

Bangladesh DHS 2014: Three Qualitative Studies



*Family Planning Needs among Women
with a Migrant Husband*

The Social Context of Early Childbearing

Perspectives on Antenatal Care

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Acknowledgment: Further Analysis Reports 98, 99, and 100 present the results of a set of three qualitative studies emanating from the Bangladesh DHS 2014 and, together, comprise this publication. The qualitative studies were coordinated by principal investigators Quamrun Nahar, Kerry MacQuarrie, and Rasheda Khan. Each of the lead authors contributed equally to the publication of this report. On behalf of the research team, they would like to gratefully acknowledge the many individuals whose contributions benefitted these studies. Kanta Jamil, USAID, spearheaded the study ideas. She and Peter Kim Streatfield provided thoughtful input on emerging results throughout the study. Sri Poedjastoeti and Fidele Mutima of The DHS Program and Nitai Chakraborty of Dhaka University provided guidance on sample selection and coordination between quantitative DHS survey and qualitative study operations. Laurie Liskin of The DHS Program assisted with the coordination of the qualitative studies and broader DHS activities in Bangladesh. She and Tom Pullum, also of The DHS Program, helped to coordinate the publication of study results. The authors are grateful to the governments of Bangladesh, Canada, Sweden, and the United Kingdom for providing core/unrestricted support to icddr,b for its research efforts. Finally, the research team is deeply indebted to the study informants who so generously shared their personal stories with us.

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DHS Further Analysis Reports No. 98

**The Men Are Away:
Pregnancy Risk and Family Planning Needs among
Women with a Migrant Husband in Barisal, Bangladesh**

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Abstract

Bangladesh is one of the major labor-exporting countries in the world, with large scale labor migration flows occurring both internationally and domestically. The 2011 Bangladesh Demographic and Health Survey suggests approximately 12% of currently married women have a husband who lives elsewhere. This study complements the 2014 Bangladesh Demographic and Health Survey (BDHS) data with qualitative exploration among a sub-sample of DHS respondents whose husbands usually stay elsewhere but return at least once a year in Barisal division, Bangladesh. The study explores how husbands' migration patterns influence couples' fertility intentions, contraceptive decision-making and behavior, and the experience of unintended pregnancies. Research methods included 23 in-depth interviews with women having migrant husbands. Results showed that contraceptive use was high in this sample, with nearly all couples using some method to avoid pregnancy, usually pills and condoms. The experience of side effects was commonplace, which contributed to a pattern of inconsistent and less effective contraceptive use: women used pills only during the duration of their husbands' visit to mitigate side effects. Half of the informants experienced unintended pregnancies either due to the failure to use the pill consistently or because the method failed. Informants lack information about menstrual regulation practices and available procedures. The study findings indicate that women with migrant husbands need family planning education and access to a wider range of family planning choices.

1. Introduction

With significant improvements in reproductive, maternal, and neonatal health, Bangladesh has made positive progress in the health and population sector over the last decade. The Bangladesh Demographic and Health Survey (BDHS) provides national estimates of nutrition, fertility, family planning, and maternal and child health in 3-year intervals. The 2014 BDHS is the seventh DHS, with data collected between July and October 2014 in a nationally representative sample of about 18,000 ever-married women of reproductive age (15-49 years).

While national surveys like Demographic and Health Surveys (DHS) provide estimates of some core indicators in health and family planning over time, they do not provide in-depth detailed information to understand population perspectives on specific behaviors and circumstances around those behaviors. For instance, according to the 2011 BDHS, 12% of women have their husbands living elsewhere but many of them make frequent visits. However, little is known about the fertility behavior of these couples. Similarly, BDHS provides estimates of many other important information, however, beliefs and perceptions related to those issues that hindered care and care seeking is not well understood. Hence, a qualitative study was attached to the 2014 BDHS to provide some additional in-depth information. Circumstances surrounding family planning use among women with migrant husbands was one the component of this qualitative study.

The broader objective of this study is to understand the nature of family planning use among women with migrant husbands, their choices and decision-making process for future pregnancies, and their perceptions about the risk of unintended pregnancy.

The specific objectives of this study are to:

- Explore women's perceptions about the risk of getting pregnant during the course of their life with a migrant husband and their use of family planning methods to delay or limit pregnancy;
- Understand the knowledge, perceptions, and attitudes surrounding unintended pregnancies; and
- Understand barriers and facilitating factors in accessing family planning and information on use of family planning methods.

2. Background and Rationale

Bangladesh has made remarkable progress in reducing fertility over the last three decades. During this period, the total fertility rate (TFR) decreased from 6.3 in the 1970s to 2.3 in 2011. Although the decline stalled in 1990s, the fertility rate began decreasing again thereafter. In the last three DHS surveys carried out in 2004, 2007, and 2011, the TFRs were 3.0, 2.7, and 2.3, respectively. During this time contraceptive prevalence rates (CPR) increased from less than 58% in 2004 to 61% in 2011 (NIPORT, Mitra and Associates, and ICF International 2013). Though indicators are indeed going in the right direction, the national CPR target (72%) has not yet been reached. To achieve the national target, the government of Bangladesh aims to reduce unmet need for family planning through increased use of contraception. Some other strategies for reaching the national CPR target, such as formulating policy for couples with seasonal migration of husbands and improving behavior change communication (BCC), have also been suggested.

Being one of the major labor-exporting countries in the world, large scale labor migration is a common phenomenon of Bangladesh. Each year a large number of people migrate overseas for both long- and short-term employment (Siddiqui 2005). Although limited information exists about the nature and causes of internal migration, people moving from rural to urban areas and one city to another city has also become a common phenomenon in Bangladesh. Many men and women leave home to find work, leading to temporary family separations.

For married couples, spousal separations due to migration for work have the potential to influence fertility and contraceptive prevalence rates. It is assumed that the length of separation disrupts both the level and timing of fertility (Massey and Mullan 1984). Neighboring Nepal has recently done a further analysis of DHS to see the effect of male migration on the contraceptive use, unmet need, and fertility. The report suggested that between 2006 and 2011 male migration was likely to be an important factor contributing to the decline in fertility in Nepal, despite stagnation in contraceptive prevalence (Khanal et al. 2013).

Spousal separation does not necessarily imply an absence of coital activity; yet, the family planning needs of temporarily separated couples differ significantly from those who are cohabiting. However, in Bangladesh family planning needs of women whose husbands are temporarily absent is difficult to ascertain due to the fact that little information exists on this topic. The DHS does a poor job of ascertaining fertility desires for this population, as it establishes unmet need from a complex set of indirect questions, rather than a single direct question. It also has two questions on desire for another child and desired timing at time of survey; and a single question about how well timed the last birth was. Similarly, there is a single question of reason for non-use of the contraception. These may not capture the complexity of fertility and pregnancy avoidance goals among women whose coital activity with their husbands is sporadic and episodic. We also do not know if women whose husbands are temporarily separated get classified (misclassified) as absent or using periodic abstinence as a traditional method.

According to the 2011 BDHS, approximately 12% of currently married women age 15-49 have a husband who lives elsewhere. This percentage is even higher in Chittagong (23%), Barisal (17%), and Sylhet (15%). Between 40% and 77% of migrant husbands return to the household at least once per year in these divisions. Contraceptive use among this group of women lags behind that of all women age 15-49 by 18-34 percentage points (NIPORT, Mitra and Associates, and ICF International 2013). Absence of husbands may be considered as a protection against pregnancy, but when husbands are away many women stop using family planning altogether. These women may be at a lower risk of pregnancy, but their contraceptive need is different. Women who stop using contraceptives when their husbands are absent may be particularly at risk if their husbands return unexpectedly (Ban et al. 2012).

Despite the potential for migration to influence fertility behavior and contraceptive use, it is not well known what are the fertility intentions of women with husbands who live elsewhere, how they perceive their risk of pregnancy, and how they manage that risk. Specifically, it is unknown whether these women have a reduced risk of pregnancy and a lower need for family planning services because of their lower coital frequency, or whether they have more complex needs for family planning that are more difficult to meet with existing services and available methods, by virtue of the intermittent presence of their husbands. Therefore, the present study aims to fill in the gaps in understanding how women with migrant husbands understand and manage their risk of getting pregnant.

3. Methodology

3.1. Research Team

The study team included nine members: three principal investigators, one co-investigator, four junior researchers, and one field assistant to assist the field research team in locating and contacting eligible participants in the field. The four junior researchers had master's degrees in anthropology. They were involved in data collection, data editing, transcription, translation of the transcripts, and coding of the data. The principal investigators and co-investigators led the data analysis and wrote the study report while the other members of the team were available to respond to any clarification needed to understand the data.

A ten-day training session was arranged before starting the field work. At the beginning of the training, a brief overview was given on the health systems and provision of services related to reproductive health in Bangladesh. The training included discussion on basic qualitative methodology and the data collection process, sampling techniques and sample selection, selection of eligible informants, ethical procedures, and field management. The main focus of the training was how to stimulate in-depth discussion on the key research questions with study informants and how best to frame those questions to collect the answers. The training included classroom discussion, role play, and field testing. Based on the experiences of field testing, interview guides were modified. Researchers were given feedback on interview techniques. An emphasis was placed on probing, note taking, transcription, translation, and writing up and elaboration of field notes. The research team was also briefed about collecting basic demographic information of the informants. The research team also had a separate 7 days training on data coding and analysis.

3.2. Research Design, Sample Size, and Field Selection

The study was qualitative in nature and designed as a companion study to the BDHS 2014. It is one of three qualitative studies attached to the BDHS 2014 and using similar methods; the results of the other studies can be found in DHS Further Analysis Reports No. 99 and No. 100.

Once the study participants were identified, in-depth, open-ended interviews were carried out following basic rules and procedures. Based on the study objectives, an interview guide was developed for in-depth, unstructured interviews. These interviews took a broad approach in the beginning, which reflected on women's lives in general and reproductive health specifically. This provided the context necessary to understand family planning use and unintended pregnancy-related experiences when living apart from the husband for the last couple of years.

One of the main objectives of the study was to understand women's perceptions of the risk of getting pregnant during the course of their life with a migrant husband and their use of family planning to delay or limit pregnancy. More specifically, the study wanted to understand the barriers and facilitating factors in accessing family planning and information on the use of methods according to women's knowledge, perceptions, and attitudes surrounding unintended pregnancies. The sampling criteria of study population were currently married women age 15-49 whose husbands live elsewhere but made at least one visit in the last 12 months and who want to delay or prevent a (another) pregnancy. This objective guided researchers to select the study site and, within it, the study sample.

This study was conducted in selected DHS clusters in Barisal division, which had the second highest percentage of women with husbands living elsewhere. According to the 2011 BDHS, 23% of women in Chittagong division and 17% of women in Barisal division had husbands who were living elsewhere. Moreover, in Barisal, 13% of women had husbands living elsewhere who visited them at

least once in the last 12 months. The same figure was 11% for Chittagong. Barisal division was selected because of the higher percentage of women with migrant husbands who made a return visit at least once in the 12 months prior to the survey. When asked about future intention, about half of women in this situation (44%) did not want another child soon or at all, yet were not using any contraception.

The study was conducted in rural clusters as a slightly higher proportion of rural women have husbands who live elsewhere compared to urban women (12% versus 10%). In the 2014 BDHS, Barisal had 72 sample clusters (50 rural). After applying the eligibility criteria among BDHS 2011 samples to the 2014 BDHS sample estimates, a total of 166 women was estimated to be found in 50 rural clusters in Barisal (3.3 women per rural cluster).

Figure 1. Map of study division and clusters



The study planned to interview 20 to 30 women, though the overarching principle was reaching the “point of saturation” (Guest, Bunce, and Johnson 2006; Morse 1994; Patton 2002). The point of saturation is the point at which additional interviews yield no new analytical themes. The qualitative team received a list of 166 women living in 50 rural clusters of Barisal Division from Mitra and Associates, the implementing agency for the 2014 BDHS. From this list, a total of eight clusters were selected from two districts, namely Barisal and Potuakhali. Districts and clusters were selected

considering the geographical proximity for the researchers and availability of eligible women. In these eight clusters, 61 potentially eligible women were found and, from them, 23 women were selected for interview. It is important to mention here that each of these 61 women were reached by the researchers and interview was carried out with only those women who were available, still eligible, and interested to talk.

The qualitative study team went to the field several months after quantitative data collection for the 2014 BDHS was completed and therefore, seven women had to be excluded from the list because they had since resumed living with their husbands. Another seven women were absent from the village because they went to live with their husbands where they worked. Nine women were not at home as they were either visiting their neighbors or relatives in a distant village.

Although the 2014 BHDS quantitative survey sampled women age 15-49, the qualitative study restricted its eligibility to age 15-40 to have a clear understanding about their fertility intention. Therefore, further, five women were excluded whose age was more than 40 years. Another five women were excluded since they lived in the same household of another eligible woman. This exclusion was made to avoid repetitions of information and to protect the confidentiality of informants. Two women refused to give the interview, one woman's husband was missing and did not visit her for a long time, and one woman was excluded since her migration history was only for a short period, which may not provide a greater dimension to understand the context. Finally, one woman was excluded since she was pregnant. Therefore, at the end, 23 women were found to be eligible and available for the study.

3.3. Data Collection Procedures, Ethical Issues, and Challenges in the Fields

Once the women were identified, their names and addresses were obtained from an associated organization, Mitra and Associates, which carried out the BDHS. Before researchers went to the field, one field research assistant went to the study site with this list to identify the addresses and to make an appointment with the informants. Once the women and the family members gave the permission to be interviewed, an approximate date of interview was set and based on this appointment; researchers made a field visit to that area and conducted the interviews.

Researchers also collected short notes on general socio-economic information of the selected cluster through informal discussion with community people who were available in common places, e.g. roadside shop, yard, school, etc. These short notes were collected to understand the health facilities and other infrastructure available in the community, the distances to these facilities from the community people, and their accesses in terms of availing health services.

Interviews were administered in private settings, generally either inside the house or in the family yard. Interviews were carried out in Bangla and most interviews took from 60 to 90 minutes. All interviews were tape recorded based on the prior permission of the informants.

Ethical clearance for the project was obtained from the Ethical Review Committee (ERC) of icddr,b and ICF International's Institutional Review Board (IRB), both of which follow international ethical standards to ensure confidentiality, anonymity, and informed consent. The standard process of obtaining written informed consent was followed in the case of all participants in this research. All efforts were made to conduct the interviews in a private location and to maintain confidentiality of the information collected. It was also made clear to the informants that they had full right to refuse to respond any questions or to terminate interviews at any time if and when they want for any reason.

Even though a number of actions took place to accomplish the study, the data collection procedures encountered a number of challenges in the field. The first challenge was related to availability of informants, which has been detailed above. Besides the issues related to unavailability of informants, the data collection was delayed for 2 months due to nationwide political unrest in the country. To address all these problems, the study took various actions and made changes to the procedures used to sample the women—these procedures have been discussed in the sampling sections. Last but not least, it is important in qualitative research to make return visits to informants (often two or three times) to clarify certain aspects of the in-depth interview that may not have been understood at the first sitting. In the present study, however, it was not an option to revisit informants.

3.4. Data Management and Data Analysis

All the tape recorded interviews were transcribed verbatim (in Bangla) and all the hand written notes on the community information were expanded in Word documents immediately after coming back from the field. Investigators reviewed the transcripts generated through interviews on an ongoing basis as the data were collected, and subsequent feedback was given to the researchers. Thirty percent of interviews were translated from Bangla into English so the external principal investigator could assist in the coding, analysis, and writing up the study report.

Once the qualitative data collection was completed, a coding system was developed, capturing the main research themes and concepts generated through the data. Interviews were coded in Atlas.ti, a text-organizing software, and the data were organized according to codes or super codes developed by the research team.

After completion of the coding, a content analysis framework was developed in matrix form and the codes were organized under the broader objectives of the study (all codes were placed under the objectives where it suits best). Data triangulation was employed to identify only those concepts that could be validated and this was done through a process of assessing the validity and reliability of data. Reliability and validity in terms of qualitative research basically means how consistent (reliable) and meaningful (valid) the research results are. In other words, reliability refers to the degree to which the findings are not a result of some accidental factors of the study, and validity refers to the degree of how correctly the findings have been interpreted. For the purposes of our study, we conducted a semi-formal reliability assessment and took in a methodological consideration in order to address validity, which is triangulation.

For socio-economic information, we depended on DHS quantitative data set only for the age of the main informants for other information we used qualitative data set.

4. Results

This section of the report first describes women’s/couple’s socio-economic background and then discusses the patterns of husbands’ migration for work. Women’s perceptions, knowledge, and understanding of family planning methods and their access to different methods and information are integral to women’s/couples’ choice of methods and their consideration of the appropriateness of a method for couples like them. Therefore, the results section will focus on this broader issue in the next section. The later sections will focus on issues directly related to couples’ use of family planning with “migrant husband” as an underlying factor, i.e., couple’s interaction before the visits were made, their experiences of past and present use of family planning methods, their risk perceptions and perceptions of appropriate methods for couples including a migrant husband. Finally, this section will explain how certain methods, such as the pill—which is used by most of the informants because it is considered the appropriate method for couples to use when the husband is a migrant worker—is explained along with women’s experiences of unintended pregnancy. The section also looks at issues that influence couple’s decision-making from the perspective fertility control and family planning methods.

4.1. Socio-economic Background

The average age of the women in the study is 28 years; their husbands are older, with an average age of 36 years. The mean duration of marriage is 9 years while the mean age at marriage of the women was 16 years. Data suggested that compared to men, women had less educational qualifications; More women were non-literate than men and more men had higher levels of education (up to 12th grade) than women. None of the women were involved in cash earning income activities. A little less than half of the husbands were service holders in different government, private, and non-governmental organizations. The remaining husbands were involved in different types of income generating activities, which included RMG (ready-made garment) workers, drivers of different vehicles, and so on.

Most of the women (15 of 23) live in the extended family setting where almost all of them live with the mother-in-law and father-in-law, along with some having husband’s sisters and brothers and their wives living with them. The remaining eight families live in a nuclear family setting since marriage. One woman separated from her in-laws recently. On average, there are two children per family.

Table 1. Socio-economic background of the women in the study (n=23)

Variables	(n=23)
Women’s age in years (mean)	28 yr
Women’s age at marriage in years (mean)	16 yr
Women’s years of schooling	
0 years	2
1-5 years	4
6-10 years	13
12+ years	4
Women’s occupation	
Housewife	23
Other	0
Husband’s age in years (mean)	36 yr
Husband’s years of schooling	
0 years	1
1-5 years	5
6-10 years	11
12+ years	6
Husbands’ occupation	
Service holder (Govt., NGO & private)	10
Van/CNG/car driver	4
Day laborer	3
RMG worker	2
Salesmen	2
Driver (Launch)	1
Contractor	1
Mean duration (years) of work outside the home	13 yr
Mean duration (years) of marriage	11 yr
Number of visits in past year	
1-2 times	1
3-4 times	7
5-6 times	6
7-8 times	3
8+ times	6
Family type	
Nuclear	10
Extended	13
Parity (mean)	2

4.2. Husbands' Migration Patterns

Most of the husbands (16 of 23) have been living outside of the village since even before their marriages, for a duration ranging from 3 to 30 years. Consequently, the duration of marriage among these couples has a large range, as data showed that these couples were married for 3-16 years. Among the remaining seven husbands, four husbands started working outside of the village from 3-19 years ago and this was after they married. One couple was married for 4 years and the other three were married for 18-21 years. In case of the remaining three couples, the duration of marriage has a big range (2 years, 5 years, and 13 years) and they have been involved in work outside the village between 18-25 years. However, unlike other migrant couples, these women moved to their husbands' work place just after the marriage and returned home leaving the husbands there.

Almost all the husbands worked in Dhaka city or nearby Dhaka, which is approximately 230 km away from their hometown. The usual route for travelling to Dhaka is through water transport, which is cheap and accommodative for them; it is an overnight journey taking 7 hours by launch and steamer. Few informants' husbands work in the same districts or nearby districts as their hometown.

In general, the average duration of their husbands' work outside home is 13 years (3-30 years). Data suggested that more than half of the husbands visited their wives between three to six times during the last year and one fourth of the husbands visited their wives more than eight times. Most of the husbands stayed for about 1-7 days at home during their visits. Data suggested that husband's occupation type and distance to workplace had little influence on the number of visits and days of stopover period.

As mentioned earlier, three women moved to their husbands' workplace just after the marriage and started living alone after few years. The other women said that they hardly visited husbands' work place. Even if they did, it was once or twice during the entire period of migration history and most of the times it was for care seeking purposes in the district town. Almost all the husbands share their residences with other male colleagues or relatives in the work place, which was a barrier for women to make visits to their husbands frequently.

4.3. Couples' Interaction and the Implications of Mobile Phone

In this section, it will be discussed how couples communicated before the visit was made and how this communication transpires in their planning, decision-making of family planning use (*Poribar porikolpona poddhoti*), and management of family planning methods.

Most of the informants mentioned that usually their husbands communicate through mobile phones before they make any visits from their work. They also said that sudden visit, at this time of mobile phone era hardly happens.

Data suggested that at the time of interview, all the women had access to mobile phones and therefore, among other things related to the family and children's affairs, availability of family planning methods or planning for it is one of the important topics of discussion when couples make the visit plans over the phone. Women said that they usually discuss if family planning methods are available at home or not, what methods are to be used during the upcoming visit, if certain method could be used or not, considering the health condition of the women, if women would be in their safe period (e.g. point of their cycle when risk of pregnancy is lower) during that time or not, and who is going to take the responsibility of managing the method and so on.

They also mentioned that things were not as easy in the past when mobile phones were not available. Many women stated that their husbands' visits were often sudden because there was no way of

communication—in rural Bangladesh, land phone service was not available. Some husbands were able to inform their wives about their tentative visit planning through other migrating relatives and neighbors who also works in the same place. However, many women said that this process was not very helpful because immediate and timely communication on planning and preparation—in terms of obtaining a method prior to the husband’s visit—was not possible through communicating with other persons.

In the sample, some women made use of mobile phones just after the marriage and some after a long time of their marriage. Data suggested that women who had mobile phones since the very beginning of their married life seldom faced unintended pregnancy while women who had faced unintended pregnancy before having access to a mobile phone, did not have such incident after they availed themselves of this communication method. There are also some outliers in the sample in terms of access to mobile phones and having unintended pregnancy. For instance, in the sample, a few women did not have any unintended pregnancy in their lives before or after they acquired mobile phones while few cases had unintended pregnancies even after they had mobile phones.

4.4. Past and Present Family Planning Method Use

In this section the informants’ histories of family planning method use over the time are discussed, keeping in mind the duration and nature of their migrant husbands’ visits.

The data indicate that the informants (as couples) fall into two categories. Most couples (16 of 23) started married life with the husband already being a migrant. The rest of the couples (7 of 23) started married life living together but began living apart after a few years because of the nature of the husband’s work. Among the seven couples in the latter category, three women moved to their husband’s work place immediately after marriage then returned home after a few years.

Most of the women whose husbands migrated after a few years of marriage are middle-aged, with a long duration of married life and three children at home (see Table 2). According to the table, there were no significant changes in the types of contraceptive methods used by these women when their husbands became migrants. For instance, three women continued to use injection after their husband’s departure, while one woman was trying Norplant for few months. This finding is important because most of the women said they preferred short-term methods like the pill and condoms, due to the nature of their husbands’ visits; this pattern is discussed further below. The remaining women, who began living separately from their husbands after a few years of marriage, used the pill both when they were together with their husbands and when their husbands migrated. An important change was noted in the women’s pattern of pill-taking after their husbands migrated: the women now took the pill only during their husband’s visits. When they were living together with their husband, they took the pill regularly on a daily basis.

Table 2 shows the history of family planning method use/non-use and the pregnancy history of each of the informants in the sample. At the top of the table, the stages mean the episode of use or non-use of methods and the pregnancy periods in the course of their reproductive life cycle until present time. The color code signifies a particular methods and the duration of using that methods while the peach color signifies their pregnancy history. A number of women used a mixture of methods, which has not been color coded as the table shows. These boxes with multiple methods means that they did not switch to one method to another but just chose to use different methods alternatively. The reasons behind such practices are discussed in further detailed below.

The table also shows seven informants color coded as light orange who started living separately after a few years of marriage; the asterisk (*) marks the year when they started living separately. The 14 remaining informants are living separately because they are at the beginning of their married lives.

Table 2. Use of family planning methods among married women age 15-40, by duration of marriage, Barisal, Bangladesh (n=23)

Informant	Use of family planning methods and pregnancy history										
	1 st stage	2 nd stage	3 rd stage	4 th stage	5 th stage	6 th stage	7 th stage	8 th stage	9 th stage	10 th stage	11 th stage
Women married 1-5 years											
P2	P+C (1y)	Preg	I (3m)	P+C+W (2y-)							
P9	No FP (1.5y)	Preg	C+P (5m)	Preg (UI)	P (1m-)						
P4	P (6m)	Preg (UI)	P (2y)*	PC (1m)	P (2m-)						
P1	No FP (8m)	Preg	P (2.5y-)								
P18	P+C (2m)	Preg (UI)	P (2.5y-)								
P19	C (2y)	Preg (UI)	C (1.5y-)								
Women married 6-10 years											
P22	P (2.5y)	Preg	P (2.5 m-)								
P5	No FP (2.5 y)	Preg	LAM (1.5y)	Preg (UI)	I (6m)	P (1.5y-)					
P8	P (2.5y)	C (1m)	P (6 m)	Preg	P (1 y-)	I (6m)	P (1.5y-)				
P6	P (4m)	Preg (UI)	P+C+PC (2y)	Preg	P+C (3.5y)						
P17	P (7m)	Preg	I (6m)	P (3y)	Preg	P (1.5y-)					
Women married 11-20 years											
P12	No FP (1y)	Preg	I (3m)	P (4y)	No FP (4m)	Preg	P (5.5y-)				
P15	W+C (2.5y)	Preg (UI)	W+C (1.5y)	Preg	I (3m)	W+C (3.5y)	Preg	P (3.5y-)			
P23	No FP: (1.5y)	Preg	P (2.5m)	Preg	P (2.5y)	Preg	P (4y-)				
P7	No FP (1.5y)	Preg	I (1.5y)	Preg	I (3y)	P (6m)	Preg (UI)	I (3y)	Preg	I (3y-)	
P10	W (1y)	Preg (UI)	P+C+PC (2.5y)	Preg (UI)	I (1y)	C+W (4m)	N (4m)	Preg (UI)	W+C (2y)	Preg (UI)	
P16	No FP (3y)	Preg	P (3y)	Preg	P (1y)	H (4m)	Preg (UI)	P (3y)	I (6m)	P (2.5m-)	
P11	No FP (3y)	Preg	No FP (6m)	P (4y)	Preg*	P (3.5y)	Preg	P (4.5y-)			
P24	No FP (3m)*	Preg	LAM (1y)	Preg	LAM (1y)	Preg (UI)	I (6y)	No FP (2m)	P+C (4m)	I (3y)	
P14	PC (1.5y)	Preg	P (3m)	I (3y)	Preg	P (3y)	Preg (UI)*	I (5.5y)	P (2y)	C+P (6m-)	
P3	No FP (5m)	Preg	P (1m)	I (4y)	Preg (UI)	I (3y)*	N (2m)	Preg (UI)	I (9y)	P (6m-)	
P13	No FP (3m)	Preg (UI)	P (4.5y)*	Preg	P (6y)	Preg (UI)	P (5y-)				
P21	P (2.5y)	Preg	C (2m)	P (7.5y)	Preg	C+W (6m)*	P (4m)	W (8m)	P (9.5y)	C+W (3m-)	

P= Pill, I= injection, C=Condom, N=Norplant, H=Herbal, PC¹= Point of Cycle when pregnancy risk is lower (Traditional method), W=Withdrawal (Traditional method) UI=Unintended
¹ Fertility based method in which women identify the point of their cycle in which the risk of pregnancy is highest and take some action to avoid pregnancy, such as avoiding sex (periodic abstinence), using condom or withdrawal

Method use

Pregnancy (intended or unintended (UI))	Pill use	Condom use	Norplant use
Couples who started living separately after a few years of marriage; * signifies when they separated	Injection use	Mixed method use	Herbal use

The differences among the women in terms of the duration of their married life are very disperse and hence they were divided into three different categories: (1) women married for 1-5 years, (2) women married for 6-10 years, and (3) women married for more than 10 years. The duration of married life is important for understanding their family planning history with a migrating spouse and hence they were divided in this way. As we see in the table, the longer a woman is married, the greater the number of types of family planning methods used. For instance, it is evident from the stages of Table 2 that during the initial years of married life, women usually stick with one method and as the time goes on, they try different kinds of methods or switched from one method to another. Table 2 also suggests that most of the women used pills and injections and that have also been for a very long time in every episode, there were also a number of women/couples who used two to three types of methods simultaneously, namely, pills, condoms, and traditional methods. Table 2 also shows that condom use was more common among the youngest couples (4 of 6) in terms of marital duration compare to the oldest couples (4 of 12).

Table 2 also shows that 11 of the 23 women used something since the very beginning of their married life, however, 5 of them had unintended pregnancies. Among the remaining 12 cases, nine cases did not use any method initially to have a child and they were without a method between 1-3 years before they got pregnant. The remaining two cases said that while they were not using any method, they did not want the child during that time which means the pregnancy was mistimed.

Lastly, the table also shows that 13 of the 23 women had unintended pregnancies, including three women having two or more unintended pregnancies. Results on these issues have been elaborated later. The following section will discuss women's views and knowledge of each method and how they have influenced their practices given the context of a migrant husband.

4.4.1. Contraceptive pills

4.4.1.1. Access and barriers

Table 2 shows that almost all women (21) used the pill at some point in their life and 8 women used the pill as their first method over their reproductive period. Women knew the name of a number of the pill brands, such as Shukhi (the government brand of pills), as well as Femicon, Minicon, Nordate, Ovastate, and Bandan pills, and Joy foam tablets. Women reported that government brand pills are usually free while other pills cost 30 to 60 BD Taka. A few women said that the government pills are not good for a woman's body, compared to pills that are available at the market, particularly pills that are high in cost. One woman said,

"I learned from one of our neighbors who took government pill. She said that her baby lost his appetite. If she stopped taking pill then baby will be cured. That's why my neighbor forbids me to take government pill."

P9 (Age: 24, Years of husband's migration: 8 yr, Visited last year: 10 times, Stayed each time {average}: 7 days)

Pills were usually obtained from the various government health facilities including the Community Clinic (CC), satellite clinic, Thana Health Complex (THC), District Hospital (DH), NGO clinics working in the community, and from various government and NGO community health workers. Women either obtained pills from these sources or the health workers supplied the pills to them at home. Additionally, husbands often brought pills for their wives when they came to visit. Most pill users said that the decision/discussion about the availability of pills and the person/process used to obtain the pills generally took place right when the husband was planning a visit home. The decision was made at that time and actions transpired accordingly. Women said that often if both spouses failed to obtain pills prior to the visit—for some unavoidable situation—women obtained pills from a

neighbor or relative; also, the husband bought pills at the local market on his way home. The data appear to suggest that the husband's migration status did not add substantial barriers to the couple obtaining pills for contraceptive purposes. These points are presented in greater detail further on in the report.

Only two women reported that they had faced barriers to obtaining pills when the door-to-door health worker services were not available. Some women said that if pills are available at their door it makes the situation easier for them "if their husband did not want them to use a method." One woman said,

"It will be good for the women if pills are provided at door. Many men restrict their wives to use method when she does not want to be pregnant. They therefore do not use anything either (condom). What can women do in this context? Women feel shy to buy it from the market. That's why I felt it is important to have the method at home."

P24 (Age: 35, Years of husband's migration: 18 yr, Visited last year: 4 times, Stayed each time {average}: 4 days)

Confirming the above mentioned statement, another woman said that while her husband did not want her to use a method, she obtained the method on her own and used it without letting him know, delaying pregnancy for 4 years. Women also faced barriers from health care providers in obtaining their method of choice. A woman said that she did not go to her nearby depot holder for pills when her husband arrived on a sudden visit because the depot holder always proposed that she get a tubal ligation. Instead, the woman obtained a few pills from her sister-in-law.

Most women said that the community health workers or providers at various facilities usually did not provide instructions on how to take the pills correctly or inform them of any relevant suggestions when the women obtained their pills. Typically, the women learned from other pill users in the community or from the instructions on the pill packet. For women who were unable to read, the husband often helped them understand the instructions about the correct way to take the pills.

Most of the women in the sample had never heard of the emergency pill for contraception, and none of the women had used it. A few women said they knew about it from the dramas and group discussions held by NGOs as part of their maternal and neonatal health programs. These women know that the emergency pill is used when there is unprotected sudden sex, and that it works within 72 hours. One woman said that the emergency pill packet contains two or three pills that need to be taken 12 hours apart. Some women could name the two brands of emergency pills, Norex and Mcon.

4.4.1.2. How contraceptive pills are used

Though women/couples were very concerned about risk of getting pregnant and the fact that most women considered pill as the "appropriate method" for couples with a migrating spouse, data showed a very interesting finding regarding how women use pills.

Women know that one needed to take the pill following the arrow. They also know that pill should be started when menstruation stops, which is the last day of menstruation. In general, women knew that when a pill is missed one day, then one needs to take the pill the next day whenever she remembers and then continue taking the pill as she was doing. They knew that if one followed the rule of taking the pill every day, she would be menstruating regularly and she would not risk having unintended pregnancies. Not all the women knew what to do when the pill was missed for 2 or 3 days continuously and they understood that there was possibility of getting pregnant in such cases.

All pill users whose husbands had been working outside of home before their marriage said that they used the pill only during the time when their husbands stayed with them during their visits.

Six women, whose husbands started working outside of their home village after their marriage, said that they used to take the pill regularly before their husbands became migrant workers. However, once their husbands began migrating for work, they used the pill only during the days when their husbands came to live with them. This means that, over time, women developed their own rule in terms of using pills surrounding their husbands' visits.

Some women said that they learned this rule from health workers who assured them that using pill only during the days when husband was around would work. Some women said that they saw other women taking the pill in the same way whose husband also lived outside and hence they followed the same rule. These women said that, not only during the days when husband was around, they also took the pills for couple of more days once he left as an extra precaution. One woman said,

“He told to take pill just one day before doing sexual intercourse and continue it for extra 2 days after his departure.”

P15 (Age: 29, Years of husband's migration: 14 yr, Visited last year: 12 times, Stayed each time {average}: 7 days)

Some women said that they also learned from the instructions in the package that there was no harm if the pill was not used for the entire month and interpreted this to mean taking pills only during the days when husbands were around and after 8 days of his departure. This woman said,

“It is written on the packet that one need to take the pill for the next 8 days after the departure of husband. That means, this is powerful medicines, so you have to take pill for 8 days even though you did not have intercourse. After taking 8 days, brown pill need to take to have menstruation.”

P20 (Age: 18, Years of husband's migration: 2 yr, Visited last year: 3 times, Stayed each time {average}: 30 days)

Some women were very confident and said that they did not need the information on the pill packet or need to get information from others; rather, a pill user with a migrant husband can easily devise her practice from her own experience, realization, and understandings. This woman said,

“Apa (Health worker) told me to continue 2 days more and then leave the pill. Suppose my husband stayed one week then why should I continue the whole sheet of pill? There is no meaning to do so. People will take me differently. They will think that I might have physical relation with other man...I feel relax when my menstruation occur after my husband went away.”

P15 (Age: 29, Years of husband's migration: 14 yr, Visited last year: 12 times, Stayed each time {average}: 7 days)

Another woman, even though the doctor told her to continue the entire pack of pill, did not follow the advice and said,

“There is a rule of doctor to take pills. The rule is pills need to be taken for the full month after the period. But I do not take it for full month. I suffer from head spinning,

which I cannot tolerate. So I take it only while he [husband] stayed at home. I discontinue it when he leaves for his work. Doctors will say their rules. It is natural. But sometime you need to take medicines by understanding your own body...”

P18 (Age: 22, Years of husband’s migration: 12 yr, Visited last year: 6 times, Stayed each time {average}: 15 days)

The data revealed that two husbands objected to their wives’ use of the pill in this way. However, the women did not listen to them and continued the way they were taking the pills. One of these women said,

“...Then my husband also said that it will be problematic for me if I take pills that way, he said to me take them every day. Initially I didn’t know many things, he is more educated than me, he advised me to take every day.”

P2 (Age: 19, Years of husband’s migration: 7 yr, Visited last year: 5 times, Stayed each time {average}: 5 days)

Another woman like these two said that even though her husband told her to continue the entire pill packet, the health worker suggested her to take the pill only during the days when she stayed with her husband and she followed the suggestions of health worker as she said,

“Apa said...one can choose to be menstruated or not. One who takes the entire strip of the pills as it instructed, she will be menstruating regularly. But if one takes only the white pills and start another strip avoiding the red pills from the previous strip, then she will not be menstruating. One whose husband stays at home can continue of taking pills to avoid menstruation and whose husband stay outside home can take brown pill to have period.”

P23 (Age: 28, Years of husband’s migration: 13 yr, Visited last year: 3 times, Stayed each time {average}: 4 days)

Women said that when they stopped taking the pill after their husband left, they menstruated automatically; this gave them confidence that the pill could be used in this way.

Some women reported that when they used a certain number of pills from a pack and then their husband left, they usually kept the pack and continued using it the next time their husband came to visit. Other women said that they started a new pack every time their husband came to visit and disposed of the remaining pills after he left.

4.4.1.3. Reasons behind switching/choosing or not choosing pill

Women often switched from one pill to another, particularly if the previous pill did not suit them or had undesirable side effects. Most pill users reported mild to severe physical problems like body ache, burning sensation, dizziness, and vomiting when using certain types of pills. This prompted them to switch to another brand. There is a widespread belief that using one brand for a long time can cause severe physical complications like cancer or paralysis. One woman said,

“I heard from my elders that it cause problem if you use a brand continuously. I was also facing dizziness with the brand I was using (Ovastate) and therefore I moved to

another brand. My husband consulted with a Dr. and he brought Femicon pill for me according to the advice of the doctor.”

P1 (Age: 22, Years of husband’s migration: 8 yr, Visited last year: 4 times, Stayed each time {average}: 4 days)

Physical problems associated with the pill not only resulted in switching to another pill brand but also to another method or methods. Other reasons like not wanting to use pills when women use medicines for other physical reasons (since it may affect the effectiveness of either one of them or hassles of taking too many medicines at the same time) or the fear of unintended pregnancies due to irregular use of the pill often discourage them from considering the pill as an appropriate method. Women often said that using/taking pill every day is very bothersome, which often makes them to consider other methods. Interestingly, husband’s migration and periodic visits was a way for these women to avoid using pills on a regular basis, which they strategized to use only during the days when husbands are around to reduce the experience of side effects. This will be discussed below in greater detail.

Women also often switched from pill to another method from the belief that using pills for a long time may cause cancer and may cause infertility. Beliefs that the pill decreases breastmilk also prompted some women/couples to switch to a different method, which was sometimes further promoted by care providers. This woman said,

“After delivery the child depends on breastmilk. If I take pill during that time, pill must have some effect on body. If I use condom it will not put any impact on child’s health. If I take pill it must be in my body and the child take milk from there. It was our perception, that’s why we use condom for the last 2 months.”

P21 (Age: 40, Years of husband’s migration: 12 yr, Visited last year: 5 times, Stayed each time {average}: 10 days)

4.4.1.4. Perception toward the pill as an appropriate method

Most women considered the pill to be the appropriate method for a couple to use when the husband lives elsewhere. Pill users said that there was no point in using a long-term method like injection, which lasts for 3 months, when their purpose was served by the pill—a method that can be used during the days when the husband is home on a visit. One woman said,

“Why should I take that injection as he doesn’t stay at home? Taking two or three pills served my purpose when he (husband) stayed at home. I know everything but do not take those as they are not applicable for me. I only use that which I need.”

P23 (Age: 28, Years of husband’s migration: 13 yr, Visited last year: 3 times, Stayed each time {average}: 5 days)

Additionally, pills were more accessible to women than condoms and, in cases where the husband forgot to buy pills or condoms, women could obtain pills on their own. Therefore, for many women, the pill seemed to be a better option than injection or condoms. Some women also said that the pill is more appropriate for them because it is not expensive. An injection costs 70 to 90 taka while three packs of pills can be bought for one-third of this amount. Many women cited a perceived health benefit from using the pill when their migrant husband was home on a visit. They said that because they do not use the pill for an entire month, they were less susceptible to the negative side effects that occur when the entire packet of pills is used. One woman said,

“Because my husband doesn’t live with me all the time. I can take it for 2 or 3 days only and I feel fine for having it for a short time. So I prefer pill.”

P14 (Age: 31, Years of husband’s migration: 5 yr, Visited last year: 5 times, Stayed each time {average}: 5 days)

4.4.2. Injection

4.4.2.1. Access and barriers

Approximately half of the women (12 of 23) reported using injection as a family planning method at some point, and almost all women know about injection and that a dose (one injection) works for 3 months. When talking about the sources of the availability of injection, women mentioned different places e.g., government health facilities including community clinic, Thana health complex, district hospital, NGO clinics, and pharmacy or medicine shops. Some women also said that in their area, door-to-door community health workers provide injections at their homes. Some injection users said that using this method is a problem since it needs to be taken from a facility, requiring the women to physically go there. A number of women mentioned that health facilities are often far and injections are not available there all the time.

To complicate matters further, women often forget the appropriate time to take the next dose of injections. It is important to mention here that this is an overall situation to which their husbands’ migration context does not make any difference in terms of women’s mobility or lack of accompanying person. All these challenges often made their injection cycle irregular and women were gravely concerned they were at risk of getting pregnant at the wrong time. One woman reported having had two mistimed pregnancies—once during the unavailability of injection at hospital and the second time while she took the injection beyond the stipulated time as she could not calculate when to take the next dose. Many women believe that health workers in fact want them to take long-term methods such as tubal ligation, Copper-T, and implant instead of injections and therefore tell them injections are unavailable in the health facility. Many women said that since they were not interested to take the long-terms methods, such attitudes of the health workers made them reluctant to go to nearby health facilities or prompted them to switch to another method. All these may result in unintended pregnancies.

Women said that the cost of an injection varies from 50 to 90 BD taka. When women buy injections at a pharmacy, the price is generally 50 to 100 BD taka. An additional 10 to 20 BD taka may be needed to pay for receiving the injection at a health facility. As mentioned earlier, injections are usually free at government facilities; however, the health worker providing the injection needs to be paid a small amount as an incentive to administer the injection. Regarding the price of injection, one woman said,

“Injection is available at pharmacies. It’s not free of cost. You need 70 taka for one dosage. You buy the injection for 50 taka and then you give 20 taka for pushing injection. But it is provided by government in Dhaka (husband’s work station).”

P24 (Age: 35, Years of husband’s migration: 18 yr, Visited last year: 5 times, Stayed each time {average}: 4 days)

Community people restrict a newlywed couple from using injection because it is thought to make the woman infertile. One woman said,

“Before having a baby no one takes injection method...”

P11 (Age: 35, Years of husband’s migration: 19 yr, Visited last year: 12 times, Stayed each time {average}: 5 days)

Therefore, women usually use injections after having one or two children. This belief is also promoted by the health workers. Many women said that health workers restricted them from using injection just after marriage. Injections were also believed to decrease the supply of breastmilk, which meant that women do not use this method until the infant reaches a certain age if it is still dependent on breastmilk.

4.4.2.2. Reasons behind switching/choosing or not choosing injections

Perceived negative health consequences of using injection were one of the main reasons for avoiding injection, and women usually talked about bleeding, waist pain, and excessive weight gain from personal experiences with injection. Many women mentioned not menstruating for a long time due to continuous use of injection. This was a major reason for switching to another method after using injection for some years. Irregular menstruation or not menstruating at all is thought to be a bad sign for women of reproductive age. One woman said,

“I learned it from the elders that if menstruation doesn’t occur (due to taking method) then it will help develop blood clot inside the womb and this would result into arthritis.”

P15 (Age: 29, Years of husband’s migration: 14 yr, Visited last year: 12 times, Stayed each time {average}: 7 days)

Another woman said,

“I didn’t have menstruation for 8 years for using injection. Everyone says that it is harmful for my health since menstrual blood is not good for health. Then I stopped using injection but my menstruation didn’t occur. Then I went to a doctor to know if I were pregnant or not. It was negative and the he said that all these are the reaction of injection.”

P24 (Age: 35, Years of husband’s migration: 18 yr, Visited last year: 5 times, Stayed each time {average}: 4 days)

Along with not menstruating at all for a long period of time, women also mentioned spotting and continuous bleeding as side effect of injections. Excessive bleeding and not bleeding are considered equally harmful for women. All these beliefs surrounding injections often led women to not consider injection as a long-term method or to switch to another method, particularly the pill, after a certain period of using injection. Often women switched to another method only to have menstruation and then returned to injection. This pattern is related to a belief in the importance of relieving the menstrual blood from the body.

Like pills, injection is thought to cause serious diseases like cancer, kidney failure, or paralysis if used for a long time. This perception makes women reluctant to use injection for a long period. One woman said,

“People say long time use of injection is harmful. It can cause paralyses, hence I left it.”

P7 (Age: 29, Years of husband’s migration: 15 yr, Visited last year: 5 times, Stayed each time {average}: 7 days)

Another woman said,

“...It is known to all that injection is a harmful method...Injection is harmful for many women. It might create sores, it might cause cancer; some women experience excessive bleeding after taking injection. So, for all these problems women do not want to take injection.”

P16 (Age: 29, Years of husband’s migration: 30 yr, Visited last year: 7 times, Stayed each time {average}: 15 days)

4.4.2.3. Perception toward injection as an appropriate method

There were mixed feeling about injection; some did not considered it an appropriate method for women with migrant husbands; other women think that injection is only appropriate when the couple lives together regularly. In the sample, many women stopped using injection and switched to the pill for this reason, as one woman said,

“Do I need to take injection? He does not come home for 3 or 4 months. When he stays, pill does it for me. On the other hand, health workers do not want to give injection, rather suggested ligation, which I don’t want. I had two operations and it will cause me to have another operation”

P5 (Age: 24, Years of husband’s migration: 10 yr, Visited last year: 3 times, Stayed each time {average}: 30 days)

Another woman said,

“When husband lives apart, come after 3-4 months and stay 4-5 days, in this situation 6-7 pills is enough. I don’t have to carry injection till 6 months or 9 months, or I need not to insert anything in my body. I don’t need to take these types of method. Pill is good for me.”

P23 (Age: 28, Years of husband’s migration: 13 yr, Visited last year: 3 times, Stayed each time {average}: 5 days)

On the other hand, some other women thought that injection would be the appropriate method, which made them reassured that they were protected against the risk of pregnancy for months. One woman said,

“I think those women with a migrating husband should use injection. If husband gives sudden visits, then it can be a risk for the wife; contraceptive may not be available at home sometimes. In that case it is good to use injection.”

P24 (Age: 35, Years of husband’s migration: 18 yr, Visited last year: 5 times, Stayed each time {average}: 4 days)

One woman, comparing injection with condom said,

“Condom is good but also risky. Sometime my husband may forget to bring it. But in case of injection no situation can arise like that. It’s for women and it is safe.”

P24 (Age: 35, Years of husband’s migration: 18 yr, Visited last year: 5 times, Stayed each time {average}: 4 days)

Interestingly, women who suffer a lot from use of the pill consider injection appropriate because they are released from suffering the daily dizziness and head spinning that goes along with using the pill.

4.4.3. Condoms

4.4.3.1. Access and barriers

A little less than half of the women (10 of 23 couples) used condoms at some point and the majority of couples used condoms along with another method, namely the pill or traditional methods. The data suggest that it was mostly the husbands who obtained the condoms, although some women obtained condoms either from the community health workers or from female relatives who use condoms. Women know that along with government and NGO health facilities, condoms are available in the pharmacies and medicine shops. However, none of the women reported ever buying condoms or obtaining them from the health facilities on their own. The data suggest that unlike other methods, women keep themselves a bit away from obtaining or managing condoms. For instance, women stated that they felt uncomfortable buying or obtaining condoms from males; as one woman said,

“No, no, no, are you crazy! How could I purchase it from a shop? How could a woman do that? Isn’t it a matter of shame?”

P21 (Age: 40, Years of husband’s migration: 12 yr, Visited last year: 5 times, Stayed each time {average}: 10 days)

Another woman said,

“Male doctors sit in clinics. Hence I don’t go there. My husband always goes to buy condoms from there.”

P24 (Age: 35, Years of husband’s migration: 18 yr, Visited last year: 5 times, Stayed each time {average}: 4 days)

Many women also said that keeping or storing condoms at home for upcoming visits of the husband is often a hassle since they need to be careful to hide it from others. Women said that it is a matter of shame if others, including grown-up children, daughters-in-laws, and other family members, see the condoms at home. Women usually do not have a personal closet. Therefore, fear of others finding the condoms at home is a limitation on women's access to condoms. Avoiding such hassle is the reason women want their husbands to obtain the condoms, which is bought only for that particular visit.

The data suggest that husbands who used condoms played a very supportive role in obtaining and managing the method before they make a visit home. Husbands who used condoms frequently inquire over the phone if condoms were available at home and took the initiative, accordingly, either by bringing condoms with them or obtaining them from a near-by market once they reach their home town. The data suggest that two husbands proactively decided to use condoms because of the nature of their visits—i.e., they visited only for a short time and at irregular intervals. However, the two husbands did not use the condoms because their wives were not receptive to the method and the process of using it.

4.4.3.2. Reasons behind switching/choosing or not choosing condoms

Data suggest that many women/couples used condoms simultaneously with other methods particularly with the pill and traditional methods. These users were not regular users of any particular method; rather they use all these methods either together or one after another according to their convenience, given the nature of their husbands' visits and their menstrual/fertility cycle. For instance, if women experienced any side effect from using the pill in the previous cycle, they considered using condoms during their husband's next visit. Again, if the pill could not be managed as planned during husband's upcoming visit, a condom was considered to take care of the immediate situation. Often couples planned the visits taking into account the duration of the "safe period" because women may experience side effects from pill used and, during this time (safe period), some couples also used a condom as an extra precaution to avoid unintended pregnancy. Some women/couples used the pill and condoms simultaneously, based on the duration/number of days the couple stays together during each visit. Couples typically used condoms when the duration of the visit is short; the pill is used when husband's stay is for a longer time. One woman said,

"Who likes to take pill for short period? If he stayed long time then I took pill...because you need to complete the course if you take pill."

P21 (Age: 40, Years of husband's migration: 12 yr, Visited last year: 5 times, Stayed each time {average}: 10 days)

Condoms are available at the market all the time, which makes the method easier for couples to use as a stopgap measure. One woman said,

"When you do not have time to take medicine (contraceptive pill), you can use condom in an emergency situation. For instance, if you take the medicine now this may not work and therefore you use condom during this emergency situation...once he came suddenly during the noon time and forgot to bring medicines and during that time we used that."

P15 (Age: 29, Years of husband's migration: 14 yr, Visited last year: 12 times, Stayed each time {average}: 7 days)

On top of all these, condoms are a one-time method unlike the other methods; it takes care of each incident (intercourse) individually and is effective if used properly. This is why women/couples

choose the condom over the pill. In contrast, women said that when the pill is used, some took the pill the night when husbands arrive or some started taking the pill a couple of days before husbands' arrival; some said that the pill also needs to be continued for a couple of days after the husbands' departure as an extra precaution. These are done no matter when and how many times they have intercourse. Regarding injection, they added that injection is a three-month dosage regardless of when and how many times the husband visits them or if they do not visit them at all sometimes. Contrary to all these hassles, couples consider condoms to be a convenient method of family planning because they are readily available, cheap, and need to be used only at the time sex occurs.

Additionally, they have no health side effects. In addition to all these, women also said that this is a very appropriate method for new mothers whose child is breastfed. Other methods decrease the breastmilk supply whereas there is no such concern with this method.

However, there were also negative feelings about condoms. Women/couples often switched to injections or pill from condoms because they did not often like the condom for various reasons, e.g. decreased sexual pleasure due to lack of skin to skin contact. Often condoms were problematic to dispose of after using them. Many women also said that they worried the condom is ineffective as it could leak inside and make couple susceptible to unintended pregnancies. This woman said,

“Using condom is not often effective. We heard from others that some time it could leak, and you know the problem...if it leaked, it would be dangerous...this is a total loss of using the thing for which you are using it.”

P21 (Age: 40, Years of husband's migration: 12 yr, Visited last year: 5 times, Stayed each time {average}: 10 days)

There are certain perceptions about condoms that often deter women from considering the method, even if it seems appropriate for couples, as mentioned earlier. Women often believe that part of a torn condom may be left inside the woman and this could be dangerous to her health. One woman said,

“Listen, this is my perception as I am not an infant, I can understand many things. When he pressed stoutly it could be burst and the torn pieces could do harm to her heart. Even any diseases could be happen to the women for using that. It was my own thought then I asked other about it, they said that it is ok and it doesn't burst.”

P23 (Age: 28, Years of husband's migration: 13 yr, Visited last year: 3 times, Stayed each time {average}: 5 days)

4.4.3.3. Knowledge on HIV/AIDS, sexually transmitted infections, and condoms

Almost all the women know about HIV/AIDS and they learned about it from different sources like TV, health workers, posters in the health facility, and some from the textbooks at school. They also know that HIV/AIDS is transmitted through a sexual relationship with a person having this disease, using a needle that was used by an infected person, or taking blood from such person. Some women said that a person who had too many sexual partners usually has this disease. This woman said,

“If there is any diseases of husband wife may get the diseases. If husband has any extra marital sexual relation and if he did sex with the wife, there is a chance of transmit that diseases to the wife.”

P23 (Age: 28, Years of husband's migration: 13 yr, Visited last year: 3 times, Stayed each time {average}: 5 days)

Some women mentioned other sexually transmitted infections (STIs) like syphilis, gonorrhea, and hepatitis that could be protected by using condom. One woman about her itching problem said,

“I heard about it (sexually transmitted diseases), I have it...I have itching problem. He had it and I developed it from him. I said him that I got it from him...condom using can prevent these diseases. I mean, his things wouldn't come to me and my things will not affect him as well.”

P20 (Age: 18, Years of husband's migration: 2 yr, Visited last year: 3 times, Stayed each time {average}: 30 days)

Five women knew that condom could be used for protecting HIV/AIDS as one woman said,

“Condom can prevent the transmission of this disease. If a husband has Aids disease and he has physical relation with his wife without condom then the disease will be transmitted to his wife...it is written in a billboard at Boufal (a local NGO). The cause of this disease and signs are written on that board and I have read it while I went there.”

P13 (Age: 35, Years of husband's migration: 20 yr, Visited last year: 4 times, Stayed each time {average}: 2 days)

Many couples in the sample were using condoms, however none of the women reported that they or their husband used condoms for fear of transmitting HIV or sexually transmitted infections; they said they did not have the diseases.

4.4.3.4. Perceptions toward condoms as an appropriate method

Like the pill, many women considered condoms to be an appropriate method for couples in which the husband is a migrant. Condom users said that even if the husband informed her about his visits, sometimes it is just not possible to bring pills. However, condoms are available all the time in the shop and the husband can just pick those up whenever he makes sporadic visits. One women said that considering the fact that family members often did not recommend the women to take a permanent method and the fact that all the other methods had so many side effects, condoms seemed to be the appropriate method, as she stated,

“There is problem (family doesn't allow taking permanent method). Then women might use pills as there is no other way. Injection does not suit to everyone, it might create problem, just as I had. Copper-T or inserting stick under arm might be other options. But these also do not suit to everyone. So I think pills or condoms are good. Pills make head spinning. But condoms are without any risk. It is to be used on spot and finished on spot. There are no difficulties in that.”

P10 (Age: 35, Years of husband's migration: 21 yr, Visited last year: 10 times, Stayed each time {average}: 7 days)

4.4.4. Long-term methods

Two women adopted the implant (Norplant)—described as “*kathi/stick*” in the study—as their family planning method. However, both women had the implants removed due to severe side effects like bleeding. Interestingly, both women had an unintended pregnancy just after removal of the Norplant.

This was related to the fact the husbands were at home during the entire process and there was a delay in deciding on the next method to use.

Women said that long-term methods like the Copper-T and Norplant were available at all government health facilities, and these were usually free. In addition, the women knew that people who adopt these methods usually receive money as an incentive from the government hospital.

The data suggest that women often do not have a clear idea about the nature of long-term methods. For instances, many women said that they heard about the Copper-T from posters they had seen. They knew that it was for 10 years, however, they did not understand how to use the method properly; many said they did not know anything about the Copper-T. On the other hand, many women perceived that the Copper-T was a very complicated method because it needs to be inserted into the body “through the private parts.” Many women also did not like the fact that part of it (the string) remained “outside of the body.” They also had heard that the Copper-T could move inside and then a woman would need surgery to have it removed. One woman said,

“I am afraid of the method. It has to insert in the private part of the body. Someone will put it to my body. It can go inside the abdomen suddenly. So, it’s a matter of panic.”

P24 (Age: 35, Years of husband’s migration: 18 yr, Visited last year: 5 times, Stayed each time {average}: 4 days)

Women have views about Norplant that are similar to those regarding the Copper-T. Like the Copper-T, Norplant is inserted in the body, though not in the private parts. However, women particularly do not like any such invasion on their body. One woman said,

“They will cut the arm, why should I take that pain as I do not need that? Who choose the hard method ignoring the easiest one (pill)?”

P23 (Age: 18, Years of husband’s migration: 13 yr, Visited last year: 3 times, Stayed each time {average}: 5 days)

As with the Copper-T, women did not have very clear idea about how Norplant works, what its duration is, or what the side effects are, although some women reported that the duration of the method is 1-5 years. Women were fearful of using this method because of the invasive procedures if it is necessary to remove the Norplant because of side effects. Women mentioned hearing about excessive bleeding, weight gain, and severe neck and muscle pains as side effects of the use of Norplant.

Women’s knowledge and understanding of long-term contraceptive methods indicates strong negative views toward Norplant and Copper-T. There were three women who thought that Norplant could be an appropriate method provided women faced no side effects. They thought that instead of having the hassle of obtaining short-term methods at the time of the husband’s visit, it would be better to use a long-term method and be relaxed the rest of the time. One woman said,

“Often the husband does not bring the method or forgot to bring the method and therefore it became so risky for the women and therefore it is appropriate to use the kathi (stick/Norplant) and Copper-T”

P22 (Age: 22, Years of husband's migration: 8 yr, Visited last year: 4 times, Stayed each time {average}: 15 days)

Repeating the feeling once again, however, many women did not like the invasive procedures of these two methods and therefore, even if they wanted to take a method for a long time, this issue prompted them to reconsider. This woman said,

"I saw two or three women using Norplant. I don't see any problem. People use to say that Norplant gradually make the arms thin. It walks in nerves. I heard all of these. I don't take any of these methods for all that fear."

P24 (Age: 35, Years of husband's migration: 18 yr, Visited last year: 5 times, Stayed each time {average}: 4 days)

4.4.5. Permanent methods

Women said that permanent methods like tubal ligation and vasectomy were available at government health facilities and these were usually free of cost. In addition, they knew that people who adopted these methods got money from the government hospital.

Women generally do not have positive views about these two permanent methods. Their views are related to such things as their younger age, the uncertainty of people's lives, and the fact that family sizes are smaller than in previous generations. Many women think that these two permanent methods were more for the older generation, when there was not the variety of family planning methods available now. There is one woman in the sample who took an herbal method to permanently prevent pregnancy, as she did not want any more children, however, still she did not consider doing tubal ligation. Many women raised the concern of what might happen if their children died and they could not get pregnant again. Some women also gave the example of such cases around their community who lost their children accidentally and could not get pregnant anymore as the women had had tubal ligation.

Religious restrictions also strengthen this notion as one women said,

"From Islamic point of view I heard that their 'janaja' (funeral prayers) will not be approved. Everyone has to die. Though it is for birth control, however, I have to do that within my life philosophy. I can take pill, I can do withdrawal, I can buy condom for use, but doing a surgery! I do not like do surgery for birth control."

P24 (Age: 40, Years of husband's migration: 12 yr, Visited last year: 5 times, Stayed each time {average}: 10 days)

Like long-term methods, a permanent method is also discarded as an option because of the surgical process attached to it. Generally, community people have negative views about any surgical invasion. The fact that male doctor would see the body while doing surgery and the fact that other people in the community would know about their family planning method if one adopts this method also emerged as a major barrier for not considering this method. This woman said,

"...It's an operation. People do not know if you use pill or injection but everybody will know about your operation."

P7 (Age: 29, Years of husband's migration: 15 yr, Visited last year: 6 times, Stayed each time {average}: 7 days)

Community people also believe that such a procedure affects the health in the long run, making women and men weak and less productive. A woman said,

"They (who have done the ligation) said that they cannot do heavy works and cannot take heat (while cooking), they feel very tense."

P3 (Age: 34, Years of husband's migration: 16 yr, Visited last year: 2 times, Stayed each time {average}: 7days)

Interestingly, it was also highlighted that even though a woman could take this permanent method, a man should not have a vasectomy since there is this widespread belief that such surgery makes a man weak and consequently affects both the family economy and conjugal life as one women said,

"If anyone do that he would lost his strength which hamper conjugal life as he wouldn't have the strength to do that (sex)."

P20 (Age: 18, Years of husband's migration: 2y, Visited last year: 3 times, Stayed each time {average}: 30 days)

In our sample, at least eight informants/couples reached the desired number of children, however still they did not want to consider the permanent method for themselves due to the uncertainty of the children's survival. However, they also think that if somebody had five or six children, they could use a permanent method. This woman said,

"I will not take further child. If I do the operation, I will never be pregnant in my life time. Who knows about the future which is totally depending on Allah? It may happen that all of my children would die. Anybody can die any time."

P23 (Age: 28, Years of husband's migration: 13 yr, Visited last year: 3 times, Stayed each time {average}: 5 days)

One woman considered tubal ligation appropriate for her since she had reached the desired number of children, however she could not take it due to her religious belief. She thought that those who were not a follower of religious rules could adopt this method as she said,

"I like the method (tubal ligation) but I am not taking it as it is a sin. Not all people take it (abortion) as a sin like me. So they can take the method if they wish and don't think it as a sin because not all people obey God's rule. It's an individual choice whether she abort pregnancy or not."

P14 (Age: 31, Years of husband's migration: 5 yr, Visited last year: 5 times, Stayed each time {average}: 5 days)

4.4.6. Traditional methods

Table 2 shows that a few women/couple used traditional methods, namely withdrawal and safe period,¹ a fertility awareness-based method. While many women know about these methods, they were not interested to use those since the couples find it very risky. This is why traditional methods were often used simultaneously with another method namely pill and condom, as a stopgap measure when women experienced side effects from use of other FP methods, or when the method was not readily available at home.

While women described withdrawal easily as “men throwing his thing outside”, the data suggest that women described the safe period in her cycle different ways: some said it is the first and last 10 days of menstruation while others say that 15 days after menstruation is dangerous period. One woman said,

“...I heard that if sexual intercourse occurred after one week of ending menstruation then there is a chance of getting pregnant. This is the fertile period. If sexual intercourse occurs before one week of starting menstruation then nothing will happen as it is not the fertile period for women.”

P9 (Age: 24, Years of husband’s migration: 8 yr, Visited last year: 10 times, Stayed each time {average}: 7days)

Another women said,

“There is 3 parts in a 1 month each having days. You will not get pregnant at the initial first 10 days. The middle 10 day is danger period, you will be pregnant if you do not use any method during that time. And the last 10 days, it is ok if you do not take pill during that time.”

P23 (Age: 28, Years of husband’s migration: 13 yr, Visited last year: 3 times, Stayed each time {average}: 5 days)

Based on these issues related to accessibility, availability, and appropriateness of a particular method, women’s health issues, social concerns, and contraceptive knowledge, experiences and perceptions influence women with migrant husbands to make contraceptive choices, or to switch from one method to another over their reproductive lives. Women’s experiences can be quite complex, as was expressed by a woman who said,

“What can I do now? I have to take a method, that’s why I switched from one method to another.”

P16 (Age: 39, Years of husband’s migration: 30 yr, Visited last year: 7 times, Stayed each time {average}: 7 days)

¹ Fertility based method in which women identify the point of their cycle in which the risk of pregnancy is highest and take some action to avoid pregnancy, such as avoiding sex (periodic abstinence), using condom or withdrawal

Another woman, echoing the same frustration said,

“Males usually don’t use anything and they don’t have to insert anything into them...All methods are for female and males are free from these.”

P12 (Age: 29, Years of husband’s migration: 20 yr, Visited last year: 10 times, Stayed each time {average}: 10 days)

4.5. Perceptions of Risk of Getting Pregnant

Data suggested that most of the couples were very concerned about getting pregnant accidentally and, therefore, they tried to strategize their family planning use as best as they could. There were couples who ensured that the method was available at home when the husband returned for visits. This woman said,

“If it is not available at home and he comes, and if we have intercourse, then I will be pregnant. So I keep this (pill) at home.”

P16 (Age: 39, Years of husband’s migration: 30 yr, Visited last year: 7 times, Stayed each time {average}: 7 days)

Another woman said,

“Otherwise I may have problem, I would be pregnant. But I do not want to take child. So to avoid the issue which I do not want to take, I told him to bring the method. If I told him over phone then he brought otherwise he brought it from the village sometime he missed to bring, if he strait come by launch he cannot buy, or he may not get shop on his way, then I took pill which I had at home, next day he buys from bazaar.”

P23 (Age: 28, Years of husband’s migration: 13 yr, Visited last year: 3 times, Stayed each time {average}: 5 days)

Another woman said,

“He came on last Sunday and went away this Sunday. He came to appear an exam. I didn’t leave pill taking after he left. He also said not to leave. Sister-in-law also said, ‘he will come again so you shouldn’t leave taking pill. For a single mistake you will be pregnant.’...”

P20 (Age: 18, Years of husband’s migration: 2 yr, Visited last year: 3 times, Stayed each time {average}: 30 days)

There were many other strategies that couples adopted. For instance, they switched to another method, particularly condoms and withdrawal, when the women were facing side effects due to using other methods. They often did not totally rely on withdrawal and condoms, which they knew could be ineffective sometimes. Husbands reminded their wives to take the pill during times when they lived together or reminded them the next day if the wife forgot to take pill previous night. Husbands adopted withdrawal even when their wives assured about safe period and many more strategies they themselves came up with and followed. This woman said,

“He (husband) stayed 7 days at home, so I took seven pills. After his leaving I didn’t take any pill. He got angry and said, “You should take all the pills as I spent here, there is no problem if you take all the pills, more over it is good.”

P23 (Age: 28, Years of husband’s migration: 30 yr, Visited last year: 3 times, Stayed each time {average}: 5 days)

Data also suggested that some couples used condoms or other methods or consulted with a physician to take a method during the post-partum amenorrhea period so that unintended pregnancy did not take place. Women informed that they learned from the older neighboring women that pregnancy could take place even during this time and hence this action.

Data also suggested that many women continued a new sheet of pill without giving any pause for menstruation when red pills were supposed to be taken. This they did when the husbands visit was approaching and the wives’ menstruation cycle was approaching. Women said that they learned from other community people that pregnancy could take place even during when the women was menstruating and hence such initiatives. Couples also strategized husband’s visits based on her menstruation dates and safe period and took methods when they were unable to do that. This woman said,

“It might cause pregnancy if sexual intercourse occurs during menstruation. That’s why when my husband stay during that time, I never take red ones and start using white pills of another sheet. You can’t assume the desire of husband. Excessive bleeding exist 4 days during menstruation then it decrease gradually. All in all, you need to wait 8-10 days, but when my husband stays at home during this time it couldn’t possible to restrict him doing sex hence I don’t take red ones at times when my husband stay around me.”

P5 (Age: 24, Years of husband’s migration: 10 yr, Visited last year: 3 times, Stayed each time {average}: 30 days)

Another woman said,

“My husband is at home since 2 months. I didn’t take the red one. When my white pills finished I started another sheet without taking red pills. It is said on the packet that menstruation occur when you finish your white one but sometimes menstruation occur 2 or 3 days later. So, there is a chance of getting pregnant. That’s why I didn’t take the red one and started a new sheet of pill”

P15 (Age: 29, Years of husband’s migration: 14 yr, Visited last year: 12 times, Stayed each time {average}: 7 days)

The entire discussion above also revealed that women continued to take different types of methods and switched from one to another due to different types of side effects perceiving the risk of getting pregnant accidentally. Such cautiousness occurred often after an unintended pregnancy was experienced. Data also revealed one couple who were totally very ignorant and did not have adequate perceptions of risk of getting pregnant.

4.6. Issues Influencing Couple's Decision Regarding Family Planning Method

The previous sections have explored how decisions and discussions between spouses about use of contraceptive methods occur in the context of the husband's visits home. This section will explain how the decision whether to use a family planning method, when to use a method, and what method to use, fits into the broader social context of the migrant husband situation. Data suggest that decisions and discussions surrounding family planning were more influenced by general social norms and the views of other women than by the husband's migration pattern. These discussions include such issues as family expectations that a newly married woman will have a child right away, and that she will not use any contraceptive methods before having a child.

Most women, along with those who started using family planning after the first child, said that they always decided what method to use and when to use it; they just informed their husbands regarding their decision and the husbands agreed. Once the decision was made, husbands always supported the wives in terms of bringing the methods with them on their way to home and some of them decided to use condom and withdrawal occasionally or frequently when the wives faced severe problems for taking pills or visited when the wives assured that it would be her safe period during the time they would meet.

There were a couple of husbands who consulted with physicians regarding the side effects their wives were facing and took active role in changing the methods. This woman said,

“Doctor asked me whether I was taking birth control pill or not. I said yes. Doctor didn't say anything like you shouldn't take pill or it will not work etc. but I was afraid to take. Wouldn't it normal to have fear as you saw there are many women who need to go for pregnancy termination destroy pregnancy (baccha nosto). Why they have to go as for their negligence. If you are bit careful you need not to take that hassle. That's why I was not interested to take pill anymore.”

P21 (Age: 40, Years of husband's migration: 12 yr, Visited last year: 5 times, Stayed each time {average}: 10 days)

On the other hand, some women also said that there were instances over their reproductive lives when they started using methods without informing the husbands fearing that they would restrict it and informed them later. In most cases, these husbands also did not place restrictions or make any chaos when they learned afterward about this contraceptive use. This woman said,

“I didn't seek permission, I informed him later. He didn't say anything. Actually he always ready to maintain safety (to do something to avoid pregnancy), as he said it will be problematic to take child without any birth spacing. He didn't like to take a child then. It is good to take another child after grown up of elder child.”

P15 (Age: 29, Years of husband's migration: 14 yr, Visited last year: 12 times, Stayed each time {average}: 7 days)

Some women also said that, like them, their husbands were also not interested in having a child immediately and reminded them to take pills regularly and made them cautious to not get pregnant accidentally. Many couples communicated over the phone before the husbands' visit to figure out if methods were available at home or not or if husbands needed to bring the methods with them. This woman said,

“It was our decision to take child then as we discussed that I might not be pregnant if use pill for long time. It was our discussion that as it is contraception it may cause of infertility, if I wouldn’t have child! We also knew others experience about infertility due to taking pill. Then we decided to take child and we discussed that I would take pill later after having a child. Then I stopped taking pill”

P21 (Age: 40, Years of husband’s migration: 12 yr, Visited last year: 5 times, Stayed each time {average}: 10 days)

However, there were instances where husbands were not at all involved and it was the wives who took the initiative regarding use of a family planning method. This woman said,

“I always took pill, one day I just told him to use condom, he said, ‘no, how could you tell that, I will never use that thing. He said, fie! For shame I will not use that.’”

P23 (Age: 29, Years of husband’s migration: 13 yr, Visited last year: 3 times, Stayed each time {average}: 5 days)

In general, the data suggested that even if there were restrictions from some of the husbands just after the marriage, most couples took the decision together regarding use of family planning over the time considering the health factors of women, family’s economic condition, number of desired children, and spacing between children. Almost half of the women suggested that they planned for the next pregnancy or planned not to have any more children together. There were also a couple of husbands who did not want to have any more children even after the first one who was a girl. This woman said,

“My daughter was born 6 years after my son. Mostly people want two children. My husband told that he is fine with one child but later I convinced him for second child (the daughter).”

P15 (Age: 29, Years of husband’s migration: 14 yr, Visited last year: 12 times, Stayed each time {average}: 7 days)

One woman said that her husband would be retiring soon and living in the village regularly; they would decide to use an appropriate method based on the context.

4.7. Experiences with Intended and Unintended Pregnancies

Based on pregnancy experience, the informants in the sample were divided into three types: ten women did not have any unplanned pregnancies; four women had unplanned pregnancies that were terminated; and eleven women had unplanned pregnancies that were not terminated. The data suggests no association between age of the women or duration of the marriage and the experiences of having or not having any unintended pregnancies.

There is widespread belief that menstrual regulation (MR)/abortion is a sin, although a number of women terminated or tried to terminate their pregnancies. As this woman said,

“By aborting, a life was killed. So it is best to let the child come. The life who wants to come, killing it is not good”

P21 (Age: 40, Years of husband’s migration: 12 yr, Visited last year: 5 times, Stayed each time {average}: 10 days)

Another woman said,

“It is a sin to destroy the creature of Allah.”

P15 (Age: 29, Years of husband’s migration: 14 yr, Visited last year: 12 times, Stayed each time {average}: 7 days)

Women said that MR should be done secretly because community people do not take it well due to the fact that killing a life is considered sin. Along with religious restriction, women consider MR harmful for various reasons. One woman said that the doctor did not want to terminate her pregnancy because it was her first pregnancy. A few women said that the first child should never be terminated because it could make the women infertile for the rest of the life. This was a concern of some of the women in the sample who did not terminate their pregnancies even though it was unplanned. This woman said,

“I heard it from others that if you put off first fruit then you will not get any fruit in future. If you keep the first fruit you will get fruit next time also.”

P20 (Age: 18, Years of husband’s migration: 2 yr, Visited last year: 3 times, Stayed each time {average}: 30 days)

Another woman said,

“It was my first child. I was free that time, I had no study, I stayed always at home, so I would take care of the child, that’s why I took the child...though it was not planned, but we keep it as it came.”

P19 (Age: 2, Years of husband’s migration: 8 yr, Visited last year: 4 times, Stayed each time {average}: 2 days)

Many women mentioned implications on women’s health due to carrying out the MR. They mentioned that considering this, MR was usually suggested to be carried out before 3 to 4 months. This woman said,

“I heard that it should be before 4 months of pregnancy. Otherwise it will be a matter of life risk (of mother)...A baby gets her/his proper shape in 5 months of pregnancy. It is a matter of risk to terminate pregnancy after that time; it’s a kind of delivery. Woman can face anemia or she can die. Most of the women die in this condition. Moreover it is a sin to abort a child especially on that time.”

P15 (Age: 29, Years of husband’s migration: 14 yr, Visited last year: 12 times, Stayed each time {average}: 7 days)

Another woman in this regard, while supposedly talking about the vacuum aspiration method in a later gestational period, said,

“It becomes hard as the child becomes big. It is attached inside of mother’s womb. I do not know how they pull out it with a machine from inside. But if it is done by early stage it is not that much painful. A machine need to insert thorough the private place and they pull it out. It causes lot of bleeding and pain for the mother. But if you do this by 2/1 month it is not that much painful.”

P23 (Age: 28, Years of husband's migration: 13 yr, Visited last year: 3 times, Stayed each time {average}: 5 days)

For all these reasons, most women tried to plan their pregnancies, however only 10 women were able to do this until the time of the interview. As mentioned above, the age of these women and their duration of marriage varied; their age range was mostly from 18 to 29, including one 40-year-old; the duration of marriage ranged from 1.5 to 16 years. These women said that they were extra careful to protect against a mistimed pregnancy so they could achieve their goal. One such woman said,

"...Wouldn't it be normal to have fear as you saw there are many women who need to go for destroy pregnancy (baccha nosto). This they had to do because of their negligence. If you are bit careful you need not to take that hassle..."

P21 (Age: 40, Years of husband's migration: 12 yr, Visited last year: 5 times, Stayed each time {average}: 10 days)

Interestingly, some of these women used the pill only during the husband's visits because they thought it appropriate, as described earlier, and did not think they risked getting pregnant.

More than half of the women in the sample had unplanned pregnancies (13 of 23). Data suggested that most of these women/couples had tried to strategize their method use considering the husband's pattern of visits, women's health, family's economic conditions, the couple's desire to complete education, or the desired number of children with spacing to prevent unplanned pregnancies. However, in many cases they failed. Many women said that they did not know the reasons they became pregnant, especially when they were using a contraceptive method. This woman said,

"Actually, though I was using condom, I conceived. I don't know why it happened."

P9 (Age: 24, Years of husband's migration: 8 yr, Visited last year: 10 times, Stayed each time {average}: 7 days)

However, some women also mentioned that they think they forgot to take pill during the short stay of their husbands or the fact that the safe period that they calculated was just not effective. Women who were using pill only during husband's returns said this, and did not attribute pregnancy to the way that they were taking the pill intermittently. They thought they were protected. Incidentally, both types of failure (missing pills and taking part of a cycle of pills) are both "use failure."

Some woman said that they got pregnant during amenorrhea ("mura pet") when they were using withdrawal (which did not work). Some mentioned lack of available methods (injection) at the facility. Others missed the time their injection was due. Finally, there were cases of method failure because women used herbal medicines. One woman who got pregnant because injection was not available at the facility said,

"...they (community women) told me that since the hospital is no longer providing any pills or injections, I will have to do the surgery if I want to control the pregnancy...they (the HWs) took many people (women) in the hospital and did the operation (ligation). I did not go there as I was scared"

P3 (Age: 34, Years of husband's migration: 16 yr, Visited last year: 2 times, Stayed each time {average}: 7 days)

4.8. Experience with Termination of Pregnancy

Four women in the sample had pregnancies terminated. Reasons for pregnancy termination included the following: 1) couples wanted to delay having children just after marriage, 2) couples wanted a longer time between two children, 3) women's and children's health/age was of concern, and 5) there was concern about the family's economic situation. In most cases, couples decided jointly on going ahead with the termination, although, in most of the cases, their decision was against the will of other family members. This woman said,

"My husband agreed with the decision but everyone advised me to keep it because none of them had children in the family. I did it because of my baby's health and my health. At some point my husband was also puzzled about what to do. Then I took the final decision and he agreed."

P9 (Age: 24, Years of husband's migration: 8 yr, Visited last year: 10 times, Stayed each time {average}: 7 days)

This woman said further,

"Of course Allah will (punish me)...But, we need to think about feeding, educating and rearing the child and thinking that we had to terminate the pregnancy. We decide that we will not take any further baby. Two children are enough for us...."

P9 (Age: 24, Years of husband's migration: 8 yr, Visited last year: 10 times, Stayed each time {average}: 7 days)

Another woman said,

"She (mother-in-law) was very much angry and beat me with a broom. I was sitting outside without taking food whole day. But we did the MR."

P15 (Age: 29, Years of husband's migration: 14 yr, Visited last year: 12 times, Stayed each time {average}: 7 days)

Most women had their MR carried out by a village doctor or traditional provider; some had the services of a skilled provider.

The remaining nine women had unintended pregnancies—some more than one. None of the remaining women terminated any of their pregnancies. Reasons for not going for the MR included the following: 1) religious restrictions, 2) family members' restrictions, 3) assumed painful procedures, and 4) negative consequences for health including infertility. One woman said,

"Destroying a life is a great sin. We can't create human so how we think about destroying it. I don't like it. A child is like a flower garden for women. I can also die in time of killing my baby at womb."

P7 (Age: 29, Years of husband's migration: 15 yr, Visited last year: 12 times, Stayed each time {average}: 7 days)

In few cases, the woman wanted the MR but the husband did not, so the women had to continue the pregnancy against their will. One woman said,

“I decided to do pregnancy termination. I didn’t have desire to take any more children. But my husband didn’t agree. Elders also said to keep my pregnancy. My 2 months running at that time. My husband didn’t give me the permission of pregnancy termination. I went to Doctor but Doctor said he couldn’t do anything without husband’s permission.”

P24 (Age: 35, Years of husband’s migration: 18 yr, Visited last year: 5 times, Stayed each time {average}: 4 days)

All these women knew about the sources where MR could be done and most of their sources of information were from neighboring and relative women who carried out MR and from their own experiences. They mentioned about traditional providers/herbalist, private clinics, health workers of government hospital, Thana health complex, and pharmacy or village doctors where tablets were available to terminate pregnancy. Some women said that doing MR with traditional providers could be very harmful for the woman and the woman often could die doing MR with them. Women said that often these traditional providers carry out the MR beyond 3 to 4 months, which can have negative consequences for women’s health. A number of women talked about tablets available at the pharmacies and often women appear to have a clear idea about misoprostol. One woman who had a MR with herbal medicines and with misoprostol said,

“...I told him (medicine shop keeper) that salsa (an herbal medicine) is not enough for me as it will work only if it were simply irregular menstruation. But if it is pregnancy it will not work. Then you need to take tablet. Then I need to eat two tablets and insert three tablets in to menstruation canal, and it will be clear by night.”

P23 (Age: 28, Years of husband’s migration: 13 yr, Visited last year: 3 times, Stayed each time {average}: 5 days)

Women also said that sometimes couples went out of their village to carry out the MR so that community people could not know about it.

5. Discussion

5.1. Demographic Factors

On average, the couples were stable (i.e., married for several years), with a considerable age gap between the spouses, and women were married off earlier than the legal marriage age in the country. These statistics indicate, besides the general patriarchal structure of the Bangladeshi society, there might have existed a male domination in terms of various familial decision making, including the family size, method use/non-use, and other related issues (Zakia Hossain 1998; Islam, Padmadas, and Smith 2006; Story and Burgard 2012). The fact that most of the women remained with their in-laws might have further diminished their autonomous decision-making capacity (Bloom, Wypij, and Gupta 2001, p. 69). However, the study results suggest otherwise. Despite this demographic context that appears disempowering for the women, most of the decisions were in fact mutual, with very little coercion in arriving at those decisions (Becker, Fonseca-Becker, and Schenck 2006).

5.2. Migration of Husbands

Husbands' visit to home have been anything but a surprise or something that the women needed to be accustomed to since most of them married into it. The migratory pattern indicates a regular interval and several days of stay with the spouses. As almost a rule, it was husbands visiting their wives, and not the other way around.

Among the ones whose husbands migrated for work after marriage, some tried to live with their husbands, but soon abandoned the idea.

5.3. Mobile Phones

Access to mobile phones seems to have had an undeniable impact on husbands visiting their spouses and the planning related to their contraception usage. It seems to have made life easier and less worrisome, since it is now possible to plan ahead of the visits, unlike the times when there was no such avenue opened to them. It is not a guaranteed way, but it surely reduces the chances for any unwanted events.

5.4. Contraception and Usage Patterns

Generally speaking, lack of knowledge with regard to contraception use, specific ways that each of the methods work, and when and why one should use a specific one is at the very heart of unintended pregnancies (Chen, Liu, and Xie 2010; Tsui, McDonald-Mosley, and Burke 2010; Frost, Lindberg, and Finer 2012; Haque et al. 2015). The sort of regularity that is required in administering a specific method (namely, pills) to successfully avoid unintended pregnancies is unfortunately absent. With migration, this fact has become further pronounced, since women tend to become even more erratic in their contraceptive use. They have good knowledge (by traditional measures), but use the pill the wrong way anyway. They use it wrong because they misunderstand how the pill works with regard to the protection it offers.

Over time, couples try out different methods of contraception that are not linked to migration of their husbands, but mostly because of what they deem as suitable to their health. Generally speaking, pills are the preferred method, and younger couples are trying out condoms more frequently than the older couples, which is consistent with previous studies (Daniel, Masilamani, and Rahman 2008; Kershaw et al. 2012; Chandra-Mouli et al. 2014; Dai et al. 2015) This is an avenue that needs to be explored

further, since this indicates more receptiveness among the younger generation of couples, men specifically, to various family planning messages that they might be exposed to.

5.5. Pills

Incorrect information can create an economic burden on the women in our sample. For instance, some women thought that it is not healthy to continue with one specific brand of pills over time and that they need to change brands periodically; they also circulated this notion to other women. This idea can and did lead women to consider buying more expensive brands, when in fact the cheaper brand is just as effective and poses no more risk than the more expensive brand.

Husbands' migration does not put any additional barrier in terms of collection of contraceptive methods, in this case, pills, since women inform them beforehand over mobile phone that they need to bring home the pills. However, this pattern clearly suggests how misinformed these couples are with regard to how to use pills (i.e. using pills only when one is planning on having sex is not the correct way). Interestingly, when asked about the rules of taking the pills, women were able to relay it properly, but in practice they only took the pills whenever their husbands visited them. It should be mentioned here that providers are not explaining, as they should, the rules and risks of not following the rules correctly of how to take the pills. In addition, local health workers are also contributing in spreading the incorrect messages (Koenig, Hossain, and Whittaker 1997; Dehlendorf et al. 2010; Mahmud et al. 2015). When coupled with the experiences of other women with migrating husbands, certain incorrect ideas become standard practice.

Problems related to the use of pills contribute heavily to the discontinuation of pills when husbands are not around (Khan 2003; Bradley, Schwandt, and Khan, 2009; Singh, Roy, and Singh 2010; Azmat et al. 2012). Side effects (e.g. headaches, body ache, burning sensation, dizziness, vomiting, etc.) and the need to consistently remember to take pills every day are the primary reasons why women have devised their own rules as detailed above. Due to the complaints related to experiencing side effects from pills, women also switch from one brand of pills to another, and also to other methods of contraception. It is also to be noted that their husbands' absence also provided a kind of respite from the burden of taking pills regularly.

However, some women voiced a long standing concern of having pills delivered at their doorstep. Research has shown that not having the pill delivered at home in fact worked as a positive factor toward empowerment while some of the traditional barriers, i.e. feeling shy to go out in the market to buy contraceptives, still exist in the society. Men, wanting children, also try to impose their choices on women and become unsupportive of their choices, which some women think they can handle if the methods were delivered at their homes (Kamal 2000; Arends-Kuenning 2002; Kamal and Islam 2010).

The preference for pills for the couples with migrating husbands was deemed appropriate since most women did not see the point of continuing on with a method (longer term methods especially) when their husbands were not around. Therefore, they chose pills, which, according to them, they could only take when their husbands were around.

5.6. Injections

Injections are not preferred because it is a problem for the women to visit a facility for it and also it is troublesome for them to remember the correct dates for the next dose. Unavailability of injections at the facilities (Seiber and Bertrand 2002; Laskar et al. 2006; Gubhaju 2009; Chandra-Mouli et al. 2014) is also a deterrent for them. Several women also perceived that health workers want them to

switch to long-acting and permanent contraceptives and that is why health workers said that injections were not in stock in the health facility. These perceptions work as a deterrent for the women to visit the facilities.

In addition to the above, there is also a perceived belief that prolonged use of injections may cause infertility (Campbell, Sahin-Hodoglugil, and Potts 2006; MacDonald et al. 2013). This is why younger couples do not want to avail it and only consider when they have a couple of kids. Moreover, women also believe that bleeding, waist pain, or excessive weight gain, etc. are related to the use of injections. Not menstruating for months on end is also a concern among the women that works as a negative factor in terms of choosing injections as a method for themselves.

As mentioned above, couples with migrating husbands did not find injections to be appropriate since they saw very little point in continuing on with a method when their husbands were not with them. However, a minority of women thought it was actually a better method since then they didn't have to worry about the sudden visits of their husbands.

5.7. Condoms

Several women think that condoms should be the most appropriate choice for couples with migrating husbands since the visits are sporadic and it relieves them of the pressure to continue on with any particular method. However, a plethora of perceptions end up becoming a barrier in terms of using them: many think it is not really as effective as other methods; many think it could be a health hazard if the condom breaks and a broken piece is left inside of them; and condoms can leak and defeat the very purpose of its usage.

Women know about sexually transmitted diseases and that some of that can be prevented through the use of condoms. However, none of the couples using condoms used it in order to protect themselves.

5.8. Long-term and Permanent Methods

To put it generally, longer-term methods like Copper-T and Implants were deemed as invasive and women appeared fearful of it (Sherris and Perkin 1989; Schein 1999; Bradley et al. 2009; Azmat et al. 2012). Though some of them could see the positive aspects of it helping them provide the peace of mind that they seek, it simply does not outweigh the fear attached to it. Only two of the entire sample had ever tried implants, but they also had them removed, because they experienced several side effects that they attributed directly to the method.

Like the longer-term methods, permanent methods were also disregarded primarily due to its invasive procedures. Even the couples those who appeared certain in their choices to not have any more babies, didn't want to consider permanent methods. Besides it being invasive, informants also talked about how they would be ridiculed and talked about in the society if they went through a surgical process in order to stop having babies permanently. Social pressure, as one would expect, determines a lot of our choices, though they may be personal and/or individual ones.

The gender dimension is interesting too with regard to adopting permanent methods (Khan and Rahman 1997; Kamal 2000; Becker, Fonseca-Becker, and Schenck-Yglesias 2006). Women believe that men should not have vasectomies since it can have debilitating effect on their performance in sexual relations, i.e. that they would "lose their power."

5.9. Traditional Methods

Women appeared apprehensive with regard to “traditional methods,” which basically translated into withdrawal and “safe-period”. They rightly believe these methods to be risky and not adequately protective. Their knowledge with regard to what is a “safe period” demonstrated that they were quite confused and hardly anyone could describe it with confidence. Most of their ideas were based on hearsay. However, they were themselves aware of it and tried to combine these methods with other methods, like that of pills and condoms.

5.10. What is Risky in Terms of Getting Pregnant?

Discussion on various methods reveals that women, and also men, go through lengths in order to plan their reproductive lives. If they do not want to get pregnant, they strategize their spouse’s visit accordingly. However, switching methods, combining more than one method, adopting a new method or a new way, etc. may all in fact contribute in becoming pregnant since this “mix-and-match” and strategic behaviors might contribute to rendering the method/s ineffective. Lack of correct information with regard to method-specific sexual behavior might have contributed in unintended pregnancies in many women’s lives and have burdened them further.

5.11. Decision-making with Regard to Family Planning

The study sample suggests that the decision-making process has been generally mutual. Meaning, in most of the cases both the woman and the man in a conjugal relationship contributed in deciding what the family planning method of choice would be, would there be a method at all, and things along that line. In fact, it was mostly women who decided and then suggested it to their husband, who consequently agreed to. Even the decisions on how many children and when to have them were decided on mutually. This is not to suggest that there is no sign of men imposing their choices on women, but the fact remains, that the evidence of such imposition were few and far between.

5.12. Intended and Unintended Pregnancies and Termination

Most, if not all, women tried to plan their pregnancies, hence their family size and timing of having a child. However, some succeeded and some didn’t. Over half of the informants experienced unintended pregnancies. Among these, a minority went for MR. A very negative notion was voiced with regard to their perception of MR that was mostly related to religious injunctions against it (Khan et al. 2016). Health concerns were also talked about in the course. It was clear from their perceptions that they believe planning one’s family (i.e. using a contraceptive method) is far better than having an MR.

Despite having a negative notion about MR, all of the women who had unintended pregnancies knew about MR, knew where to have it done (be it with an unskilled or skilled provider), and that it was better to have it done sooner rather than later. Among the women those who went through the procedure, it wasn’t always an easy decision, and if all of the cases, the couple had to go against the relatives. The society, as one would suspect, is still far from being accepting of the procedure. However, women should pragmatic considerations in going through with their decisions to have MR—they considered if they had the resources to raise a child at that point and if the woman was in a healthy state of being to carry a child to term.

6. Conclusions

In conclusion, women's disempowered state of being seems to be in a positive transitional phase right now. In this situation, family planning education can make further inroads and involve men, positively, in a greater capacity.

Migration puts a challenge for the women to plan their family planning use. It definitely alters it and makes women adopt creative means of contraceptive use. However, being creative is one thing, and being methodologically correct is another, and it is the latter that is more important when it comes to averting a pregnancy.

Use of mobile phones has become a blessing for the couples whose husbands have left home for work. It has provided the avenue to plan their stays together, procure family planning methods when needed, and reduce risky behaviors in terms of coital practices. Programmatically, there needs to be more thought given to these new advancements in technology and make it work for couples who may now be prepared to avail such interventions.

Women definitely want to avoid getting pregnant, though often they were not prepared for it or lack knowledge. Therefore, planning their coital behavior is at the very heart of their family planning use. However, despite their intention and worries related to it, they may not be doing the right when it comes to using a particular family planning method.

Women may not be getting appropriate information from the field-level health workers that address their needs. There was also a lack of trust in health workers at facilities when the method that the women wanted to use was unavailable and other methods were promoted instead. This lack of trust created a disincentive to visit via health facilities. Health workers' knowledge about methods needs to be assessed and correction, and communication with clients needs to be improved.

Women lack family planning education, especially with regard to contraceptive pills and how they should be taken and, therefore, this must be made a policy priority. It is unfortunate that women, despite their intentions to limit their family size, are still facing unintended pregnancies, which are rendering all their efforts in planning fruitless. Education on all the other family planning methods, all the choices available to them, and suggestions of what might be a good one to adopt must be made clear to women as well, since not all women would choose the pill. Women-centered facilities should also be considered since many women avoid going to facilities

Along with education, women also need to be made aware about the possible side effects of each one of the methods, and proper ways of dealing with them without jeopardizing their family planning. Many women also harbor incorrect ideas about using pills and injections for a prolonged time. Also, there are misconceptions on what is "safe period." That should be addressed. These should be highlighted within their educational package.

Men seem to have become more and more involved in the familial matters with regard to family planning method choices, general birth control issues, and so on. This is a ripe time to get them involved further. The younger generation seems more receptive, which is a huge window of opportunity.

References

- Arends-Kuenning, M. 2002. "Reconsidering the Doorstep-delivery System in the Bangladesh Family Planning Program." *Studies in Family Planning* 33 (1):87-102.
- Azmat, S. K., Shaikh, B. T., Hameed, W., Bilgrami, M., Mustafa, G., Ali, M., Ishaque, M., Hussain, W. and Ahmed, A. 2012. "Rates of IUCD Discontinuation and Its Associated Factors among the Clients of a Social Franchising Network in Pakistan." *BMC Women's Health* 12 (1):1-8. doi: 10.1186/1472-6874-12-8.
- Ban, B., Karki, S., Shrestha, A., and Hodgins, S. 2012. "Spousal Separation and Interpretation of Contraceptive Use and Unmet Need in Rural Nepal." *International Perspectives on Sexual and Reproductive Health* 38 (1):43-47.
- Becker, S., Fonseca-Becker, F., and Schenck-Yglesias, C. 2006. "Husbands' and Wives' Reports of Women's Decision-making Power in Western Guatemala and Their Effects on Preventive Health Behaviors." *Social Science & Medicine* 62 (9):2313-2326. doi: <http://dx.doi.org/10.1016/j.socscimed.2005.10.006>.
- Bloom, S. S., Wypij, D., and Das Gupta, M. 2001. "Dimensions of Women's Autonomy and the Influence on Maternal Health Care Utilization in a North Indian City." *Demography* 38 (1):67-78. doi: 10.1353/dem.2001.0001
- Bradley, S. E., Schwandt, H., and Khan, S. 2009. *Levels, Trends, and Reasons for Contraceptive Discontinuation*. DHS Analytical Studies No. 20. Rockville, Maryland, USA: ICF International.
- Campbell, M., Sahin-Hodoglugil, N. N., and Potts, M. 2006. "Barriers to Fertility Regulation: A Review of the Literature." *Studies in Family Planning* 37 (2):87-98.
- Chandra-Mouli, V., McCarraher, D. R., Phillips, S. J., Williamson, N. E., and Hainsworth, G. 2014. "Contraception for Adolescents in Low and Middle Income Countries: Needs, Barriers, and Access." *Reproductive Health* 11(1):1.
- Chen, J., Liu, H., and Xie, Z. 2010. "Effects of Rural-Urban Return Migration on Women's Family Planning and Reproductive Health Attitudes and Behavior in Rural China." *Studies in Family Planning* 41(1):31-44.
- Dai, W., Gao, J., Gong, J., Xia, X., Yang, H., Shen, Y., Gu, J., Wang, T., Liu, Y., Zhou, J., Shen, Z., Zhu, Z., and Pan, Z. 2015. "Sexual Behavior of Migrant Workers in Shanghai, China." *BMC Public Health* 15 (1):1.
- Daniel, E. E., Masilamani, R., and Rahman, M. 2008. "The Effect of Community-based Reproductive Health Communication Interventions on Contraceptive Use among Young Married Couples in Bihar, Indi" *International Family Planning Perspectives* 34 (4):189-197.
- Dehlendorf, C., Levy, K., Ruskin, R., and Steinauer, J. 2010. "Health Care Providers' Knowledge about Contraceptive Evidence: A Barrier to Quality Family Planning Care?" *Contraception* 81 (4):292-298. doi: <http://dx.doi.org/10.1016/j.contraception.2009.11.006>.
- Frost, J. J., Lindberg, L. D., and Finer, L. B. 2012. "Young Adults' Contraceptive Knowledge, Norms and Attitudes: Associations with Risk of Unintended Pregnancy." *Perspectives on Sexual and Reproductive Health* 44 (2):107-116.
- Gubhaju, B. 2009. "Barriers to Sustained Use of Contraception in Nepal: Quality of Care, Socioeconomic Status, and Method-related Factors." *Biodemography and Social Biology* 55 (1):52-70.

- Guest, G., Bunce, A., and Johnson, L. 2006. "How Many Interviews Are Enough? Experiments in Data Saturation and Variability." *Field Methods* 18 (1):59-82.
- Haque, M., Hossain, S., Ahmed, K. R., Sultana, T., Chowdhury, H. A., and Akter, J. 2015. "A Comparative Study on Knowledge about Reproductive Health among Urban and Rural Women of Bangladesh." *Journal of Family & Reproductive Health* 9 (1):35.
- Islam, M. A., Padmadas, S. S., and Smith, P. W. 2006. "Men's Approval of Family Planning in Bangladesh." *Journal of Biosocial Science* 38 (02):247-259.
- Kamal, N. 2000. "The Influence of Husbands on Contraceptive Use by Bangladeshi Women." *Health Policy and Planning* 15 (1):43-51.
- Kamal, S. M., and Islam, M. A. 2010. "Contraceptive Use: Socioeconomic Correlates and Method Choices in Rural Bangladesh." *Asia-Pacific Journal of Public Health* 22 (4):436-450.
- Kershaw, T., Arnold, A., Gordon, D., Magriples, U., and Niccolai, L. 2012. "In the Heart or in the Head: Relationship and Cognitive Influences on Sexual Risk among Young Couples." *AIDS and Behavior* 16 (6):1522-1531.
- Khan, R., Khanom, A., Sultana, M., Akhter, R., Shelly, S. B., and Ali, N. A. 2016. *Menstrual Regulation: A Decision Tainted with Stigma, Pain, and Suffering – An Anthropological Study*. Dhaka, Bangladesh: EKN, Marie Stopes Bangladesh, and icddr,b.
- Khan, M. A. 2003. "Factors Associated with Oral Contraceptive Discontinuation in Rural Bangladesh." *Health Policy and Planning* 18 (1):101-108.
- Khan, M. A., and Rahman, M. 1997. "Determinants of Contraceptive Method Choice in Rural Bangladesh." *Asia Pacific Population Journal* 12:65-82.
- Khanal, M. N., Shrestha, D. R., Panta, P. D., and Mehata, S. 2013. *Impact of Male Migration on Contraceptive Use, Unmet Need and Fertility in Nepal: Further Analysis of the 2011 Nepal Demographic and Health Survey*. DHS Further Analysis Reports No. 74. Calverton, Maryland, USA: Nepal Ministry of Health and Population, New ERA, and ICF International.
- Koenig, M. A., Hossain, M. B., and Whittaker, M. 1997. "The Influence of Quality of Care upon Contraceptive Use in Rural Bangladesh." *Studies in Family Planning* 28 (4):278-289. doi: 10.2307/2137859.
- Laskar, M., Mahbub, M., Yokoyama, K., Inoue, M., and Harada, N. 2006. "Factors Associated with Contraceptive Practices of Married Women in Bangladesh with Respect to their Employment Status." *The European Journal of Contraception & Reproductive Health Care* 11 (3):220-227.
- MacDonald, L., Jones, L., Thomas, P., Thi Thu, L., FitzGerald, S., and Efrogmson, D. 2013. "Promoting Male Involvement in Family Planning in Vietnam and India: HealthBridge Experience." *Gender & Development* 21 (1):31-45.
- Mahmud, I., Chowdhury, S., Siddiqi, B. A., Theobald, S., Ormel, H., Biswas, S., Rashid, S. F. 2015. "Exploring the Context in Which Different Close-to-community Sexual and Reproductive Health Service Providers Operate in Bangladesh: A Qualitative Study." *Human Resources for Health* 13 (1):51.
- Massey, D. S., and Mullan, B. P. 1984. "A Demonstration of the Effect of Seasonal Migration on Fertility." *Demography* 21 (4):501-517. doi: 10.2307/2060912.
- Morse, J. 1994. "Designing Funded Qualitative Research." In *Handbook for Qualitative Research*, ed. N. Denzin and Y. Lincoln, 220-35. Thousand Oaks, CA: Sage.

- National Institute of Population Research and Training (NIPORT), Mitra and Associates, and ICF International. 2013. *Bangladesh Demographic and Health Survey 2011*. Dhaka, Bangladesh and Calverton, Maryland, USA: NIPORT, Mitra and Associates, and ICF International.
- Patton, M. 2002. *Qualitative Research and Evaluation Methods*. 3rd ed. Thousand Oaks, CA: Sage.
- Schein, A. 1999. "Pregnancy Prevention Using Emergency Contraception: Efficacy, Attitudes, and Limitations to Use." *Journal of Pediatric and Adolescent Gynecology* 12 (1):3-9.
- Seiber, E. E., and Bertrand, J. T. 2002. "Access as a Factor in Differential Contraceptive Use between Mayans and Ladinos in Guatemala" *Health Policy and Planning* 17 (2):167-177.
- Siddiqui, T. 2005. "International Labour Migration from Bangladesh: A Decent Work Perspective." *Policy Integration Department Working Paper* (66).
- Sherris, J., and Perkin, G. W. 1989. "Introducing New Contraceptive Technologies in Developing Countries." *Demographic and Programmatic Consequences of Contraceptive Innovations* 251-264: Springer.
- Singh, K. K., Roy, T. K., and Singh, B. P. 2010. "Contraceptive Discontinuation and Switching Patterns in Bangladesh." *Genus* 66 (1):63-88.
- Story, W. T., and Burgard, S. A. 2012. "Couples' Reports of Household Decision-making and the Utilization of Maternal Health Services in Bangladesh." *Social Science & Medicine* 75 (12):2403-2411.
- Tsui, A. O., McDonald-Mosley, R., and Burke, A. E. 2010. "Family Planning and the Burden of Unintended Pregnancies." *Epidemiologic Reviews* 32:152-74. doi: 10.1093/epirev/mxq012
- Zakia Hossain, S. 1998. "Decision Making, Use of Contraception, and Fertility in Bangladesh: A Path Analysis." *International Journal of Sociology and Social Policy* 18 (7/8):27-55.

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**Why So Young?
The Social Context of Early Childbearing and
Contraception among Young Women in Khulna,
Bangladesh**

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Abstract

This study on the social context of early childbearing is one of three qualitative studies emanating from the 2014 Bangladesh Demographic and Health Survey (BDHS). The qualitative study adopted a nested design and drew its sample from among eligible respondents to the BDHS. This study conducted in-depth interviews with 30 women age 15-22 who had married before age 18 in Khulna division, Bangladesh. The study was motivated to investigate why young, married women bear a first child at a young age. We find that women enter into marriage suddenly and without knowledge of contraception. Young women want to delay a first pregnancy, but still want a birth within adolescence. Spousal communication and women's decision-making are low and young women defer decisions on childbearing and contraception to others. Women's fertility desires are frequently discordant with those of their husbands, their in-law family, or both. Women, their husbands, and their family members are all concerned with the health consequences of early childbearing. However, concerns about the health effects of contraception promote early pregnancies. Thus, women's abilities to meet their fertility aspirations are challenged by discordant childbearing aims, limited options for contraceptive methods, and discontinuation of contraception due to side effects and concerns about infertility.

1. Introduction

Early age at marriage is socially acceptable in South Asian culture (Riley 1994), and Bangladesh has long been characterized by early marriage and high adolescent fertility. According to the 2014 Bangladesh Demographic Health Survey (BDHS), 89% of women age 20-49 were first married by age 20. In spite of increases over the last decade and a half, de facto age at marriage for women remains low, well below the legal minimum marriage age. Between 1997 and 2014, the median age increased by 2 years, from 14.2 to 16.1 (Mitra et al. 1997; NIPORT, Mitra and Associates, and ICF International 2016). Many of these marriages are arranged by the parents, with little participation by the girl (Shrestha 2002).

Marriage is the leading social and demographic indicator of exposure of women to the risk of pregnancy and a key proximate determinant of fertility (Bongaarts 1982). This is especially so in South Asia, where marriage is near universal and childbearing occurs almost entirely within marriage. In Bangladesh, the total fertility has fallen rapidly (from 3.3 in 1997 to 2.3 in 2014) and the modern contraceptive prevalence rate has risen from 42% to 52% in the same time period. Nonetheless, the probability of a first birth before age 20 has remained static since the 1990s (Nahar and Min 2008). Nearly 31 percent of adolescents have begun childbearing. Women's median age at first birth in Bangladesh is 18.4 years (NIPORT, Mitra and Associates, and ICF International 2016).

Adolescent pregnancy poses risks for a range of negative maternal and peri-natal health outcomes, with the risk increasing for the youngest girls (Cooper, Leland, and Alexander 1995; Haldre et al. 2007; de Vienne, Creveuil, and Dreyfus 2009; Goonewardene and Waduge 2009). The World Health Organization estimates that births to women younger than age 20 account for 11% of all births worldwide, but account for 23% of the burden of disease from pregnancy and childbirth among all women (Chandra-Mouli, Camacho, and Michaud 2013). In particular, girls younger than 20 have an increased risk of miscarriages, stillbirths, and neonatal deaths, as well as preterm birth and low birth weight infants. Early marriage is associated with poor fertility control and negative reproductive outcomes (Godha, Hotchkiss, and Gage 2013; Kamal and Hassan 2015). Women who marry young are not only likely to have their first birth at a young age, but tend to have shorter birth intervals (also a health risk) and higher total fertility. Beyond health risks, adolescent mothers also have social disadvantages. They may be socially isolated, without partner or family support, and often unable to complete their education. They may transmit some degree of socioeconomic disadvantage in health outcomes and behavioral risks to their own children.

Young, recently married women enter an institution in which social norms emphasize childbearing, where they may face direct pressures to have a child, where proving one's fertility is a means to improving one's social status, and where personal decision-making is deferred to the husband or more senior women in the household (Rashid 2006; Gipson and Hindin 2007; Henry et al. 2015). Spousal communication about matters of sexuality and reproduction is likely to be inadequate, particularly in arranged marriages, and it may be difficult for young women to articulate their fertility desires, particularly if they contravene strong social expectations. Several studies have shown that young, recently married women are less empowered than either unmarried adolescents in their natal home or older married women who have already borne children (Gage 2000; MacQuarrie 2009).

In such a context, the young woman's husband or mother-in-law may figure prominently in decisions about using contraception and the timing of childbearing (Barua and Kurz 2001; MacQuarrie and Edmeades 2015) or the woman may begin childbearing as a way to improve her standing in the household (MacQuarrie 2009). A study in Nepal showed that a higher proportion of adolescent pregnant women (67%) live in an extended family. Of these women, just over half (51%) said their husbands had authority over conception choices in spite of the adolescents' desire to make their own decision (Sharma et al. 2002).

Young women, by fact of their age and inexperience, may also lack information and access to services they need to delay the first birth. For example, only 30% of 15-19 year old women have been exposed to any information on contraception in the preceding month (NIPORT, Mitra and Associates, and ICF International 2016). Possibly as a result of these social barriers, contraceptive use among married women age 15-19 is 47%, lower than among any age group between the ages of 20 and 44, and the unmet need for family planning is higher (17%) than among women age 24-49 (12.3%) (NIPORT, Mitra and Associates, and ICF International 2013; MacQuarrie 2014, 2015). Contraception is seldom used prior to the first birth (24% of nulliparous women) (NIPORT, Mitra and Associates, and ICF International 2013).

While DHS survey data can describe the prevalence of contraceptive use and adolescent childbearing and patterns across subpopulations or time, these data do not illuminate the motivations leading to these outcomes. Therefore, the present study supplements the quantitative data with a qualitative investigation into the social context that shapes young women's fertility intentions, decisions, and contraceptive and fertility behavior in Khulna division of Bangladesh.

2. Methods

2.1. Study Setting

Of Bangladesh's seven divisions, Khulna has one of the lowest ages at first marriage and, subsequently, ages at first birth. In 2014, the median age at first marriage among women age 20-49 was 15.5 and the median age at first birth was 18.0, well below national figures (NIPORT, Mitra and Associates, and ICF International 2016). On average, Khulna women have an interval of 30 months between marriage and first birth. This stands in sharp contrast to a median of 63.8 months between subsequent births (national median is 51.7 months) (NIPORT, Mitra and Associates, and ICF International 2016). This low age at marriage and short interval from marriage to the first birth make Khulna an ideal setting to explore the normative context that underlies these demographic behaviors. This study on early childbearing draws its sample from rural clusters in Khulna division.

2.2. Study Design and Instruments

This qualitative study on the social context of early childbearing is one of three qualitative studies emanating from the 2014 Bangladesh Demographic and Health Survey (BDHS). Two other studies examine the pregnancy risk and family planning needs of women with migrant husbands and women's perspectives on and experiences with antenatal care. These studies are presented in DHS Further Analysis Reports Nos. 98 and 100, respectively. All three qualitative studies and the quantitative Bangladesh DHS survey are supported by USAID/Bangladesh through The DHS Program (contract # AID-OAA-C-13-00095). The International Centre for Diarrhoeal Disease Research, Bangladesh (icddr,b) is the implementing organization of the study, led by principal investigators from icddr,b and The DHS Program.

The three qualitative studies are all nested studies (Tashakkori and Teddlie 2010; Harrits 2011) embedded within the broader, quantitative BDHS. This research design allows large n quantitative and small n qualitative analysis on the same topic and using the same sample population, so that the methodologies complement each other. Specifically, this study adopts a data-linked nested research design (Schatz 2012). This design facilitates strategic sampling: namely, the qualitative study uses a sub-sample of the larger BDHS sample.

The primary data collection method was in-depth, in-person interviews. The targeted number of interviews (30) was guided by the principle of saturation (Morse 1994; Patton 2005; Guest, Bunce, and Johnson 2006). Saturation was confirmed upon the analysis stage of the study. In-depth interviews were semi-structured and guided by an interview guide of open-ended questions and possible conversational prompts and probes. Interviews began with general topics and progressed to more sensitive topics. The interview guide encouraged informants to discuss their experiences and attitudes about marrying, their fertility aspirations upon marriage, communication between the couple, knowledge of and behavior around family planning and childbearing, young women's agency and decision-making around fertility, and the influences of their spouses, parents, in-laws, and others in the community on their reproductive behavior.

2.3. Study Cluster Selection

The qualitative study draws its sample from among respondents to the 2014 BDHS. The 2014 Bangladesh DHS is the seventh DHS in Bangladesh. It is a nationally representative sample of 17,886 ever-married women of reproductive age (15-49 years). The BDHS achieved a response rate among eligible women of 97.9% nationally and 98.9% in Khulna.

The BDHS applied a two-stage, stratified and clustered sampling design. Each division was stratified into rural and two types of urban areas (city corporations and other than city corporations). In the first stage of sample selection, 600 enumeration units were selected with probability proportional to size. Enumeration units were delineated from the 2011 population census of the People’s Republic of Bangladesh. In the second stage, 30 households per cluster were selected with equal probability. All ever-married women age 15-49 who are de facto members of the selected household were eligible for interview. Details of the Bangladesh DHS methodology can be found in the survey final report (NIPORT, Mitra and Associates, and ICF International 2016).

Figure 1. Map of study division and clusters



The BDHS data were collected between July and October 2014. The 2014 BDHS sampled 85 clusters in Khulna division—56 rural and 29 urban. The BDHS implementing organization, Mitra and Associates, provided our study team with a list of clusters containing women who had consented during the DHS interview to a follow-up interview and met the eligibility criteria of this study. From the cluster listing, we selected rural clusters with four or more eligible respondents. Our original sampling design called for these clusters to be drawn randomly. However, the eruption of political unrest and widespread *hartals* (strikes/blockades), which had the potential to become violent, caused us to adjust our sampling procedures. We prioritized geographic proximity, replacing several selected clusters that were distant from the others with new, eligible clusters that were closer. Additionally, we increased the target

number of interviews per cluster and reduced the overall number of selected clusters. These changes allowed us to minimize the time our field teams spent on major highways into and out of Dhaka and better ensure their safety, while still achieving our desired sample size. Our final sample of informants is drawn from nine of the rural clusters sampled in the BDHS, spread over five districts in Khulna division (see Figure 1).

2.4. Informant Eligibility and Sampling

In this qualitative study on early childbearing, we sought to interview women age 15-22 who had married before age 18. Among those meeting these criteria, we expected parity to be highly skewed away from nulliparous women and toward parous and multiparous women. Therefore, we did not stratify our sample by parity or make this an eligibility criterion. Based on data from the 2011 BDHS (NIPORT, Mitra and Associates, and ICF International 2013), we estimated that, on average, we would find approximately 3.6 eligible women per rural cluster. We anticipated selecting two women each in 15 clusters to reach our desired sample size of 30 women. We later relaxed the limit of two women per cluster to maximize the number of interviews that could be conducted in each cluster.

The cluster listing identified 74 eligible women in the nine clusters selected for this study. However, to protect informant confidentiality, we did not select women from the same household or *bari* (group of households) or from adjacent households or *baris*. Furthermore, another qualitative DHS study on antenatal care was being conducted in Khulna division in some of the same clusters. Women who met the eligibility criteria for both studies were included in the selection pool for the study on antenatal care and became ineligible for selection in this study. In all, fourteen women were not considered for selection because they were either dual-eligible or living in the same *bari*. The field team attempted contact with 47 of the remaining 59 women. Fourteen of these women were unavailable for interview, including three women who had temporarily or permanently moved away and three who could not be located and were, thus, lost to follow up. Two women declined to be interviewed and a final woman consented to be interviewed but was found to be ineligible for the study because she was older than 22. Thirty women who met the eligibility criteria and had provided consent were successfully interviewed and make up our informant sample. Having reached our target sample size, interviews were not attempted with the remaining 12 eligible women in the selected clusters.

2.5. Research Team and Training

The study team included nine members: three principal investigators, a co-investigator, four research officers, and a field assistant. The male field assistant helped the field team locate and contact eligible informants in the field. The field team included the two co-investigators and the four research officers, all women, who hold a master's degree or higher in anthropology or sociology and have expertise in qualitative methods. This team conducted the in-depth, person-to-person interviews with study informants, transcription, translation, and coding of the data. The principal and co-investigators led the data analysis and prepared the study report.

In addition to their general expertise in qualitative research, the full study team participated in targeted 10-day training to prepare for field work. The training guided team members through the purpose of the study, built familiarity with study interview guides, and reviewed qualitative interviewing techniques that would be used in the study. It addressed the study's data collection process, sampling procedures and informant eligibility for the study, ethical procedures (including obtaining consent and maintaining privacy and confidentiality), field management, and information on health services related to maternal and reproductive health. The training emphasized skills such as building rapport and probing during interviews, note taking, transcribing, translating, preparing field notes, and recording complete and accurate demographic data on the cover sheet accompanying interview transcripts. The training included classroom discussion, role-play, practice interviews, and field-testing with the interview guide.

Practice interviews were observed by senior members of the research team, who provided feedback on interview techniques.

Based on experiences piloting the interview guide during the interviewer training, the guide was modified for use in main data collection. The modified interview guide was field-tested a second time before being finalized.

In addition to the training for field work, a second training was conducted with the research team on data coding and analysis.

2.6. Data Collection

Icddr,b was responsible for data collection, which occurred December-March 2015. Prior to the arrival of the full field research team in the field, the male field assistant visited the selected cluster and, using the address information generated by the BDHS implementing agency, made initial contact with selected informants and briefed them, and key members of their family, as necessary, about the upcoming presence of the field research team. He then arranged a date and time for a member of the field research team to conduct the interview.

Interviews were conducted in a convenient space where the interviewer could do her best to maintain privacy, usually in the informant's house or yard. After consent was obtained, interviews began with general aspects of women's lives (topics the interviewer could return to should interruptions occur) and then progressed to the more detailed and possibly sensitive topics of informants' reproductive and sexual health and family dynamics. Interviews were conducted in Bangla. They generally lasted 60-90 minutes, following informal discussions of approximately 15-30 minutes. All informants agreed to have their interviews recorded after having been given the option to refuse. In addition to the informant interviews, the field research team recorded information about the cluster itself, including the overall socio-economic condition, development of infrastructure, transportation network, and health services (including community health workers) available in the area.

2.7. Data Management and Analysis

Research officers transcribed verbatim the recorded interviews once they were completed. Co-investigators and one principal investigator continually reviewed transcripts for interview quality and provided feedback to the field research team. Once transcribed, one-half of the Bangla transcripts were translated into English. All interviews were entered into AtlasTi and coded.

As qualitative inquiry employs an iterative approach, transcripts were coded per a predetermined list of major themes, based on a priori research questions, and supplemented by codes for new themes and sub-themes that emerged from the respondents' own narratives. Code reports and fully coded transcripts were reviewed for quality of coding, feedback was provided to the data coders, and the coding framework was updated as needed. Finally, the principal investigators and co-investigators, comprising the analysis team, prepared thematic summaries of each transcript.

These three types of information—coded output according to major themes; thematic summaries; and full transcripts—were used along with a content analysis framework to identify key concepts in the coded data.

Two separate analysis workshops were convened. During each, the research team analyzed one-half of the interviews applying the content analysis framework. The analysis applied a modified split-half design, borrowing from an approach common to reliability testing in statistical analysis (Furr 2010).

That is, each half of the interviews were analyzed independently of one another and only once each half was analyzed in their entirety were the results of the two halves compared for their agreement in the presence of themes and interpretation of key findings. Since the findings of each separately analyzed half converged, the combined results are presented in this report. Secondly, each member of the analysis team analyzed coded output for multiple themes across all transcripts and multiple complete narratives across all themes and sub-themes. This triangulation and frequent conferring about the results allowed a solid consensus on the interpretation of findings.

2.8. Ethical Considerations

This study received ethical clearance from the institutional review board (IRB) of ICF International and the ethical review committee (ERC) of icddr,b. Informed consent of study informants was obtained twice. First, all respondents to the quantitative BDHS, regardless of eligibility or division of residence, were asked if they would agree to a follow-up interview. At the conclusion of the DHS interview, the following consent statement was read to the respondent and verbal consent obtained:

Thank you for taking the time to answer these questions. I would like to inform you that additional information on family planning and antenatal care for women who gave birth in the past 5 years will be collected in the near future to find better ways to provide health services for women and families. Another member of our team may return in a few weeks to ask you a few additional questions about these topics. Do you agree to allow another member of our team to contact you about participating in a short interview? Your responses will remain confidential.

Only women who agreed to the follow-up interview and were otherwise eligible for the qualitative study were included on the listing from which study clusters were selected. Secondly, women who were approached for in-depth, qualitative interviews were told about the study purpose by investigators and gave their written informed consent. Two women who had initially provided consent during the BDHS interview declined to consent at the time of qualitative field work. Investigators explained to potential informants that they could decline to answer any questions with which they were uncomfortable or halt the interview at any point. Interviewers made every effort to conduct the interview in a private location and were trained in ensuring privacy and data management procedures to maintain confidentiality of the data once data were collected.

2.9. Challenges and Limitations

No data collection effort is without its challenges and this study is no exception. This study encountered two major challenges.

First, severe political unrest in January and February 2015 disrupted fieldwork. *Hartals* (strikes/blockades) brought the risk of violence and threatened the security of the research team. All data collection efforts ceased for 2 months. As the intensity of the unrest eased slightly, we modified field operation and sampling procedures so that data collection could resume while protecting the interviewers. First, we re-selected several study clusters, taking into consideration their proximity to one another. Secondly, we conducted a greater number of interviews in a smaller number of clusters. This allowed the field research team to reduce their number of trips from Dhaka and instead travel directly between study clusters, although it required that they stay in the field for longer stretches at a time. Third, the field research team travelled by train and hired a car at their destination point, rather than traveling by car from Dhaka. These changes minimized the time the field research team spent on highways in and out of Dhaka, where the threat to the team's security was the greatest.

The second challenge was in reaching and securing interviews with eligible women. Though only 2 of 47 women refused to be interviewed outright, six women could not be located or were known to have moved away from the study area. Another eight women were absent or busy during the limited time the field research team could spend in each cluster. This challenge may have been compounded by the 2-month hiatus, lengthening the time between the BDHS interview and the qualitative study interview.

The perspectives of husbands, parents, or the in-laws of young, married women would have enhanced our understanding of the social context influencing early childbearing in this division of Bangladesh. However, we were unable to involve these groups as informants in the study. The reasons are two-fold. First, interviewing the husbands or in-laws would violate the commitment of confidentiality made to the index informants during the informed consent process of the BDHS quantitative survey by de facto disclosing the index informant's participation in the BDHS. Similarly, interviewing both the index informant and a spouse or in-laws linked to her could entail personal risks to the index informant if the linked informants were to become displeased with her participating in a study on such personal and potentially sensitive topics. Secondly, we had no feasible mechanism to identify and draw an unlinked sample of "men who married adolescent women", "parents of women married as adolescents", or "in-laws of daughters-in-law". For instance, the 2014 BDHS does not interview men. Furthermore, the household listing would only identify persons in one of these groups if that information were revealed by their mutual relationship to the head of household and they were co-resident at the time of the survey.

In spite of these challenges, we were, nonetheless, able to achieve our targeted sample size well within the selected clusters and the informants provided us with rich narratives of their lives. Quality informant interviews allowed us to pursue multiple analytical themes.

Thematic areas of investigation presented in the following sections include: how young, married women think about the timing of childbearing at the time of marriage and shortly afterward; the normative environment that shapes their fertility aspirations, including the extent to which young women internalize external expectations about childbearing or to which their individual fertility aspirations are at odds with social norms; with whom in the household and their social network they share and do not share fertility intentions (e.g., whether young women's and their husbands' intentions align but conflict with those of the women's in-laws, or whether young women and their husbands have differing aspirations); and how young women engage "allies" to pursue their fertility aspirations. We also explore spousal communication with regard to childbearing and family planning, attitudes toward family planning and specific contraceptive methods, and perceptions about appropriate role of contraception in spacing either the first birth or second birth. Finally, but perhaps most importantly, we examine women's power status within their households, how they navigate household decision-making processes to try to achieve their reproductive goals, and their knowledge, access, and agency-related barriers to using contraception.

3. Results

3.1. Profile of Study Informants

3.1.1. *Marital and reproductive profile*

Table 1 presents a summary of the socio-economic and demographic profile of the women in this study; Details for each informant can be found in Appendix 1. To be eligible for this study, informants were required to be age 22 or younger at the time of interview and to have married before the age of 18. At the time of the in-depth interview, our 30 informants ranged in age from 15 to 22 years, with a mean of 19.1 years, as seen in Table 1. Their age at marriage was, on average, 15.1 (range 11-18 years). Ten women were married before age 14, 14 at age 15-16, and 6 at age 17-18.

Husbands' current ages ranged from 18 to 40 (mean 27.4), meaning that women were, on average, married to a man 8.3 years their elder. Fourteen women were married to a man who was between 5 to 9 years older than they were. Among the remaining women, about half were married to a man closer to their own age and half were married to a man 10 years or older. The average duration of women's marriages was, at the time of our interview, 4.0 years, with a range of less than one year to 10 years. An equal number of women had been married for less than 3 years, between 3 and 4.9 years, and between 5 and 10 years.

Twenty-two of the 30 informants were living in extended households at the time we interviewed them, though an even greater number began their married lives in this arrangement.

Nearly two-thirds (18) of our sample had experienced one pregnancy; this figure includes three women who were currently pregnant for the first time. Nine women had had two or three pregnancies. Only three women had not yet become pregnant. Two of these three had been married only for a short time—a matter of months—at the time of interview. The distribution of the number of living children is similar to that of pregnancies. Six women were nulliparous, three who had never been pregnant and three who were currently pregnant. Seventeen women had one child, including two women who had had a second pregnancy but experienced a miscarriage, menstrual regulation or termination, or child death. Seven women had two children, including three women who had had a third pregnancy but experienced a miscarriage, menstrual regulation or termination, or child death.

3.1.2. *Socio-economic profile*

The informants generally had class 8 or less education. Two women had no education, while 10 had completed secondary school. None had higher than a secondary education. The educational profile of their husbands was similar, although seven had no education and two had higher than secondary education. In eight couples, the wife had more education than her husband and in another eight couples, the husband had more education. The educational level was the same among four couples.

There is a relatively even distribution of household wealth across the poorest three wealth quintiles. However, there are comparably few informants in the richest wealth quintile (2) and a high concentration in the second to richest quintile (10). The most common occupations among women's husbands were farming (10), working in small businesses (7), or as a van/CNG/rickshaw driver (4). The vast majority of informants reported themselves to be housewives and did not work outside of the home.

Table 1. Profile of study informants: Frequency distribution across background characteristics and means (n=30)

Women's current age (mean)	19 years	Husband's current age (mean)⁶	27.4 years
Education		Husband's education	
no schooling	2	no schooling	7
primary—incomplete	12	primary—incomplete	11
primary—complete	6	primary—complete	2
secondary or higher	10	secondary or higher	10
Wealth quintile¹		Husband's occupation⁷	
lowest	7	electrician	1
second	5	teacher	2
middle	6	farmer	10
fourth	10	day labor	2
highest	2	carpenter	1
Age at marriage (mean)²	14.9 years	business	7
≤14	9	driver	4
15-16	16	jewelry maker	2
17-18	4	butcher	1
Spousal age difference (mean)	8.3 years	imam	1
<5	7	cooperative	1
5-9	14		
≥10	9		
Marital duration (mean)³	4.0 years		
<3 years	10		
3-4.9	10		
5-10	10		
Household type			
extended	22		
nuclear	8		
Number of pregnancies⁴			
0	3		
1	18		
2	6		
3	3		
Number of living children⁵			
0	6		
1	17		
2	7		

¹ Household wealth quintiles are calculated by the 2014 BDHS.

² Includes only age at first marriage for one woman (Informant #16) who had two marriages.

³ Includes only duration of current marriage for one woman (Informant #16) who married twice.

⁴ Includes three women currently pregnant with their first pregnancy.

⁵ Includes two women who had a 2nd pregnancy and three women who experienced a 3rd pregnancy but experienced a child death/termination.

⁶ Husband characteristics refer to current husband for one woman who married twice (Informant #16).

⁷ Includes one person who is a farmer and an imam and one who is a day laborer and a driver.

3.2. Knowledge of Sex, Pregnancy, and Contraception Prior to Marriage

Eleven of the 30 women¹ had no knowledge about contraception or ways to avoid pregnancy before marriage. Moreover, some women had little basic knowledge of sex and the reproductive system. One woman, who lacked such basic body literacy when she married, remarked,

“I didn’t know that baby is born this way! I didn’t know that due the physical relations I would be pregnant.” (Informant #30, age 20, age at marriage 16)

Modesty, shyness, and a norm about what matters are unsuitable for discussion among unmarried girls perpetuate this lack of knowledge. As one informant explained:

“Parents didn’t allow us to talk to married person as we were immature to hear that information on married life. If they [married friends] would tell us about their sexual relationship we, who were unmarried, would be bad.” (Informant #8, age 17, age at marriage 15)

“My sisters-in-law discussed about these issues with neighbors but, as we were not matured enough, they didn’t allow us to hear their discussion. So we could know little.” (Informant #25, age 18, age at marriage 16)

One woman, who was married at age 11, before menses, reported ignorance about the basics of puberty and pregnancy in addition to methods of contraception, an ignorance that extended into the early days of marriage. She explains how family members avoided conversation with her about sensitive topics because of her young age.

“Nobody told me anything about this [sex, conception]. I mean that day [wedding day] or within next couple of days they didn’t say anything as I was not adult then. In fact I was not on that age that they could feel comfortable to discuss about the issue as I was too young.” (Informant #1, age 21, age at marriage 11)

The majority of women (16 of 30), however, did have *some* knowledge of contraception prior to marriage. Frequently, they were familiar with the pill, the most commonly used contraceptive method in Bangladesh. Some women also knew about condoms and, less frequently, a few knew about injections, implants, or copper-T IUD. Unmarried women often gained knowledge of contraceptive methods by observing their mothers or elder sisters-in-law take the pill.

“I knew my mother used pill [Femicon]. I knew about pill... I saw my mother take it... She took that to prevent childbirth.” (Informant #14, age 18, age at marriage 17)

Others learned from seeing television advertisements, discussions with friends and neighbors, or overhearing talk among neighbors or health workers. One well-educated woman, whose family members and a neighbor included several family planning workers, was given a book about family planning methods, but this was an anomaly.

Taboos on talking about contraception limited the informants’ knowledge, even among women who knew something about contraception prior to marriage. These women largely report that their knowledge was insubstantial at the time they married. While they were familiar with the pill and knew

¹ An additional three women did not discuss knowledge of contraception prior to marriage with the interviewer.

it would prevent pregnancy, they often did not know how to use it, where they could get it, or other details that would enable them to effectively use the pill if they so desired.

“I hadn’t any clear idea though I read about it. What was the purpose, how to use, I didn’t understand that. And I didn’t take part in the discussion when women were gossiping about those. I left the place when they talked about bad things... that time I considered those as bad topic of discussion.” (Informant #3, age 21, age at marriage 13)

“I heard about those [injections, implants], but I do not understand whether I should do this or not. I did not find the appropriate person to ask about this...Moreover a neighboring woman inserted something on her body for 5 years [implant]. I do not know what that was. She is elder than me, so I couldn’t ask her.” (Informant #24, age 19, age at marriage 17)

As a result of the imposed silence on matters of sex, fertility, and contraception for unmarried girls, women enter into marriage with inadequate information to plan or to delay a pregnancy, if that is their intention.

3.3. Getting Married

3.3.1. Decision-making and marriage

All but two women entered into arranged marriages. These marriages are either initiated by their husband’s family and accepted by the woman’s family or arranged by both families jointly. Women report having no input into whether they would marry, to whom, or when. The majority of women was unfamiliar with their future husband and did not meet him until after the marriage was planned. As one woman related:

“They [husband’s family] came to our neighbor’s house to see a girl as a bride...[but instead] saw me and chose me. At that time, my uncle who stays abroad was at home. He said that before he went abroad again, he will give me marriage. Then they came to our house and my uncle went to their house and finalized the marriage. It was very chaotic situation.” (Informant #18, age 18, age at marriage 14)

“At the wedding day, I saw him for the first time.” (Informant #14, age 18, age at marriage 17)

“The match-maker was from the same village...My sister’s husband and many other people were also.” (Informant #28, age 16, age at marriage 12)

3.3.2. Attitudes toward marriage

Most young women neither anticipated nor desired getting married at that time, but were resigned to the marriage because they knew they had to defer to their parents’ wishes or that the marriage helped their parents’ situation.

“It was parents’ wish! What could I do if parents wanted?” (Informant #28, age 16, age at marriage 12)

“What could I do? My parents are poor, so they got relief after they gave me marriage.” (Informant #18, age 18, age at marriage 14)

Several women specifically articulate either a social and personal preference for arranged marriage. One woman’s comments on the topic of love marriage reflect strong social mores about both disobeying parents and women’s sexuality.

“No, I wasn’t that kind of girl. I was determined that I would marry according to my parents’ will.” (Informant #19, age 18, age at marriage 14)

She elaborates on the potential negative consequences of love marriage:

“If I married by my own preference, then they [in-laws] will not take my responsibility after marriage. They will not stand beside me.” (Informant #19, age 18, age at marriage 14)

Meanwhile, a second informant says,

“Nowadays, people can do love marriage. At past, no one could think about it. They had to marry according to the preference of their elders. I didn’t see my husband before marriage.” (Informant #15, age 22, age at marriage 12)

Another woman comments on the prevalence of early marriage:

“It is a common practice in our society. Community people believe that early marriage is good. My parents made the mistake that they gave me early marriage... we have a lesson from our elder sister’s life history. She had early marriage and got pregnant after 3 months of her marriage...From my sister’s life I understood the fact that early marriage is bad.” (Informant #8, age 17, age at marriage 15)

3.3.3. Transition into marriage

Marriages frequently occur within just a few days of the match being arranged. Many of the informants’ narratives recount the sense of being plucked from their lives as unmarried girls and being whisked into marriage with little warning.

“My husband came on Eid vacation and went to our house to see me. My marriage happened on that night and he took me to my in-laws’ house on next morning.” (Informant #15, age 22, age at marriage 12)

“Then one of my maternal uncles said to my mother that my marriage will happen that night. My mother bought some chicken from the shop and cooked for them. Then my marriage happened at 12 o’clock that night.” (Informant #28, age 16, age at marriage 12)

“My uncle-in-law fixed our date of marriage and our marriage occurred on the next day after fixing.” (Informant #19, age 18, age at marriage 14)

Nearly all the women in our study lived in an extended household upon marrying. Two exceptions are one woman (Informant #28) without siblings whose mother took her husband as ghor jamai (the couple lived with her mother) and another woman (Informant #1) who married before she experienced menarche; she continued to live at her natal home for another year.

Women move from their natal home into their in-laws' home quickly upon marriage. For most women, this move occurred within 1-3 days after the marriage day. Thus, the majority of women had transitioned from the role of unmarried girl in their natal home to married woman in an extended household in the span of one week. The young women were neither familiar with their husband and his family nor given time to become acclimated to the news of their impending marriage. As a result, most informants describe having been shy and uncomfortable in the unfamiliar surroundings of their new home.

The transition into marriage is not only sudden, but it disrupts the activities unmarried girls engaged in. None of the informants in our study reported working for pay before marriage. All but five, however, were attending school. In all but a few cases, marriage interrupted women's educational aspirations. As one informant describes:

"My brother-in-law said, 'A good proposal came for you. I want to give you marriage here. What is your opinion?' I said him to do what they understand well for me...I wanted to continue education, but parents were poor and they couldn't bear my cost and gave marriage...I think it would be good if I could study more. It was too early to start family life. Now I have children." (Informant #26, age 22, age at marriage 13)

One informant, whose marriage interrupted her education at class 6, describes her emotions when her arranged marriage nearly fell through:

"I wished to dismiss the marriage. In fact, I was happy when the marriage was dismissed...I thought, I can go to school again! It was very joyful to stay with the friends in the school. At the in-laws' house, there is only chores and chores." (Informant #18, age 18, age at marriage 14)

Only a few women (3) were able to continue their education for a short time following marriage. One well educated informant who earned her secondary school certificate (SSC) recounts:

"My brain is not bad; actually, it is good. I was very much interested for study. My parents even didn't say that they [in-laws] are coming on that day to see me. When they told me that [I was to be married], I felt very bad and started crying. I couldn't accept it, I was crying and crying...Then I told them [father] that I will not marry now...I said that I will read. He said that they will support you to read. Then what could I say? I had nothing to say." (Informant #14, age 18, age at marriage 17)

In all three cases, the woman's parents, husband, and in-laws all agreed that it would be desirable for her to continue her schooling and supported her efforts. Two of these women continued to spend considerable stretches of time living in their natal homes, interspersed with visits there by their husbands and visits to their in-laws' household, depending on their school schedule. Although marriage per se did not cause them to discontinue their education, a pregnancy occurring too early in their marriage subsequently forced two of the three women to abandon their education prematurely.

3.3.4. Discussion of fertility intentions before marriage

The swiftness of girls' arranged marriages afford little opportunity for the future spouses to become acquainted or to discuss when they would like to start having children or whether to use contraception. The only couples that had such conversations are among the very few who married a week or longer after their marriages were fixed. One of these outliers, who was married 6 days after her in-laws arranged for her to marry their son, recounts how she and her husband, whom she had not yet met, managed discussion:

"We had our marriage after 6 days. We had phone conversation on those 6 days. He said, 'You need to take medicine [pills]. You have to collect that. Don't forget to bring that.' ...as we don't want to take child...I want to continue to study and I don't want to take child immediately. He also didn't want to take child. We will take 2-3 years later." (Informant #14, age 18, age at marriage 17)

A second informant who married 2 months after the marriage was arranged similarly reports:

"From the beginning he said that we will take child later. Even before marriage when we had phone conversation marriage he told that we will take child later." (Informant #12, age 22, age at marriage 16)

However, these informants' experiences are highly unusual among our sample. There were unusual in that they managed to discuss their childbearing desires before the marriage and in that both husbands agreed with the woman that it would be desirable to delay having a child for some time.

The dominant refrain among all women, whether or not they continued schooling or whether or not they discussed childbearing before marriage, is of marriage being an abrupt transition from a familiar life to an unfamiliar one. Women recount experiencing a certain degree of distress when making this transition. Furthermore, as is shown in the subsequent sections, the lack of control women have over the marriage process carries over into the marriage itself where the majority of women exercise little control over fertility decisions.

3.4. First Sex within Marriage

3.4.1. Timing of first sex

Although girls are thrust quickly into marriage and marriage comes with the expectation of sexual relations, girls do not experience sexual intercourse immediately upon marriage. Rather, there is a short delay, frequently ranging from several days to a week, before the couple first engages in sexual intercourse. The majority Muslim and minority of Hindu informants, alike, commonly reports that it was not permitted to engage in sex on the first day/night of the marriage ceremony, a sacred time (*kaal raat* or *ful sojja raat*²).

There is a range across the sample as to when couples engaged in sexual relations after marriage. The timing was subject to beliefs about inauspicious days and young women's menstrual cycles. A common refrain is that sex should be avoided on certain days of the week following the ceremony to follow religious proscriptions, though which days were to be avoided varied. One informant's description is typical:

² Hindu

“At first night we couldn’t have intercourse. It is called “kaal raat”. Not only Kaal raat, but physical relation is forbidden on Saturday or Tuesday of just after marriage.” (Informant #12, age 22, age at marriage 16)

Secondly, an unexpectedly high number of women report experiencing menses at the time of or soon after marriage. This delayed sexual relations as intercourse during menses is described as unclean and undesirable. One woman, who was married at age 11 before she reached menarche, did not begin having sexual intercourse with her husband until a year into their marriage.

3.4.2. Coercive first sex

Reflecting perhaps both the lack of preparation to enter into marriage and their lack of agency, informants describe themselves as considerably tentative and reluctant during their first sexual encounters. Some young women’s accounts further reveal varying levels of coercion and force. Occasionally, a few husbands engaged family members to aid in convincing a reluctant spouse. The following informants illustrate a range of experiences.

“I was afraid to have sex...Actually my sister-in-law [brother’s wife] told me before my marriage that my husband would have physical relation with me but they didn’t inform about the details of that. So I got afraid.” (Informant #11, age 22, age at marriage 16)

“At the first night, I was crying a lot. We did not do anything. After 3 days,...my sister-in-law [husband’s brother’s wife] told me it’s natural to have sex with husband, they convinced me...My husband told his elder Bhabi, ‘Bhabi, she yet not listen to me’. Then they told me after marriage it’s natural to stay with husband...Then we did it.” (Informant #30, age 20, age at marriage 16)

“First, he tried to come near me. Then I said can’t we do this after some days after my exam? He said no, it is not possible. You are my new wife.” (Informant #22, age 18, age at marriage 16)

3.4.3. Contraceptive use during first sex

Married sisters, sisters-in-law, or other older women frequently supplied young women directly or indirectly via their husbands with oral contraceptive pills on their wedding day. It appears from informants’ accounts that they did so in anticipation of their initiation as sexually active, married women. Husbands could—and occasionally did—prevent their use at first sex. Sisters/sisters-in-law often provided perfunctory, superficial instructions about the pills’ purpose and use, but did so with preparation for sex in mind and without any consideration of the women’s desires for initiating or delaying childbearing. Frequently, pills or information about contraception were provided in the context of teasing brides about becoming sexually active and entering married life.

Frequently, pills or information about contraception were provided in the context of teasing brides about becoming sexually active and entering married life. There is little emphasis evident on educating young women about their bodies and sex or about assisting them to articulate or achieve their fertility intentions.

“I heard it from my sisters-in-law as they always tried to make fun with me after fixing the wedding date. But it was not clear to me. They always pinched me that my husband will touch me and will do something with me then I would have to take pill. I felt shy to

hear those so I didn't ask them anything. They told about pill but I didn't know how it looks like or how to take it. I just heard from them." (Informant #11, age 22, age at marriage 16)

"My sister-in-law came to me on my wedding day and brought Femicon pill for me. She told me that when my husband would come to have sex with me I would take the pill that night." (Informant #8, age 17, age at marriage 15)

"I have a neighbor bhavi (sister-in-law) and she put a pill in my bag [at the wedding day]. She said to eat the medicine." (Informant #14, age 18, age at marriage 17)

Like the informant above who was given a single contraceptive pill, the manner in which this woman, who received pills from her sister-in-law, used contraceptive pills in the first days of her marriage reflects the lack of instruction that accompanied the provision of contraception:

"I didn't know about [pills]...I took first pill on the first day of our sex and after one day we again had sex and I took pill again. That means I took pill on 4th and 6th day of my marriage." (Informant #8, age 17, age at marriage 15)

In several instances, the contraceptive properties of the pill and understanding how to avoid pregnancy were clearly secondary to the purpose of facilitating sexual intercourse, as is demonstrated by this informant:

"After 6 days your husband told you to take pill?"
"He wanted that so that my period would stop...That time I even didn't know whether pill prevent pregnancy or not. Even I didn't know why I need to take pill. I never saw my mother to take pill. And he didn't explain me anything. He just told to eat the pill."
(Informant #28, age 16, age at marriage 12)

Although the norm was to provide pills with little, if any, information at the time of marriage, sisters-in-law, aunts, and others provide more information about how to use contraception, often after the informants had been married for several months. Over time, women's contraceptive knowledge increases. The following informant illustrates the positive influence her sister-in-law had on her knowledge of the pill.

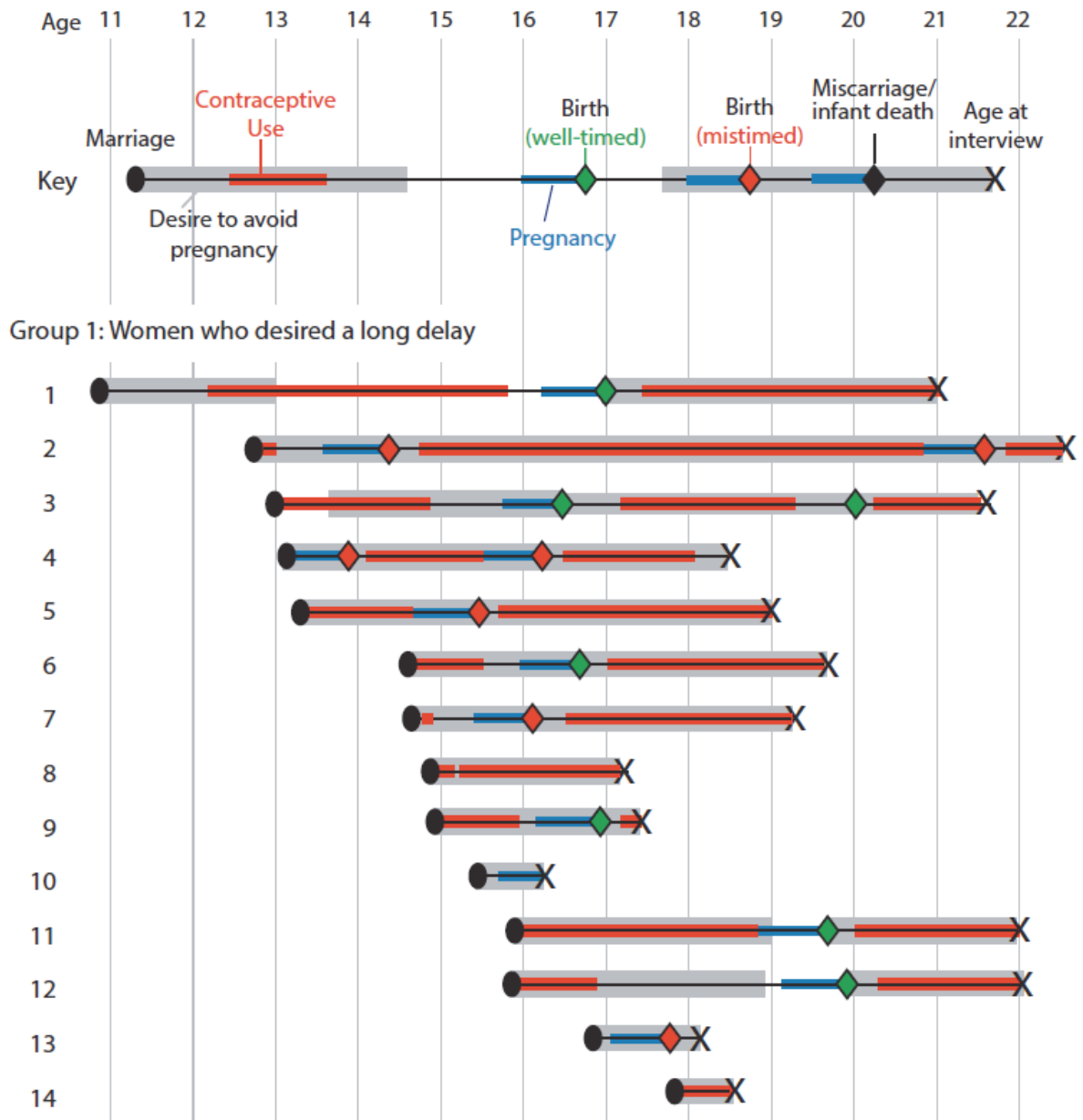
"Then my sister-in-law gave me two government pills, named 'Maya bori' and told me to take it. She also told me to take pill every day; she taught me how to take the pill. From then I could understand. Before that I couldn't...she said that menses will be stopped then." (Informant #28, age 16, age at marriage 12)

In summary, girls do not exhibit any agency in marrying, engaging in sexual intercourse, or using contraception in the early days of marriage. Because first sex frequently occurs before recently married couples discuss their desires about having a child, contraceptive use at first sex is disconnected from broader decision-making about childbearing and using (or not using) contraception to plan their families.

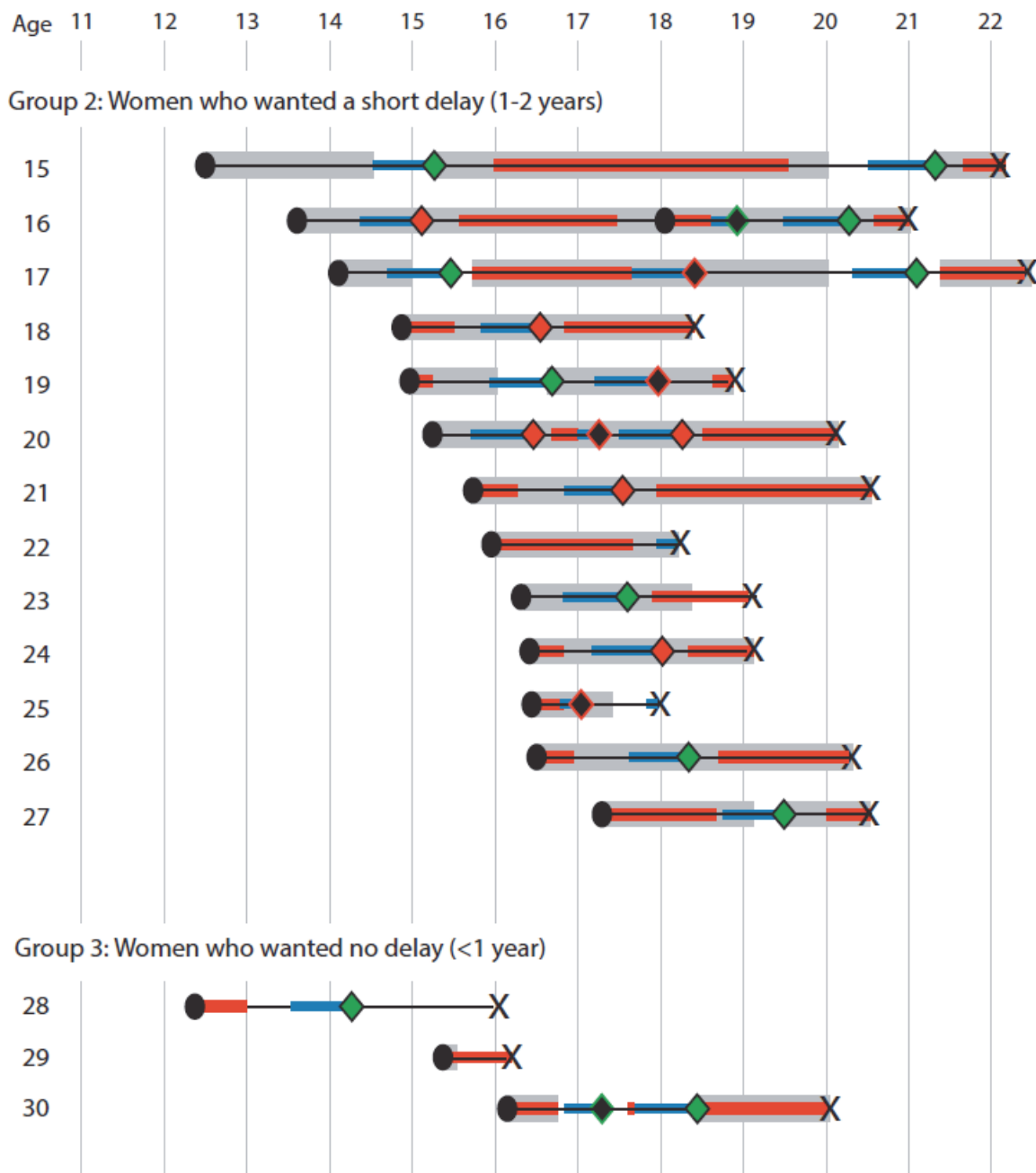
3.5. Fertility Desires at Time of Marriage

Figure 2 presents the reproductive timelines of all 30 women in our sample. This figure serves as a companion guide for the narrative data presented in the following sections. Each timeline begins with

Figure 2. Women's reproductive timelines



a woman's marriage and extends to the time of the in-depth interview, with age indicated along the top axis. Women are grouped according to whether, at the time of marriage, they wanted a long delay (>2 years), a short delay (1-2 years, inclusive), or no delay (<1 year) before experiencing their first pregnancy and, within each group, are listed in ascending order according to their age at marriage. A thick, gray bar shadowing the timeline indicates the portion of women's timelines in which they wanted to avoid a pregnancy; the absence of a bar indicates they would like to become pregnant. A thin, red bar placed on the timeline indicates episodes of contraceptive use. Pregnancies are indicated with a blue bar on the timeline and end in either a red diamond, for births that were mistimed at the time of birth, or a green diamond, for acceptably-timed births. Pregnancies that end in a miscarriage, termination or infant death are indicated by a black diamond. Black diamonds are outlined in red or green depending on whether the pregnancy was mistimed or acceptably timed. A pregnancy concluded by a green diamond symbol can follow a gray bar either if (1) a woman became pregnant at precisely the time she



intended to, or (2) if she initially wanted to postpone pregnancy but at some point preceding the pregnancy she changed her fertility intentions toward wanting a pregnancy sooner.

3.5.1. Young women’s fertility desires

Not surprisingly in this social context, none of the women expressed a desire to remain childless. Nonetheless, upon marriage, the great majority of girls wanted to postpone the first pregnancy. As shown in Table 2 on the following pages and by the grey bars in Figure 2, only three women wanted to become pregnant within the first year of marriage: one right away, one within a month, and the third wanted to wait 6-7 months after marriage before becoming pregnant. Almost an equal number of the

remaining (majority) of women wanted a short delay as wanted a longer delay. Thirteen women wanted to wait 1-2 years before becoming pregnant; 14 women wanted to delay pregnancy for more than 2 years. None wanted to delay more than 5 years.

This finding is striking in that, while most want to delay the first pregnancy for a number of years after marriage, they nonetheless intend to have a pregnancy during their adolescent years. Given the age at which the women married, the time that they wanted to postpone childbearing would put women, on average, at about 17 years of age at the time of their first pregnancy. Only three women would be 20 or 21 years old at the time they wanted their first pregnancy. Ten women would be 15-16 years old and twelve would be 17-18 years old at the time they wanted their first pregnancy.

Most women express their desired wait time as a range, not an exact time. The single most common response reflects a desire to delay pregnancy for 2-3 years. Most informants express the desired timing of pregnancy as a period of time (usually several years) following marriage, while some relate their desired time of pregnancy to achieving a key milestone (sitting for an exam, as one example). One informant offers her rationale for desiring a pregnancy later as follows:

“I want to take child one and a half years later [from the time of interview]. By this time my exam will be completed. Then I will stay one year at my in-laws’ house and by this time my body will develop more. I will be fat and then I will take child.” (Informant #14, age 18, age at marriage 17)

It was exceedingly rare that a woman gave an age—or age range—as a targeted time to become pregnant. It appears that, generally, the benchmark of biological age plays less of a role than the life stage and circumstances of one’s life in forming fertility desires.

3.5.2. Young women’s reasons to delay pregnancy

For the three women who continued their studies after marriage, pursuing their education through their next exams or certificate was their primary motivation to postpone a pregnancy, as illustrated here.

I want to continue my study and I don’t want to take child immediately...We will take 2-3 years later.” (Informant #14, age 17, age at marriage 15)

“My husband asked me, ‘What if we would take a child then?’ Then I said as I had been in my study, it would better to not to conceive...My intention was I would wait 5 years...everyone used to tell me I was very young.” (Informant #5, age 19, age at marriage 13)

The other women offer a range of reasons for postponing a pregnancy. Prominent among them are concerns about their physical health and development and effects on child health. Most of the young women in our study believe they were not yet fully physically matured and hold notions of when the body would be physically fit for pregnancy or childbearing. This informant explains.

“Both of us want to take baby after 2 years. After 2 years my body will be fit... Now 2 years passed...Now I am 18 years. For that reason I have taken baby.” (Informant #22, age 18, age at marriage 16, currently pregnant)

One woman specifically worried about having a difficult delivery at such a young age.

“I was young that’s why I didn’t want to take child, I thought I couldn’t bear the child. But my husband wanted to take any time.” (Informant #26, age 22, age at marriage 13)

Several informants clearly relate the physical problems of early childbearing to the social phenomenon of early marriage:

“They gave me marriage before 18 years. And before 18 marriage is child marriage, before 18 one cannot take child...Mother’s health and child health will be malnourished” (Informant #14, age 18, age at marriage 17)

“If I got pregnant from the very beginning of my early marriage, I will lose my physical fitness and I will be sick then...In that time I should take care of myself but as I would have a baby then and I would not be able to manage time for myself...This will affect the baby and it would not get proper care and love for me.” (Informant #8, age 17, age at marriage 15)

Another common motivation, albeit a little less frequently articulated, derives from the cumulatively shifting roles that come with marriage and parenthood. Women are concerned about taking on the responsibility of childcare and role of parenthood while still familiarizing themselves with the new, marital household. The concerns are about both social acclimation and practical aspects of childcare, as reflected below.

“I had the desire to settle in my in-law’s house, come to understand the family environment of them. Then I would take child.” (Informant #19, age 18, age at marriage 14)

“He [husband] sometimes asked me to take baby after 2 years of our marriage...But I was not prepared for that as I had no fascination on baby. I told him that I will take baby while my time would be to take it.” (Informant #11, age 22, age at marriage 16)

“No, I disagreed [with husband about having a baby right away] as I was worried about how could I take care of the child. I was so young to feed, bathe, or take all the care of a baby.” (Informant #18, age 18, age at marriage 14)

Several women also wanted to get to know their husband before becoming a parent. One woman reports that her husband agreed that they should first spend time enjoying each other’s company and, in particular, fulfilling their sexual desire before taking on the added responsibilities of parenthood.

A few informants raise concerns about instigating rumors or developing a bad reputation if they were to become pregnant quickly upon marriage:

“People will say cutting remarks if someone becomes pregnant within 2-3 months of marriage.” (Informant #30, age 20, age at marriage 16)

“My mother-in-law said to take child. Father-in-law also said; but we planned to take child 1-2 years later. As we were just newly married, it will be not comfortable to go here and there with child [pregnant] and also think of what people would say if we take child so early?” (Informant #27, age 20, age at marriage 17)

Finally, several women suggest that it would appear inappropriate to have a child before other members of their extended family who were older or who had been married longer than they were, as these two women describe.

“My husband said that my elder brother has no baby. How could I take baby? How would you be pregnant and how you would go in front of them with your pregnancy?”
(Informant #8, age 17, age at marriage 15)

“Besides, I also explained to him [husband], till then my elder brother-in law-had not taken any child. So as we are younger to them, it would not look good. Then he agreed.”
(Informant #5, age 19, age at marriage 13)

3.5.3. Women’s reasons to not delay pregnancy

Only three women wanted no delay after marriage before becoming pregnant. There are too few cases to draw conclusions about this group as a whole. One woman could not continue taking pills due to the side effects she experienced (Informant #28) but gave no reason for wanting a child right away. She did not articulate her own childbearing desires separately from those of her husband. Rather, she simply accepted her pregnancy when it occurred. A second woman (Informant #30) similarly offered no opinions for why she wanted to become pregnant 6-7 months after marriage. She miscarried her first pregnancy and viewed the idea of becoming pregnant again quickly as an opportunity to allay concerns she feared her in-law family might have about her fertility, since she also had an older married sister who had had problems conceiving since her marriage 4-5 years earlier. The third woman (Informant #29) had a very tumultuous and traumatic entry into marriage and saw becoming pregnant as a way to secure her position in her new home. She was raped prior to marriage and compelled to marry her rapist as a way to resolve the incident, a solution which displeased her in-law family. With a child, she hoped it would be more difficult for elder family members to try to split up the couple or for her husband to abandon her. She explains,

“There are many men who become good after having child. They thought that I do not have any land property and living house, I have to earn this for my son, I have to do this for the future of my son.” (Informant #28, age 16, age at marriage 12)

Several other women who wanted a short delay (1-2 years) before becoming pregnant also mentioned having a child as a way to solidify their position in a new family, or to compel better behavior from their husband or a more hospitable attitude from the in-law family. This is the case for one woman whose husband provided little emotional and financial support.

“Suppose my parents take me away and give me marry again. Do anyone give me assurance that I will not be ill-treated by my new in-laws’ family? Hence I took child so that it would be hard for my husband to leave me.” (Informant #19, age 18, age at marriage 14)

In summary, women’s interests in the timing of their first child are about achieving life goals, such as education, position in their home, becoming established in their new home, and concerns about their health and physical maturity to bear a child.

3.5.4. Concordance with husbands’ fertility desires

Table 2 also shows, for each woman in our study, her fertility desires, concordance of those desires with those of her husband and with those of other family members, and the resulting timing of the first

pregnancy. As this table shows, one-third of our sample had fertility desires that were exactly concordant with those of their husbands, including two of the women who wanted no or a very short delay (<1 year) before becoming pregnant. Another six couples had overlapping fertility desires with, for example, one person wanting a pregnancy in 1-2 years and the other in 2-3 years, or one person wanting 2.5 years and the other 2-3 years. There was no difference in which party wanted to wait longer (3 each). This finding means that just over half our sample had the same or similar fertility desires as their husbands.

Table 2. Fertility desires, concordance of desires, and resulting timing of first pregnancy

ID	Age at marriage	Wife's desire for timing of 1st pregnancy	Wife/husband concordance	Family concordance	1st Pregnancy mistimed
1	11	>2 years	concordant	concordant	no
2	13	2-3 years	husband wanted sooner	concordant	yes
3	14	3 years	concordant	natal family concordant in-law family wanted sooner	no
4	13	2-3 years	husband wanted sooner	concordant	yes
5	15	5 years	concordant	in-law family wanted sooner	yes
6	14	2-3 years	loosely concordant	in-law family wanted sooner	no
7	15	2-3 years	concordant	in-law family wanted sooner	no
8	15	3-4 years	concordant	concordant	--
9	15	2-3 years	loosely concordant	in-law family wanted sooner	no
10	15	2-3 years	husband wanted sooner	concordant	yes
11	17	3 years	husband wanted sooner	natal family concordant in-law family wanted sooner	no
12	16	3 years	loosely concordant	natal family concordant in-law family wanted sooner	no
13	18	4-5 years	husband wanted sooner	natal family concordant in-law family wanted sooner	yes
14	17	2-3 years	loosely concordant	concordant	--
15	12	2 years	husband wanted sooner	in-law family wanted sooner	no
16	15.5	1.5 years	husband wanted sooner	no opinion	yes
17	13	1 year	husband wanted sooner	concordant	no
18	14	2 years	husband wanted sooner	natal family concordant in-law family wanted sooner	yes
19	14	1 year	loosely concordant	in-law family wanted sooner	no
20	15.5	1-2 years	husband wanted sooner	in-law family of mixed opinion	yes
21	15	1 year	loosely concordant	in-law family wanted sooner	yes
22	16	2 years	concordant	in-law family wanted sooner	no
23	16	2 years	husband wanted sooner	in-law family wanted sooner	no
24	17	2 years	husband wanted sooner	in-law family wanted sooner	yes
25	18	1-2 years	concordant	in-law family wanted sooner	no
26	16	1.5-2 years	husband wanted sooner	in-law family wanted sooner	no
27	17	1.5-2 years	concordant	in-law family wanted sooner	no
28	12	no delay	concordant	no opinion	yes
29	14.5	1 month	wife wanted sooner	no opinion	--
30	16	6-7 months	concordant	in-law family wanted sooner	no

Fourteen women, however, were at odds with their husbands about when to get pregnant. In thirteen of the fourteen couples, women wanted to postpone a first pregnancy longer than their husbands did. In ten of these cases, the husband was not interested in delaying childbearing at all and an eleventh husband wanted a delay of just 3 months. For the couple (Informant #13) with the largest discrepancy, the woman wanted to wait 4-5 years before becoming pregnant, but the husband wanted a child right away. In three other couples, the wife wanted a 2-3 year delay and the husband, no delay. Thus, for many couples, there is a sizable gap in the desired timing of childbearing.

Only one woman wanted a pregnancy sooner than her husband. This is the woman (Informant #29) who was forced to marry her rapist.

Among the 14 women wanting to delay pregnancy more than 2 years, nine women were in concordance with their husbands and five were not. Couple discordance was more common among women wanting to delay pregnancy 1-2 years. Only five women in this group agreed with their husbands, while but nine did not.

3.5.5. Husbands' reasons to delay pregnancy

Among the 14 couples who agreed it was desirable to delay the first pregnancy, the woman sometimes reports her husband having a different rationale than her own. However, as a group, husbands hold a similar set of reasons for postponing childbearing as did women. For example, women report that husbands are also concerned about the health effects of early childbearing for young women and children. This perspective is less prevalent among husbands than among women, but present nonetheless, as explained here.

"He said...we will take baby after 3-4 years as I am not fit enough for a baby."
(Informant #8, age 17, age at marriage 15)

"He said that if we take child immediately the child will be malnourished...He said to me to take child after 3 years, not before that." (Informant #12, age 22, age at marriage 16)

Several women report a new reason for postponement among husbands that was not as present among their own concerns: economic considerations. As one woman details,

"Our economic condition is not that sound. My father-in-law has limited land. He [husband] has a small jewelry shop...That's why he was interested to earn more before take child. He said, 'We have to bring up child, more over we have to support the family, so it will be good to spend time on earning before taking child'." (Informant #12, age 22, age at marriage 16)

3.5.6. Husbands' reasons not to delay pregnancy

As wanting a pregnancy soon after marriage is more common among husbands than among young women,³ women report that husbands emphasize reasons for not delaying a pregnancy over reasons for delaying a pregnancy. According to their wives, some husbands who wanted a pregnancy early extolled the benefits for childcare of having a child while grandparents were living or before an extended household separated.

"He said, "It will be good to take child now, as we all live together. Taking care of the child will not be a problem, rather it will be a problem if the family separates. Everybody will take care of the child." (Informant #18, age 18, age at marriage 14)

Other husbands made it clear, women say, that having a child was their motivation for getting married and so becoming pregnant soon after marriage was expected. No women mentioned this motivation for marriage. This is consistent with women's lack of control over the decision to get married: women did not accept a marriage proposal because they wanted a child soon.

³ This includes 13 husbands who wanted a pregnancy sooner after marriage than did their wives and two couples who agreed it was desirable to have a child right away.

Finally, women report that husbands also expressed a concern with their wives' health as a reason for not delaying a pregnancy. Husbands suggested that becoming pregnant soon after marriage was a practical alternative to using contraception, which may have harmful health effects. This finding is elaborated in a later section on contraception.

3.5.7. *Decision-making and couple discordant desires*

When a couple's fertility desires were discordant, as was the case for 14 women, women face substantial challenges to pursuing their reproductive intentions to postpone a pregnancy. A number of women with discordant goals note the futility of articulating an independent opinion when her husband wants a child soon. Such a desire is bound to go unfulfilled.

"I never said anything. I said to him, as your wish. As he is the male person I have to follow his word. I said to him what you want to do, you do." (Informant #1, age 21, age at marriage 11)

*"He said that it will be good if we take child after 6-7 month. Then we took child."
"That was your husband's opinion, what did you want?"
"What will be my opinion? If he wants then I have to take it."* (Informant #30, age 20, age at marriage 16)

One woman who did have concordant desires to delay for more than 2 years remarks on this fortuitous happenstance upon which her opportunity to pursue her desires hinged.

"He could say that he wants to take a child. If he said like that, then my desire will not be fulfilled. So it was a positive side that he had the same desire and he also agreed to take child later." (Informant #14, age 18, age at marriage 17)

Other women make it clear that she would have to defer to her husband when their desires disagreed, as this informant describes.

*"So you didn't want to take child, but your husband wanted?"
"Yes, later on I also became convinced, as he wanted the child most."* (Informant #18, age 18, age at marriage 14)

Women also demonstrate this deference to their husbands even if she has other members in her family network who support her desires to delay a pregnancy, as described by these informants.

"He told me to take the child; I said that I will not take so early. My natal family also forbade taking a child...But he said to take the child." (Informant #18, age 18, age at marriage 14)

"My mother-in-law forbade us to take a child so early. My mother also didn't agree that I would take child immediately. I had to take child only because of him. I took child as he wanted." (Informant #10, age 16, age at marriage 15)

On the other hand, if he agrees with his wife on the timing of pregnancy, the husband can be a powerful ally against family pressures, as this woman who faced pressures from her sisters-in-law found.

"I think that if my husband and mother-in-law don't want baby now, so I also need not to have desire for a baby." (Informant #8, age 17, age at marriage 15)

In summary, the husband's desires exert strong influence over women's ability to achieve her reproductive intentions. When husbands want to delay pregnancy, women believe they are able to delay per their wish, even if they face pressure from other sources to become pregnant quickly. When husbands do not want to postpone pregnancy, those intentions override her own.

3.5.8. Family and community attitudes toward fertility

Women were much more likely to disagree with their in-law family than with their husbands about the timing of the first pregnancy. As seen in Table 2, 20 women report discordant desires with their in-law family, while seven women report that their in-law family supported their desire to delay the pregnancy. (Three women reported that their in-laws expressed no opinion.⁴) As with husband-wife discordance, the in-law family most often wanted the young woman to become pregnant sooner than she wanted to. This includes one case (Informant #30) where the woman wanted to become pregnant just 6-7 months after marriage.

Women who wanted to delay pregnancy for 1-2 years following marriage most frequently experienced disagreement with their in-law family: 11 women in this group had in-laws who wanted the woman to become pregnant sooner. Just one woman in this group (Informant #17) had in-laws who agreed with her desire to delay pregnancy for one year. This division was more balanced among the women who wanted to delay the first pregnancy for more than 2 years: six women had in-laws who agreed with their desired timing while eight had in-laws who wanted the pregnancy sooner. This finding perhaps confounds expectations that there would be more discordance with in-laws among the group of women who wants to postpone pregnancy the longest.

Only four women had both a husband and in-law family who agreed with her desired pregnancy timing (including one woman, Informant #28, who wanted to become pregnant right away). In the cases of eight women (two wanting to postpone pregnancy more than 2 years; six who wanted to wait 1-2 years), both their in-laws and their husbands wanted the woman to become pregnant before she did. In six cases, the woman's husband held discordant desires but her in-law family agreed with her desires. In 12 cases, husbands agreed with the women's wishes but in-laws did not.

In most instances, the natal family's opinion agreed with the in-laws or they expressed no opinion. In five cases, the natal family agreed with the woman's desired timing while the in-law family wanted her to become pregnant sooner than she wanted.

Women seldom report attitudes from neighbors and community members. Where they do, neighbors generally expressed a preference for earlier childbearing. Community attitudes are frequently invoked either by the woman to reinforce arguments in support of her desired timing or by the husband or family member in support of their perspective. They are seldom described as having a separate and independent effect on women's attitudes or behavior.

3.5.9. Family and community reasons to delay pregnancy

When in-law and natal family members preferred that a young woman postpone a first pregnancy, it was universally in situations when the woman, herself, wanted to postpone the pregnancy. The rationales family members offer mimic women's own reasons for delaying pregnancy. One of the few women who continued her education for a time after marriage described her studies as a source of pride among her elder brothers-in-law:

⁴ This includes one couple who lived with her mother (*ghor jamai*) and one woman whose in-laws died within months of her marriage.

“I was studying. I got A+ in class eight. My brothers-in-law were very happy with that. They used to say I would shine the family’s name as a youngest wife. The suggested me not to take child. They wanted me to become SSC pass [secondary school certificate]. I also wanted that.” (Informant #5, age 19, age at marriage 13)

Protecting women’s health and the baby’s health is the most common reason families favored postponing pregnancy. Women report that this concern was more common among their natal families than their in-law families. In-law families more frequently were concerned with protecting the woman’s potential fertility. The following two quotes illustrate the differences between natal and in-law families:

“My mother also told [mother-in-law] to advise me not to take child immediately as I was young. In our caste, older women suggest to take child when a married woman has perfect figure to carry child. Otherwise children may have problem.” (Informant #26, age 22, age at marriage 13)

“My mother and parental relatives told me...that if I get pregnant at that age, it would be harmful to me and so they suggested to take time in getting pregnant. On the other hand, my marital relatives...told me that if I take time in taking baby it might happen that I would not be pregnant in future.” (Informant #11, age 22, age at marriage 16)

Issues of settling into the new household and childcare are expressed with less frequency, though present nonetheless, as these informants describe.

“They [in-law family] told that you are not a matured girl since you can’t take care of yourself. How would you take care of a baby?” (Informant #8, age 17, age at marriage 15)

“My sister forbade taking child. She said, you just got married, both of you should enjoy your time.” (Informant #18, age 18, age at marriage 14)

3.5.10. Family and community reasons not to delay pregnancy

As described above, one particular concern in-law families (and, to a lesser extent, community members) express is with the young woman’s childbearing capacity. This interest in young women’s fertility took a particular expression that is perhaps surprising. In contrast to much of the narrative around early childbearing in Bangladesh and South Asia generally, there was no emphasis on having young girls prove their fertility as an essential part of becoming a woman or gaining status within the family. To the extent those sentiments exist, they were not expressed as such. Rather, elder family members’ concern with girls’ fertility assumed that girls themselves were interested in having a child at some point and was expressed—perhaps with paternalistic overtones—as a concern for preserving their reproductive capacity, at a time when it was seen particularly vulnerable. As this woman explains,

“My aunt in law also expressed her anxiety that if I make delay, there is a possibility to not to have baby in future.” (Informant #8, age 17, age at marriage 15)

While this sentiment was certainly common, it did not apply equally to all women. It was often prompted by an adverse health event. For example, one woman reports that her in-laws advised her to try to become pregnant only after she experienced a miscarriage. A widespread belief among in-laws and women in the community is that long-term pill use or side effects during contraceptive use could impair fertility. Informants report these fears influenced their thinking about contraception.

“Everyone used to tell that it [pills] harms placenta. Placenta will be dried by using it.” (Informant #19, age 18, age at marriage 14)

“We hear people say if women delay to take baby and use pill longer, they do not become pregnant. In village many women do not conceive.” (Informant #22, age 18, age at marriage 16)

Another, albeit less common, rationale for hastening a first pregnancy is to improve a husband’s or in-laws’ behavior and attachment to the young woman, as these two informants explain.

“My aunt-in-law said to me to take child urgently because of having bad manner of my in-law family members towards me...I thought that a child can change their manner.” (Informant #19, age 18, age at marriage 14)

“My husband lived at Dhaka. Hence my brother-in-law also advised me to take a child to get remedy from loneliness and also to keep husband in touch always...so that my husband starts to live at home.” (Informant #15, age 22, age at marriage 12)

3.5.11. Decision-making and family discordant desires

Informants’ accounts reveal that the power of in-law families and community attitudes to influence their fertility desires and behavior to be mixed. For a number of women, the in-law family’s opinions and instructions clearly hold sway over women’s fertility desires. This influence is exhibited more frequently when the woman’s husband also does not want to postpone pregnancy. One reason women are influenced by their family members and neighbors is because of their youth and inexperience, as these two women describe.

“When all the family members said the same, I thought I have to take child soon.” (Informant #30, age 20, age at marriage 16)

“I took child as everybody [in-law family and neighbors] suggested taking child soon...That time I was young, that’s why I followed whatever they said. Now I am matured.” (Informant #21, age 20, age at marriage 15)

In contrast, some women could resist when in-laws suggested an early pregnancy and hold to their own desires, as this informant explains.

“They [in-law family] told me that I should take contraceptives only after having a baby... But I didn’t listen to them... I told all of them I had no plan for that and I will take time.” (Informant #11, age 22, age at marriage 16)

Our data indicate that a woman is more frequently able to pursue her own desire to delay the first pregnancy when a woman and her in-law family disagrees, compared to when she and her husband disagrees. This resistance in the face of discordance with family members is easier when the husband and woman’s desires align. However, a minority of women note how this is not easily accomplished.

“I was not afraid of not listening of my husband, because he is my husband. But if you are living with other people, you need to listen to them. I am very afraid their talks.” (Informant #7, age 19, age at marriage 14)

“People said it is not wise to take child so early age, but I have to stay there. And if I were to take child, they wouldn’t behave badly with me.” (Informant #29, age 15, age at marriage 14)

3.6. Changing Fertility Intentions

Approximately half of the 27 women who originally wanted to delay the first pregnancy changed their minds over time and decided to get pregnancy sooner. This is perhaps not so surprising given the high proportion of women living with at least one other person—either husband or in-laws—who held contrary views on her fertility. The reasons women give for changing their minds are similar to those given by women who initially did not want to delay a pregnancy for long. These reasons include: strengthening her position in the household; improving relationships with family members, trying to convince her husband to be more responsible and committed to the family; growing concerns about fertility or side effects of pill use; and relenting in the face of ongoing pressure. One woman describes the increasing pressure she experienced as time passed.

“After one year, everyone started to ask me whether I use any family planning method...My sisters-in-law told me that ‘if you haven’t used anything then why didn’t you get pregnant yet?...’ My mother-in-law didn’t say anything to me but when they saw 2 years passed of my marriage they again started to tell me to take child.” (Informant #15, age 22, age at marriage 12)

Similarly, concerns with the possible effects of contraceptive pill use on fertility do not always emerge at the moment when women are first deciding whether to use pills. They frequently intensify as pill use continues over time or are triggered when women experience side effects.

“Pill didn’t suit me. I had vertigo...Then she [mother-in-law] said take a baby.” (Informant #22, age 18, age at marriage 16)

Other women change their fertility desires in response to changing living situations. The timing they desired when first married is no longer suitable as the circumstances of their lives unfolded. This type of change in desired timing is equally likely to occur of women’s own initiative and at the behest of another person.

“Later on he changed his decision...He said, ‘look all of them [neighbors] took child...Let’s take a child.” (Informant #12, age 22, age at marriage 16)

“I need the child. I didn’t get love from him; initially I thought I will take child 6 months or one year later. But as he started bad behave I took the child immediately.” (Informant #26, age 20, age at marriage 16)

3.7. Experiences with Contraception between Marriage and the First Pregnancy

More than two-thirds of our sample—23 women—used contraception at some point before their first pregnancy, as shown in Figure 2. This includes two of the three women who have not yet had a pregnancy and all three who are currently pregnant. All three women who continued their education after marriage were also able to use contraception for some time. Surprisingly, all three women who wanted to become pregnant soon after marriage also used contraception for at least several months.

The widespread use of contraception stands in contrast with the broad discordance women experienced with their husbands or in-law family and concerns they have with side effects and fertility impacts of

contraception. However, seven women did not use contraception before their first pregnancy; for six of these women, their husbands wanted the pregnancy sooner and for the sixth, her in-laws wanted the pregnancy sooner than she wanted.

3.7.1. *Methods used*

The contraceptive pill is by far the most commonly used method before the first pregnancy and among never-pregnant women, adopted by 19 women. Three women used a combination of withdrawal and periodic abstinence and two used condoms.

Given the limited nature of discussion occurring at the time of first marital sex and the spouses' lack of familiarity with one another, it is no surprise that the contraceptive behavior in the early days of marriage differs from that later on. Most women used some method of contraception during first sexual intercourse. Some informants who did not use anything at the first sexual encounter adopted a method soon after. Conversely, several of those who did use contraception only during this first encounter or for a few days before stopping when they learned of opposition to its use, as this woman describes.

“I had one pill that night [first sexual intercourse]. But further he did not allow me to take any pill...my husband did not let me take it after that saying that we need to have a child first.” (Informant #23, age 19, age at marriage 16, non-user)

Others shifted methods as they made decisions—or experienced coercion—about their fertility goals. Frequently, condoms or withdrawal were used as a short-term method as women transitioned to another method for an ongoing sexual relationship.

“He said that he has some friends at the bazaar, one of them said, ‘you got married, you can use condom and ask your wife to explore pills which one is appropriate for her.’ Then he used condom first...After marriage he told me to take pill so that he needs not to use anything...Later on we alternately use methods, one month I took pill and another month he used condom.” (Informant #12, age 22, age at marriage 16, pill and condom user)

However, other couples settled on condoms as the method of choice. The following woman recounts how her husband gladly used condoms when pills posed problems for her.

“Many men don’t like to use condom and order wife to take pill...But my husband told me, my wife is a little girl and I don’t want to make any problem to her. I will use condom. It may happen that I can’t enjoy the relation fully but I am not unhappy with that since my wife is mine and she is not leaving me.” (Informant #8, age 17, age at marriage 15, condom user)

3.7.2. *Method choice and desirable attributes*

Since it is the dominant method in Bangladesh's method mix, the majority of women know someone who is currently or had recently used the pill. Women prefer the pill because of the faith they place in the protection it affords.

“I always preferred to take pill as it is the most secure method. Pill is safe and sound. Pill avoids pregnancy.” (Informant #12, age 22, age at marriage 16, Femicon user)

However, women acknowledge that among the various pills on the market, each person needs to find the one suitable for her. Additionally, while pills are viewed as being unsuitable for extended use, some formulations are believed to be poorly suited for young, nulliparous women at all.

“I: Why you avoid taking Femicon?”

R: I heard that only after having a child should Femicon be taken. As I was newly married I shouldn't take it, as I hadn't any child. There is chance of infertility if I take Femicon before have the first pregnancy.” (Informant #14, age 18, age at marriage 17, Ovastat user)

“I don't take government pill [Shuki] as I was not sure whether it would suit with me or not from the beginning. I heard from neighbors that they couldn't take government pill due to side effects. That's why I even didn't try that.” (Informant #12, age 22, age at marriage 16, Femicon user)

Women are generally accepting of condoms, but see them as less reliable than pills and worry about their disposal.

“I have no problem to take pill. But there is a possibility of getting pregnant if the condom leaked. So I prefer pill.” (Informant #14, age 18, age at marriage 17, pill user, occasional condom user)

“Condom is kind of a problem...problem means, in the village everything is so open, so it is a problem to drop the used thing.” (Informant #12, age 22, age at marriage 16, Femicon user)

“I felt ashamed to drop off the used condom...otherwise there was no problem at house, nobody will find it if I put it in to the drawer or under the mattress.” (Informant #18, age 18, age at marriage 14, pill user)

In general, pills and condoms are viewed as suitable methods for young, nulliparous women. Withdrawal and periodic abstinence are acceptable substitutes when these other options are not feasible. However, injections and long-acting reversible contraceptive methods like implants and IUDs are less favorably viewed for this population. Fear of side effects was a consistently expressed concern.

“I heard that woman has to have minor operation in their hand to insert the capsule [implant]. I also heard that this method is harmful to woman... I heard that it may cause cancer.” (Informant #11, age 22, age at marriage 16, Femicon user)

“Maybe, I could feel dizzy by using injection that's why I never thought about injection.” (Informant #15, age 22, age at marriage 12, non-user)

3.7.3. Discussion and contraceptive decision-making

The data from our informants clearly show that husbands are deeply involved in deciding whether and what method of contraception to use. In some cases, couples rely on information about specific methods from elder women to make this decision. Sometimes, both husbands and wives work together to determine the most suitable course of action, while other women defer to their husbands, as they do with the timing of pregnancy.

“My sisters-in-law informed me that I should take pill and if we don’t have that we should use condom...Then I told it to my husband and he bought the condom.” (Informant #11, age 22, age at marriage 16, pill user)

“Then I gave up using the injections thinking that since he is wanting a baby, I should be taking too. What’s the point of going against him while I will have to carry out this family?” (Informant #16, age 21, age at marriage 13, injection user)

When husbands and wives agree on postponing a pregnancy, husbands can be supportive partners in effective contraceptive use, as these women’s examples describe.

“He is very much cautious about it. Even if I sleep before he sleeps, he awakes me and asks me whether I have taken the pill. If I don’t, then he helps me to take that.” (Informant #5, age 19, age at marriage 13, pill user)

“From the beginning he said that we will take child later...He is very careful, he is careful more than me.” (Informant #12, age 22, age at marriage 16, pill and condom user)

In contrast to incidents of agreement, men who want a child earlier than their wives easily have the authority to prevent contraceptive use in pursuit of her desired timing, as one woman explains.

“My husband wanted to have children... He said first we will have a child and so he did not allow taking any pills.” (Informant #23, age 19, age at marriage 16, non-user)

3.7.4. Side effects

Out of concern for young women’s health, husbands and sometimes in-laws rule out certain methods for fear of side effects. This is particularly the case when long-acting reversible methods are under consideration.

“They [natal family] asked me to take pill, but my husband didn’t allow me to take pill. He said that pill may cause cancer, it is not good to take pill.” (Informant #15, age 22, age at marriage 12, non-user)

“My husband said that you need not to take implant or injection since those have side effects, from which my sister-in-law is suffering. He told me that what we are using [condoms], that is right.” (Informant #8, age 17, age at marriage 15, condom and withdrawal user)

This concern for protecting women’s health and fertility sometimes takes a paternalistic tone, as women are often not the ones driving the decision about whether to adopt or discontinue a given method. Other family members make this decision on her behalf.

“Did you ever discuss with your husband about the method for 5 years [implant]?”
R: Yes. He said, ‘you can do what you want’ but my family members forbade taking that.” (Informant #28, age 16, age at marriage 12, pill user)

“I heard, if you take injection next 3 months you need not to take anything...My husband forbade taking those...As he is the head of the family, I have to obey him.”
(Informant #30, age 20, age at marriage 16, pill user)

Fears of side effects are not unfounded. Women frequently experience side effects, which sometimes interfere with their ability to accomplish their daily work. In total, nearly one half (11) of the women using contraception before their first pregnancy experienced side effects. Of those experiencing side effects, six women discontinued using contraception altogether and five switched to condoms, withdrawal, or periodic abstinence.

When the husband and wife agree on the timing of pregnancy, women are often able to parlay their husband’s concern into support to minimize the side effects or to seek a new, better suiting method. Again, the expertise of women in their social network who have more experience with contraception is a valuable resource.

“Initially I had head spinning and vomiting tendency. Then I told it to my grandmother... she said that initially these will happen and gradually it will be ok. So I continued to taking pill and now it is ok for me.” (Informant #14, age 18, age at marriage 17, Ovastat user)

“They discussed about me with that woman. They informed her about my sickness due to having pill. So they preferred condom for us and that woman provided that method and still we are using that... He [husband] said that ‘I should take this method to keep [his] wife healthy’.” (Informant #8, age 17, age at marriage 15, condom and withdrawal user)

An interesting facet of the last example is how absent the woman, herself, is from discussion about a matter that impacts her life; others make the decision for her.

The experience of side effects is a common reason for stopping contraception or changing methods. However, only a few methods are perceived to be suitable for nulliparous women, limiting women’s options if they experience side effects and need to switch. Often, women are advised to cease contracepting altogether. Other women switch to a less effective method. One woman, for example, switched from using the pill to condoms, and then from condoms to withdrawal. This pattern leaves motivated women at risk of unintended pregnancy.

3.8. Experience with the First Pregnancy

3.8.1. Timing of the first pregnancy

While Figure 2 presents the details of each woman’s contraceptive use and pregnancy timing, a summary of these data across all women is found in Table 3. Of the 30 women in our sample, 27 had experienced a first pregnancy (including three who were currently pregnant). Eighteen women became pregnant within one year of marriage;⁵ another five women became pregnant within 2 years of marriage. Only four women experienced their first pregnancy after 2 years of marriage or more.

Sixteen women report that their first pregnancy was appropriately timed,⁶ while 11 report that it was mistimed. An additional seven women became pregnant sooner than they had wanted to at the time they

⁵ This figure refers to pregnancies in the current marriage.

⁶ This figure refers to pregnancies in the current marriage.

married; however, these pregnancies were not mistimed at the moment that they experienced them because their fertility desires had changed. One woman, who initially wanted to wait longer than 2 years before becoming pregnant, experienced her first pregnancy after more than 5 years of marriage, later than she had wanted.

Table 3. Summary of women’s contraceptive use and pregnancy timing

Contraceptive use ¹	Mistimed	Appropriately Timed	Not yet pregnant	Total
yes	5	5	2	12
no	6	11	1	18
Total	11	16	3	30

¹ Contraceptive use at the time of pregnancy, or at time of interview for those who have not experienced a pregnancy

Seventeen women were not using contraception at time they became pregnant, including six women who experienced mistimed (too early) pregnancies. Six had previously used contraception but stopped because they wanted a pregnancy. Nine women had previously used contraception but discontinued while still in need, before they were ready to become pregnant.

“That time we hadn’t any plan to take child. In fact I want to take child more later. But I don’t know how it happened. He said take a child, take a child. Then I stopped taking pill and then had the baby.” (Informant #18, age 18, age at marriage 14)

“Actually I was feeling sick for using pill for 3 years. I was feeling vertigo, headache and I had to take rest all the time. So I stopped taking pill for one month and then I got pregnant within that month. ...I have a problem which they called “Badhok”. Women who feel pain during menstruation they have the disease of Badhok and those women can’t be get pregnant easily. That’s why I thought that I also have the disease and I would not be pregnant if I don’t use any contraceptives.” (Informant #11, age 22, age at marriage 16)

Ten women were using contraception up until their pregnancies, including five women who experienced mistimed pregnancies and five women who accepted the timing of their pregnancy. These women seem to have experienced contraceptive failures, although we cannot distinguish use failure from method failure in this study.

“After 2 years I got pregnant. I was using a method. But still with the will of Allah this baby came to my womb.” (Informant #5, age 19, age at marriage 13)

“We were conscious [about using pill consistently] but how did it happen, we don’t know.” (Informant #26, age 22, age at marriage 13)

Another six women had stopped using contraception in the month immediately preceding their pregnancy; for four women this was because they desired a pregnancy, but two women became accidentally pregnant with a mistimed pregnancy upon stopping contraception in anticipation of switching methods.

“None of us wanted a child during that time. However, I did not understand that I will be getting pregnant so easily. He thought that I was taking pill, which I was not.” (Informant #10, age 16, age at marriage 15, pill user, temporarily stopped (8 days) due to side effects)

It was rare that a few women had pregnancies later than they wanted. One woman (Informant #1) experienced her first pregnancy much later than she initially wanted. Two others decided after some time that they wanted to become pregnant earlier than first planned, but had trouble becoming pregnant immediately when they tried. One woman who stopped pill use 3 months after marriage, but took another one and half year to become pregnant, told her story.

“He had gonorrhoea (Dhatu vangto otirikto). That’s why it took time for my pregnancy...I came to know it after marriage. One of my sisters-in-law informed me about his disease....I advised him to take medicine. Then he took medicine. He cured after 2 months of taking medicine. [then got pregnant]” (Informant #19, age 18, age at marriage 14)

3.8.2. Termination

Three women who experienced an unintended pregnancy contemplated terminating it,⁷ but were refused, either by family members or doctors. In each case, the reason was that they did not already have children.

“He [husband] phoned me and then I told him I had not gotten my period. Then after 2 months I saw a doctor and doctor confirmed I had conceived. Then I asked the doctor whether I could terminate my pregnancy. But doctor said as it was the first baby so I could not terminate.” (Informant #5, age 19, age at marriage 13)

“My mother-in-law was very angry. She told me that the marriage just took place and I got pregnant! She took me to terminate the pregnancy but by the grace of Allah, it could not be terminated.” (Informant #4, age 18, age at marriage 15, non-user)

In the third case (Informant #24), everyone in the woman’s family opposed her desire to terminate, as it was the first pregnancy. Her mother and in-law family members assured her they would help to care for the child so she could continue to study.

More frequently, women do not consider termination when they experience a mistimed pregnancy, as this informant succinctly describes.

“No, nobody thought to abort it. I also didn’t want to abort. As the baby came why we would abort it?” (Informant #26, age 22, age at marriage 13)

In summary, even considering women’s revised desires, approximately half of girls’ first pregnancies are mistimed. Reasons for mistimed pregnancies include couple discordance in wanting a pregnancy (and subsequent refusal to continue contraception); use failure of the contraceptive method (predominantly the pill), and discontinuation due to side effects.

3.9. Fertility Desires for Spacing a Subsequent Pregnancy

Following the first pregnancy, women generally want a long interval before a subsequent pregnancy, much longer than the spacing between marriage and first pregnancy. A response of a desirable gap of 5-7 years is particularly common, as shown in Table 4. Only one woman wanted a gap of less than that,

⁷ While women often used a term like *baccha nosto* to refer to either menstrual regulation or terminating a pregnancy, we did not probe to distinguish between these events/procedures. Therefore, we use the term “termination” to refer to all such procedures.

at 3 years. Three women wanted a gap of 10 years or more and one woman did not want a second child. By the time of our study, nine women had progressed to at least a second pregnancy.⁸

Table 4. Fertility desires, concordance of desires, and resulting timing of second pregnancy

ID	Wife's desire for timing of 2nd pregnancy	Wife/Husband concordance	Family concordance	2nd Pregnancy mistimed
1	>10 years	concordant	concordant	--
2	5-6 years	discordant	concordant	--
3	7 years	concordant	discordant	no
4	no more	concordant	concordant	yes
5	10 years	concordant	no discussion	--
6	3 years	--	--	--
7	8-9 years	--	--	--
8	10-12 years	--	--	--
9	6-7 years	concordant	concordant	--
10	5 years	no discussion	--	--
11	7 years	no more	concordant	--
12	no more	concordant	discordant	--
13	5-6 years	no discussion	concordant	--
14	4-5 years	--	--	--
15	5 years	concordant	concordant	no
16	6-7 years	discordant	--	no
17	unspecified delay	concordant	no opinion	no
18	10-12 years	concordant	--	--
19	7 years	concordant	concordant	yes
20	unspecified delay	discordant	concordant	yes
21	8 years	concordant	--	--
22	5-7 years	--	--	--
23	5 years	concordant	concordant	--
24	7-8 years	concordant	--	--
25	10 years	concordant	--	--
26	5-7 years	no more	--	--
27	7-8 years	concordant	--	--
28	10 years	concordant	concordant	--
29	unspecified delay	--	--	--
30	4-5 years	concordant	concordant	--

Concordance around timing of the second pregnancy is also much more likely. Women's husbands and in-laws also favor a longer spacing between pregnancies than they did before first pregnancy. In one of only two exceptions (Informant #12), the couple concurred that they did not want any more children, but the woman's mother-in-law encouraged them to have a second child 3-4 years after the first child's birth. In another (Informant #3), the couple wanted to wait 7 years before another child but the mother-in-law did not want them to use any contraceptive methods. These examples contrast with the general pattern of support for an extensive delay.

The reasons given for postponing a second pregnancy are also different than for postponing the first. Few women refer to age, physical development, or emotional maturity as some had expressed as a factor in the desired timing of the first pregnancy. This is in spite of the fact that many women are still adolescents following their first birth. Rather, the factors encouraging spacing include the health benefits to mother and to child and the ability to provide and care for children that are well spaced. A desire not to have the second child until the first is grown is a common theme. Women report that they, their husbands, and their in-laws, alike, express this view.

⁸ This figure refers to pregnancies within the current marriage.

“If the older child is very young, then isn’t that a problem if I take another child? If I do that, it would appear that I would not be able to take care of this child properly. Therefore, the ideal way is to properly raise this child and then take another one.” (Informant #27, age 20, age at marriage 17)

One woman was concerned about the health risks and economic costs of a second delivery following a C-section.

“I had C-section; I might need C-section again if I become pregnant. Where will I get money? This time my parent bore the cost. I will take another child when this child is grown up, by this time if his father’s [economic] condition improves!” (Informant #28, age 16, age at marriage 12)

However, these other concerns are infrequent compared to the notion of allowing the first child to grow up before having a second child.

3.10. Experience with Contraception after the First Pregnancy and Subsequent Pregnancies

3.10.1. Patterns of contraceptive attitudes and use

Contraceptive use is much more acceptable after the birth of the first child than before the first pregnancy and more options are made available. Having had a child (all but one pregnancy resulted in a live birth), women also now have access to more contraceptive knowledge and confidence to participate in discussion of these topics. Widespread preferences for long spacing between births, as described in the previous section, mean more women are supported in pursuit of their individual goals. Approximately 20 of 24 women have used contraception since the birth of their first child.

Parous women have an expanded range of methods from which to choose, including methods like injections, implants, and IUDs that had been off limits for nulliparous women. Women discuss long-acting reversible contraception with their husbands, sisters-in-law, and health workers more readily than before the first pregnancy, and the advantages of these methods align better with their lengthened desired spacing. While the pill is still a dominant method, more women are using injections, and a few use implants.

Many of the preferences (and myths) that women had held about methods before the first birth still persist. One woman described her fear of side effects with the injection:

“One of my brothers-in-law suggested I take injection but I didn’t agree to have that method and I took pill again. Women become fat after taking that method!” (Informant #11, age 22, age at marriage 16, Femicon user)

Women continue to believe that long-term pill use carries a risk of fertility problems. However, while experiencing infertility is highly problematic for nulliparous women, it is less problematic if experienced by women who already have a child.

After the first pregnancy, the concerns women express about long acting methods shift from their potential side effects to concerns about their invasive nature and religious proscriptions against altering the body. These two women remark on implants and tubal ligation:

“What if I die with ‘kathi’ [implant] in my hand. That person will not be going to heaven and therefore, why would I do something like this?” ... “What if I have a problem

while doing [ligation]? Why would I cut something? Won't God be unhappy that I have cut the body so that I don't have a child?" (Informant #3, age 21, age at marriage 13)

"These methods should not be used. What if you die with these? What would you say to God?...When you would die, the kathi [implant] will be in your body." (Informant #21, age 20, age at marriage 15)

Another attribute of the implant and injections that women dislike is suppression of menstruation.

"She (health worker apa) said there is nothing to be afraid if there is no 'menses'. But it is good to have it, otherwise it will be problematic for the body if the dirty blood couldn't go outside from the body." (Informant #28, age 16, age at marriage 12, injection user)

Other women, who were generally satisfied users of some of these methods, expressed displeasure with the difficulty of accessing injections or implants. This same woman who liked to use the injection described the issues she has with accessibility.

"She gave the date on a paper, when I need to go for [next] injection. Many days passed away but I couldn't go...3 months already over...if they don't go [sisters in law who also use injection], how can I go there alone? It will be good if they provide this at home." (Informant #28, age 16, age at marriage 12)

Another concern when deciding on contraceptive methods that emerged at this point of the life course is the effect of contraception on breastmilk supply and child health for mothers who are currently breastfeeding. Women discuss this issue amongst each other, with health workers and doctors of varying expertise, and seek a method or formulation of the pill that is most compatible with breastfeeding for them. Rather than discontinuing contraceptive use, as was the case with health concerns before the first pregnancy, women are more likely to switch to another brand of pill or switch to condoms while breastfeeding.

Some women continue to experience the same types of difficulties using contraception, e.g., side effects, as they did before the first pregnancy. Women still experience opposition or discordant fertility desires in a few cases, but, as Table 4 indicates, this is much diminished. Yet, some women are still not using contraception in a way that corresponded with their fertility desires. One woman describes the obstacles she still faces. She had experienced a mistimed first pregnancy that was miscarried. Her second pregnancy—the first resulting in a live birth—aligned better with her desires for the timing of a first child. Although she wants a gap of 5-7 years before the next child, her husband is not supportive of using contraception and she worries that she is at risk of another mistimed pregnancy that she would need to carry to term.

"If I do get pregnant, I have nothing to do but keep the pregnancy and raise the child with hardship. I don't like that [terminating the pregnancy]." (Informant #16, age 21, age at marriage 13)

Another woman, however, describes how opposition to contraception is not the same barrier to use that it once was. Husband's approval isn't as critical to a woman's ability to use contraception as it was before the first pregnancy.

"One day my sister in-law said that she was going to do that [have implant inserted] then I also went with her...I didn't take permission from [her husband], as I knew that

he will not agree. After I came back to home when I inform him, he became angry... 'Why didn't you ask me before? How dare you do that without my consent.' I said, 'So what should I do? You didn't allow me to take pill, so I would have to deliver child in every month?' We were quarreling, and then he became calm." (Informant #26, age 22, age at marriage 13)

3.10.2. Increasing knowledge

In contrast to their descriptions of the early days of marriage, women's accounts of contraception after the first child clearly show an expansion in knowledge, as exemplified by one woman's detailed description of pill use.

"Every day before sleep you have to take the pill. And if you forgot one day, you have to take the pill immediately when you could remember next day. And at night you have to take the regular one...There are iron tablets there,⁹ There are three rows of white tablets and a row of iron tablets on the strip of the pill. After taking the white colored pill then you need to take iron pills." (Informant #12, age 22, age at marriage 16)

Other accounts show the process by which women learn of more methods.

"Many women use vaccine [injection]. I didn't know about all these...Now I visit at hospital and come to know many more things like capsule [implant]. After having a child my sisters-in-law advised me, not to take another child urgently. Hence I came to know about methods." (Informant #15, age 22, age at marriage 12)

"Everybody took pill here. Nobody took injection here. I didn't know that there is a capsule for 5 years; you cannot know everything at a time. Gradually you can understand many things; I also understood many things gradually." (Informant #28, age 16, age at marriage 12)

Nonetheless, some incorrect knowledge persists, as evidenced by the mistaken notion that red pills cause menstruation to start rather than menstruation coinciding with when white pills cease:

"At the last month I started with white pill then took all the red pills but my period didn't start. Then I took some more red pills from another strip to have period but it didn't work out." (Informant #26, age 22, age at marriage 13)

Six women in our sample of 30 had experienced a second pregnancy. Of these, about one half were mistimed. Whereas family opposition to postponing a pregnancy or using contraception played a major factor in the occurrence of mistimed first pregnancies, mistimed subsequent pregnancies were largely the result of contraceptive failure or accidental pregnancies due to interruptions in contraceptive practice.

⁹ Several of the most popular pill formulations include red, non-hormonal pills that contain iron rather than being entirely inert placebos.

4. Discussion and Conclusion

This study adopted qualitative methods to complement quantitative data of the Bangladesh DHS and sought to answer questions about why young, married women bear their first child at a young age. We find that women enter into marriage suddenly and with no advance preparation. This rush to marriage proves to be a strong deterrent to successfully planning childbearing. Women have no opportunity to adjust to the idea of being married, let alone to discuss with their husbands their desired timing of pregnancy or decide on and acquire contraception. Furthermore, women's lack of agency in the marriage process sets the tone for their early reproductive lives, with young women lacking empowerment to implement reproductive intentions. Like others, we find that early and sudden marriage is, therefore, associated with low decision-making and poor fertility control, as evidenced by unintended pregnancy (Godha, Hotchkiss, and Gage 2013).

The women in our study want to postpone their first pregnancy until 2-3 years following marriage on average. Our finding contrasts with that of earlier studies in Sylhet, Bangladesh and elsewhere in South Asia which indicated that a majority of newly married women wanted a child immediately (Sharma et al. 2002; Henry et al. 2015). Our finding that women want to delay childbearing is particularly positive for those wanting to shift childbearing from the adolescent years and into the early twenties, an age attended by lower risk of negative maternal health and birth outcomes. It suggests a strong basis for programmatic efforts that support women to achieve their fertility desires.

Women primarily are motivated to postpone a pregnancy to protect their health and secondarily to allow for a period of adjustment into an unfamiliar household and role. This latter finding contrasts with other studies in Bangladesh that found having a child soon after marriage facilitates integration into the unfamiliar, marital household (Rashid 2006; Henry et al. 2015). Only a few women in our study express this perspective. Only a very few women continued their education after marriage; finishing school is particularly strong motivation to postpone pregnancy among these women. Education has long been identified as a factor influencing fertility and the timing of childbearing, however the typical mechanism posited is delaying marriage (Bates, Maselko, and Schuler 2007; Abedin 2011; Bhatti and Jeffery 2012).

While the young women in our study want to postpone the first pregnancy, they are often influenced by their husbands and in-law family, who frequently have opinions about timing of childbearing that conflict with their own. Husbands and in-law family members are more likely to prefer an early pregnancy than the woman, herself. Husbands and in-law family members who do want to postpone pregnancy often share the same motivations as do newly married women. Women clearly understand that bearing a child too young can be harmful both to herself and to her baby.

Husbands and in-laws often share this concern. However, their interest in protecting her health, particularly in preserving her fertility capacity, can be a powerful motivation to stop contraceptive use if she experiences side effects, thereby running the risk of pregnancy. This motivation is particularly strong among in-law family members. Thus, the health motivation operates differently for in-law families and husbands than it does for young women and leads to early childbearing. Programs to support women in achieving their fertility desires must be designed to address the different motivations of husbands and in-laws and their influence on women.

The women in our sample have a mean age at marriage of 15 years and, on average, a preference to postpone a first pregnancy for about 2 years. This finding means that most women desire a first pregnancy that falls within their adolescent years. This finding warrants emphasis. One implication is that if the aim is to move first births beyond the adolescent years, it may be advisable for programmatic and policy efforts that assist women in achieving their fertility intentions to be complemented by continued efforts to delay marriage beyond the legal minimum marriage age.

This study shows women enter into marriage with little practical contraceptive knowledge; many lack even basic body literacy and understanding of reproduction. Taboos against talking about sex and contraception with unmarried girls bolster this lack of knowledge. Older sisters-in-law and other female relatives often step in at the time of marriage to provide young women with some cursory information about contraception. Yet, women do not know how to use contraception effectively in the early part of their marriages. Their need for education and information on sex, their bodies, and contraceptive options is clear. Results from the 2014 BDHS indicate that less than one third of women age 15-19 have seen or heard anything about family planning in the media or from health workers in the preceding month (NIPORT, Mitra and Associates, and ICF International 2016), suggesting a role for the media to fill this knowledge gap.

One striking finding from this study is how many young women attempt to use contraception to postpone the first pregnancy. Twenty-three of 30 women used contraception for some time before their first pregnancy. This finding contradicts the conventional wisdom that contraception is seldom used until after the first child is born (Godha, Hotchkiss, and Gage 2013). Unfortunately, most women were unable to use contraception continuously and effectively to realize their desired pregnancy timing.

The women in our study consistently defer decisions related to the timing of pregnancy and contraceptive use to others in the marital home. Our finding that women exercise little influence over reproductive decisions echoes the relative powerlessness of recently married women identified in other studies (Sharma et al. 2002; Gipson and Hindin 2007; Acharya et al. 2010; Huda et al. 2013). Husbands and in-law families exert influence over the timing of childbearing. Their opinions both shape women's own desires at the outset of marriage or over time sway women to change their plans to have a child sooner than they first planned. Targeting interventions to husbands may be particularly useful in delaying first pregnancies.

Female relatives continue to be sources of information—and sometimes misinformation—about contraception throughout the early years of marriage. This result is consistent with other studies that point to female in-laws as the primary source of reproductive knowledge and guidance (Mumtaz and Salway 2009). The contraceptive experiences of sisters-in-law and mothers-in-law strongly influence young women's own behavior. Newly married women are limited to a narrow range of contraceptive methods (pill, condom, or traditional methods) because female relatives believe other methods such as injections and implants are unsuitable for young, nulliparous women. From among this limited set of contraceptive options, husbands often determine whether and which method will be used, a pattern of contraceptive decision-making that is consistent with existing studies (Acharya et al. 2010).

The experience of side effects while using contraception (predominantly pills) was commonplace in our study. Fear of and experiences with side effects of contraceptive methods compel some husbands to insist that their wives stop using contraception and conceiving a child. Similarly, mothers-in-law believed myths that long-term pill use and other methods could cause infertility, a finding not unique to this study (Char, Saavala, and Kulmala 2010; Henry et al. 2015). In-laws' interests in protecting a young woman's fertility potential influence young women to discontinue contraceptive use before they are ready to become pregnant.

Nearly two-thirds of the women in our study experienced their first pregnancy earlier than they had desired when they married. Discordant fertility aims and side-effect-induced contraceptive discontinuation are the two major factors contributing to mistimed pregnancies. Efforts to support current users, minimize discontinuation (Jain et al. 2013), and to correct misperceptions about contraceptive methods are critical for this population of young, inexperienced contraceptive users. Targeting this information not only to newly married women but to men and older women as well could also be beneficial.

In summary, this study has complemented the quantitative findings of the Bangladesh DHS 2014 in its investigation of how young, married women make and implement decisions about the timing of childbearing. It found that entry into marriage is an unexpected disruption of unmarried girls' lives. Spousal communication and women's decision-making are low. Women want to delay a first pregnancy, but still want a birth within 2-3 years of marriage, leading to childbirth while they are still young. Women's abilities to meet their fertility aspirations are challenged by discordant childbearing aims, limited options for contraceptive methods, and discontinuation due to side effects and concerns about infertility.

References

- Abedin, S. 2011. "Identification of Fertility Enhancing and Inhibiting Factors: A Study on Married Adolescents in Bangladesh." *Asian Social Science* 7 (5):19-196.
- Acharya, D. R., Bhattarai, R., Poobalan, A., Teijlingen, V. E., and Chapman, G. 2014. "Factors Associated with Teenage Pregnancy in South Asia: A Systematic Review." *Health Science Journal* 4 (1):3-14
- Barua, A., and Kurz, K. 2001. "Reproductive Health-seeking by Married Adolescent Girls in Maharashtra, India." *Reproductive Health Matters* 9 (17):53-62.
- Bates, L. M., Maselko, J., and Schuler, S. R. 2007. "Women's Education and the Timing of Marriage and Childbearing in the Next Generation: Evidence from Rural Bangladesh." *Studies in Family Planning* 38 (2):101-112.
- Bhatti, F., and Jeffery, R. 2012. "Girls' Schooling and Transition to Marriage and Motherhood: Exploring the Pathways to Young Women's Reproductive Agency in Pakistan." *Comparative Education* 48 (2):149-166.
- Bongaarts, J. 1982. "The Fertility-inhibiting Effects of the Intermediate Fertility Variables." *Studies in Family Planning* 13 (6/7):179-189.
- Chandra-Mouli, V., Camacho, A. V., and Michaud, P. A. 2013. "WHO Guidelines on Preventing Early Pregnancy and Poor Reproductive Outcomes among Adolescents in Developing Countries." *Journal of Adolescent Health* 52 (5):517-522.
- Char, A., Saavala, M., and Kulmala, T. 2010. "Influence of Mothers-in-law on Young Couples' Family Planning Decisions in Rural India." *Reproductive Health Matters* 18 (35):154-162.
- Cooper, L. G., Leland, N. L., and Alexander, G. 1995. "Effect of Maternal Age on Birth Outcomes among Young Adolescents." *Social Biology* 42 (1-2):22-35.
- de Vienne, C. M., Creveuil, C., and Dreyfus, M. 2009. "Does Young Maternal Age Increase the Risk of Adverse Obstetric, Fetal and Neonatal Outcomes: A Cohort Study." *European Journal of Obstetrics & Gynecology and Reproductive Biology* 147 (2):151-156.
- Furr, R. M. 2010. "Split-Half Reliability." In *Encyclopedia of Research Design*, edited by Neil J. Salkind, 1411-1414. Thousand Oaks, CA: SAGE Publications, Inc.
- Gage, A. J. 2000. "Female Empowerment and Adolescent Demographic Behaviour." In *Women's Empowerment and Demographic Processes: Moving beyond Cairo*, edited by Harriet Presser and Gita Sen, 186-203. Oxford: Oxford University Press.
- Gipson, J. D., and Hindin, M. J. 2007. "Marriage Means Having Children and Forming Your Family, So What is the Need of Discussion? Communication and Negotiation of Childbearing Preferences among Bangladeshi Couples." *Culture, Health & Sexuality* 9 (2):185-198.
- Godha, D., Hotchkiss, D. R., and Gage, A. J. 2013. "Association between Child Marriage and Reproductive Health Outcomes and Service Utilization: A Multi-country Study from South Asia." *Journal of Adolescent Health* 52 (5):552-558.
- Goonewardene, I., and Waduge, R. 2009. "Adverse Effects of Teenage Pregnancy." *Ceylon Medical Journal* 50 (3):116-120.

- Guest, G., Bunce, A., and Johnson, L. 2006. "How Many Interviews Are Enough? An Experiment with Data Saturation and Variability." *Field Methods* 18 (1):59-82.
- Haldre, K., Rahu, K., Karro, H., and Rahu, M. 2007. "Is a Poor Pregnancy Outcome Related to Young Maternal Age? A Study of Teenagers in Estonia during the Period of Major Socio-economic Changes (from 1992 to 2002)." *European Journal of Obstetrics & Gynecology and Reproductive Biology* 131 (1):45-51.
- Harrits, G. S. 2011. "More Than Method?: A Discussion of Paradigm Differences Within Mixed Methods Research." *Journal of Mixed Methods Research* 5 (2):150-166.
- Henry, E. G., Lehnertz, N. B., Alam, A., Ali, N. A., Williams, E. K., Rahman, S. M., Ahmed, S., El Arifeen, S., Baqui, A. H., and Winch, P. J. 2015. "Sociocultural Factors Perpetuating the Practices of Early Marriage and Childbirth in Sylhet District, Bangladesh." *International Health* 7 (3):212-217.
- Huda, F. A., Chowdhuri, S., Robertson, Y., Islam, N., Sarker, B. K., Azmi, A. J., and Reichenbach, L. 2013. *Understanding Unintended Pregnancy in Bangladesh: Country Profile Report*. Dhaka, Bangladesh: Centre for Reproductive Health, icddr,b.
- Jain, A. K., Obare, F., RamaRao, S., and Askew, I. 2013. "Reducing Unmet Need by Supporting Women with Met Need." *International Perspectives on Sexual and Reproductive Health* 39 (3):133-141.
- Kamal, S. M., and Hassa, C. H. 2015. "Child Marriage and its Association with Adverse Reproductive Outcomes for Women in Bangladesh." *Asia-Pacific Journal of Public Health* 27 (2):1492-1506.
- MacQuarrie, K. L. D. 2009. *Women's Empowerment and Family Formation across the Life Course in Madhya Pradesh, India: The Influence of Time-varying and Fixed Empowerment Resources Using Structural Equations Models*. In *XXVI IUSSP International Population Conference*. Marrakech, Morocco.
- MacQuarrie, K. L. D. 2014. *Unmet Need for Family Planning among Young Women: Levels and Trends*. DHS Comparative Reports No. 34. Rockville, Maryland, USA: ICF International. Available at <http://dhsprogram.com/pubs/pdf/CR34/CR34.pdf>.
- MacQuarrie, K. L. D. 2015. *Unmet Need for Modern Contraception among Young Women: Supplement to DHS Comparative Reports No. 34*. Rockville, Maryland, USA: ICF International. Available at <http://dhsprogram.com/pubs/pdf/OD68/OD68.pdf>.
- MacQuarrie, K. L. D., and Edmeades, J. 2015. "Whose Fertility Preferences Matter? Women, Husbands, In-laws, and Abortion in Madhya Pradesh, India." *Population Research and Policy Review* 34 (4):615-639.
- Mitra, S. N., Al-Sabir, A., Cross, A., and Jamil, K. 1997. *Bangladesh Demographic and Health Survey, 1996-1997*. Dhaka, Bangladesh and Calverton, MD: National Institute of Population Research and Training (NIPORT), Mitra and Associates, and ICF International.
- Morse, J. M. 1994. "Designing Funded Qualitative Research." In *Handbook of Qualitative Research*, edited by Norman K Denzin and Yvonna S Lincoln, 220-235. Thousand Oaks, CA: Sage.
- Mumtaz, Z., and Salway, S. 2009. "Understanding Gendered Influences on Women's Reproductive Health in Pakistan: Moving beyond the Autonomy Paradigm." *Social Science & Medicine* 68 (7):1349-1356.

- Nahar, Q., and Min, H. 2008. *Trends and Determinants of Adolescent Childbearing in Bangladesh*. DHS Working Papers No. 48. Calverton, Maryland, USA: Macro International.
- NIPORT, Mitra and Associates, and ICF International. 2013. *Bangladesh Demographic and Health Survey 2011*. Dhaka, Bangladesh and Calverton, MD: National Institute of Population Research and Training (NIPORT), Mitra and Associates, and ICF International.
- NIPORT, Mitra and Associates, and ICF International. 2016. *Bangladesh Demographic and Health Survey 2014*. Dhaka, Bangladesh and Calverton, MD, USA: National Institute of Population Research and Training (NIPORT), Mitra and Associates, and ICF International.
- Patton, M. Q. 2005. "Qualitative Research." In *Encyclopedia of Statistics in Behavioral Science*, edited by Brian S. Everitt and David Howell. Wiley and Sons, Inc.
- Rashid, S. F. 2006. "Emerging Changes in Reproductive Behaviour among Married Adolescent Girls in an Urban Slum in Dhaka, Bangladesh." *Reproductive Health Matters* 14 (27):151-159.
- Riley, A. P. 1994. "Determinants of Adolescent Fertility and Its Consequences for Maternal Health, with Special Reference to Rural Bangladesh." *Annals of the New York Academy of Sciences* 709 (1):86-100.
- Schatz, E. 2012. "Rationale and Procedures for Nesting Semi-structured Interviews in Surveys or Censuses." *Population Studies* 66 (2):183-195.
- Sharma, A. K., Verma, K., Khatri, S., and Kanna, A. 2002. "Determinants of Pregnancy in Adolescents in Nepal." *The Indian Journal of Pediatrics* 69 (1):19-22.
- Shrestha, S. 2002. "Socio-cultural Factors Influencing Adolescent Pregnancy in Rural Nepal." *International Journal of Adolescent Medicine and Health* 14 (2):101-110.
- Tashakkori, A., and Teddlie, C. 2010. *SAGE Handbook of Mixed Methods in Social & Behavioral Research*. Second edition ed. Thousand Oaks, CA: SAGE Publications, Inc.

Appendix 1. Socio-demographic profile of study informants

ID	Women's information								Husband's Information		
	Age	Education	Age at marriage	No. preg.	No. of living children	Age of last child	Current pregnancy status	Type of family	Age	Education	Occupation
1	21 yrs	Class-8	11 yrs	01	01	4 yr	Not pregnant	Extended	28 yrs	Class-9	Electrician
2	22 yrs	Class-6	13 yrs	02	02	5 m	Not pregnant	Extended	35 yrs	Class-8	Business of iron
3	21 yrs	Class-8	13 yrs	02	02	1.6 yrs	Not pregnant	Extended	30 yrs	Class-10	Business (fruit)
4	18 yrs	Class-5	13 yrs	02	02	3 yrs	Not pregnant	Extended	26 yrs	Class-6	Small business (row material)
5	19 yrs	Class-8	13 yrs	01	01	16 m	Not pregnant	Extended	27 yrs	Class-7	Van driver
6	19 yrs	Class-9	14 yrs	01	01	3 yrs	Not pregnant	Extended	26 yrs	Class-5	Farmer
7	19 yrs	Class-9	14 yrs	01	01	3 yrs	Not pregnant	Extended	25 yrs	Class-7	Small business (vegetable seller)
8	17 yrs	Class-8	15 yrs	0	0	0	Not pregnant	Extended	27 yrs	Class-7	Farmer
9	17 yrs	Class-6	15 yrs	01	01	5 m	Not pregnant	Extended	26 yrs	No school	Farmer
10	16 yrs	Class-8	15 yrs	1	0	0	9 m. Pregnant	Extended	18 yrs	Class-5	Farmer
11	22 yrs	Class-8	15 yrs	01	01	2 yrs 9d	Not pregnant	Nuclear	26 yrs	Class-9	Farmer
12	21 yrs	Class-10	16 yrs	01	01	2 yrs	Not pregnant	Nuclear	32 yrs	HSC	Jewelry maker
13	19 yrs	Class-9	17 yrs	01	01	43 d	Not pregnant	Extended	25 yrs	Class-9	Business
14	18 yrs	Class-12	17 yrs	0	0	0	Not pregnant	Extended	27 yrs	B.A	Madrassa teacher
15	22 yrs	Class-5	12 yrs	02	02	9 m	Not pregnant	Extended	30 yrs	SSC	Nochimon driver
16	21 yr	Class-5	13 yr	03	02	11 m	Not pregnant	Nuclear	26 yr	Class-6	Carpenter
17	22 yrs	Class-7	14 yrs	03	02	19 m	Not pregnant	Nuclear	30 yrs	No school	Small business
18	18 yrs	Class-6	14 yrs	01	01	2 yrs	Not pregnant	Nuclear	26 yrs	Class-4	Farmer
19	18 yrs	No school	14 yr	02	01	3 yrs	Not pregnant	Extended	22 yrs	No school	Butcher
20	20 yrs	Class-7	15.5 yrs	03	02	2 yrs	Not pregnant	Extended	27 yrs	Class-7	Farmer
21	20 yrs	SSC	15 yrs	01	01	3 yrs	Not pregnant	Extended	40 yrs	M.A	Teacher
22	18 yrs	SSC	16 yrs	1	0	0	4 months pregnant	Extended	28 yrs	Class-7	Worker of jewelry shop
23	19 yrs	Class-5	16 yrs	01	01	2 yrs	Not pregnant	Nuclear	30 yrs	No school	Imam and also a farmer
24	19 yrs	SSC	16 yrs	01	01	1 yrs	Not pregnant	Extended	28 yrs	HSC	Small business of fertilizer
25	18 yrs	Class-9	16 yrs	1	0	0	Pregnant	Extended	22 yrs	Class-8	Farmer
26	20 yrs	No school	16 yrs	01	01	2 yrs	Not pregnant	Nuclear	40 yrs	No school	Auto driver
27	20 yrs	Class-3	17 yrs	01	01	11 m	Not pregnant	Extended	24 yrs	No school	Farmer
28	16 yrs	Class-4	12 yrs	01	01	18 m	Not pregnant	Nuclear	20 yrs	No school	Seasonal day labor and auto driver
29	16 yrs	Class-4	15 yrs	0	0	0	Not pregnant	Extended	19 yrs	Class-1	Day labor
30	20 yrs	Class-10	16 yrs	02	01	2 yrs	Not pregnant	Extended	32 yrs	SSC	works in a co-operative

DHS Further Analysis Reports No. 100

**What Motivates Women to Act?
Perspectives on the Value of and Experiences in
Using Antenatal Care in Khulna and Rangpur, Bangladesh**

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Abstract

This complementary qualitative study to the 2014 Bangladesh Demographic and Health Survey (BDHS) was conducted with an objective to understand women's value perceptions regarding antenatal care and how these perceptions affect use of this care. The study was conducted in two purposively selected divisions of Bangladesh, using a sub-sample of women interviewed in the 2014 BDHS. A total of 25 in-depth interviews were conducted with women who had given birth in the 12 months preceding the 2014 BDHS. Overall, most of the women interviewed held a positive view of the benefits of seeking antenatal care; however, some did not find antenatal care relevant for women who were apparently healthy. The prevalence of women's contacts with the health care system during pregnancy was high, even though the timing and frequency of contacts were grossly inadequate. Most of the women had contacts with community health workers at home, while some made visits to health facilities for services. The type of services the women received fell short of the standards of antenatal care recommended by the World Health Organization (WHO), raising questions about the quality of the services that women received. Generally, most women perceived hospitals as a better place for receiving services compared with home services; some considered home-based care as "second best," when barriers to facility services are considered.

Acronyms

ANC	Antenatal Care
BDHS	Bangladesh Demographic and Health Survey
BRAC	Bangladesh Rural Advancement Committee
CC	Community Clinic
CHW	Community health worker
CSBA	Community Skilled Birth Attendant
DH	District Hospital
DHS	Demographic and Health Survey
DSF	Demand Side Financing
EA	Enumeration area
EPI	Expanded Programme on Immunization
ERC	Ethical Review Committee
FWC	Family Welfare Center
FWV	Family Welfare Visitor
GoB	Government of Bangladesh
HIV	Human Immunodeficiency Virus
HPNSDP	Health Population Nutrition Sector Development Programme
HW	Health worker
MA	Medical Assistant
MCWC	Maternal and Child Welfare Center
MOHFW	Ministry of Health and Family Welfare
MTP	Medically trained provider
NGO	Non-government organization
RDRS	Rangpur Dinajpur Rural Services
SACMO	Sub-Assistant Community Medical Officer
SC	Satellite Clinic
STI	Sexually transmitted infection
TT	Tetanus Toxoid
UHC	Upazila Health Complex
USAID	United States Agency for International Development
WHO	World Health Organization

1. Introduction

Bangladesh has made remarkable progress in the health and population sector in recent years. The progress has been measured through different national surveys conducted since the country's independence in 1971. The Bangladesh Demographic and Health Survey (BDHS) is one of those surveys, providing national estimates of nutrition, fertility, family planning, and maternal and child health in every three-year interval, with flexibility of collection of additional information using supplementary survey questions or qualitative studies. The 2014 BDHS is the seventh such survey in Bangladesh, with data collected between July and October 2014 in a nationally representative sample of about 18,000 ever-married women of reproductive age (15-49 years).

Three complementary qualitative studies were added to the 2014 BDHS to provide some additional in-depth information on family planning and antenatal care (ANC) that the standard survey could not collect. This report presents findings from one of these three studies. The broader objective of this study was to understand women's value perceptions regarding ANC and how their perceptions affect the use of ANC. In particular, the study explored women's perceptions regarding the importance of seeking care during pregnancy, collected in-depth information on the timing and contents of care received and on the providers they had visited, and also explored the decision-making process on seeking or not seeking care and on choosing a particular provider.

2. Background and Rationale

The term “antenatal care” refers to the health services that are provided to women during pregnancy. The primary aim of ANC is to ensure healthy outcomes for mother and newborn. While there is a continued debate about the effectiveness of ANC on maternal and neonatal health and about the ideal number of antenatal visits in resource-poor settings, the World Health Organization (WHO) recommends a standard model of four antenatal visits, based on a review of effectiveness of different models of ANC (WHO 2002). According to WHO guidelines, the first visit should be made in the first trimester, preferably before 12 weeks of pregnancy, given the need for early identification of pre-existing medical conditions that may affect the health of the mother and the newborn. The second visit should be made close to week 26. The third visit should be made in or around 32 weeks, and the fourth and the final visit should take place between 36 and 38 weeks.

WHO guidelines are also specific on the contents of these visits, which should include:

- clinical examination
- blood testing to detect syphilis and severe anemia (and other tests such as HIV and malaria depending on country context)
- estimation of gestational age and uterine height
- taking blood pressure
- recording maternal weight/height
- performing a detection of symptomatic sexually transmitted infection (STI) urine test
- requesting blood type and Rh factor; giving tetanus toxoid
- providing iron/folic acid supplementation, and
- providing recommendations for emergencies

In Bangladesh ANC is a basic form of maternal health service provided by the government, non-government organizations (NGO), and the private sector. Both formal and non-formal providers, with and without medical training, provide ANC services. In terms of use of ANC services, overall, there has been slow but steady progress in the use of any ANC among Bangladeshi women in recent years (Koenig et al. 2007; NIPORT, Mitra and Associates, and ICF International 2015). During the last 10 years or so, the use of any antenatal care has increased by 21 percentage points, from 58% in 2004 to 79% in 2014. There has been an increase in use of ANC from both medically trained providers¹ (from 51% in 2004 to 64% in 2014) and non-medically trained providers (from 7% in 2004 to 15% in 2014). While the public sector remains a prime source of ANC, ANC from the private sector is on the rise, from 37% in 2007 to 52% in 2014. The percentage of women receiving ANC at home also increased during the same period, from 12% in 2007 to 16% in 2014 (NIPORT, Mitra and Associates, and ICF International 2015).

The 2014 BDHS shows that not only are more women receiving ANC but they are also receiving care more often. The percentage of women who made the recommended four or more antenatal visits

¹ Includes qualified doctor, nurse, midwife, paramedic, family welfare visitor (FWV), community skilled birth attendant (CSBA), medical assistant (MA), or sub-assistant community medical officer (SACMO).

doubled during the last 10 years, from 16% in 2004 to 31% in 2014. Despite this improvement, the proportion of women making the minimum number of standard antenatal visits is low compared with the government's Health Population Nutrition Sector Development Programme (HPNSDP) target of achieving four or more ANC visits among 50% of pregnant women by 2016 (MOHFW 2011).

The shift in the place and type of provider of ANC has raised concerns about the quality of services. According to the 2014 BDHS, among women who made at least one antenatal care visit, the majority were weighed and blood pressure was measured, but few received other recommended services, such as urine or blood tests, or receiving information on signs of pregnancy complications. The type of services women received also varied widely by the type of provider and/or type of the place where ANC was received (NIPORT, Mitra and Associates, and Macro International 2009).

Previous studies have identified factors affecting the use of ANC in different settings (Pallikadavath, Foss, and Stones 2004; Mumtaz and Salway 2007; Say and Raine 2007; Finlayson and Downe 2013). In general, maternal age, parity, educational attainment, and economic status affect the use of ANC (AbouZahr and Wardlaw 2003; Houweling, et al. 2007; Simkhada, et al. 2008). Perceptions of risk associated with pregnancy and the importance of seeking care during pregnancy have also been shown as important in attending care during pregnancy. Distance to a health facility, long waiting time, poor staff attitude, and perceived quality of services also have strong associations with attending pregnancy care (Finlayson and Downe 2013). In some cultures the traditional practice of moving to the woman's natal home for delivery is a reason for making fewer antenatal visits than recommended, as women lose continuity of service and are unaware about the location of services close to their natal home (Khan et al. 2014).

The present study aims to shed lights on the reasons for the inadequate use of ANC in Bangladesh that could not be ascertained from the standard DHS survey. Specifically, it investigates women's value perceptions about the use of ANC; their attitudes about pregnancy as a "normal" state or one benefitting from pregnancy care; the types of services women receive as pregnancy care; women's preferences for different types of services and providers for ANC; perceived quality of care they receive via community-based field workers at home and through health facilities, including clinics and hospitals, and how decisions are made as to whether or not to seek care and where to go for care.

The study attempts to answer three sets of key research questions:

1. What are women's risk perceptions regarding pregnancy? How do pregnancy risk perceptions relate to seeking or not seeking care during pregnancy?
2. How does the perception of "everything is normal" relate to seeking or not seeking care? What are the other reasons for not seeking ANC?
3. How do pregnant women decide where to go for care during pregnancy? How do they decide how many antenatal visits to make and when to make them? Is getting care during pregnancy at home a hindrance for seeking outside care from a facility?

3. Methodology

3.1. Selection of Study Sites and Study Participants

This qualitative study was conducted in two selected divisions of Bangladesh, using a sub-sample of women who were interviewed in the 2014 BDHS standard survey and were eligible for collection of information on the use of ANC. The study sites were selected at two levels: a) divisional level, and b) cluster level within a division.

The selection of study divisions was guided by the objectives of the study. One of the objectives was to understand the reasons for increasing use of ANC at home and increasing use of care from non-medically trained providers. Therefore, we selected one division with the highest utilization of ANC from medically trained providers and another division with little use of ANC from medically trained providers (MTPs) but high use of care at home. According to the 2011 BDHS, Khulna division has the highest coverage of ANC from a MTP (65%), with most women receiving care from health facilities. In contrast, Rangpur division has the second-lowest coverage of care from a MTP, with the highest use of care from NGO workers who provide services at home. We thus selected Rangpur and Khulna divisions for this study.

Since urban and rural areas of Bangladesh have different service contexts, and issues around accessing care during pregnancy also differ between rural and urban settings, we decided to limit our study to rural areas only. In Khulna and Rangpur divisions there are some Upazilas that have an ongoing Demand Side Financing (DSF) program for maternal health. Because the DSF program provides incentives for the use of ANC, Upazilas that have a DSF program were excluded from the study sample.

The 2014 BDHS used a multi-stage, probability-based design to select nationally representative sample of 18,000 households from 600 clusters.² Fieldwork for the 2014 BDHS was completed in four batches, with each batch including randomly selected clusters from all divisions. After applying the eligibility criteria of women age 15-49 who had given birth in the last year (eligibility criteria for this study) in the BDHS 2011 sample, we expected to have 3.0 eligible women per rural cluster in Rangpur division and 2.4 eligible women per rural cluster in Khulna division in the 2014 BDHS sample. Given that the estimated sample size for this study was 25-30, we expected to have these numbers from the clusters in the first two batches of data collection. As such, the 2014 BDHS data management firm provided us with a list of 71 eligible women from 32 rural clusters of Khulna and 76 eligible women from 28 rural clusters of Rangpur from the first two batches of sampled clusters.

The next step was to select clusters to be visited. We followed certain criteria for selection of clusters. First, we chose clusters that had four or more eligible participants for the study. This criterion gave us a list of six clusters in Khulna and eight clusters in Rangpur. Priority was given to select clusters from the same ward/thana/Upazila, so that the time needed for transportation could be minimized. In Khulna we found one cluster distantly located compared with five other clusters and therefore decided to visit five clusters in Khulna to achieve the required sample size. For Rangpur, of the eight clusters, two were far away from other six, and thus we decided to visit these six clusters to have the required number of participants from Rangpur division. However, in Rangpur we achieved the required sample size after visiting four clusters and thus did not visit the remaining two.

We also considered the number of eligible participants available per household. If more than one participant was eligible in one household we considered selecting only one of them. All these criteria were considered capturing variations in the experiences of seeking care during pregnancy.

² A cluster is either an enumeration area (EA) or a segment of an EA with 30 households.

Figure 1. Map of study divisions and clusters



Although prior consent was taken to revisit a sample of women who were interviewed in the BDHS main survey for this follow-up qualitative study, we experienced some refusal (n=4). A few women were not available for interview, as they were absent or busy with household chores (n=5). Even though our original plan was to interview only two participants per cluster, in reality we ended up interviewing more than two participants in some clusters. At the end, we completed interviewing 12 women (of 28 eligible women) from five clusters in Khulna division. Similarly, we completed interviewing 13 women (of 40 eligible women) from eight clusters in Rangpur division. (See Appendix 1 for a complete list of eligible women, number of interviews completed, and reasons for non-inclusion in the study.)

3.2. Sample Size, Data Collection Method, and Data Collection Instrument

We planned to conduct 12-15 in-depth interviews in each division, giving a total of 25-30 interviews for this study; however, we were also mindful about reaching the “point of saturation”. We completed 25 interviews in total and felt that the point of saturation had been achieved.

The primary informants of this study were women age 15-49 with a live birth in the preceding year who were interviewed in the BDHS main survey. Based on the study objectives, a guideline was developed for the in-depth unstructured interview, which was pretested and finalized during the training of researchers.

3.3. Research Team and Training of Researchers

The study team included nine members: three principal investigators, one co-investigator, four junior researchers, and one field assistant to help the field research team in locating and contacting eligible participants. The field research team was composed of six female members (two investigators and four junior researchers), all with a master's degree in anthropology. The team members were involved in training, data collection, data editing, transcription and translation of the transcripts, and coding of the data. The principal investigators and co-investigator led the data analysis and prepared this study report, while the other members of the team were available to respond to any clarification needed concerning the data.

A 10-day training session was arranged before starting the fieldwork. The main focus of the training was to have in-depth discussion on the key research questions and how best to frame those questions to collect the information needed. At the beginning of the training, a brief overview was given on the health systems and provision of services related to maternal health in Bangladesh. The training included discussion on basic qualitative methodology and data collection process, sampling techniques and sample selection, selection of eligible informants, ethical procedures, and field management. The training included classroom discussion, role play, and field testing. Based on the experiences of field testing, guidelines were modified. Researchers were given feedback on interview techniques. An emphasis was placed on probing, note taking, transcription, translation, and writing up and elaboration of field notes. The research team was briefed about collecting basic demographic information of the informants, and also had a separate 7-day training on data coding and analysis.

3.4. Field Data Collection

Field data collection took place from December 2014 to March 2015. The field research team used the addresses generated by the BDHS 2016 survey firm to locate the participants. Before the field research team visited participants, a male member of the study team made a visit to identify the cluster and to make initial contact with the eligible informants and key members of their family, to brief them about the purpose of the study. He also fixed a date and a time for the field research team to do the interview. This process saved a lot of time for the field research team.

On the day of the appointment, a member of the field research team visited the selected household and introduced herself to the participant and her family. After the consent process, interviews were conducted in a venue according to informants' preference—generally either inside the house or in the family backyard. All the interviews took a broad approach in the beginning, which reflected on women's lives in general and their reproductive health in particular. This provided the context necessary to understand the women's experiences before getting into the details of using ANC during the last pregnancy. The interviews were conducted in Bangla. Most in-depth interviews took from 60 to 90 minutes, while informal discussions took 15 to 30 minutes. The field research team also took brief notes designed to help understand the social context of the study area, including transport network, availability of health services and service providers, including community health workers, and the overall socio-economic condition of the area. Appendix 2 provides a brief description of all study clusters, including the overall economic condition and development of each area, remoteness of the area including access to road network, and availability of health services, including presence of government and other health service providers.

3.5. Data Management and Analysis

The field research team made an audio recording of the interview, which was transcribed verbatim into Bangla, word-by-word. Transcripts were reviewed by the investigators on an ongoing basis and feedback was given to the field research team. Thirty percent of interviews were translated into English

so that one English-speaking principal-investigator could assist in the analysis and interpretation of the research findings and in preparing the study report. Once data collection was completed, a coding system was developed, capturing the main research themes and concepts generated through the data. Interviews were coded on Atlas.ti, a text-organizing software, and the data were organized according to the codes and sub-codes developed.

After completion of coding, a content analysis framework was used to identify trends of key concepts in the coded data. Two separate data analysis workshops were held to analyze and interpret the data. During each workshop half of the interviews were analyzed using codes and sub-codes. Narratives were also read to interpret the findings. Themes and sub-themes were identified and findings were grouped as per the objectives of the study.

3.6. Ethical Issues

Ethical clearance for the study was obtained from the ethical review committee (ERC) of icddr,b, and the Institutional Review Board (IRB) of ICF International which follows international ethical standards to ensure confidentiality, anonymity, and informed consent. The standard process of obtaining written informed consent was followed for all participants in this research, and interviews were conducted only after informed consent was obtained. During the consent-taking process, informants were made aware of the use of the audio-recorder and how and why it was being used. As indicated in the consent forms, all efforts were made to conduct the interviews in a private location and to maintain confidentiality of the information collected. We also made it clear that informants could refuse to respond to questions or could terminate interviews at any time if they did not feel comfortable or had reservations about responding to any particular question.

3.7. Challenges

Despite many precautions were taken for smooth field operation, the field research team faced a number of challenges during data collection. The first challenge was related to availability of eligible informants. Our initial plan was to select two participants per cluster and to select nearby clusters, to reduce field cost and transportation time. However, because of randomness of the selected clusters in the BDHS main survey from which the study participants were selected, the clusters with eligible informants were scattered. Moreover, some women refused participation in the study even after making the appointment for the interview. Some other women were not available during the pre-scheduled interview date. As mentioned, the study was restricted to women who had given birth in the last 12 months. Because of the time lag between the BDHS interview and interview date for this study, some women became ineligible.

Remoteness of some selected clusters and finding suitable accommodation for the female researchers was another challenge. The team had to stay in a nearby town and commute daily to the field site. For some clusters it took almost 2 to 3 hours (one way) to arrive at the study cluster.

Severe political unrest during January and February 2015 pushed back the actual date for data collection by 2 months. While the team started data collection in late December 2014, they had to stop data collection temporarily during January and early February 2015. After a gap of almost 2 months, data collection began again in late February 2015; however, continued political unrest and sporadic violence across the country made the field research team fearful about their safety during field visits.

4. Results

This chapter presents key study results, organized in eight sections: 1) socio-demographic profile of the study participants; 2) women's value perceptions regarding care during pregnancy; 3) women's knowledge and perceptions on ANC, including antenatal visits, content of care, and providers of care; 4) women's use of ANC during the last pregnancy; 5) women's knowledge and use of tetanus toxoid (TT) immunization; 6) women's knowledge, perceptions, and use of ultrasound during pregnancy; 7) women's perceptions on the quality of ANC and satisfaction with services; and 8) decision-making regarding ANC.

While the study was conducted in two administrative divisions, the study results are presented by themes and sub-themes without making any distinction between the two divisions; however, if an apparent difference was observed between the two divisions, the disparity is highlighted.

4.1. Profile of Study Participants

Table 1 presents the socio-demographic profile of women in the study. Most of the study participants were age 30 or younger and had secondary or less education. All were housewives. Two-thirds of the women married before age 18, the legal age at marriage for girls in Bangladesh. One-third of participants had one child and the rest had two or more children. All of the participants were married to husbands older than themselves. Like the participants, most of the husbands were age 30 or younger. About half of the husbands had more than primary education and most worked as farmers or day laborers. About half of the women lived with their own families; the rest lived with either in-laws or parents, and thus belonged to an extended family. There were no apparent differences in the background profile of respondents from the two study sites, Khulna division and Rangpur division. Appendix 3 provides a detailed table containing key socio-demographic characteristics of study participants.

Table 1. Socio-demographic profile of study participants

Characteristics	N	Characteristics	N
Woman's age		Husband's age	
≤20	7	≤20	0
21-30	16	21-30	17
30+	2	30+	8
Woman's years of schooling		Husband's years of schooling	
0	4	0	7
1-5	6	1-5	5
6-10	13	6-10	10
11-12	1	11-12	2
12+	1	12+	1
Woman's occupation		Husband's occupation	
Housewife	25	Farmer	11
		Day laborer/driver	5
		Small business	3
Age at marriage (in years)		Service	2
≤15	13	Other	4
16-17	7		
18+	5		
Parity		Type of family	
1	7	Nuclear	12
2-3	18	Extended	13

4.2. Women's Value Perceptions Regarding Care during Pregnancy

4.2.1. Perception of risk during pregnancy

Overall, most of the participants (18 of 25) considered pregnancy as a risky condition. They considered it risky because women may develop different health complications during pregnancy, which may also affect their baby in the womb, potentially leading to death among women and/or their baby. Most women could name several health problems that may develop during pregnancy. These include: convulsion (*khichuni*), bleeding, water leaking, swelling of feet, malposition of the baby, obstructed labor, etc. They considered pregnancy period as risky based on their own past experiences and/or hearing of the experiences of others who had suffered from pregnancy complications.

“It is a time of great danger when a child is coming out from a woman...a human being is coming out from another human being. Some mothers even die during this time. Many mothers become severely sick, many have their hands and feet swollen; they suffer from Khichuni or bleeding. Some women face the problem of not delivering the placenta.” – P5 [age 22, 5th grade education, multipara, Khulna]

“It is not only risky but also painful. Mothers face problem during this time, (they) can even have serious problem during delivery. Some mothers develop convulsion (tonkar) during delivery, sometimes baby is not in the proper position for delivery and mothers face problem.” – P8 [age 29, master-level education, multipara, Khulna]

A few women perceived that the risk during pregnancy and delivery depends on God. They live with good faith, that whether to face any complication or to recover from it all depends on God.

“There is nothing to be worried about whether a pregnancy is risky or not. If Allah wants a woman will have obstructed labor...the child's head will not come out, legs will come out first...delivery might not take place and the woman might have to go through a C-section.” – P24 [age 35, 3rd grade education, multipara, Rangpur]

“It is God who give babies and place them in the womb. If you survive, that will be by the wish of Allah, if you die that will also be the wish of Him. If I die while delivering then nobody has anything to do.” – P24 [age 35, 3rd grade education, multipara, Rangpur]

A very few women were ambivalent in answering whether a pregnancy is risky or not. One woman said that it is important to know the condition of the baby especially for the first birth but could not relate it with pregnancy risk. Another woman said she did not think that pregnancy is a risky condition, as she did not face any problem during her last pregnancy.

4.2.2. Perceived importance of seeking care during pregnancy

Overall, most of the women held a positive view about the importance of seeking care during pregnancy. A variety of reasons were given in favor of seeking care during pregnancy. These included: a) checking the health of the baby and the mother; b) checking the position of the baby; c) monitoring the growth of the baby; d) identifying complications and treatment of complications, and e) identifying the type of delivery (normal vaginal delivery or c-section).

“It is good to do the check-ups in all sense. You will be able to know how the baby is doing, whether there is (enough) water in the womb. If you do not do check-ups, then a mother may have khichuni, or blood deficiency...the mother remains good if you do the check-ups.” – P3 [age 22, 4th grade education, multipara, Khulna]

“It is important to do check-ups because you need to know the position of the baby as it can be upside down anytime.” – P21 [age 30, no formal education, multipara, Rangpur]

Most women held the view that pregnancy care is a means to identify complications and treatment of complications during and after pregnancy. These are achieved by measuring weight and blood pressure and doing some tests to identify potential complications so that appropriate measures can be taken to restore the health of the mother and the baby.

“It is good to do the check-ups during pregnancy so that you can avoid complications during delivery.” – P2 [age 21, 8th grade education, primipara, Rangpur]

“If you go for check-ups, the doctor will advise you, examine how the mother and the child are doing, advise you for follow-up visits, review your condition during the next visit, refer you to any test like blood.” – P23 [age 30, 7th grade education, multipara, Rangpur]

Many participants viewed pregnancy care as a way to have a smooth delivery; it helps the mother to know whether the baby will be delivered normally or needing assistance (c-section).

“It is important to see doctors to know how the baby is doing in the womb and if the baby is healthy, if the delivery is going to be normal.” – P2 [age 21, 8th grade education, primipara, Khulna]

While most of participants held a positive view about the importance of seeking care during pregnancy, whether a woman would seek care depends on consideration of perceived health during pregnancy. Some women (11 of 25) perceived that all women should seek care during pregnancy, irrespective of their health condition, since health complications may arise at any time. Some women stressed the preventive aspect of ANC.

“It is important to know how the child is doing...no matter whether you are doing good or not, it is important to do the check-ups...I think pregnant mothers should go for check-up and to know everything.” – P2 [age 21, 8th grade education, primipara, Khulna]

“You have to go to the doctor (even if you are doing fine), because it does not matter if the mother is doing good or not, you have to know what is happening inside, in what condition the child is in the womb. The doctor is able to identify if the child is in water, or less of water. To know all these, you should go for check-up. It does not matter if the mother is doing all right, it is about the child, s/he needs to be healthy as well.”
– P23 [age 30, 7th grade education, multipara, Rangpur]

Some other women (6 of 25) perceived that if a woman is healthy and does not have any health problem during pregnancy she does not need to seek care.

“You do not need to go for check-ups if you do not face any problems. Care seeking is important when you are sick. The child remains good in the womb if the mother is well.” – P5 [age 22, 5th grade education, multipara, Khulna]

“If someone does not face any problem, she lives well and her movement is good, so why should she go? It’s not necessary.” – P4 [age 19, 9th grade education, multipara, Khulna]

“Nobody wants to visit the doctor when well. Someone runs to a doctor only when there is problem.” – P11 [age 22, 8th grade education, multipara, Khulna]

“Only Allah knows if you are going to face any problem or not. If I feel good in every sense, I will understand that I am doing fine (and hence there is no need to go to doctors).” – P10 [age 29, no formal education, multipara, Khulna]

For some women interference with work was considered as a measure of “problems needing care”.

“Many pregnant mothers face swollen hand and leg, but I didn’t face this problem. Moreover, I did not feel sick while doing work throughout my pregnancy. I was in sound health. I could perform all household chores. Hence I did not seek care.”
– P23 [age 30, 7th grade education, multipara, Rangpur]

For most women delivery at home is desirable, but facility delivery is valued in case of emergency, therefore ANC in later months of pregnancy (at facility) is geared toward confirming whether home delivery will be possible. Registering for delivery care by obtaining a “card” at a desirable hospital in case it is needed is also a passive reason for going to a hospital, where ANC may be received incidentally.

“If I have the card then I would get the service at low cost (for delivery). I discussed it with my husband. We jointly decided to have a card. We paid 200 taka for the card.”
– P2 [age 21, 8th grade education, primipara, Khulna]

“I had to know whether my child would deliver normally at home or I would need c-section. I had to find out the way of survival.” – P23 [age 30, 7th grade education, multipara, Rangpur]

A few women connected pregnancy care with affordability. One woman said that it is important to go for care during pregnancy—provided that the family has enough money.

“If someone has the ability (to pay), she should go. There is another pregnant woman here now. She has not gone to any doctor yet...Look, there is a money issue here. If I have enough money then I would go to a doctor even with slightest pain. And if I do not have money, then I would not go to a doctor even if I am about to die.” – P7 [age 20, 5th grade education, multipara, Khulna]

4.3. Women's Knowledge and Perceptions about ANC

4.3.1. Knowledge and perceptions about the timing and number of visits

Women's knowledge about the timing and the number of antenatal visit varied widely. While some mentioned visiting every month during pregnancy, others were in favor of starting the visit at a certain month of pregnancy and then continuing until the delivery; some women recommended visits as per the need of the woman, and a few did not know how many visits a pregnant woman should make and when a pregnant woman should start the visit.

"Check-up should be done every month...pregnant mothers go through some improvements and some deterioration every month which need to be checked."

– P15 [age 20, 7th grade education, primipara, Rangpur]

"When a woman becomes pregnant she should start (check-up) from the fifth month and need to visit for the rest of her pregnancy. You should do check-up every month to know whether the mother's health is alright and to see whether the child's health is alright." – P12 [age 25, 5th grade education, multipara, Khulna]

A few women said that women should get a check-up regularly at a 3-month interval. This is needed to monitor the condition of the child's health as well as the mother's health condition.

"Making visits at 3 months interval is important, so that they (health care provider) could monitor the growth and the position of the baby in the womb." – P17 [age 20, 6th grade education, primipara, Rangpur]

A few women mentioned about making visits according to the need of the woman:

"A woman may have different kinds of problems. Doctors should suggest the timing of visit as per her needs. If it is not possible to visit doctor every month, she should make visit at 2-3 month intervals." – P20 [age 27, 5th grade education, multipara, Rangpur]

A few women had no idea about the number of visits women should make during pregnancy. One respondent said,

"No, I cannot say. I couldn't remember whether they (CHWs) said about it or not. Maybe they told but I cannot remember. It is tough to remember all things when you have little children!" – P3 [age 22, 4th grade education, multipara, Khulna]

4.3.2. Knowledge and perceptions on the content of ANC

Most women mentioned they learned from community health workers that certain things need to be done during a pregnancy check-up. They mentioned checking blood pressure, measuring weights, doing blood and urine tests, and taking TT vaccine as part of services women should get during pregnancy. A few mentioned doing blood grouping as they may need blood transfusion in case a c-section is warranted. It is likely that women's knowledge on what needs to be done was influenced by their experiences of getting certain services in the past.

“Suppose cesarean (c-section) was needed for delivery, you may need blood and if you know the blood group you would collect blood easily and infuse to patient’s body.”

– P12 [age 25, 5th grade education, multipara, Khulna]

“They check the (blood) pressure of the mother. If mother have low pressure then they advise to take lots of food to keep it to normal.” – P22 [age 31, 12th grade education, multipara, Rangpur]

4.3.3. Knowledge and perception on place/providers of care during pregnancy

When asked about the place and/or the providers who can provide care during pregnancy, most participants stated that they were aware that government and NGO health workers (BRAC in particular in Rangpur division) provide home services in their communities. The services that the health workers provide include: measuring blood pressure, taking weight, and advising on taking nutritious food and doing light household chores. For TT vaccine and medicines like iron, vitamins, and calcium, pregnant women need to go to the community clinic or other health centers. For doing different tests (such as blood and urine tests) women need to leave the village and go to the Upazila level. Some women also visit private clinics, Upazila Health Complex (UHC), or Maternal and Child Welfare Center (MCWC) that are far away from their community. For any kind of complication during pregnancy and delivery, women need to go to District Hospital.

4.4. Utilization of ANC

4.4.1. Pregnancy identification

According to the WHO standard of ANC, the first antenatal visit should be made before 12 weeks of pregnancy. Therefore, it is important to know when the study participants could identify that they were pregnant. Most of the women could identify that they were pregnant and used a pregnancy test to confirm their pregnancy status (22 of 25). This was done as early as the first month of pregnancy and as late as the fifth month (Table 4.2).

“When I started feeling like vomiting my neighbors advised me to do a pregnancy test. My husband also told me to do the same. Then before going to Surjer Hasi clinic I went to a village doctor. I bought a pregnancy stick and did the test. I got positive report. I was one month pregnant at that time.” – P9 [age 17, 3rd grade education, primipara, Khulna]

Most of the time women themselves initiated the process of doing the test by collecting pregnancy testing kits from NGO community health workers, or by sending their husband to collect the kits from a nearby pharmacy. In a few instances women collected the kits from neighbors or relatives.

“My husband bought the pregnancy stick from pharmacy to do test at home.”
– P9 [age 17, 3rd grade education, primipara, Khulna]

One woman even tested twice to confirm the state of pregnancy:

“After 4 months when a health worker came from BRAC to visit my house, I told her to give me a stick (pregnancy test stick), she asked me the reason. I then told her that my period was stopped for a few months and I had vomiting. Then I tested urine and found two marks there. I also went to the government hospital. I had test there and they also said that I was pregnant.” – P2 [age 21, 8th grade education, primipara, Khulna]

4.4.2. *Timing of first contact³ with health care provider/system during pregnancy*

As Table 4.2 shows, all participants had some form of contact with health care providers at some point during their last pregnancy. However, they had varied experiences as to when they had the first contact with the health care system. Three women had the first contact in the second month of pregnancy; nine women in the third month; four women in the fourth month; eight women in the fifth month; and one woman had her first contact with a health care provider when she went to a government hospital to get a card in her seventh month of pregnancy. Thus, if we compare the timing of study participants' first contact with any kind of health care provider or health system with the WHO recommendation of first antenatal visit, about half of the women (11 of 25) came in contact with any health care provider within 12 weeks of pregnancy (approximately 3 months).

In general, women who were contacted at home had contact with health care providers earlier than the women who went to a facility for seeking care. Sixteen women were first contacted by NGO/GoB health fieldworkers and then had contact with other service providers at the facility level; four women were contacted by fieldworkers at home and went to a health facility/center/clinic in the same month of pregnancy. The remaining four went to a facility or clinic before they were contacted by a health worker at home. One woman did not have any contact with community health worker; she went to a government hospital twice to receive care.

4.4.3. *Number of visits/contacts⁴ with health care provider during pregnancy*

The study participants had a varied number of contacts with a variety of health care providers during their last pregnancy. Overall, the participants had one to 13 contacts with health care providers during the whole pregnancy period (Table 4.2). The number of contacts varied enormously based on the type of the providers that women visited. Women who were visited at home by community health workers had the highest number of contacts compared with those who went to facilities or hospitals. Overall, community health workers made one to seven visits during the pregnancy period. With few exceptions, most women received at least four visits by these workers at home. Sometimes women could not recall the exact number of home visits.

³ Excluding contact for pregnancy test

⁴ Except contact for pregnancy test or contact for ultrasound only

Table 2. Pregnancy test and number and place of ANC visits

ID	Pregnancy test		1 st contact/visit (in month)	Last contact/ visit (in month)	# of contact/visit			Total	Place of contact/visit
	Yes/No	Month			1 st trimester (1-3) months	2 nd trimester (4-6) months	3 rd trimester (7-9) months		
P1	No	-	6	9	0	1	1	2	Home; private clinic
P2	Yes	1	3	9	1	1	3	4	Home; NGO clinic; FWC; private clinic
P3	No	-	5	9	0	3	6	9	Home; CC
P4	Yes	2	5	9	0	4	5	9	Home; CC; private clinic
P5	Yes	1	3	9	1	3	4	8	Home; NGO clinic
P6	Yes	3	5	9	0	2	3	5	Home; DH
P7	Yes	2	4	9	0	3	3	6	Home; Govt. hospital
P8	Yes	2	3	9	1	3	3	7	Home; CC; MCWC
P9	Yes	1	2	9	1	3	3	7	Home; NGO clinic; CC; private clinic
P10	Yes	1	7	9	0	0	2	2	Govt. hospital
P11	Yes	2	5	5	0	1	0	1	Home
P12	Yes	2	5	9	0	2	3	5	Home; FWC
P13	Yes	2	3	9	1	6	4	11	Home; CC; private doctor
P14	Yes	3	3	8	1	3	2	6	Home; CC
P15	Yes	2	2	9	1	3	5	9	Home; UHC; private clinic
P16	Yes	1	2	7	1	3	2	6	Home; CC; private clinic
P17	Yes	5	5	8	0	4	4	8	Home; EPI center; FWC; private clinic
P18	Yes	3	4	8	0	4	3	7	Home; UHC
P19	Yes	2	3	9	1	5	4	10	Home; CC; UHC
P20	Yes	3	3	9	1	4	5	10	Home; NGO hospital
P21	Yes	4	4	9	0	4	4	8	Home; UHC
P22	Yes	1	4	9	0	7	6	13	Home; SC, CC
P23	Yes	3	3	7	1	2	1	4	Home; EPI center
P24	No	-	5	9	0	2	2	4	Home; CC
P25	Yes	3	5	9	0	5	5	10	Home; CC, UHC

CC= Community Clinic; SC= Satellite Clinic; FWC= Family Welfare Center; UHC=Upazila Health Complex; MCWC=Maternal and Child Welfare Center; DH= District Hospital

The number of visits made by pregnant women to a fixed site facility such as community clinic (CC), satellite clinic (SC)/EPI center, or any other higher level government hospitals or NGO or private clinics is relatively low, ranging from one to five. Only two women visited CC four times or more. Three women made four or more visits to a higher-level facility such as Upazila Health Complex (UHC), Maternal and Child Welfare Center (MCWC), NGO clinic, or private clinic for seeking antenatal care.

4.4.4. Providers and places of seeking care during pregnancy

The type of health care providers that the study participants had contact with included medically trained providers (MTP) (doctor, nurse, midwife, paramedic, family welfare visitor, CSBA and Health Assistant/SACMO)⁵ and non-medically trained providers, including government and NGO community health workers. As mentioned earlier, most of the women (24 of 25) had one or more contacts with community health workers, either from the government or nearby NGOs, who visited them at home to provide some services. Three different NGOs were named by the study participants: BRAC (17), Surjer Hasi (Smiling Sun) (2), and Rangpur Dinajpur Rural Services (RDRS) (1). Surjer Hasi (Smiling Sun) was mentioned by participants from Khulna division, whereas RDRS was mentioned by Rangpur participants. BRAC workers were mentioned by participants from both divisions. Three women could not tell the name of the NGO from which community health workers came to visit them.

Twenty-four women visited different types of health facilities to receive services. These include visits to CC, SC/EPI centers, FWC, UHC, MCWC,⁶ district hospitals (DH), other government hospitals, NGO clinics, and private clinics/hospitals. Of the 25 participants, 19 had one or more visits to FWC or higher-level government or NGO facilities or private clinics. These include visits to FWC (2), UHC (5), MCWC (1), DH (1), other government hospital (2), NGO clinic/hospital (4), and private clinic/doctor (8).⁷ Twelve women made one or more visits to CC, SC, and/or EPI center during pregnancy.

4.4.5. Services received during pregnancy

The study participants received a range of services during pregnancy. These include measurement of weight and blood pressure, blood and urine tests, abdominal examination, advice on danger signs of pregnancy, counseling on work, diet and rest during pregnancy, advice on taking vitamins, iron, and folic acid, distribution of vitamins, iron, and/folic acid, advice on doing ultrasound, TT immunization, and distribution of delivery kit as a preparation for the delivery. However, the services that the participants received depended on the place and type of providers they visited or were contacted by. Women who were contacted at home by health workers mostly measured weight and blood pressure and conducted abdominal examination.

“With her hand she checked me and tried to understand baby’s condition...she placed a thing into her ear and checked with a round thing on my abdomen (use of stethoscope to monitor foetal heart sound).” – P2 [age 21, 8th grade education, primipara, Khulna].

⁵ In most cases study participants could not identify the exact designation of the service provider who provided service; we therefore make assumptions about the type of service providers by the type of facility these women visited.

⁶ One woman visited district hospital (DH) for ultrasound; thus not included.

⁷ Some women visited more than one facility.

Table 3. Place of ANC and type of services received during ANC visits

	Total # of contact/visit made	Place(s) of contact/visit		Service(s) received during contact/visit										
		Home	Health facility	Measuring weight	Measuring blood pressure	Abdominal exam	Urine test	Blood test	TT	USG	Advice	Iron/vitamin	Delivery kits	Registration card
P1	2	x	Private clinic	x	x	x	x		x	x		x		
P2	4	x	NGO clinic, FWC, private clinic	x	x	x	x	x		x		x		x
P3	9	x	CC	x	x	x			x			x		x
P4	9	x	CC, private clinic		x	x			x	x		x		x
P5	8	x	NGO clinic		x	x	x	x	x	x		x		x
P6	5	x	DH	x	x	x			x	x				
P7	6	x	Govt. hospital	x	x	x				x		x		
P8	7	x	CC, MCWC	x	x	x	x	x	x	x		x		
P9	7	x	NGO clinic, CC, private clinic	x	x	x	x	x	x	x		x		x
P10	2	-	Govt. hospital	x	x	x				x	x			x
P11	1	x	-	x								x		
P12	5	x	FWC	x	x	x						x		x
P13	11	x	CC, private doctor		x	x			x					
P14	6	x	CC	x	x	x			x		x			x
P15	9	x	UHC, private clinic	x	x	x	x	x	x	x	x	x		x
P16	6	x	CC, private clinic	x	x	x	x	x	x	x	x			
P17	8	x	EPI center, FWC, private clinic	x	x	x	x	x	x	x		x		x
P18	7	x	UHC	x	x	x	x	x	x		x	x		x
P19	10	x	CC, UHC	x	x	x			x	x	x	x		x
P20	10	x	NGO hospital	x	x	x	x					x		x
P21	8	x	UHC	x	x	x	x	x	x				x	x
P22	13	x	SC, CC	x	x	x			x			x	x	
P23	4	x	EPI center		x	x			x					
P24	4	x	CC		x	x			x			x		x
P25	10	x	CC, UHC	x	x	x						x		x

CC= Community Clinic; SC= Satellite Clinic; FWC= Family Welfare Center; UHC=Upazila Health Complex; MCWC=Maternal and Child Welfare Center; DH= District Hospital

Some community health workers provided iron tablets and advised women to take rest. Some women mentioned receiving advice to visit a nearby NGO clinic to make a “card” to be eligible for a reduced fee for delivery at the NGO facility.

“BRAC woman came to check me at my house. She only measured my (blood) pressure, checked my belly by placing hand and asked me whether I wanted to have a card. She provided brown color medicine. She gave those tablets which I took for months... I took those (medicines) 3 months during pregnancy and 3 months after pregnancy. She also told me to eat fruits and take rest at least for 2 hours. She also forbade pulling heavy thing, avoiding hard chore.” – P2 [age 21, 8th grade education, primipara, Khulna]

Some health workers left their phone numbers and asked women to call them at the time of delivery.

“On that visit (9th month of pregnancy), she asked me, do I have any physical problem? I said, no. Then she told me to call her over mobile phone at the time of delivery. She will come. One of them told me to arrange an auto-rickshaw before, so that I could go to the hospital when labor pain starts.” – P19 [age 30, 10th grade education, multipara, Rangpur]

Some NGO workers advised women to visit the nearby clinics for additional services. One NGO organized satellite clinics in the study community where women came for ANC visits and where some services such as measuring weight and blood pressure were done. Women were then advised to visit to its fixed clinic to do some more tests and make a card to conduct delivery in the clinic.

“Six month was running. She told me about the card but that time she did not have the slip and asked me to go again at seventh month. So I went there next month and she gave the slip and I went to the hospital. I went next day to make the card...there (NGO clinic) I had to submit the slip to a female doctor then she gave me a card. After providing the card they measure my pressure, they then tested my blood and urine and told me to visit again next month. She checked my abdomen with her hand and also with a cord which she put on her ear and there was a round thing that she touched on my abdomen and said that the baby was in good condition and I would have normal delivery. She also talked about delivery kit - blade, plastic sheet, thread, clip were there.” – P2 [age 21, 8th grade education, primipara, Khulna]

While health workers made several visits to the pregnant women’s house, the services they provided were mostly limited to measuring weight and blood pressure, doing abdominal examination to monitor fetal heart (with a stethoscope in some cases and with bare hands in some cases), and advising on food and rest. A few women also were advised to visit health facilities/hospitals for other kinds of services. Women did not receive certain types of recommended ANC services, such as blood test or urine tests, from health workers. Women who visited CC or SC/EPI services also did not receive these two services (blood test and urine test).

The women who visited FWC or higher-level government facilities, such as UHC, MCWC, or NGO clinics, received a more comprehensive package of services compared with those who were visited at home by community health workers or visited CC, SC, or EPI center.

Four women who visited NGO clinics received urine and blood tests and were provided with a card for delivery. Two of them were advised to do an ultrasound. Of the two women who visited FWC, only one had recommended blood and urine tests done. Of the five women who visited UHC for ANC, two received both tests and one was advised to do an ultrasound and received safe delivery kits. One of the women had urine test only. The other two women received other services, such as measuring weight

and blood pressure, advice on food and rest, but not urine or blood tests. Of the two women who went to a private clinic, one had both urine and blood tests whereas the other had only urine test done.

Despite the fact that most of the women had more than four recommended contacts with health care providers during pregnancy, only nine women received most of the WHO recommended package of ANC, including urine and blood test, during one or more visits. Two more women received urine test but not blood test. Only four women received blood and urine tests in more than one visit. Only one woman received urine test from an NGO worker. The rest received these services from FWC, UHC, MCWC, NGO clinic, or private clinic.

Two women received delivery kits during pregnancy; one received the kit from a BRAC health worker in her ninth month of pregnancy when the health worker visited her at home, and the other received it during her visit to an UHC when she was 8 months pregnant.

4.5. Knowledge and Use of Tetanus Toxoid (TT) Immunization

Most the women were immunized against the disease, as they received five doses of TT (14 of 25 women); some of them completed the scheduled before the last pregnancy, while others completed the five-dose schedule during the last pregnancy. Four women received four doses of TT, three women received three doses, two women had two doses, one woman received one dose, and one woman had never received a dose during her lifetime. The participants from Khulna division had higher coverage of complete or near complete TT doses compared with participants from Rangpur division. Of a total 12 participants from Khulna, eight had completed five-dose schedules; three had four doses, and one had not had any TT during her lifetime. In contrast, of the 13 participants from Rangpur, six had completed five doses and one had four doses of TT. The other six women had three doses or fewer of TT vaccine.

While most women were aware of the importance of getting TT vaccination and knew that TT needs to be taken during adolescence, the exact benefits of getting the vaccine were not known to many. Some could mention preventing tetanus, which they had heard from community health workers; however, others mentioned avoiding any harm to the baby and preventing birth defects but could not mention the type of defect they referred to. Some women could correctly mention five doses of the vaccine, while others were not sure about the number and timing of the vaccination.

“Five vaccines need to be taken before childbirth. This five-doses of vaccine are provided to adolescent girls...I took those to prevent ‘tonkar’ (tetanus) during delivery. It will prevent complication during delivery.” – P12 [age 25, 5th grade education, multipara, Khulna]

“It’s the injection which needs to be administered at the age of 15. I thought if any injection (dose) is left then they would administer it during pregnancy. Hence I went to take the injection...I went there but they didn’t give any because it was less than one year since I took the last dose. So she (health provider) asked me to go after delivery to get the remaining injection (dose).” – P2 [age 21, 8th grade education, primipara, Khulna]

4.6. Knowledge, Perceptions, and Use of Ultrasound during Pregnancy

Overall, the study participants had a positive perception about doing ultrasound during pregnancy. The commonly held view is that doing ultrasound during pregnancy is important to know the condition, position, and growth of the unborn child and to know the sex of the child.

“Ultrasound is good to know child’s condition at mother’s womb, know whether its hand, legs are ok or not...whether the baby grow up perfectly or not will also be known.” – P5 [age 22, 5th grade education, multipara, Khulna]

A few women held a different view—that women who do not have any physical problem do not need to do ultrasound. Women who have any health problem need to know the status of their health and the consequences of mother’s ill-health on the health of the unborn.

“I did (at 9th month) it as I was sick, my dysentery didn’t cure for long time, I took medicine then I went to do ultrasound. Moreover, I wanted to know how the child was doing in the womb. I heard from many women that a child may not be in good condition in the womb, can be in reverse position or the fluid may become dry. To know all of these I went (to do ultrasound).” – P10 [age 29, no formal education, multipara, Khulna]

“If there is any pain in the abdomen then you need to do ultrasound.” – P13 [age 24, 10th grade education, multipara, Rangpur]

Some women perceived that ultrasound should be done at the later stage of pregnancy, like 6 or 9 months, mainly to know the sex of the child. Ultrasound will also help in assessing the overall condition of the baby so that a decision can be made about the place of delivery.

“I used to know that pregnant mother do ultrasound at 7 and 9 months of pregnancy but now I have come to know that ultrasound can be done at any stage of pregnancy. Pregnant women can do ultrasound whenever she faces any problem, or want to know the condition of the baby. Sometime women do ultrasound to know the sex of the baby.” – P2 [age 21, 8th grade education, primipara, Khulna]

Thirteen participants had done ultrasound during the last pregnancy, and two had done it twice. Of the 11 women who had done it once, 5 had done it at 9 months of pregnancy, 2 at 8 months, 3 at 7 months, and 1 at 3 months of pregnancy. One woman did the test twice at 9 months and the other woman who had the test twice did it at 5 months and then at 7 months of pregnancy. It is important to note that 11 of these women went to either a private or NGO facility to do the ultrasound. When asked the reasons for doing the ultrasound, one woman who did it at 9 months of her pregnancy said,

“I was told at the community clinic that ultrasound should be done at 8 or 9 months. I was told that it would be good for knowing the condition of my baby.” – P4 [age 19, 9th grade education, primipara, Khulna]

Some other reasons were also mentioned:

“I wanted to hear the sound and see the picture of my baby; especially my concern was to know the position and condition of my baby. I also wanted to know the sex (of my baby).” – P2 [age 21, 8th grade education, primipara, Khulna]

“I told my husband that many women develop complications, the child could also be in reverse position in the womb; at least I would know whether it was a boy or girl, he said you need not to do that as we have belief in Allah. It is better to depend on Allah as we cannot change anything (sex of the child). As he said this I did not go for an ultrasound.” – P12 [age 25, 5th grade education, multipara, Khulna]

The practice of doing ultrasound was more prevalent among women from Khulna division compared with women from Rangpur division (9 of 12 women in Khulna compared with 3 of 13 women in Rangpur).

4.7. Perceived Quality and Satisfaction about Facility-based and Home-based ANC

When asked about the quality of the services they received during pregnancy, women valued how health care providers spoke with them, whether they took time for providing services or rushed, whether they talked to them in “good manner”, provided information about self-care, provided medicines, and provided reasons for doing certain tests or explaining the results of the tests to them. The level of satisfaction was related to the perceived quality of services they received.

As mentioned earlier, most women were visited by community health workers at home and they received some services during these visits. Some of the women also went to one or more facilities to receive services. Therefore, when asked about the quality of services and/or satisfaction, reference was made to the type of the providers and the places where the services were provided and comparisons between the various services.

4.7.1. Facility-based services

In general, the study participants perceived hospitals or facilities as a better place for receiving services compared with home services. They liked the professionalism and knowledge of doctors at facilities above community health workers. Some mentioned availability of “skilled” providers in hospitals who can deal with complications.

“Actually we have no doctor here except village doctors. And doctors are available in Satkhira. There are some good quality doctors in the maternity of Satkhira. I know one doctor there, called Lipika, who is well known and also rewarded from abroad. So many doctors are there and so I went there. Most women go there and seek care from the maternity. Besides our own choice workers of this clinic also suggest women to go to the maternity.” – P8 [age 29, master-level education, multipara, Khulna]

“Seeking care at a hospital is better than home. Doctors can tell you many things in the hospital. They will measure weight, pressure, and they also give tablet. They give advice. So it is better to go to a hospital...At home, health workers also measure pressure, but every service is free of charges at the hospital. We found doctors there...Hospital has free delivery service.” – P12 [age 25, 5th grade education, multipara, Khulna]

“In the clinic, they do check-ups in a very good way, unlike at home. They also discuss about many danger signs and advise how to address them.” – P14 [age 18, 6th grade education, primipara, Rangpur]

“Going to a hospital is better... more beneficial... you will find senior doctors in the hospital. Conversely at home just two women come and they do not understand the problems properly. Doctors in the hospitals understand all problems.” – P24 [age 35, 3rd grade education, multipara, Rangpur]

Some women saw the benefits in receiving care at home because health centers are far away, and to avail themselves of those services women need to have suitable transportation means and bear transportation costs. Some of the women mentioned that during the advanced stage of pregnancy

women become heavier, have difficulty in walking, and that is another reason for women for not going to a health facility for check-up.

Irrespective of the type of provider or the place they visited, women liked the professional tests and exams with equipment over manual exams.

“Their service provider [CC at in-laws’ house] only did check-up by hand. That’s why I went to the community clinic of my parental house...They used machines for my check-up. They did check-up by using stethoscope...” – P9 [age 17, 3th grade education, primipara, Khulna]

Despite high regards on the facility-based services some participants expressed reservations in receiving services from health facilities due to the distance to the health facility, availability of suitable transport, workload at home, privacy concern due to presence of other people, and non-friendly attitude of some health care providers.

“That woman (doctor) is from high status and has an attitude. She was dealing with so many patients. I was feeling like I could have my life back by leaving that place. When I entered there she touched my belly. I was scared. She understood that. She asked me whether I was scared. I answered I was feeling pain in my belly and I requested her not to touch my belly again. Then she said, ‘ok then, as you said I would not see’ ...and I left.” – P7 [age 20, 5th grade education, multipara, Khulna]

The cost implication of taking services was also mentioned by some women complaining about high cost of services in the hospitals.

“I was satisfied but she could have provided better service...she does cesarean (c-section) at the maternity, but if she wishes she could do it at the government hospital (where she works). She did it in a private clinic so that she gets commission from there.” – P8 [age 29, master-level education, multipara, Khulna]

Yet, women were able to give an extra effort (in terms of money or transportation) to get the service at their preferred point of care availed themselves of that service.

“Although the road to there [Satkhira maternity] is not good women go there for their better treatment [compared with their local community clinic]. The road was worse while I was pregnant than now. I went there monthly for check-ups.” – P8 [age 29, master-level education, multipara, Khulna]

4.7.2. Home-based services

Overall, most of the women expressed satisfaction with the services they received from community health workers. Women valued how health workers talked to them by visiting their house. However, some of them expected more from the health workers. They expected more time from the workers and expected that they would talk in a “good manner”. This expectation was more prevalent among participants from Khulna division, while participants from Rangpur expressed satisfaction with the care provided by community health workers. They expressed satisfaction about the extensive advice they received on self-care, suggestions about doing tests with a clear explanation of reasons for doing the tests. They were also satisfied that the health workers completed physical examination and took weight and checked blood pressure at home. Moreover, the health workers suggested visiting a higher-level facility if there was any complication.

“She did the check-up and told me to go to a doctor. I asked her the reason to see a doctor. She said that I had severe pain and without a good doctor no one would be able to give me any medicine as I was pregnant. She said if any quack see me and give me drugs, then growth of my child in the womb will be hampered, even I could die.”

– P2 [age 21, 8th grade education, primipara, Khulna]

Some women perceived limits to the care community health workers can provide, especially doing some tests, as suggested by the following quote.

“She couldn’t do more than she did...This is sufficient as they provided the service in the house. They couldn’t bring the machine [computer]...They couldn’t do blood test...They came and gave advice.” – P21 [age 30, no education, multipara, Rangpur]

Yet, they did not complain, as it was free and given at their doorstep. Some women considered home-based care as “second best” when barriers to facility services are considered.

“She did all the things within her ability...She did according to her job rules. I did not expect anything more from her.” – P7 [age 20, 5th grade education, multipara, Khulna]

“Getting the service at home is more beneficial than to go somewhere, otherwise I had to go there on foot, during pregnancy it is hard to walk anywhere.” – P21 [age 30, no education, multipara, Rangpur]

Some were dissatisfied that community health workers do not do more (like urine or blood tests) or that necessary extra services entail costs, as they need to go to hospital for extra services. Some women complained about not having enough discussions, while others complained about uncertainty of health workers visits.

“When she [CHW] came to my home, she only touched my abdomen and measure the pressure and she did not talk to me. She did not measure the weight or anything. On the other hand, they [clinic] took my pressure, weight, and talked about a lot of things, I mean they advised me many things.” – P14 [age 18, 6th grade education, primipara, Rangpur]

“She measured my pressure, laid me down on bed and touched my belly by hand and then written something into a card (which she kept) and then went away. She didn’t tell me anything. She didn’t tell me anything whether I have high pressure or low pressure or whether I am in a good position. She didn’t have any fixed date to come. Sometime she came after one week and sometime after one month. She didn’t give any date of visit.” – P7 [age 20, 5th grade education, multipara, Khulna]

4.8. Decision-making Regarding ANC

One of the objectives of the study was to understand how women make decisions to seek care during pregnancy. Overall, making decisions about using or not using ANC services, as well as choosing a particular provider or a group of providers, is a complex process. Using data from in-depth interviews, we attempted to examine patterns in the decision-making process. We propose that the decision-making process of seeking care starts with women’s perceptions of the meaning and importance of ANC; their perceptions about the relevance of care to themselves and taking a stance on whether or not to seek care; choosing a provider or a mix of providers for the care; and seeking the care at the final stage. Factors that play roles in the decision-making process include workload at home, past experience of

pregnancy complications, and experience in seeking or not seeking care during pregnancy, economic condition, perceived cost of the service, and support from the family.

The way of understanding both the meaning and the importance of seeking ANC greatly influenced the subsequent process of deciding whether to seek care. In general, women's perceptions about the usefulness of ANC fell into three categories: a) those who viewed it as a preventive measure (go for care even if there is no health problem) that was helpful for both child and mother; b) those who saw it as a curative measure (go for care when there is a health problem); and c) those who considered it as a means for achieving certain specific purpose, such as obtaining a "card" for facility delivery, getting TT immunization, or doing ultrasound.

While holding a particular perception about the meaning and importance of ANC, the study participants rationalized the degree to which ANC was personally relevant to them. Some women found it relevant because they were having some physical problems; others who viewed it as a preventive measure also found it relevant in order to check the status of the baby and the mother. Others, who felt healthy without any recognizable complications, were reluctant to seek care. Some women viewed it in the light of their past bad experiences. When women knew the value of a particular service or test, they actively sought those services.

"One vaccine was due from the first pregnancy. And I need to take that vaccine... There was no provision at my natal house to take that vaccine. So when I went to the camp, she told me that I need to take that vaccine." – P23 [age 30, 7th grade education, multipara, Rangpur]

"We took the service by going there [community clinic] by ourselves. I told them of my pregnancy situation and requested them to give TT injection..." – P4 [age 19, 9th grade education, multipara, Khulna]

As mentioned earlier, most women had their first contact with health workers at home; therefore, the pregnant women had little say about getting or not getting home services. These services did not incur any cost and, unless the pregnant woman or any other member in her family objected to receiving services from community health workers, who made household visits as per their schedule and provided specific services (measuring weight and blood pressure and doing abdominal examination), and women passively accepted the care.

"There is nothing to take decision as she [BRAC health worker] came to my house to provide the service." – P21 [age 30, no education, multipara, Rangpur]

Receiving home services made some women feel no need to go out of their house to receive any additional services, as they were either satisfied with the services or did not see any other reasons to go to other places.

"I didn't go (to any facility) because that health worker apa always visits my aunt's house to do their job. Both of them work at family planning office. At that time my aunt told the apa to do my check-up. That's why I didn't need to go to hospital."
– P2 [age 21, 8th grade education, primipara, Khulna]

However, most of the women who were visited by health workers at home (23 out of 24), also made an active effort to go out of their home to seek services from health facilities, suggesting that home visits did not prevent them from making visits to health facilities for ANC. In this regard, women seldom made decisions independently; a supportive environment determined whether ANC would be sought outside of home. The supportive environment included support from husband and in-laws and workload

at home. Having a supportive family (husband and or in-laws) helped women in seeking care outside of home.

“I discussed it with my husband and asked him...then we jointly took the decision of doing the card.” – P9 [age 17, 3th grade education, primipara, Khulna]

“My older sister in law, husband and mother in law told me to go [to CC]. They told me and I went there with my husband because he knows every place.” – P4 [age 19, 9th grade education, multipara, Khulna]

Even for home-based care, where the decision is “passive,” women needed support from family members in receiving the service.

“Yes, we had [discussion regarding health worker’s services]. My husband told me to get the service from her, he said, ‘ok, if the BRAC lady come, you will check the weight and other thing she said.’ He even asked me to go home as I was working outside the house when she came. My husband was at house then. He went to call me and said that the lady had come, go to her.” – P23 [age 30, 7th grade education, multipara, Rangpur]

“No, I didn’t face any problem [with husband or in-laws not allowing]. My husband never made any problem for this. I have chosen my doctor and I just told him that I need to go there and he took me there. Moreover, in my husband’s house all of the family members are concerned about sickness and took us to doctors if we get sick.” – P9 [age 17, 3th grade education, primipara, Khulna]

An exception to the pattern was found in one woman.

“I told him [husband][that maternity center gives free delivery service if ANC is taken from there], but he said, ‘I am too busy. I don’t have time to go with you. Delivery will happen at home.’” – P23 [age 30, 7th grade education, multipara, Rangpur]

Mothers-in-law were sometimes a barrier to seeking care if they thought that care was unnecessary, outright prohibiting care and making it clear that “in their day, women experienced pregnancy without such interventions”. In this regard, two women shared their experience of seeking pregnancy care in their last pregnancy when they were in their natal house; their in-laws’ family did not support them going outside home to seek care for the last pregnancy.

“My parent’s house is in Lalmonirhat. I visited maternity center in my previous pregnancies from my natal house. My parents also wanted me to go there and do the card. I didn’t go there from my in-laws’ house.” – P23 [age 30, 7th grade education, multipara, Rangpur]

“I moved to Kolaga [for ultrasound at 9 months] because it is near to my natal house. Moreover there was no one who could accompany far off along with me [at husband’s house].” – P9 [age 17, 3th grade education, primipara, Khulna]

Other factors that directly or indirectly affected the decision-making process included: time and workload, distance to the facility, someone to accompany, and cost of services. If the woman’s husband or mother-in-law was not supportive and excuse her from doing household chores, the woman could not seek care outside the home even if she considered it as important.

“I didn’t go because I was busy with household chores and with work in the field. I have to manage both house and field. I didn’t go for any check-up, blood test, urine test or measuring my weight...” – P23 [age 30, 7th grade education, multipara, Rangpur]

“Doctor gives a number of advices. If I listen to him and lie down, then how will my family run? How the household chores will be completed?” – P11 [age 22, 8th grade education, multipara, Khulna]

Economic condition of the family also played a role in decision-making about seeking pregnancy care.

“We are poor people, where will we get money from? If there is money, then people do it. If not, they don’t. If there is money, then all kind of desires arises but when there is no money, what is the use of knowing any desire? We wished to do (ultrasound), but there is no use wishing when there is no ability.” – P11 [age 22, 8th grade education, multipara, Khulna]

5. Discussion

This chapter presents main study findings and discusses implications of these findings. The study findings can be categorized under three headings: women's value perceptions about using care during pregnancy; their personal experiences in seeking care; and perceptions of quality of care and satisfaction in using the care.

With the exception of a small number of women, a general consensus prevailed in perceptions about the importance of seeking care during pregnancy. Generally, most women held a positive view about the benefits of seeking ANC; however, some did not find it relevant for them, as they were apparently healthy without any recognizable signs or symptoms of complications. These findings are in agreement with other studies where pregnancy was viewed as a normal life event rather than a medical condition requiring professional monitoring and supervision (Nahar 1997; Chowdhury, Mahbub, and Chowdhury 2003; Khan et al. 2004). This was especially true for multiparous women who had experienced one or more healthy pregnancies (Ndyomugenyi, Neema, and Magnussen 1998; Griffiths and Stephenson 2001; Matsuoka et al. 2010).

From the study, it appears that most of the participants had limited knowledge about the desirable timing and number of visits to be made for ANC. They were not aware of the type of services they needed and “ideal” places to go for obtaining these services. This is not surprising given that these women are housewives, live in rural areas, have low-level education, and have limited access to information about health services in general and ANC services in particular.

Bearing in mind that a complication can develop at any stage of pregnancy, holding a positive view about benefits of ANC is not sufficient in itself. To obtain the full benefits of ANC, not only does every woman need to be aware of the signs and symptoms of pregnancy complications, but they should also know when and where to go if complications appear. They also need to be aware of the benefits derived from making timely and sufficient number of ANC visits. Even though most of the participants had one or more contacts with the health care system, either through home-based community health workers or facility-based health professionals, they did not receive sufficient information on the purpose and schedule of ANC visits. Relevance of the care was also not explained to them. Therefore, the study participants missed an opportunity to become educated about the benefits and schedule of getting standard care during pregnancy; on the other hand, health care providers also missed a chance to provide appropriate information and services to these clients.

The study found women's high level of contacts with health care system, either through their active visits to fixed site clinics/hospitals or through home visits by community health workers, or both. All participants had some form of contact with a variety of health care providers at some point during their last pregnancy. Most of the women who received home visits by community health workers also visited fixed site clinics, which is an indication that home visits did not prevent women from visiting facilities. The study women had varied experiences in the timing of first contact, total number of contacts/visits made, and the services that they received from these contacts/visits. Overall, half of the women had first contact within 12 weeks, the WHO recommended timing for the first visit; one to seven contacts with health workers at home, and one to five visits at a fixed site health facility, and in most cases women received very limited services, such as measuring blood pressure and abdominal examination.

Our findings are in agreement with the BDHS and other studies, which have showed an increasing trend in the use of ANC in Bangladesh in recent years. According to the 2014 BDHS, 89% of women in Khulna and 81% in Rangpur received any ANC (NIPORT, Mitra and Associates, and ICF International 2016). Some other women (approximately 5%) reported having visits by health workers at home when they were pregnant, but did not report these as “check-ups”. The BDHS and other surveys collect information on the use of ANC as perceived by the respondents. The structured format of the questionnaire may provide less flexibility to probe or to ask additional questions if a respondent cannot

answer the question or does not understand the meaning of the question. For example, in the DHS questionnaire respondents were asked whether the respondent had any “check-up” during her last pregnancy. Even though data collectors were trained to explain the word “check-up” in greater detail, if a respondent failed to understand the meaning of “check-up” she also missed reporting the use of ANC. On the other hand, the qualitative nature of the present study gave flexibility to ask multiple questions, verify answers by cross-checking and triangulate information gathered from different sources. Moreover, we have counted any contact with the health care system as care during pregnancy, which may not match with women’s perceptions about the use of ANC or “check-up”.

We are, however, mindful about the selective nature of the study sample. It may be likely that the clusters that we have selected have better access to health care services compared with the overall sample covered in the DHS surveys or the country as a whole (both in terms of the presence of community health workers and the availability of fixed health facilities). Overall, Rangpur has a high concentration of NGOs working in maternal and child health programs. BRAC and RDRS are two of these NGOs working extensively in Rangpur division. All of our clusters from Rangpur division reported to be covered by BRAC and RDRS, which may explain high coverage of antenatal care in the Rangpur clusters. Smiling Sun (Surjer Hashi) and BRAC provide services in Khulna division. Of the five selected clusters in Khulna division, four had the presence of NGOs (see Appendix 2). Therefore, the presence of NGO field workers in the study clusters may explain the high level of use of ANC found in this study.

While the study findings indicate a high coverage of ANC, it says little about the type of services women received. In our study, only 11 women received urine test and nine women received blood test during one or more visits. These two particular tests are essential components of ANC but were not provided by community health workers during home visits. The study participants had these tests only if they made active efforts to go outside home and visited FWC or other higher level health facilities. The 2014 BDHS data show higher use of urine and blood tests in Khulna and Rangpur divisions (rural) (57% urine test and 43% blood test) compared to our study findings. These findings suggest that our study women may have less chance of getting urine and blood test as they were visited by community health workers at home.

We observed variations in the services provided by community health workers at the household level. Some provided limited services, whereas others provided a few more services and referred clients to a nearby facility for additional services. Some spent sufficient time with clients and explained all the directives in greater detail. These had a direct effect on the satisfaction of their clients.

While there is a limit to the extent of services community health workers can provide, presence of these providers in the community should be taken as an opportunity rather than an obstacle in increasing the use of ANC. Community health workers can play a key role by identifying all pregnant women in the community and provide counseling on healthy lifestyles, birth planning, complication readiness, and the need for ANC and skilled care at birth. By referring and linking pregnant women to fixed-site facilities for additional care, community health workers can help creating linkages between the community and health care systems.

In most cases, women expressed satisfaction with the services they received from community health workers. Acknowledging the limits to the type of services that community health workers can offer, most of the women did not complain, as the services were free and available at their doorstep. They considered it as the “second best” option, especially at the later stage of pregnancy when women are heavier and it is difficult for them to go to health facilities on foot or by locally available transport. It should be mentioned that with exception to one or two study clusters government or NGO facilities that could offer a comprehensive package of services to pregnant women were distantly located.

The high level of coverage of TT vaccination among the study participants is consistent with results from the BDHS surveys. However, this high coverage was achieved without women’s understanding about the specific disease against which they are immunized. Most of the participants could not mention

the disease that is prevented by TT vaccination. A slightly better coverage of complete or near complete TT doses was observed among women living in Khulna division compared with Rangpur division. Because of limited sample size, however, we cannot comment further about the completeness and overall coverage of TT in these two divisions.

Overall, the study participants held a positive view about the use of ultrasound during pregnancy. Some perceived that it should be done at the later stage of pregnancy to ascertain the overall condition of the baby (including position and sex of the baby) so that a decision could be made about the place of delivery. More than half of the participants had ultrasound during the last pregnancy and the practice was more prevalent among women in Khulna division compared with Rangpur division. While the WHO-recommended package of ANC services does not include ultrasound, antenatal ultrasound is widely used in many developing countries, including Bangladesh, for confirmation of gestational age, identification of multiple pregnancy, and screening for fetal anomalies. There are debates whether the benefits of routine ultrasound justify their costs. This is of particular importance in low-income settings where scarce resources need to be carefully allocated.

Barriers to the access and uptake of ANC are both cultural and financial. Women and their families incur substantial opportunity costs when pregnancy care requires travel and long waiting hours. Our study findings confirm that women need a supportive environment to seek care, especially when the service is located outside of the home. While some in-laws were reported not to be supportive of their daughter-in-law's use of ANC, most women expressed satisfaction about the support they get from their mother-in-law in receiving services. Most husbands were also supportive of using care during pregnancy, even though some did not accompany their wives to the health facility.

Pregnancy care often represents the first opportunity for a woman to establish contact with the health care system. Several health conditions that are prevalent among Bangladesh women, such as iron deficiency anemia, sexually transmitted infections (STIs), tuberculosis, hypertension and diabetes can be easily identified and treated during antenatal visits. Bangladesh has made remarkable progress in the reduction of maternal mortality in recent years. The reduction has been achieved through decreased deaths due to direct obstetric causes such as puerperal sepsis, hemorrhage, and hypertensive disorders; however, indirect obstetric deaths still remain high. Identification and treatment of pre-existing medical conditions through antenatal check-ups will identify and treat pre-existing conditions and thus decrease maternal morbidity and mortality related to these conditions.

6. Conclusion

Using a qualitative approach, this study provided a detailed picture of timing and patterns of utilization of ANC in two selected divisions of Bangladesh. It also provided information on women's perceptions of and experiences in utilizing ANC services. After reviewing and discussing the results, we can draw five major conclusions:

1. The prevalence of beliefs about the positive benefits of ANC is high among women, although variations in the perceived purpose and relevance of ANC are noted.
2. Although there are several limitations in the health care system delivering care to pregnant women, it is clear that a large majority of women have contact with the health care system during pregnancy. However, the timing and frequency of the care are generally inadequate.
3. Pregnant women have multiple contacts with the health care system; yet, opportunities arising from these contacts are not properly utilized for the benefit of the mothers and newborns.
4. The nature of services that women receive as ANC fall short of the standard recommended by WHO, which can be explained by lack of adequate structural organization of health services, limited health care resources, and lack of knowledge and demand from users asking for certain type of services.
5. Women's preference for and satisfaction with facility-based ANC is clear; home-based care is considered as the "second best" when barriers to facility based care are considered.
6. Home visits by community health workers do not prevent pregnant women from seeking care outside of the home; however, they do not receive some essential components of pregnancy care, such as urine and blood test, unless they make an effort to go outside of the home to seek care from a health facility.

References

- AbouZahr, C., and Wardlaw, T. 2003. *Antenatal Care in Developing Countries: Promises, Achievements and Missed Opportunities: An Analysis of Trends, Levels and Differentials, 1990-2001*. Geneva: World Health Organization.
- Chowdhury, A. R., Mahbub, A., and Chowdhury, A. S. 2003. *Skilled Attendance at Delivery in Bangladesh: An Ethnographic Study* (Research Monograph Series No. 22). Dhaka: Research and Evaluation Division, BRAC.
- Finlayson, K., and Downe, S. 2013. "Why Do Women Not Use Antenatal Services In Low- and Middle-income Countries? A Meta-Synthesis of Qualitative Studies" *PLoS Medicine* 10(1), e1001373. doi: 10.1371/journal.pmed.1001373.
- Griffiths, P., and Stephenson, R. 2001. "Understanding Users' Perspectives of Barriers to Maternal Health Care Use in Maharashtra, India." *Journal of Biosocial Science* 33(03), 339-359. doi:10.1017/s002193200100339x.
- Houweling, T. A., Ronsmans, C., Campbell, O. M., and Kunst, A. E. 2007. "Huge Poor-rich Inequalities in Maternity Care: An International Comparative Study of Maternity and Child Care in Developing Countries." *Bulletin of the World Health Organization* 85(10), 745-754.
- Khan, R., Blum, L. S., Shelly, S. B., Sultana, M., Nahar, Q., and Streatfield, P. K. 2014. *Exploring Birth Planning and Response to Delivery Complications: A Qualitative Investigation to Supplement the Bangladesh Maternal Mortality and Health Care Survey 2010*. Dhaka: MEASURE Evaluation, UN-CH, USA and icddr,b.
- Khan, R., Sultana, M., Sharmin, T., Khan, N. Z., Chowdhury, M. E, and Gazi, R. 2014. *Continuum of Care for Pregnant Women in Bangladesh, Programmatic Attributes and Social Contexts in Provision of Quality Services*. Dhaka: icddr,b.
- Koenig, M. A., Jamil, K., Streatfield, P. K., Saha, T., Al-Sabir, A., Arifeen, S. E., and Haque, Y. 2007. "Maternal Health and Care-seeking Behavior in Bangladesh: Findings from a National Survey." *International Family Planning Perspectives* 33(2), 75-82.
- Matsuoka, S., Aiga, H., Rasmey, L. C., Rathavy, T., and Okitsu, A. 2010. "Perceived Barriers to Utilization of Maternal Health Services in Rural Cambodia." *Health Policy* 95(2), 255-263. doi:10.1016/j.healthpol.2009.12.011.
- Ministry of Health and Family Welfare (MOHFW). 2011. *Strategic Plan for Health, Population & Nutrition Sector Development Program (HPNSDP) 2011-2016*. Dhaka, Bangladesh: Planning Division, MOHFW.
- Mumtaz, Z., and Salway, S. M. 2007. "Gender, Pregnancy and the Uptake of Antenatal Care Services in Pakistan." *Sociology of Health and Illness* 29(1), 1-26. doi: 10.1111/j.1467-9566.2007.00519.x.
- Nahar, Q. 1997. *Antenatal Care Services in an Urban Area of Dhaka, Bangladesh* (Unpublished Master of Medical Science Thesis). University of Western Australia, Perth, Australia.
- National Institute of Population Research and Training (NIPORT), Mitra and Associates, and ICF International. 2015. *Bangladesh Demographic and Health Survey 2014: Key Indicators*. Dhaka, Bangladesh and Rockville, Maryland, USA: NIPORT, Mitra and Associates, and ICF International.
- National Institute of Population Research and Training (NIPORT), Mitra and Associates, and Macro International. 2009. *Bangladesh Demographic and Health Survey 2007*. Dhaka, Bangladesh and Calverton, Maryland, USA: NIPORT, Mitra and Associates, and Macro International.

Ndyomugenyi, R., Neema, S., and Magnussen, P. 1998. "The Use of Formal and Informal Services for Antenatal Care and Malaria Treatment in Rural Uganda." *Health Policy and Planning* 13(1), 94-102. doi:10.1093/heapol/13.1.94

Pallikadavath, S., Foss, M., and Stones, R. W. 2004. "Antenatal Care: Provision and Inequality in Rural North India." *Social Science and Medicine* 59(6), 1147-1158. doi: 10.1016/j.socscimed.2003.11.045

Say, L., and Raine, R. 2007. "A Systematic Review of Inequalities in the Use of Maternal Health Care in Developing Countries: Examining the Scale of the Problem and the Importance of Context." *Bulletin of the World Health Organization* 85(10), 812-819. doi: 10.2471/blt.06.035659

Simkhada, B., Teijlingen, E. R., Porter, M., and Simkhada, P. 2008. "Factors Affecting the Utilization of Antenatal Care in Developing Countries: Systematic Review of the Literature." *Journal of Advanced Nursing* 61(3), 244-260.

World Health Organization. 2002. *WHO Antenatal Care Randomized Trial: Manual for the Implementation of the New Model. WHO Programme to Map Best Reproductive Health Practices* (WHO/RHR/01.30). Geneva: World Health Organization.

Appendices

Appendix 1. Number of Eligible Informants, Number Interviewed, and Reasons for Not Including as Study Participants

Division	Cluster #	Number of eligible informants	Number of informants interviewed	Reasons for not including
Khulna	K1	4	2	Informant for Adolescent Childbearing Study=1; Refused=1
	K2	6	2	One of the first clusters visited; followed two informants per cluster criteria
	K3	4	3	Divorced=1 and not eligible
	K4	4	3	Informant for Adolescent Childbearing Study=1
	K5	4	2	Not present at home=2
	K6	6	0	Did not choose this cluster; distantly located from other clusters
Rangpur	R1	5	4	One household had two eligible participants and, we interviewed one
	R2	6	2	Refused=3; Not present at home=1
	R3	4	3	Not present at home=1
	R4	5	4	Not present at home=1
	R5	6	0	Far from other clusters
	R6	4	0	Did not choose this cluster; number of eligible women was higher in other clusters
	R7	6	0	Did not choose this cluster; achieved targeted number from other clusters
	R8	4	0	Did not choose this cluster, number of eligible women was higher in other clusters

Appendix 2. Summary Information on Study Clusters

Khulna

Cluster K1: The village is beside a highway, and the distance from the nearest district town is not too far. The road in the village is made with bricks and mud. Villagers use vans, bicycles, and motorcycles as mode of transport. For going to the nearest town they use bus and van. The villagers seem to be economically sound, as most of the houses are made of brick wall with tin roof, and there are a few two-storied buildings as well. There is an agriculture information center in the village, which has a great impact on their agricultural production. The main occupation of the villagers is agriculture and many are involved in raw agricultural product business. There is one primary school and also one girl-only school in the village. However, there is no health facility within the village. For all kinds of health services, residents of the village need to travel to the government Upazila Health Complex (UHC), which is 2-3 kilometers from the village. There are a few medicine shops and a private clinic at the bazaar (market), which is 1.5 kilometers away from the village. BRAC health workers, who come from outside the village, provide services to pregnant women, distribute family planning methods, and provide TT vaccine to pregnant women. These services are provided on a monthly basis.

Cluster K2: This village is far away from the district town and very close to the Indian border. All roads are made of mud and become totally unusable during the rainy season. Even though road communication is not good, and most of the houses are made of mud with a high base to protect them from water during the rainy season, the overall economic condition of the villagers seems good. Agriculture is their main mode of production. Inside the village there are a few small shops and one primary school. Periodic EPI center takes place at the primary school, where health workers from the nearby community clinic (CC) of next village come to provide services at the EPI center. They also supply family planning methods and advise pregnant women to take antenatal care. When needed, villagers visit the community clinic situated in the neighboring village. A satellite clinic also takes place in the village every 3 months. A village doctor provides different maternal and child health services. With a gap of 2-3 months, community health workers from Smiling Sun (a local NGO) make home visits to provide services. BRAC has a micro credit program in the village; however, key informants seemed unaware of any health program of BRAC in the village. Government health facilities and diagnostic centers are available at the upazila but those are far away from the village and hard for the villagers to reach due to the poor communication system.

Cluster K3: Roads in this village are made of bricks, and villagers use paddle and engine vans as their main mode of transport. There is one primary school and one high school in the village. The main occupation of the villagers is agriculture. Most of the houses are made of mud and straw. Micro credit programs from many NGO's (ASA, BRDB, BRAC, and Ad-din) are running in the village, and most of the families are involved with their programs. There is no health facility in the village, and a few medicine shops are at local village market situated one kilometer away. The nearest UHC is 11 kilometers away, and the FWC is located one kilometer away from the village. However, health workers from a NGO clinic (CSS) come to the village and provide health service to pregnant women. Satellite clinics are held once in a while in the village.

Cluster K4: The village has paved road and the main mode of transportation is engine-driven van. Sometimes villagers hire minibuses as well. The main occupation of the villagers is agriculture. Houses are made of bricks, mud, and tin. There is a community clinic in the village, which remains closed most of the time due to unavailability of providers and logistic supports. However, community health workers from the community clinic make home visits to distribute family planning methods. There is a medicine shop in the nearby local market (bazaar), where a village doctor is available. That doctor provides medicine for general illnesses and supplies family planning methods if needed. The nearby UHC is 40 kilometers away from the village; private clinics and other health facilities like ayurvedic, and homeopathic practitioners are also available in the Upazila (close to UHC). However, people only visit those places for complications and emergency health needs.

Cluster K5: This is a big village far away from the district town. However, a highway passes through the village and inside roads are made of mud. The main mode of transport is paddle van, engine van, and motorcycle. People also hire minibuses for urgent needs. The main occupation of the villagers is agriculture. There is one primary school, one high school, and one madrasa (religious school) in the village. There is also one community clinic in the village. BRAC runs different health programs in the village; BRAC health workers visit door-to-door distributing family planning methods and providing services to pregnant women. A government UHC is located 1.5 kilometers away from the village. There is another UHC in a nearby Upazila from a different district, and people also visit that UHC, which is four kilometers away from the village. The latter UHC provides “quality” services, as reported by key informants, and villagers visit that UHC for health problems.

Rangpur

Cluster R1: Roads are mixed type: muddy in some places and brick-made in others. Auto-rickshaw, bicycle, and motorcycle are the main means of transport. Houses are made of bricks, tin, and mud. Agriculture is the main means of production. Health workers of BRAC make door-to-door visits to provide antenatal care. They also attend home delivery. There is one primary school, one secondary school, and one madrasa (religious school) in the village. There is one community clinic in the village, which is situated half a kilometer from the nearby village market (bazaar). Upazila Health Complex (UHC) is at a distance of 10 kilometers. In case of emergency, villagers take pregnant women to UHC by auto-rickshaw, while those who can afford it call an ambulance. Grameen Bank, BRAC, and ASA work in the area. Grameen Bank and ASA provide microcredit service in the village.

Cluster R2: Inside the village there are roads of bricks and mud, where paddle-van, bicycle, and motorcycle are the main modes of transport. Agriculture is the main means of production. Houses are made of bricks, tin, mud, and thatch. There is one primary school, one high school, and one madrasa. Community Clinic is located one kilometer away and Upazila Health Complex is five kilometers away from the village. A BRAC health worker provides door-to-door services to pregnant women, along with selling delivery kits. She also gives advice on the use of family planning methods and attends home delivery.

Cluster R3: This is a big village with one primary school and one government high school. Agriculture is the main occupation of the villagers. Most of the people are educated. A number of NGOs—BRAC, AS, RDRS, TMSS—provide microcredit services. The condition of the roads is mixed; it is muddy in some places and paved in other places. Motorcycle and bicycle are the main modes of transport. Houses are made of bricks, tin, and hay. Health workers from BRAC and RDRS make house-to-house visits and suggest conducting home delivery and provide delivery kits. Though Upazila health complex is within three kilometers, women mostly use antenatal care from RDRS hospital situated in the village. Home deliveries are mostly attended by BRAC’s health workers.

Cluster R4: In this village raw roads permit only auto-rickshaws and bicycles to enter the village. Houses are made of tin, brick, and leaves. Tobacco cultivation is the main means of production. Almost every house is filled with tobacco leaves. Roofs, yards, roads are also covered with tobacco leaves. A number of NGOs, including RDRS, BRAC, Grameen bank, ASA, and TMSS provide microcredit services. MCWC and community clinic provide antenatal care services. BRAC health workers provide door-to-door service to pregnant women and ‘*Sastho Sebika*’ attend home delivery. The UHC is situated 6 kilometers away from the village. Usually, women use services from the facilities situated inside the village to avoid making a long journey.

Appendix 3. Socio-demographic Profile of Study Participants

ID	Type of family	Woman's information						Husband's information		
		Age in years	Education	Age at marriage in years	Parity	Number of living children	Age of last child	Age in years	Education	Occupation
P1	Extended	27	Class-10	15	2	2	11 months	30	Class-10	Farmer
P2	Nuclear	21	Class-8	19	1	1	11 months	24	Class-5	Day labor
P3	Nuclear	22	Class-4	13	4	3	12 months	30	Class-9	Van puller
P4	Nuclear	19	Class-9	14	2	1	14 months	24	No school	Small business
P5	Nuclear	22	Class-5	15	2	2	9 months	28	No schooling	Farmer
P6	Nuclear	30	Class-6	13	4	4	13 months	40	No schooling	Small business
P7	Nuclear	20	Class-5	12	2	2	15 months	30	Class-5	Van driver
P8	Nuclear	29	Masters	21	2	2	10 months	40	Class-10	Farmer
P9	Nuclear	17	Class-3	14	1	1	11 months	25	Class-6	Van puller
P10	Extended	29	No schooling	15	3	2	11 months	33	No schooling	Farmer
P11	Extended	22	Class-8	13	2	2	12 months	30	Class-9	Farmer
P12	Extended	25	Class-5	16	2	2	11 months	30	No schooling	Van driver
P13	Extended	24	Class-10	17	2	2	14 months	35	Class-12	Farmer
P14	Extended	18	Class-6	13	1	1	12 months	21	Class-5	Farmer
P15	Extended	20	Class-7	18	1	1	13 months	23	Class-7	Unemployed
P16	Nuclear	19	Class-7	17	1	1	12 months	25	Masters	Owner of madrasa
P17	Extended	20	Class-6	16	1	1	8 months	25	Class-8	Small shopkeeper
P18	Extended	26	No schooling	16	2	2	12 months	30	No schooling	Farmer
P19	Nuclear	30	Class-10	20	2	2	12 months	35	Class-12	Private services
P20	Extended	27	Class-5	13	3	3	14 months	30	Class-5	Wright
P21	Nuclear	30	No schooling	16	2	2	10 months	40	Class-8	Farmer
P22	Extended	31	Class-12	17	3	3	14 months	30	Class-8	Worker of a rice mill
P23	Extended	30	Class-7	14	5	3	15 months	35	Class-7	Worker of a shop
P24	Nuclear	35	No schooling	13	3	3	12 months	40	No schooling	Farmer
P25	Extended	26	Class-8	18	1	1	14 months	30	Class-4	Farmer