considered and integrated in the design of intervention systematically with adequate follow-ups.

The success achieved in the immunization programme by the Government of Bangladesh using 2 male supervisors, namely Assistant Health Inspector (AHI) and Family Planning Inspector (FPI), must be reviewed to make best use of their experiences on reproductive health issues in the rural area. In view of the changed service-delivery strategy of the government and absence of outreach workers, there will be very limited opportunity for conducting inter-personal communication. The potential use of AHI and FPI and a male paramedic, known as Sub-Assistant Community Medical Officer (SACMO), at the lowest operational level of the government health system should be explored systematically with clear instructions about which men should be targeted, for what purpose, and how to reach them. These health workers should be given specific assignment of targeting a specific group of males in a clearly-defined setting, and the performance must be measurable.

In addition to a community-based male-focused IEC effort, there is a need to orient service providers about the role of men in improving family health, to increase their knowledge of prevention and management of reproductive health problems, and to prepare the service-providing facilities for offering reproductive health services simultaneously.

References

1. Pelon NJ, Rob U, Khan EM. Men in Bangladesh, India and Pakistan. Dhaka: Karshaf Publishers, 1999.
2. Green EM, Biddlom EA. Absent and problematic men: demographic accounts of male reproductive roles. New York: Population Council, 1997. (Working paper, 103).
3. Basu MA. The cultural, social and behavioral determinants of health. *Health Trans Rev* 1996 Oct;6(2).
4. World Health Organization. Special Program of Research, Development and Research Training in Human Reproduction. Geneva: PROGRESS in Human Reproduction Research, no. 42,1997.
5. Pelon JN. Reproductive health in Bangladesh: a sectoral review. Dhaka: United Nations Funds for Population Activities, 1996.
6. Asian-Pacific Resource and Research Centre for Women. Men's roles and responsibilities in reproduction. *ARROWS For Change* 1996 May;2(1):1-12.
7. Green CP, Cohen SI, El-Ghouayel HB. Male involvement in reproductive health, including family planning and sexual health. New York: United Nations Population Funds, 1995. (Technical report no. 28).
8. Verma KR. Reproductive health issues: focus on men. *IASSI* 1997;16(3&4):172-18.
9. Roy AK. Women's right, our constitution and global perspective. *Daily Star* 2000 Nov 25.
10. Basu MA. Is discrimination in food really necessary for explaining sex differentials in childhood mortality. *Pop Stud* 1989; 43:193-210.
11. Abdullah T. *Prothom Alo* 2000 Jan 1:(Suppl).
12. Bhuiya IA. Pledges for building a base for unity and cooperation in South Asian Region. *The Bangladesh Observer* 2000 Feb 18.
13. Aziz KMA, Maloney C. Beliefs and fertility in Bangladesh. Dhaka: International Centre for Diarrhoeal Disease Research, Bangladesh, 1985.
14. International review of population and reproductive health, 1999 Spring;(59).
15. Nahar Q, Amin S, Sultan R, Nazrul H, Islam M, Kane TT et al. Strategies to meet the health needs of the adolescent. Dhaka: Operations Research Project, ICDDR,B: Centre for Health and Population Research, 1999. (ICDDR,B special publication no. 91).

16. Bangladesh. Ministry of Health and Family Welfare. Health and Population Sector Programme 1998-2003 (HPSP): programme implementation plan, part I. Dhaka: Ministry of Health and Family Welfare, Government of Bangladesh, 1998.
17. International Centre for Diarrhoeal Disease Research, Bangladesh. Operations Research Project: an overview. Dhaka: Operations Research Project, 1998 (unpublished).
18. Roudi F. Washington: Population Reference Bureau Inc. Cairo scores Population Association of America (PAA) 1998, Poster session.
19. Ahmed KS, Mozumder AKA, Barkat-e-Khuda. Redesigning Operations Research Project surveillance system. Dhaka: Operations Research Project, ICDDR,B: Centre for Health and Population Research, 2000. (ICDDR,B special publication no. 107).
20. Mitra SN, AL-Sabir A, Cross AR, Jamil K. Bangladesh demographic and health survey 1996-1997. Dhaka, National Institute of Population Research and Training, 1998.
21. ORG-MARG Quest Ltd. National media survey 1998.
22. Singh KK, Bloom SS, Tusi AO. Husbands' reproductive health knowledge, attitudes, behavior in Uttar Pradesh, India. *Stud Fam Plann* 1998;29(4):388-9.
23. UNICEF. Emergency obstetric care. Intervention for the reduction of maternal mortality. Dhaka: Obstetrical and Gynaecological Society of Bangladesh, 1993.

MCH-FP Extension Work at the Centre

In 1982, the MCH-FP Extension Project 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, the 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 1993-1997. 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 programme 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 that focuses on the application of simple, effective, appropriate and accessible health and family planning technologies. HPED has built up a considerable body of research and constituted the established operations research element for child and reproductive health in the Centre. The Operations Research Project (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 the Division are focused on improving programme performance which has policy implications at the national level and lessons for the international audience also. Secondly, HPED 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 programme performance through systematic provision of technical assistance; and scaling-up of applicable findings from pilot phase to the national programme at Thana, Ward, District and Zonal levels both in the urban and rural settings.



CENTRE
FOR HEALTH AND
POPULATION RESEARCH

Operations Research Project

Health and Population Extension Division

ICDDR,B: Centre for Health and Population Research

GPO Box 128, Dhaka 1000, Bangladesh

Telephone: (880-2) 8811751-60 (10 lines); Fax: (880-2) 8811568

E-mail: msik@icddr.org; URL: <http://www.icddr.org>