Use-Effectiveness of Oral Pills and Condoms

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PREFACE

Oral pill and condom are major contraceptive methods in the national family planning program, and, in fact, represent the main non-clinical methods available in the country. Very little was so far known about their use-effectiveness in our socio-cultural setting. This study has, for the first time, produced evidence on use-effectiveness, extended use-effectiveness and pattern and quality of pill and condom use. These evidences will provide valuable information that can be applied to program distribution figures to obtain more valid estimates of couple years of protection and births averted. The findings will alsc immensely help towards improving the educational and publicity approach that can enhance quality of pill and condom use.

PIACT,Bangladesh received many help and assistance in designing and conducting the study. Among them, most importantly, are Mr. Phillip Russell Hughes of Social Marketing Project and Ms. Sharon Epstein of USAID. Their contribution in every step of the study is sincerely acknowledged. The professional and field staff of PIACT,Bangladesh also provided valuable input in all phases of the study. The Social Marketing Project (SMP) and USAID office in Bangladesh has, by supporting this study, made a significant contribution in the field of family planning program. We are thankful to them.

Atiqur Rahman Khan
President
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EXECUTIVE SUMMARY

1. INTRODUCTION

A survey on the use-effectiveness of oral pills and condoms was conducted in January-April 1986 by PIACT,Bangladesh with financial support from the Social Marketing Project (SMP), Dhaka. The chief purposes of the survey were to produce information on the use-effectiveness of oral pills and condoms and on the nature and quality of their use. This study presents the findings of the follow-up survey of NGO pill and condom acceptors.

2. METHODOLOGY

The survey sample was drawn from pill and condom acceptors of the community-based distribution (CBD) projects under four major NGOs. Sampling for this study was conducted in two stages. In the first stage, the service centres were selected by applying probability proportionate to size (PPS) sampling technique with replacement. In the second stage, 2000 condom acceptors and 2000 pill acceptors, 1000 from urban centres and 1000 from rural centres for each of the two methods, were selected by employing systematic sampling proceudres. These four samples of 1000 acceptors were analysed separately.

3. RECEIPT AND USE OF SUPPLIES

Irrespective of the categories of centres, most of the condom and pill acceptors said they had received supplies from the sample centres as indicated in centre records. Similarly, those who received condom or pill, only a small proportion at each category of centres said that they did not use them. These findings indicate a high degree of accuracy of the NGO service site records in classifying clients as acceptors.

4. CHARACTERISTICS OF THE ACCEPTORS

The acceptors in all four samples were predominantly Muslim. Their educational levels appeared to be considerably above average, and a great majority of them considered themselves able to support their family financially without difficulty. They tended to be relatively young, the mean ages of the condom acceptors' wives being around 26 and the pill acceptors being about two years older in both the urban and rural samples. They had an average of about three children, pill acceptors having about one-half child more on average than the condom acceptors and rural acceptors having more than urban condom acceptors. In all samples, couples with no sons were underrepresented relative to couples with no daughters, indicating a slight son-preference.

5. USE-EFFECTIVENESS LEVELS

Twleve-month use-effectiveness findings were as follows:

	Condoms		Pills	
	Urban	Rural	Urban	Rural
First-segment continuation rate	69.4	56.6	64.5	61.7
First-method continuation rate	72.0	59.6	67.1	63.7
First-method gross failure rate	4.6	5.8	2.2	1.8
All-method continuation rate	89.2	84.4	80.9	76.7
Overall pregnancy rate	8.7	10.2	12.3	15.0

Urban continuation rates were consistently higher than rural rates. With regard to first-segment and first-method continuation rates, urban condom continuation rates were

higher than either urban or rural pill rates, but rural condom rates were lower. However, the all-method rates for both condom samples were higher than the pill rates, reflecting a much greater tendency of condom dropouts to switch methods -- mostly to pills. The continuation rates for all samples were respectably high by international developing country standards, indicating a high degree of motivation among the acceptors.

Failure rates (rates of accidental pregnancy while using the first method) were higher among condom acceptors than among pill acceptors, but much lower than expected. Overall pregnancy rates (the percentages of acceptors becoming pregnant at any time within the first year, regardless of whether the pregnancy was wanted or not) were higher for pill acceptors than for condom acceptors. This difference was due to the fact that larger proportions of pill acceptors than condom acceptors stopped using contraception during the first year following acceptance, as indicated by the all-method continuation rates.

6. USE-EFFECTIVENESS DIFFERENTIALS

Continuation rates varied in relation to method accepted (pills vs. IUD), urban/rural location, NGO parent agency, age of acceptor, and supply source. They did not vary greatly or consistently in relation to religion or educational attainment of the husband, which was used in this study as a proxy for socio-economic status.

The relationship with method and urban/rural location has already been noted. In urban areas, the FPSTC stood out as having the highest rates for both methods and TPF had the lowest rates. In rural areas (where FPSTC clinics were not represented), the TAF continuation rates were highest and the CWFP rates lowest.

The continuation rates tended to increase with age up to about 35 years and then leveled off or declined somewhat.

Acceptors who had received supplies from other sources (as well as from the NGO outlet) had higher continuation rates than those who had received supplies only from the NGO outlet.

Differentials in failure rates tended to be much less pronounced and less consistent. The only clear and consistent finding with regard to variations in failure rates was the fact already noted that condom failure rates were greater than pill failure rates. In the urban condom sample, the acceptors at FPSTC centers had considerably lower failure rates than the acceptors at centres of the other NGOs.

7. *SUPPLIES ON HAND*

Five-sixths of the current condom users and about 94 percent of current pill users had supplies on hand. The percentages without supplies appear to be larger than they should be, suggesting some over-reporting of current use, though it may be that many couples wait until the last minute to obtain supplies.

8. *STORAGE AND DISPOSAL*

Acceptors of both pills and condoms reported little or no difficulty keeping or disposing of supplies.

9. *OTHER SUPPLY SOURCES*

In urban areas, 20 percent of condom acceptors and 12 percent of pill acceptors reported having obtained supplies also from non-NGO sources at least once. In urban areas the percentages were lower: 16 percent and 4 percent. There appears to be a need to make pills more widely available in the rural areas.

10. *MISUSE OF SUPPLIES*

Very few acceptors admitted to use of condoms or pills for non-contraceptive purposes. However, ten percent of condom acceptors at both urban and rural centres reported that on occasion they had failed to use condoms during intercourse while they were supposed to be condom users. Evidence was also found among pill acceptors indicating some non-compliance with instructions for taking pills. For instance, most pill acceptors indicated that they started taking pills on the wrong day of the menstrual cycle, waiting a few days after the onset of menses rather than starting on the first day. Inspection of partially used cycles revealed that a large number of users followed sequences other than the one recommended. Many did not know the correct proceudre to follow in the event of one missed pill, and most gave incorrect answers regarding the procedure in the event of two missed pills.

11. *SIDE EFFECTS AND OTHER COMPLAINTS*

Few condom acceptors complained of side effects or other problems. The main complaints reported by condom acceptors were allergic reactions, burst condoms, and dissatisfaction during intercourse. Nearly two-thirds of the pill acceptors complained of side effects, mostly dizziness.

12. *PERCEIVED EFFECTIVENESS*

A little more than 60 percent of the condom acceptors and 80 percent of the pill acceptors in both urban and rural areas viewed their respective methods as quite effective or very effective. These percentages quite accurately reflect the relative effectiveness of these two methods as indicated by the first-method gross failure rates.

13. OVERLAP WITH LACTATION

Pill acceptance did not appear to have any adverse effect on lactation. The pill acceptors tended to wait about as long as condom acceptors before accepting, but they tended to continue breastfeeding for a somewhat longer period following acceptance.

14. COITAL FREQUENCY

Among condom acceptors in the urban and rural centres the mean monthly coital frequencies were 10.2 and 10.4, respectively. Pill acceptors reported mean frequencies of only 8.6 and 8.7, but this appears to have reflected underreporting by the female respondents. Pill acceptors responses regarding coital frequency within the past week, however, were consistent with the condom acceptors' responses.

Condom acceptors in both urban and rural areas reported that they needed an average of 12 condoms per month.

15. IMPLICATIONS FOR IMPACT ASSESSMENT

Findings from this survey indicate that estimates of CYP from condom distribution data can be obtained, with a built-in adjustment for wastage, by dividing number of condoms distributed by 150 and that they can be converted into estimates of couple-years of <u>effective</u> protection by multiplying the CYP estimate by factors to adjust for overlap with amenorrhea and contraceptive failure. The adjustment factors for overlap with amenorrhea are .96 (urban) and .93 (rural); the factors for failure .91 (urban) and .88 (rural).

Adjustments are smaller for pill acceptors and are the same for rural areas as for urban areas. To estimate CYP, the number of pill cycles distributed should be divided by 13. To adjust for wastage, multiplication by an arbitrary

factor of .95 is recommended in the absence of data to support a more precise estimate. No adjustment is deemed necessary for overlap with postpartum amenorrhea. To adjust for failure, multiplication by .96 is recommended.

The degree of applicability of the findings from this survey to pill and condom acceptors of the Social Marketing Project or the family planning program of the Government of Bangladesh is not clear. It seems likely that the continuation rates may differ substantially between NGO and other programs, just as they do among NGO programs. The relative invariance of failure rates in the present study suggest, however, that these may be more generalizable to other programs. Great caution is recommended in any effort to use the findings from the present study in evaluation of non-NGO programs.

CHAPTER ONE

1.1. INTRODUCTION

The oral pill and the condom are the two most important modern reversible methods of contraception in the family planning programs in Bangladesh -- both government and non-government. Of those who are practicing any modern method of contraceptives currently, about one-fourth of them in the rural areas and above one-third of them in the urban areas were using oral pills (Mitra & Associates, BCPS 1985).[1]

Although there is some information available about the patterns of acceptability and the incidence of side effects of the oral pill and the condom, very little is known about these methods in Bangladesh. The use-effectiveness of these two methods is known to vary widely between societies, depending on the regularity of use and the motivational level of the user. The failure rate of the combined type of oral pill has been found to vary from 0.34 to 4.00 percent and the failure rate of the condom from 1.6 to 10.1 percent in studies conducted in western societies (Hatcher, R.H. et al., 1982). The failure rate with the above methods is believed to be higher in semi-literate populations, in developing countries in general and in Bangladesh in particular, due to a lower level of motivation, the greater influence of superstition and a conservative, fatalistic attitude towards life.

The lack of knowledge about pill and condom use-effectiveness in Bangladesh poses an important constraint in formulation of contraceptive strategy, service and supplies. In order

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1 The results on Bangladesh Contraceptive Prevalence Survey (BCPS), 1985 are not published yet. The referred data were gathered from Mitra and Associates on request.

to determine properly the policies and strategies relating to the oral pill and condom, it is necessary to understand the patterns of use-effectiveness of these methods. Since the Social Marketing Project (SMP) in Bangladesh is a major distributor of condoms and oral pills in Bangladesh, the above information on use-effectiveness of these methods is of particular importance to them. In the absence of precise knowledge of the use-effectiveness of the oral pill and condom, performance of the SMP and other programs offering these methods has been assessed on the basis of quantities of pills and condoms distributed or sold, without regard to their precise effectiveness and demographic impact. Contraceptive research conducted in the country on these two methods has geneally addressed safety issues, distribution aspects and acceptability patterns. The limited efforts to study the use-effectiveness of these methods have, so far, generally suffered from methodological limitations or were affected by inadequate records needed to provide a valid sampling.

A survey was conducted in 1986 with financial support from the Social Marekting Project (SMP), Dahaka on the use-effectiveness of the condom and the pill to formulate their strategy on the marketing of pill and condom. The survey sample was drawn from pill and condom acceptors of the community based distribution (CBD) projects under the non-governmental organizations (NGOs). It could not be based on the SMP program because no sampling frame was available for selecting SMP product consumers. It also could not be based on the government program because of the non-availability of proper lists of the condom and pill acceptors under the program, which could be used to provide a valid sampling frame. However, information is available on acceptors at the NGO projects under four major NGOs supported by USAID.

Consequently, acceptors at outlets of these NGOs were selected for the study. The NGOs are the Family Planning Services and Training Centre (FPSTC), Concerned Women for Family Planning (CWFP), The Pathfinder Fund (TFF), and The Asia Foundation (TAF). This report presents the findings of the follow-up survey of NGO pill and condom acceptors.

1.2. OBJECTIVES

The specific objectives of the survey were as follows:

A. To analyze patterns of continuation and termination of oral contraceptives and condoms among 1983-84 program acceptors in NGO-sponsored CBD projects;

B. To analyze differentials in use-effectiveness patterns by key variables, including rural-urban residence, educational level, and age;

C. To contribute to analysis of the fertility impact of pill and condom use by developing refined procedures for estimating couple years of protection, and births averted;

D. To assess the overall quality and timing of pill use, and;

E. To assess the overall quality and timing of condom use.

CHAPTER TWO

METHODOLOGY

2.1. DEFINITION OF ACCEPTORS

For this study, a "reported acceptor" (of the condom or the pill) is defined as an eligible couple who, according to clinic records, accepted the condom or the pill from any of the selected service outlets during the reference period, January 1983 through December 1984. A "verified acceptor" is defined as a couple who actually used the method according to survey responses.

Interviews with the reported acceptors revealed the following sub-categories of acceptors:

a) reported acceptors who obtained supplies from the outlets and used at least some of them (i.e., "verified acceptors")

b) reported acceptors who obtained supplied from the outlets but did not use them at all, and

c) reported acceptors who did not obtain any supplies from the service outlets.

The cases under (b) and (c) have been disregarded in the use-effectiveness analysis.

2.2. SAMPLE DESIGN

Sampling for this study was conducted in two stages.

2.2.1. First Stage Sampling

In the first stage, the lists of the CBD projects supported or coordinated by CWFP, FPSTC, TPF and TAF were gathered

along with the respective number of condom acceptors and oral pill acceptors in the reference period, January 1983 through December 1984.

A centre is defined as either a clinical setting or a project office reporting contraceptive performance of a group of field workers and/or depot holders providing condom and pill supplies. Outlets reporting less than 100 condom or pill acceptors during the study reference period were excluded from the lists. The performance figures of the condom or the pill with regard to the centres were used as the sampling frame for the first stage sampling. Twenty centres from each of the two strata, urban and rural, were selected by using the probability proportionate to size (PPS) sampling technique with replacement, the size of the centre being defined by the number of condom or pill acceptors during the reference period. The centres were selected independently for the condom and the pill surveys. As the samples were drawn with replacement, in some cases an individual service centre came under selection more than once. The following table shows the frequency distribution of selected centres by the number of times a service centre was selected.

	Condom		Oral Pill	
	Urban	Rural	Urban	Rural
No. of times a centre was selected	No. of centres	No. of centres	No. of centres	No. of centres
1	19	7	11	6
2	1	2	3	4
3	0	3	1	2
Individual centres total	20	12	15	12

For condom survey, 20 and 12 individual service centres were selected from the urban and rural strata, respectively. For the pill survey, 15 and 12 individual service centres were selected from the urban and rural strata, respectively.

The following table shows the distribution of selected service centres by NGO Headquarters and by urban and rural status of the service sites:

Name of NGO Headquarters	Condom		Oral Pill	
	Urban No. of centres	Rural No. of centres	Urban No. of centres	Rural No. of centres
CWFP	3	-	5	1
TAF	5	10	3	8
TPF	2	2	3	3
FPSTC	10	-	4	-
Total:	20	12	15	12

The above table shows that no rural based centres under FPSTC fell into either the rural condom sample or rural pill sample. No rural based centres under CWFP also came under the rural condom sample. This happened because during the reference period, there were a few rural based centres under FPSTC and CWFP. The few centres which were rural also had relatively small numbers of acceptors. Since the centres were selected with replacement by applying PPS sampling procedures, the centres having relatively few acceptors had very little chance to be included in the sample. Furthermore, as mentioned earlier, the centres having less than 100 acceptors were excluded from the sampling frame.

2.2.2. Second Stage Sampling

Fifty condom acceptors were selected from each sample service centre for the condom survey by employing a systematic random sampling technique. If a centre came under selection twice in the first stage of sampling, 100 acceptors were selected from that centre, and so on. In this way, 1,000 condom acceptors were selected from each of the two strata. In other words, a total of 2,000 condom acceptors were selected for the condom survey. Employing the same procedure, a total of 2,000 pill acceptors were selected for the pill survey.

In searching records to prepare the sampling frames for the four study populations (urban and rural pill and condom acceptors), it was found that some of the centres had no records on some of the acceptors who were not currently using supplies from the centre. As a result, it is likely that there was a systematic exclusion of an unknown number of cases especially likely to have terminated use of the method accepted, which would be expected to inflate the continuation rate. However, the effect of such exclusion does not appear to have been great. When the data obtained from acceptors at the three centres where this problem were examined it was found that they had continuation rates close to the average for the other centres in the sample. One of the three questionable centres was in the urban condom sample; its continuation rate was lower (rather than higher as expected) than the average for the other urban condom centres. The other two were rural pill outlets, and their continuation rate was only four percentage points higher than the average for the other rural pill centres (67 versus 63). As a result of these findings, the question of bias due to systematic exclusion of dropouts from centres records will be disregarded in analysis of the survey data.

2.2.3. Substitution

2.2.3.1. Substitution of Centre: In one selected rural service centre, the records for most of the acceptors for the reference period were not available. This centre was replaced by another rural service centre with a similar number of reported acceptors in the reference period, the same sponsorship and the same geographical location. Another rural service centre selected for the oral pill survey was found to be situated in a very conservative place where it was extremely difficult for the female field staff to work. This centre was also replaced by another rural service centre with the same characteristics as those mentioned above. In this connection it is also important to mention that in one urban centre selected for the condom survey, more than 30 of the 50 sampled acceptors could not be interviewed after repeated attempts and with repeated replacement of the sample clients. This centre was replaced by another urban centre with similar characteristics. The 30 substitute acceptors were, however, included in the analysis. The inclusion of these 30 cases raised the total of successfully interviewed cases for the urban condom sample of 1,028 cases, which in turn raised the total of successfully interviewed cases to 2,028.

2.2.3.2. Substitution of Acceptors: In a substantial number of cases, the original sample acceptors could not be reached at all. This was due to incomplete, fictitious or wrong addresses. In those cases, the original sample was replaced by alternate sample acceptors. It may be noted that, in some cases, a substitute had to be substituted again, and so on. Client records were available either from the centre registers or from the client card. Usually, a client card contains the acceptance date of the method, the address and a few basic characteristics of the client. A few NGOs maintained records

of acceptors both in a register and on client cards. In such situations, cards were favoured for sampling. It was mentioned earlier that the clients were selected by applying the systematic random sampling technique. For this purpose, each client was given a serial number in the sequence they were entered in the register or the way the cards were arranged. If a sample client could not be interviwed for any reason, that client was replaced by another client having the serial number following that of the originally selected client. If this client also could not be interviewed, the client having the serial number preceding that of the originally selected client, was selected. This replacement process continued until a client was successfully interviewed. A table showing the extent of replacements is given below:

Condom/ oral pill	Urban/ rural	Original sample cases interviewed	Alternate sample cases interviewed	Total interviews	Percentage of alternate samples
Condom	Urban	598	430	1,028	41.8
Condom	Rural	802	198	1,000	19.8
Pill	Urban	658	305	963	31.7
Pill	Rural	797	203	1,000	20.3
Total:		2,855	1,136	3,991	28.0

Non-availability of clients is, of course, very common in any followup survey. The replacement rate for the combined condom samples was 31 percent and for the oral pill samples 26 percent. In other words, these are the non-response rates for the initially selected sample. The replacement rate for combined urban samples was 37 percent and for the rural samples 20 percent. The overall replacement rate for the

study was 28 percent. The replacement rates observed in this study were consistent with the non-response rates found in other similar followup studies both internationally and in Bangladesh (See, for instance, Choudhury, A.Y. et al., 1984 and Obaidullah, M., 1984).

2.3. RECRUITMENT OF SURVEY PERSONNEL

The field survey personnel were recruited in the following manner: Applications for survey personnel were invited through advertisement in the two national daily newspapers (one Bengali and one English). The minimum qualifications for the supervisory level project personnel and the interviewers were a master's degree and a bachelor's degree, respectively, from a recognized university/college. Because of the scarcity of female applicants, however, a few of the female interviewers who had passed the intermediate examination (class 12) and had had extensive field experience were also selected. All the trainee-interviewers, trainee-supervisors and trainee-data quality control officers were given extensive training in field interviewing procedures and other relevant aspects of the field survey. A test was taken upon completion of the training and, on the basis of the test results, personnel were appointed. Professional staff for the project were also recruited following the same procedure.

2.4. TRAINING FOR SURVEY PERSONNEL

A four-week training program was organized for the survey personnel in November-December 1985. This training program was broadly divided into two kinds of training: in-house training and field training. In-house training included: the objectives of the study, the selection procedures for condom or pill acceptors at the centre level for interviewing techniques, the problems of finding the respondents,

establishing rapport, and thorough review of the data collection instruments. The field training involved drawing a sample from the records of condom or pill acceptors and practice interviews with the draft questionnaires.

2.5. DATA COLLECTION INSTRUMENTS

Two sets of Bengali questionnaires, one for interviewing condom acceptors and one for interviewing pill acceptors were used. The first draft of the questionnaires was prepared on the basis of an outline questionnaire proposed by John Laing (Laing, 1982).

2.6. FIELD TESTING OF QUESTIONNAIRES

The Bengali draft questionnaires were stenciled and were mimeographed in sufficient number for the purpose of both in-house training and field testing. The field staff and senior project staff field tested the questionnaires in some non-selected NGO service centres in Dhaka. The main areas of concern during the field testing phase were validity, and the wording and sequence of questions. Special attention was given to determine if any major problem existed in identifying the different dates which were required in the questionnaire. No major problems were encountered. The wording of some of the questions was improved and a few more essential questions were added.

2.7. DATA COLLECTION

2.7.1. Respondents

Respondents for this study were the selected condom and pill acceptors. In the case of condom use, the husbands were the respondents, and they were interviewed by male interviewers. In the case of pill use, the women using the pill were the respondents, and they were interviewed by female interviewers.

2.7.2. Field Work

1 January 1986 marked the beginning of the field work of the study "Use-effectiveness of Condoms and Oral Pills". The field work was started in some selected centres of Dhaka. The rationale for starting the field work in the selected centres of Dhaka was that it would hasten both learning about the problems involved in the process of field work and also about alleviating those problems.

Eight teams were formed for the field work: four for interviewing condom acceptors and four for interviewing pill acceptors. The eight teams were deployed in some six selected centres of Dhaka. They performed field work in these six selected centres for eleven days.

While field work was going on in Dhaka, the interviewers submitted the filled out questionnaires to the office. The questionnaires were checked in front of the interviewers. In case any mistake was found, it was thoroughly discussed with the interviewers and the interviewers were retrained. All field personnel, finally, met to discuss problems and ways to handle them. After all this had been done, the eight teams were deployed to the selected centres outside Dhaka. The field work, particularly the condom survey, continued until mid-April 1986.

2.7.3. Quality Control Checking

There were two data quality officers: one male and one female. The male quality control officer checked the quality of work of the teams assigned to interview condom acceptors while the female quality control officer did the same for the teams assigned to interview pill acceptors. They checked randomly the work of the interviewing team in the actual working situation in randomly selected centres. Verification procedures included: random reinterviewing of

a few acceptors and checking some of the interviewed clients to ensure correctness of sampling proceudres. The quality control officers also verified some of the nonresponse cases and some acceptors who did not admit to having accepted the pill or the condom from the selected centres. The quality control officers identifed the defects in interviewing and rectified them.

In practice, the quality check of the data by reinterviewing the respondents was found to be the most difficult task. In many cases the reinterviews for quality checking could not be done because of same respondents' refusal to face the interview again on the same subject. It was, however, ensured in such cases, by talking with the acceptors, that the interviewers visited the acceptors and interviewed them.

2.8. DATA PROCESSING

Dnta processing consisted of registration of schedules, editing, coding, installation of data in the computer and tabulation.

2.8.1. Registration of Schedules

All the interview schedules sent from the field were received and then registered by a research assistant. She stored the schedules, supplied them to other data processing staff and received them back after use.

2.8.2. Editing

The schedules were edited by the editors. Verification of editing was done simultaneously. The professional staff verified the edited schedules on a random basis to ensure a high standard of the editing work.

2.8.3. Coding

The coding of the data was done in 80 column code sheets. Verification of coding was done simultaneously. With close supervision and using skilled personnel for coding and verification of coding, the quality of coding work was kept to a very high standard.

2.8.4. Data Analysis

Data were analysed using the International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B) computer facilities. Data were properly cleaned on a computer by range checks and consistency checks before they were analysed. The use-effectiveness analysis emphasized conventional life table procedures. A package program for life table analysis available from the ICDDR,B computer (Elkins, G.H. 1973) was used for this analysis.

CHAPTER THREE

CHARACTERISTICS OF THE ACCEPTORS

3.1. INTRODUCTION

Though the main purpose of the study was to obtain information on continuation and pregnancy rates and differentials of condom and pill acceptors, an additional benefit of undertaking it was that it provided information about the characteristics of condom and pill acceptors. This chapter provides information about acceptor characteristics. We begin by distinguishing between reported and verified acceptors, since some of the couples reported as acceptors in centre records were found not to have used the reported method. Among the verified acceptors we then examine selected socio-economic characteristics (residence status, religion, husband's and wife's education, husband's and wife's occupation, wife's employment status, and perceived financial ability to support the family) and demographic characteristics (age of husband and wife, number of children and their sex composition, and age of the youngest child). The socio-economic variables are of particular interest for determining whether acceptors are being drawn predominantly from the more affluent, urbanized subgroups of the population, from the less advantaged subgroups most in need of family planning, or from a broad range of socio-economic groups that is more representative of the eligible population as a whole. The demographic variables are important for indicating whether the acceptors of these reversible methods tend to be relatively young and low-parity or relatively old. These methods are especially well-suited to younger, lower-parity women whose chief purpose is to space rather than limit their children.

3.2. RECEIPT AND USE OF SUPPLIES

Nearly all of the interviewed acceptors in each of the four subsamples said they had received supplies (condoms or pills, as applicable) from the sample clinics as indicated in clinic records (Table 1). The proportions reporting that they had received no supplies ranged from 0.7 percent (urban condom acceptors and rural pill acceptors) to 1.9 percent (rural condom acceptors). The acceptors who denied receipt of supplies were asked whether they had visited the selected centres for any purpose or been visited by workers from the selected centres. A majority of both pill and condom acceptors reported that they had been approached by a worker about accepting family planning but had not received supplies.

Table 1: Percentage distribution of reported acceptors according to whether they said they received supplies from the service centres, by method and centre location

Whether received	Condom		Pill	
	Urban	Rural	Urban	Rural
Received as per records	99.3	98.1	98.7	99.3
Did not receive at all	0.7	1.9	1.3	0.7
Total: %	100.0	100.0	100.0	100.0
(N)	(1028)	(1000)	(1063)	(900)

Some said they had visited the centre for other purposes or accompanied their friends. Their names may have been recorded at that time. The entries of these cases as reported to have been incorrect.

The acceptors who reported receiving supplies were asked whether they had used the supplies received. Again only

Table 2: Percentage distribution of acceptors who reported having received the supplies according to whether they said they used them, by method and centre location

Whether used the supplied condoms	Condom		Pill	
	Urban	Rural	Urban	Rural
Used fully or partially	96.6	95.8	94.7	95.6
Did not use at all	3.4	4.2	5.3	4.4
Total: %	100.0	100.0	100.0	100.0
(N)	(1021)	(981)	(1049)	(894)

small percentages replied negatively. The negative responses ranged very narrowly, from 3.4 percent (urban condom acceptors) to 5.3 percent (urban pill acceptors).

Combining the information on receipt of supplies and use of the supplies received, we find that 95.9 percent of the reported acceptance of condoms from urban centres were verified. The corresponding figure for condom acceptance from rural centres was 94.0 percent. With regard to pill acceptances, the corresponding figure for urban centres was 93.4 percent and for rural centres 95.0 percent. These findings attest to a relatively high degree of accuracy of the NGO centre records in classifying clients as acceptors.

3.3. SOCIO-ECONOMIC CHARACTERISTICS OF ACCEPTORS

3.3.1. Residence Status

The great majority of acceptors in each of the urban centre subsamples gave as their place of residence an urban location: 93.5 percent of the condom acceptors at urban centres and 91 percent of the pill acceptors at urban centres (Table 3). Even greater majorities of acceptors at rural

centres gave rural locations as their place of residence: 97.6 percent in the case of condom acceptors and 96.0 in the case of pill acceptors. The relatively few cases of discrepancy between location of centre and place of residence occurred because some urban CBD project areas included portions of rural areas and vise versa.

Table 3: Percentage distribution of verified acceptors according to their urban/rural residence status, by method and centre location

	Condom		Pill	
Residence status	Urban	Rural	Urban	Rural
Urban	93.5	2.4	90.9	4.0
Rural	6.5	97.6	9.1	96.0
Total: %	100.0	100.0	100.0	100.0
(N)	(986)	(940)	(993)	(855)

Since acceptance at urban and rural centres was thus almost synonymous with urban and rural place of residence, respectively, we shall adopt the convention in the remainder of this report of referring to acceptors at urban centres more simply as "urban acceptors" and to acceptors at rural centres as "rural acceptors."

3.3.2. Religion

There were pronounced differences in the religious composition of urban and rural condom acceptors but not between urban and rural pill acceptors (Table 4). Among condom acceptors, the proportion of non-Muslims at rural based centres (21.8%) was much higher than the proportion of non-Muslims at urban based centres (9.0%). Among pill acceptors, the proportion of non-Muslim lay between these extremes.

Table 4: Percentage distribution of verified acceptors according to their religion, by method and centre location

Religion	Condom		Pill	
	Rural	Urban	Rural	Urban
Islam	91.0	78.2	85.7	89.9
Hinduism	8.5	21.8	13.8	9.7
Christianity	0.3	-	0.1	0.4
Buddhism	0.2	-	0.4	-
Total: %	100.0	100.0	100.0	100.0
(N)	(986)	(940)	(993)	(855)

Mitra et al. (1985) reported the proportion of non-Muslims in the urban sample of eligible couples to be 10.7 percent and in the rural sample to be 11.4 percent. Thus the proportion of Muslim condom acceptors in the rural centres was disproportionately lower than the proportion of Muslim eligible couples in the rural areas of the country. The rural–urban differential may be due to greater religious conservatism among the rural Muslim men.

3.3.3. Husband's Education

Table 5 shows that the mean number of school years completed by the condom acceptors at urban centres was nearly double the mean at rural centres. The proportion of acceptors having no formal schooling was much lower at urban centres than at rural centres (12.6% vs 32.2%) and the proportion of acceptors having bachelors' degree or higher level of education was much higher (31.3% vs 3.6%). Similarly, for pill acceptors the mean education of urban acceptors was much higher than that of their rural counterparts (7.3 vs 4.4). Comparison of condom and pill acceptors reveals that

condom acceptors were more educated compared to the pill acceptors' husbands, especially in the urban areas.

Table 5: Percentage distribution of verified acceptors according to husband's education, by method and centre location

Educational level	Condom		Pill	
	Urban	Rural	Urban	Rural
No schooling	12.6	33.2	21.1	43.9
Below primary (I to IV)	3.9	10.8	7.1	9.4
Primary (V)	6.6	15.6	12.3	9.5
Below secondary (VI to IX)	16.5	20.0	16.2	16.7
Secondary (X)	14.0	11.2	17.4	12.3
Higher secondary (XII)	15.1	5.6	11.0	4.9
Degree (XIV)	22.5	2.7	11.6	2.5
Masters' and above	8.8	0.9	3.3	0.9
Total: %	100.0	100.0	100.0	100.0
(N)	(986)	(940)	(993)	(855)
Mean:	9.5	5.0	7.3	4.4

Note: Totals in some cases do not add upto exactly 100%, because of rounding error. In such case, however, they are nevertheless expressed as 100%.

3.3.4. Wife's Education

As with husband's education, the mean number of school years completed by the wives was much higher at urban centres than at rural centres for both pill and condom samples (Table 6). The pill acceptors were less educated than the condom acceptors' wives, especially at the urban centres.

3.3.5. Husband's Occupation

Over half of the condom acceptors at urban centres reported service occupations and over half of the acceptors at the

Table 6: Percentage distribution of verified acceptors according to the wife's education, by method and centre location

Educational level	Condom		Pill	
	Urban	Rural	Urban	Rural
No schooling	23.3	56.0	40.4	64.2
Below primary (I to IV)	7.0	15.5	11.4	12.7
Primary (V)	10.4	12.7	12.6	11.1
Below secondary (VI to IX)	27.3	11.3	20.2	8.3
Secondary (X)	14.3	3.6	9.4	2.7
Higher secondary (XII)	11.5	0.3	4.2	0.9
Degree (XIV)	5.0	0.5	0.9	0.1
Masters' and above	1.1	0.1	0.9	-
Total: %	100.0	100.0	100.0	100.0
(N)	(986)	(940)	(993)	(855)
Mean:	6.6	2.5	4.2	1.9

rural centres reported agricultural occupations (Table 7). Business occupations were the second most commonly reported by acceptors at both urban centres and rural centres (34.1% vs 23.8%). The pattern with pill acceptors was similar. Service and business occupations were the two most commonly reported occupation of the pill acceptors' husbands at urban centres and business and agricultural occupations were the two most commonly reported occupations of the pill acceptors' husbands at the rural centres.

3.3.6. Wife's Employment Status

The proportion of the wives who were reported to have earned cash money in the preceding one-year period (Table 8) was small and did not vary widely among the four samples, ranging only from 8.4 percent to 11.3 percent.

Table 7: Percentage distribution of verified acceptors according to husband's occupation, by method and centre location

Occupation	Condom		Pill	
	Urban	Rural	Urban	Rural
Service	51.0	13.5	36.3	17.7
Business	34.1	23.8	41.2	27.0
Agriculture	1.5	52.3	3.0	40.4
Labour	11.8	9.0	17.3	12.8
Others	0.8	1.1	0.8	1.1
Unemployed	0.8	0.2	1.4	1.1
Total: %	100.0	100.0	100.0	100.0
(N)	(986)	(940)	(993)	(855)

Table 8: Percentage distribution of verified acceptors according to whether the wife earned cash money during the past one year, by method and centre location

Whether wife earned cash money	Condom		Pill	
	Urban	Rural	Urban	Rural
Didn't earn money	91.6	89.8	91.0	88.7
Earned money	8.4	10.2	9.0	11.3
Total: %	100.0	100.0	100.0	100.0
(N)	(986)	(940)	(993)	(855)

Mitra et al. (1985) estimated the gainfully employed rates for eligible women at 9.9 percent and 8.5 percent in the urban and rural areas respectively, which do not vary widely from the corresponding rates found in the present study. Choudhury et al. (1984) reported that 9.7 percent

of IUD acceptors had earned cash money in the preceding one-year period. Mabud and Akhter (1984) also found 10.0 percent of IUD acceptors reporting particiption in income-earning actitivies. It thus appears that wives' employment status is not associated with either condom or pill acceptance.

3.3.7. Affording the Family

Table 9 shows that only a small proportion of acceptors in any of the four samples reported that they had difficulty in maintaining their families (ranging from 10.9% to 13.7%). Higher proportions (ranging from 21.7% to 30.2%) said they could support their families easily. A majority in all samples fell between these extremes.

Table 9: Percentage distribution of verified acceptors according to their financial ability to support their families, by method and centre location

Family maintenance	Condom		Pill	
	Urban	Rural	Urban	Rural
Can afford easily	26.8	21.7	30.2	21.7
Can afford moderately	62.4	62.0	56.9	60.6
Can afford with difficulty	10.9	16.3	12.9	17.7
Total: %	100.0	100.0	100.0	100.0
(N)	(986)	(940)	(993)	(855)

3.4. DEMOGRAPHIC CHARACTERISTICS

The demographic characteristics of the acceptors were collected as of interview date. For studying characteristics of acceptors, their characteristics at the time of acceptance could be preferable on conceptual grounds.

However, since most of the contraceptive follow-up studies which will be referred to below for comparing the demographic characterisitcs of the condom acceptors also studied characteristics of the respondents as of the interview dates of the studies, the data presented here are useful for comparative purposes. (The socio-economic characteristics of the acceptors described in the preceding section were also collected as of interview date. However, since they usually change very little over time, they could also be considered as the information as of the acceptance date).

3.4.1. Wife's Age

Table 10 shows that the mean age of wife of the condom acceptors at urban centres was higher than those of their rural counterparts (26.6 yrs. vs 25.5 yrs.). A large majority of the wives at both urban centres (65.5%) and rural centres (61.7%) was in the age group 20 to 29 years. The mean age of pill acceptors at the two categories of centres were close to each other (28.4 years vs 28.1 years). Thus, irrespective of the categories of centres, the mean age of the condom acceptors' wives was lower than that of the pill acceptors.

Obaidullah et al. (1984) in an oral pill restrospective followup study in the rural areas estimated the mean age of pill acceptors at 29.1 years. It was observed that at least half of the acceptors were from the age group 20-29 years. Rahman et al. (1984), in an retrospective oral pill follow-up study, estimated the median age of pill acceptors at 28.2 years and 25.2 years respectively for two groups of pill acceptors: one group accepting the pill from field workers and the other group accepting it from the clinics. The study also showed that the majority of pill acceptors were from the age group 20 to 29 years.

Table 10: Percentage distribution of verified acceptors according to wife's age, by method and centre location

Age group (in years)	Condom		Pill	
	Urban	Rural	Urban	Rural
Under 25	4.7	12.1	1.3	2.9
20 - 24	27.0	32.7	22.0	25.9
25 - 29	38.5	29.0	37.3	33.2
30 - 34	20.5	16.2	26.1	24.7
35 - 39	7.4	8.2	10.8	10.5
40 - 44	1.7	1.2	2.2	2.2
45 +	0.2	0.6	0.3	0.6
Total: %	100.0	100.0	100.0	100.0
(N)	(986)	(940)	(993)	(855)
Mean:	26.6	25.5	28.4	28.1

3.4.2. Husband's Age

On average, the condom acceptors at urban centres were older by 1.4 years than those of their rural counterparts (Table 11). The mean age of the pill acceptors' husbands at the two categories of centres differed slightly (36.9 years vs 36.6 years). As with the wives' mean ages, the mean ages of the condom acceptors were two to three years lower than those of the pill acceptors' husbands at both urban and rural centres.

3.4.3. Number of Children

The mean and median number of live births and living children (Tables 12 and 13) were lower for the condom acceptors than for the pill acceptors at both urban and rural centres. The parity of rural acceptors tended to be slightly greater than that of urban acceptors, but the difference was not as

Table 11: Percentage distribution of verified acceptors according to husband's age, by method and centre location

Age group (in years)	Condom		Pill	
	Urban	Rural	Urban	Rural
Under 25	1.1	5.1	0.3	1.6
25 - 29	14.0	25.5	9.3	15.8
30 - 34	29.4	25.1	28.9	27.2
35 - 39	31.6	21.7	29.6	23.1
40 - 44	14.8	12.2	19.8	17.3
45 - 49	6.4	6.7	8.4	9.1
50 - 54	2.0	2.5	2.6	3.6
55 +	0.7	1.2	1.1	2.4
Total: %	100.0	100.0	100.0	100.0
(N)	(986)	(940)	(906)	(850)
Mean:	34.9	33.5	36.9	36.6

Note: The ages of 87 acceptors' husbands at urban centres and 5 acceptors' husbands at rural centres could not be collected and they are excluded from table 11.

great as between pill and condom acceptors. Mitra et al. (1985) found an average of 3.0 living children for eligible couple in 1983, which is not much more than the same for condom acceptors. However only 48 percent of the eligible couples had one to three children, indicating that both condom and pill acceptors were more concentrated in these categories. There was no pronounced variation between urban and rural areas with respect to number of living children of eligible couples.

Table 12: Percentage distribution of verified acceptors according to number of children ever born, by method and centre location

Live births	Condom		Pill	
	Urban	Rural	Urban	Rural
0	3.4	5.9	1.2	2.5
1	15.8	16.3	11.1	12.3
2	25.8	23.1	22.4	18.7
3	20.4	17.4	20.1	18.4
4	14.4	11.7	16.1	12.0
5	9.7	8.1	9.7	9.1
6	4.2	6.8	6.5	8.2
7	2.8	3.6	5.6	6.5
8 +	3.5	7.1	7.2	12.3
Total: %	100.0	100.0	100.0	100.0
(N)	(986)	(940)	(993)	(855)
Mean:	3.1	3.3	3.7	4.1
Median:	2.7	2.8	3.3	3.4

3.4.4. Number of Living Sons and Daughters

Looking at the breakdown of living children by sex (Tables 14 and 15), we find the same pattern as for living children as a whole. The number of sons tended to be greater than the number of daughters in all four samples, reflecting a tendency of couples with no sons to be less likely to accept family planning than couples with no daughters.

Table 13: Percentage distribution of verified acceptors according to number of living children, by method and centre location

Total living children	Condom		Pill	
	Urban	Rural	Urban	Rural
0	3.8	6.7	1.5	3.2
1	17.6	19.1	13.7	14.9
2	29.0	24.6	26.7	23.9
3	20.7	17.3	20.3	17.5
4	13.3	12.8	15.9	12.9
5	8.3	7.8	9.2	10.3
6	3.5	5.1	5.6	7.5
7	2.3	3.1	4.1	5.5
8 +	1.5	3.5	2.9	4.4
Total: %	100.0	100.0	100.0	100.0
(N)	(986)	(940)	(993)	(855)
Mean:	2.8	2.9	3.2	3.4
Median:	2.5	2.5	2.9	3.0

3.4.5. Age of Youngest Living Child

The average age of the youngest living child was around three years (34 to 43 months) depending on type of measure and sample (Table 16). It tended to be higher for pill acceptors than for condom acceptors and for urban acceptors than for rural acceptors. It should be remembered that this variable refers to the time of the interview. The average age at the time of acceptance would have been about two years less, allowing for the fact that some couples had an additional child at acceptance.

Table 14: Percentage distribution of verified acceptors according to number of living sons, by method and centre location

Total number of living sons	Condom		Pill	
	Urban	Rural	Urban	Rural
0	17.7	22.4	16.3	17.0
1	39.7	34.6	35.0	31.0
2	25.7	24.8	27.8	26.4
3	10.8	9.8	11.0	14.7
4	3.8	5.1	6.0	7.6
5	1.9	2.1	2.8	2.5
6 +	0.4	1.2	1.0	0.8
Total: %	100.0	100.0	100.0	100.0
(N)	(986)	(940)	(993)	(855)
Mean:	1.5	1.5	1.7	1.8
Median:	1.3	1.3	1.5	1.6

Table 15: Percentage distribution of verified acceptors according to their number of living daughters, by method and centre location

Total number of living daughters	Condom		Pill	
	Urban	Rural	Urban	Rural
0	24.7	26.2	19.9	21.7
1	38.8	35.5	35.5	31.6
2	22.2	21.0	24.3	24.7
3	9.6	10.1	11.9	11.5
4	3.1	4.4	6.2	5.3
5	1.0	1.9	1.6	3.7
6 +	0.5	0.9	0.6	1.5
Total: %	100.0	100.0	100.0	100.0
(N)	(986)	(940)	(993)	(855)
Mean:	1.3	1.4	1.6	1.6
Median:	1.2	1.2	1.3	1.4

Table 16: Percentage distribution of verified acceptors according to the age of youngest living child, by method and centre location

Age of youngest living child (in months)	Condom		Pill	
	Urban	Rural	Urban	Rural
0 - 6	4.5	6.0	5.9	6.0
7 - 12	3.6	4.4	3.7	5.4
13 - 18	5.0	8.2	5.5	5.0
19 - 24	9.7	10.0	7.2	6.9
25 - 30	13.6	13.9	9.5	10.1
31 - 36	13.2	14.5	11.5	13.8
37 - 42	8.6	11.4	11.6	10.6
43 - 48	7.5	7.7	11.5	11.6
49 - 60	11.3	11.6	11.9	12.1
61 - 72	7.6	4.2	7.5	7.4
73 - 84	3.8	3.0	5.2	4.8
85 +	11.7	5.0	9.1	6.3
Total: %	100.0	100.0	100.0	100.0
(N)	(949)	(878)	(978)	(828)
Mean:	43.6	37.1	43.0	40.8
Median:	36.8	33.6	40.0	38.1

Note: Acceptors who reported that they did not have any living children are excluded from the above table.

CHAPTER FOUR

USE-EFFECTIVENESS LEVELS AND DIFFERENTIALS

4.1. INTRODUCTION

Effectiveness of contraceptive methods is measured in terms of pregnancy rates and continuation or discontinuation of their use (Tietze, C. et al., 1968). This effectiveness is of two types: theoretical effectiveness and use-effectiveness. Theoretical effectiveness, also known as biological or physiological effectiveness, refers to the antifertility action of a method or product under ideal conditions. Use-effectiveness, also known as clinical effectiveness, relates to the experience of a human population with contraception in general or with a particular method or product, while exposed to the risk of unintended pregnancy. The use-effectiveness of a method may be expected to be significantly lower than the theoretical effectiveness of the same method if periodic action by the user is required. In this report, we distinguish among six types of continuation and pregnancy rates:

First-segment continuation rate: The probability that an acceptor of a particular method will continue to use the same method for a specified period of time without interruption.

First-method continuation rate: The probability that an acceptor of a particular method will continue to use the same method for a specified period following acceptance without changing the method and without becoming pregnant. Brief interruptions are disregarded.

First-method net termination rates: The probability of terminating use of the first method for particular reasons within a specified period following acceptance. The sum

of all the net termination rates is equal to the termination rate for all reasons combined.

First-method gross failure rate: The probability of becoming accidentally pregnant while using the first method within a specified period following acceptance, the absence of competing risks. The adjustment to disregard the effects of competing risks causes gross failure rates to be greater than net failure rates. Though net failure rates more accurately measure the actual incidence of accidental pregnancy among acceptors, gross rates are more appropriate for comparing methods.

All-method continuation rate: The probability that an acceptor of a particular method will continue to use any method for a specified period of time following acceptance. Method switching is not viewed as a type of termination.

Overall pregnancy rate: The probability that an acceptor will become pregnant within a specified period following acceptance, regardless of whether or not the pregnancy occurred while a contraceptive method was being used. This probability is sometimes referred to as extended use-effectiveness since it carries the analysis beyond the period of contraceptive use.

The continuation and pregnancy rates presented in this report are expressed in percentage terms. For instance the 12-month first-segment continuation rate for condom acceptors at urban centres is 69.4, meaning that for every 100 condom acceptors, on the average, 69.4 can be expected to continue condom use without interruption at least until the 12th month following acceptance.

The life-table procedure for calculating the rates produces rates that refer approximately to the middle of the month

specified. Thus a 12-month continuation rate is the probability of continuing for eleven and a half month following acceptance.

Generally speaking, the rates of greatest interest are those for 12 and 24 months. These are the rates most often cited in references to reports of use-effectiveness studies. They are emphasized in the analysis that follows and are underscored in the tables. Thirty-six month rates are also shown but are not given as much attention since they are based on relatively small numbers of cases.

4.2. FIRST-SEGMENT AND FIRST-METHOD CONTINUATION RATES

First-segment cumulative continuation rates (without interruptions and without method change) per 100 acceptors are presented in Tables 17 and 18, together with their standard errors. At both 12 and 24 months, the highest first-segment rates (69 and 53, respectively) were found for urban condom acceptors. The lowest rates (57 and 33) were found for rural condom acceptors. Thus, condom continuation rates were much higher in urban areas than in rural areas. The two pill samples fell between these extremes, the urban pill rates being a few points higher than the rural pill rates.

First-method continuation rates (disregarding interruptions) are presented in tables 19 and 20. The pattern of the first-method rates was similar to that of the first-segment rates, the main difference being that the first-method rates were a few points higher. Twleve-month rates ranged from 60 to 72 and 24-month rates from 35 to 55.

Rahman et al. (1984) estimated one-year cumulative continuation rates for oral pills at 69.2 percent and 60.4 percent for two delivery systems: home delivery and clinic delivery respectively. Obaidullah et al. (1984) reported a 44.2 percent continuation rate for the oral pill at the

Table 17: First-segment cumulative condom continuation rates and standard errors per 100 acceptors by selected months since acceptance, and by centre location

Ordinal month	Urban centre			Rural centre		
	N[a/]	Cumulative rate	Standard error	N[a/]	Cumulative rate	Standard error
3	936	91.0	0.9	881	87.8	1.0
6	827	82.4	1.1	730	73.6	1.4
9	761	73.4	1.4	634	65.6	1.5
12	696	69.4	1.4	559	56.6	1.5
15	570	62.9	1.5	410	48.8	1.6
18	451	59.5	1.6	291	41.7	1.6
21	358	56.7	1.6	223	37.0	1.7
24	279	52.7	1.7	171	32.6	1.7
27	187	49.8	1.8	109	28.9	1.7
30	119	48.0	1.9	62	25.8	1.8
33	66	45.0	2.2	23	(24.0)	(2.0)
36	10	(45.0)	(2.2)	1	(21.6)	(2.8)

a/ N = Number of cases entering observation during the month.

Note: Parentheses indicate rates for ordinal months with N $\leq$ 50

Table 18: First-segment cumulative pill continuation rates and standard errors per 100 acceptors by selected months since acceptance, and by centre location

Ordinal month	Urban centre			Rural centre		
	N[a/]	Cumulative rate	Standard error	N[a/]	Cumulative rate	Standard error
3	916	86.5	1.0	776	86.8	1.1
6	799	76.5	1.3	678	76.4	1.4
9	712	68.7	1.4	609	68.3	1.5
12	653	64.5	1.5	547	61.7	1.6
15	495	56.7	1.5	426	55.3	1.7
18	399	52.9	1.6	319	49.9	1.7
21	312	48.4	1.6	246	45.5	1.8
24	240	45.3	1.7	189	41.2	1.8
27	146	40.9	1.8	138	37.2	1.9
30	93	38.2	2.0	91	32.4	2.0
33	57	35.9	2.2	43	(28.1)	(2.5)
36	16	(30.4)	(3.4)	2	(28.1)	(2.5)

a/ N = Number of cases entering observation during the month.

Note: Parentheses indicate rates for ordinal months with N /50

Table 19: First-method cumulative condom continuation rates and standard errors per 100 acceptors by selected months since acceptance, and by centre location

Ordinal month	Urban centre			Rural centre		
	N[a/]	Cumulative rate	Standard error	N[a/]	Cumulative rate	Standard error
3	938	91.5	0.9	883	89.0	1.0
6	847	84.5	1.1	755	77.1	1.3
9	784	76.0	1.3	664	68.8	1.4
12	722	72.0	1.4	589	59.6	1.5
15	592	65.4	1.5	430	52.0	1.6
18	471	61.9	1.6	305	44.6	1.7
21	378	59.4	1.6	233	40.0	1.7
24	290	55.4	1.7	180	35.2	1.7
27	198	52.9	1.8	117	31.1	1.8
30	127	51.1	1.9	65	28.0	1.9
33	72	48.2	2.2	24	(24.9)	(2.2)
36	11	(48.2)	(2.2)	1	(22.4)	(2.9)

a/ N = Number of cases entering observation during the month.

Note: Parentheses indicate rates for ordinal months with N/50

Table 20: First-method cumulative pill continuation rates and standard errors per 100 acceptors by selected months since acceptance, and by centre location

Ordinal month	Urban centre			Rural centre		
	N[a/]	Cumulative rate	Standard error	N[a/]	Cumulative rate	Standard error
3	918	86.9	1.0	779	87.6	1.1
6	812	77.8	1.3	690	77.9	1.4
9	729	70.8	1.4	625	70.1	1.5
12	675	67.1	1.4	563	63.7	1.6
15	525	60.8	1.5	439	57.6	1.7
18	425	57.2	1.6	331	52.1	1.7
21	333	52.7	1.7	256	47.8	1.8
24	256	49.6	1.7	198	43.7	1.9
27	159	46.5	1.8	141	39.4	1.9
30	104	42.8	2.0	97	36.7	2.0
33	65	40.3	2.3	50	30.6	2.7
36	19	(35.7)	(3.4)	2	(30.6)	(2.7)

a/ N = Number of cases entering observation during the month.

Note: Parentheses indicate rates for ordinal months with N/50

end of one year in one upazila and 41.3 percent in another upazila in the country. Choudhury et al. (1980) in a retrospective pill follow-up study in a rural area of Bangladesh found that 61.9 percent of the pill acceptors had continued use of pills at 12 month. Choudhury et al. (1984) estimated a one year cumulative rate for the IUD at 71.0 percent. Akbar et al. (1982) found a one-year conitnuation rate for the injectable contraceptive of 66.3 percent. It thus appears that the one-year cumulative continuation rate from the present survey for pills and condoms is quite comparable to the one-year cumulative continuation rates for oral contraceptives, injectable contraceptives and IUDs obtained in previous surveys in Bangladesh.

4.3. REASONS FOR DISCONTINUATION OF CONDOM USE

Table 21 gives the percentage distribution of all dropouts in each of the condom samples by reason for termination. Method change, sexual dissastisfaction or disturbances in using the condoms and desire for more children were the three major causes for termination at both urban and rural centres. At urban centres 28.3 percent and at rural centres 24.6 percent of the dropout acceptors switched to other methods. Over one-fifth (22.2%) at urban centres and over one-fourth (27.0%) at rural centres "dropped out" because they experienced sexual dissatisfaction or disturbances or they did not feel comfortable in using the condom. At both categories of centres only one out of every 20 condom users who dropped out cited condom breakage during use as the reason for termination. About one percent at urban centres and 2.4 percent at rural centres said they did not have any faith in the condom as they thought or heard that condoms were not effective. Accidental pregnancy as a cause for discontinuation was reported by 12.7 percent of dropouts at urban centres and 10.7 percent at rural centres. Slightly over one-fourth of dropout at urban centres and

Table 21: Percentage distribution of verified condom acceptors according to the causes of discontinuing condom and by centre location

Reasons for discontinuation	Centre location	
	Urban	Rural
Pregnancy	12.5	10.7
Desired children	15.3	21.0
No need	5.0	4.2
Fear of side effects	6.8	3.8
Switched to other methods	28.3	24.6
Sexual dissatisfaction or disturbance or discomfort in using condom	22.2	27.0
Condom broke while using	3.5	4.0
No faith in condom	2.4	0.9
Shortage of supply	1.4	1.6
Social barrier	0.2	0.5
Vaginal infection	0.7	0.9
Health problems	1.7	0.5
Others	-	0.3
Total: %	100.0	100.0
(N)	(424)	(577)

slightly over one-seventh at rural centres discontinued use to have more children. Side effects and complications as causes for termination were reported by a few acceptors at both urban (2.4%) and rural (1.4%) centres.

Table 22 presents the percentage distributions of pill dropouts by reason for termination. Dizziness was found

Table 22: Percentage distribution of verified pill acceptors according to the causes for discontinuing pill, and by centre location

Reasons for discontinuation	Centre location	
	Urban	Rural
Pregnancy	4.3	4.6
Desired children	16.3	24.2
Dizziness	32.9	37.2
Menstrual problem	10.0	5.6
Gastric problem	5.3	2.7
Weakness	5.5	3.3
Jaundice	0.8	1.3
High blood pressure	0.6	1.0
Burning sensation in the body	2.0	1.0
No supply	3.0	0.9
Husband's objection	1.4	0.9
Switched to some other method	5.9	6.9
No need	3.5	3.1
Others	8.5	7.3
Total: %	100.0	100.0
(N)	(492)	(479)

to be the most important cause for discontinuation of pill at both urban centres (32.9%) and rural centres (37.2%). Measham et al. (1980) in a comparative pill follow-up study found that 28.9 percent of the terminations of standard-dose pills were caused by dizziness alone. One out of every six dropout acceptors at urban centres and one out of

every four acceptors at rural centres said that they had discontinued pill because they wanted more children. Ten percent of the acceptors at urban centres and 5.6 percent of the acceptors at rural centres said that they had stopped using pill because of menstrual problems. It is important to mention that unlike condom acceptors, pill acceptors did not cite switching to other methods as a major cause for discontinuation. Only 5.6 percent at rural centres and 6.9 percent at rural centres reported that they had terminated pill to adopt another method of contraception. Accidental pregnancy was a cause for termination to 4.3 percent acceptors at urban centres 4.6 percent acceptors at rural centres. A few other important cause for discontinuation of pill use were gastric problem, weakness, no need for contraception and no supply.

4.4. FIRST-METHOD NET TERMINATION RATES

The termination rate is simply the difference between 100 and the continuation rate. Tables 23 to 26 show the breakdowns of the first-method termination rates for the four samples by reason for termination. Three specific reasons are indicated: accidental pregnancy (or failure), desire for more children, and no need for contraception. The remaining reasons are grouped together in an "other" category. The information in these tables is consistent with the information given in Tables 21 and 22 on the distribution of dropouts by reason for termination. The life-table rates, however, are stated as percentages of total acceptors rather than of dropouts. Moreover, they are more refined in that they show the distribution of terminations by reason controlling for duration since acceptance. For instance, in Table 23 it can be seen that 4.1 percent urban condom acceptors terminated within 12 months because of accidental pregnancy and the same percentage because they wanted more

Table 23: First-method cumulative condom net termination rates and standard errors per 100 acceptors by selected months since acceptance and reasons for termination in the urban sample

Ordinal month	N[a/]	Reasons for termination: Pregnancy failure Cumulative rate	Pregnancy failure Standard error	Wants more children Cumulative rate	Wants more children Standard error	No need Cumulative rate	No need Standard error	Others Cumulative rate	Others Standard error	Total termination Cumulative rate	Total termination Standard error
3	938	1.3	0.4	1.3	0.4	0.1	0.1	5.9	0.8	8.5	0.9
6	847	2.4	0.5	2.2	0.5	0.6	0.3	10.2	1.0	15.5	1.1
9	784	3.8	0.7	3.0	0.6	1.3	0.4	15.9	1.3	24.0	1.3
12	722	4.1	0.7	4.1	0.7	1.4	0.4	18.5	1.5	28.0	1.4
15	592	4.8	0.8	5.2	0.8	1.7	0.5	22.9	1.7	34.6	1.5
18	471	5.1	0.8	5.8	0.9	2.0	0.5	25.2	1.8	38.1	1.6
21	378	5.1	0.8	6.1	0.9	2.0	0.5	27.4	2.0	40.6	1.6
24	290	5.7	0.9	7.1	1.1	2.2	0.6	29.6	2.1	44.6	1.7
27	198	5.9	1.0	7.7	1.2	2.4	0.7	31.1	2.3	47.1	1.8
30	127	5.9	1.0	8.0	1.3	2.4	0.7	32.6	2.5	48.9	1.9
33	72	5.9	1.0	8.0	1.3	2.4	0.7	35.5	3.1	51.8	2.2
36	11	(5.9)	(1.0)	(8.0)	(1.3)	(2.4)	(0.7)	(35.5)	(3.1)	(51.8)	(2.2)

a/ N = Number of cases entering observation during the month.

Note: Parentheses indicate rates for ordinal months with N /50

Table 24: First-method cumulative condom net termination rates and standard errors per 100 acceptors by selected months since acceptance and by type of termination in the rural sample

Ordinal month	N[a/]	Types of termination: Pregnancy failure — Cumulative rate	Pregnancy failure — Standard error	Wants more children — Cumulative rate	Wants more children — Standard error	No need — Cumulative rate	No need — Standard error	Others — Cumulative rate	Others — Standard error	Total termination — Cumulative rate	Total termination — Standard error
3	883	1.0	0.3	1.6	0.4	0.4	0.2	8.0	0.9	11.0	1.0
6	755	2.2	0.5	3.2	0.6	0.9	0.3	16.6	1.4	22.9	1.3
9	664	3.7	0.7	5.9	0.9	1.1	0.4	20.5	1.6	31.2	1.4
12	589	4.6	0.8	7.4	1.0	1.5	0.5	27.0	1.9	40.4	1.5
15	430	5.5	0.9	9.6	1.2	1.6	0.5	31.3	2.1	48.0	1.6
18	305	6.1	1.0	11.6	1.4	2.1	0.6	35.6	2.4	55.4	1.7
21	233	6.5	1.1	12.5	1.6	2.1	0.6	38.9	2.7	60.0	1.7
24	180	7.1	1.3	13.5	1.7	2.3	0.7	42.0	2.9	64.8	1.7
27	117	7.7	1.4	13.7	1.8	2.8	0.9	44.8	3.3	68.9	1.8
30	65	7.7	1.4	14.4	2.0	3.5	1.3	46.4	3.6	72.0	1.9
33	24	(7.7)	(1.4)	(15.9)	(2.9)	(3.5)	(1.3)	(48.0)	(4.2)	(75.1)	(2.2)
36	1	(7.7)	(1.4)	(18.4)	(5.7)	(3.5)	(1.3)	(48.0)	(4.2)	(77.6)	(2.9)

a/ N = Number of cases entering observation during the month.

Note: Parentheses indicate rates for ordinal months with N /50

Table 25: First-method cumulative pill net termination rates and standard errors per 100 acceptors by selected months since acceptance and by reasons for termination in the urban sample

Ordinal month	N[a/]	Reasons for termination: Pregnancy failure		Wants more children		No need		Others		Total termination	
		Cumulative rate	Standard error	Cumulative rate	Standard error	Cumulative rate	Standard error	Cumulative rate	Standard error	Cumulative rate	Standard error
3	918	0.7	0.3	1.0	0.3	0.3	0.2	11.1	1.1	13.1	1.0
6	812	1.1	0.3	2.6	0.6	0.9	0.3	17.5	1.4	22.2	1.3
9	729	1.6	0.4	4.2	0.7	1.0	0.3	22.4	1.5	29.2	1.4
12	675	2.0	0.5	5.0	0.8	1.1	0.4	24.8	1.7	32.9	1.4
15	525	2.4	0.6	6.0	0.9	1.3	0.4	29.4	1.9	39.2	1.5
18	425	2.4	0.6	6.9	1.0	1.3	0.4	32.2	2.1	42.8	1.6
21	333	2.5	0.6	7.3	1.1	1.3	0.4	36.2	2.3	47.3	1.7
24	256	2.5	0.6	7.9	1.1	1.3	0.4	38.7	2.5	50.5	1.7
27	159	2.5	0.6	8.7	1.4	1.5	0.5	40.7	2.7	53.5	1.8
30	104	2.5	0.6	9.2	1.5	2.4	1.0	43.1	3.1	57.2	2.0
33	65	2.5	0.6	9.7	1.7	2.4	1.0	45.1	3.6	59.7	2.3
36	19	(2.5)	(0.6)	(10.6)	(2.2)	(2.4)	(1.0)	(48.8)	(5.9)	(64.3)	(3.4)

a/ N = Number of cases entering observation during the month.

Note: Parentheses indicate rates for ordinal months with N /50

Table 26: First-method cumulative pill net termination rates and standard errors per 100 acceptors by selected months since acceptance and by type of termination in the rural sample

Ordinal month	N[a/]	Types of termination: Pregnancy failure — Cumulative rate	Pregnancy failure — Standard error	wants more children — Cumulative rate	wants more children — Standard error	No. need — Cumulative rate	No. need — Standard error	Others — Cumulative rate	Others — Standard error	Total termination — Cumulative rate	Total termination — Standard error
3	779	0.7	0.3	2.3	0.5	0.2	0.2	9.1	1.0	12.4	1.1
6	690	0.9	0.3	4.4	0.8	0.6	0.3	16.1	1.4	22.1	1.4
9	625	1.3	0.4	7.4	1.0	0.7	0.3	20.6	1.6	29.9	1.5
12	563	1.5	0.5	9.1	1.2	0.9	0.4	24.7	1.8	36.3	1.6
15	439	2.3	0.6	10.6	1.3	1.1	0.4	28.5	2.1	42.4	1.7
18	331	2.5	0.7	11.8	1.4	1.1	0.4	32.6	2.3	47.9	1.7
21	256	3.1	0.8	12.9	1.6	1.4	0.6	34.8	2.5	52.2	1.8
24	198	3.1	0.8	13.8	1.7	1.7	0.6	37.8	2.8	56.3	1.9
27	143	3.1	0.8	14.8	1.9	1.7	0.6	41.1	3.1	60.6	1.9
30	97	3.1	0.8	15.2	1.9	1.7	0.6	43.4	3.5	63.3	2.0
33	50	3.1	0.8	15.2	1.9	2.9	2.2	48.3	5.1	69.4	2.7
36	2	(3.1)	(0.8)	(15.2)	(1.9)	(2.9)	(2.2)	(48.3)	(5.1)	(69.4)	(2.7)

a/ N = Number of cases entering observation during the month.

Note: Parentheses indicate rates for ordinal months with N /50

chi.dren. By 24 months, in contrast, the proportion who had dropped out because they wanted another child had grown more than the proportion who had experienced accidental pregnancy; as a result, the rate for wanting more children (7.1) was higher than the rate for accidental pregnancy (5.7).

Comparison among Tables 23 to 26 reveals, as expected, that the failure rates were greater for condom acceptors than for pill acceptors. Rural acceptors tended to be more likely than urban acceptors to terminate because they wanted more children. Most of the remaining variations in termination rates were accounted for by variations in the "other" reasons for termination.

4.5. FIRST-METHOD GROSS FAILURE RATES

The failure rates presented above are net rates in that they allow for the effects of competing risks (desire for more children, no need for contraception, and "other" reasons for termination). Tables 27 and 28 present gross failure rates in which the effects of competing risks are eliminated. This adjustment has the effect of slightly inflating the failure rates but provides a firmer basis for comparing the probabilities of failure in the four subsamples. As with the net rates, we find that the pill failure rates are substantially lower than the condom rates. For condom acceptors (but not for pill acceptors) we also find that the failure rates of rural acceptors the first nine months are consistently higher than those of urban acceptors.

For all sub-samples we also find a tendency for the failure rates to reach a plateau shortly after the 24th months. From the 27th to 36th months there are no increases in cumulative failure rates, meaning that no accidental pregnancies were reported by any respondent who had used the first method for

Table 27: First-method cumulative condom gross failure rates and standard errors per 100 acceptors by selected months since acceptance, and by centre location

Ordinal month	Urban centre			Rural centre		
	N[a/]	Cumulative rate	Standard error	N[a/]	Cumulative rate	Standard error
3	938	1.4	0.4	885	0.3	0.3
6	847	2.6	0.5	755	0.5	0.5
9	784	4.2	0.7	664	0.7	0.7
12	722	4.6	0.7	589	0.9	0.9
15	593	5.7	0.8	430	1.0	1.0
18	471	6.1	0.9	305	1.2	1.2
21	378	6.1	0.9	233	1.5	1.3
24	291	7.0	1.0	181	1.8	1.5
27	198	7.4	1.1	118	1.8	1.8
30	127	7.4	1.1	66	1.8	1.8
33	72	7.4	1.1	24	(1.8)	(1.8)
36	11	(7.4)	(1.1)	1	(1.8)	(1.8)

a/ N = Number of cases entering observation during the month.

Note: Parentheses indicate rates for ordinal months with N /50

Table 28: First-method cumulative pill gross failure rates and standard errors per 100 acceptors by selected months since acceptance, and by centre location

Ordinal month	Urban centre			Rural centre		
	N[a/]	Cumulative rate	Standard error	N[a/]	Cumulative rate	Standard error
3	918	0.5	0.2	779	0.7	0.3
6	812	1.0	0.3	690	1.0	0.4
9	729	1.7	0.4	625	1.5	0.4
12	675	2.2	0.5	563	1.8	0.4
15	526	2.8	0.6	443	3.1	0.5
18	426	2.8	0.6	331	3.4	0.7
21	333	3.0	0.7	258	4.5	0.8
24	256	3.0	0.7	201	4.5	1.0
27	161	3.0	0.7	145	5.2	1.2
30	104	3.0	0.7	98	5.2	1.2
33	65	3.0	0.7	50	5.2	1.2
36	20	(3.0)	(0.7)	2	(5.2)	(1.2)

a/ N = Number of cases entering observation during the month.

Note: Parentheses indicate rates for ordinal months with N /50

at least 27 months. This plateau suggests that by the end of the second year most of the couples who used the methods relatively ineffectively had already become pregnant or terminated use for other reasons, leaving only the most highly motivated users who were capable of practicing most effectively. (In this connection, it should be noted that the numbers of cases observed beyond 24 months were relatively small and that information based on such small numbers is likely to be relatively unreliable.)

4.6. METHOD-SWITCHING

As Tables 21 and 22 show, about one-fourth of the condom acceptors and about six percent of the pill acceptors terminated the first-method in order to switch to another method. Table 27 shows the distribution of the switchers in each sample by the method to which they switched. It can be seen that the majority of pill switchers changed to condoms and the majority of condom switchers changed to pills. For both groups, the next most popular method to switch to was the IUD. Of the remaining methods foam and Emko tended to be more popular among condom switchers and injection and tubectomy among pill switchers. Tubectomy was also more popular among rural switchers than among urban switchers.

4.7. ALL-METHOD CONTINUATION RATES

Because condom acceptors were much more likely to switch methods than pill acceptors, their all-method continuation rates were also higher (Table 30). Urban condom users had the highest all-method rates: 89 at 12 months and 82 at 24 months. These rates are unusually high by international standares and indicate a high degree of motivation among urban condom acceptors. Rural condom acceptors had all-method continuation rates substantially lower (84 and 70),

Table 29: Percentage distribution of verified acceptors who switched methods according to the method they switched to, by method and centre location

Name of method	Condoms		Pills	
	Urban	Rural	Urban	Rural
Oral pill	71.1	60.4	-	-
Condom	-	-	58.7	62.3
IUD	18.6	17.8	21.1	14.7
Injection	1.8	5.7	9.9	9.4
Foam/Emko	4.4	6.9	2.7	2.1
Rhythm/safe period	0.7	0.3	-	-
Kabiraji	0.4	-	1.3	-
Homeopath	-	0.3	-	-
Vasectomy	0.7	3.2	0.9	1.6
Tubectomy	2.2	5.4	5.4	9.9
Total: %	100.0	100.0	100.0	100.0
(N)	(274)	(349)	(223)	(191)

but these rates were nevertheless higher than the rates for urban pill acceptors (81 and 69). Rural pill acceptors had even lower all-method rates than their urban counterparts: 77 and 63 (Table 31). However, even the rural pill rates are respectively high by international standards.

4.8. OVERALL PREGNANCY RATES

Overall pregnancy rates are the numbers of pregnancies that occur among 100 acceptors within specified durations following acceptance, regardless of whether or not the pregnancies

Table 30: All-method cumulative condom continuation rates and standard errors per 100 acceptors by selected months since acceptance, and by centre location

Ordinal month	Urban centre			Rural centre		
	N[a/]	Cumulative rate	Standard error	N[a/]	Cumulative rate	Standard error
3	968	97.0	0.5	923	96.9	0.6
6	936	94.4	0.7	880	92.7	0.8
9	913	91.2	0.9	834	87.7	1.1
12	884	89.2	1.0	804	84.4	1.2
15	766	86.7	1.1	637	79.4	1.3
18	636	85.4	1.1	471	75.4	1.5
21	519	84.4	1.2	383	72.9	1.6
24	403	82.3	1.3	341	70.3	1.7
27	281	81.0	1.4	220	68.6	1.8
30	180	79.3	1.6	139	65.8	2.0
33	102	78.4	1.8	53	64.1,	2.3
36	15	(78.4)	(1.8)	1	(61.4)	(3.4)

a/ N = Number of cases entering observation during the month.

Note: Parentheses indicate rates for ordinal months with N /50

Table 31: All-method cumulative pill continuation rates and standard errors per 100 acceptors by selected months since acceptance, and by centre location

Ordinal month	Urban centre			Rural centre		
	N[a/]	Cumulative rate	Standard error	N[a/]	Cumulative rate	Standard error
3	953	93.7	0.8	813	93.2	0.8
6	899	88.2	1.0	759	86.9	1.1
9	848	83.7	1.1	712	80.5	1.3
12	814	80.9	1.2	667	76.7	1.4
15	670	77.8	1.3	542	73.0	1.5
18	546	75.4	1.4	425	69.5	1.6
21	441	72.2	1.5	337	66.1	1.7
24	339	68.8	1.6	263	62.5	1.8
27	209	66.7	1.8	198	58.1	2.1
30	140	61.8	2.1	133	57.0	2.1
33	82	59.6	2.4	71	53.0	2.8
36	22	(58.5)	(2.6)	3	(53.0)	(2.8)

a/ N = Number of cases entering observation during the month.

Note: Parentheses indicate rates for ordinal months with N /50

occur while a contraceptive method is in use and regardless of whether or not they are wanted. The lower the overall pregnancy rates are for a particular method (other things equal), the better recruitment of acceptors of that method is for achieving the the objective of reducing fertility. By this measure, NGO condom acceptances appear to be more advantageous for the family planning program in Bangladesh than NGO pill acceptances. Even by the 12th month following acceptance, both urban and rural overall pregnancy rates of condom acceptors (8.7 and 10.2) were lower than the corresponding pill rates (12.3 and 15.0) (Tables 32 and 33). By the 24th month the difference was greater among urban acceptors (13.3 for condom acceptors vs. 21.3 for pill acceptors). Among rural acceptors, the pill-condom gap became smaller by the 24th month, but the 24-month pill rate (23.7) was still higher than the condom rate (21.9).

The finding is particularly striking in light of the fact that pill users experience fewer <u>accidental</u> pregnancies than condom users. The main reason for the difference in overall pregnancy rates is that condom dropouts are much more likely than pill dropouts to switch to other methods and therefore to remain protected for a longer time.

4.9. CONTRACEPTIVE PRACTICE AT TIME OF THE SURVEY

Table 34 presents the contraceptive practice of the four samples as of the time of the survey. This variable can be viewed as a crude indicator of continuation and shifting patterns. Pill acceptors had the lowest proportions still using contraceptive methods, especially those in the rural areas (70.4%). Urban condom acceptors had the largest proportion still using some method (89.7%). They also had the highest proportion still using their first method (69.2%). Urban pill acceptors were next most likely to be

Table 32: Cumulative overall condom pregnancy rates and standard errors per 100 acceptors by selected months since acceptance, and by centre location

Ordinal month	Urban centre			Rural centre		
	N[a/]	Cumulative rate	Standard error	N[a/]	Cumulative rate	Standard error
3	973	2.1	0.5	931	1.8	0.4
6	947	4.9	0.7	907	4.5	0.7
9	925	7.1	0.9	874	8.1	0.9
12	906	8.7	1.0	862	10.2	1.1
15	790	10.4	1.0	690	14.2	1.3
18	658	11.2	1.0	509	16.8	1.5
21	534	12.1	1.1	420	19.3	1.7
24	415	13.3	1.3	349	21.9	1.9
27	292	15.4	1.5	248	22.8	1.9
30	189	16.2	1.6	157	23.7	2.1
33	106	16.2	1.6	63	23.7	2.1
36	16	(16.2)	(1.6)	1	(23.7)	(2.1)

a/ N = Number of cases entering observation during the month.

Note: Parentheses indicate rates for ordinal months with N $\leq$ 50

Table 33: Cumulative overall pill pregnancy rates and standard errors per 100 acceptors by selected months since acceptance, and by centre location

Ordinal month	Urban centre			Rural centre		
	N[a/]	Cumulative rate	Standard error	N[a/]	Cumulative rate	Standard error
3	981	2.4	0.5	842	3.6	0.7
6	947	5.9	0.8	805	6.6	0.9
9	909	9.5	1.0	773	10.9	1.1
12	881	12.3	1.1	733	15.0	1.4
15	723	15.7	1.3	597	18.1	1.5
18	587	17.7	1.4	477	20.5	1.7
21	474	19.2	1.5	382	22.5	1.8
24	362	21.3	1.7	312	23.7	1.9
27	229	23.7	2.0	230	25.8	2.1
30	152	24.2	2.1	154	27.6	2.4
33	89	28.1	2.9	75	27.6	2.4
36	22	(28.1)	(2.9)	3	(27.6)	(2.4)

a/ N = Number of cases entering observation during the month.

Note: Parentheses indicate rates for ordinal months with N $\leq$ 50

Table 34: Percentage distribution of verified acceptors according to the method they were using currently, by method and centre location

Method using currently	Condoms		Pills	
	Urban	Rural	Urban	Rural
None	10.3	21.4	24.0	29.6
Condom	69.2	46.4	7.5	8.5
Oral pill	12.1	18.4	60.1	52.5
IUD	5.9	7.2	4.0	3.3
Injection	0.5	1.9	1.5	1.8
Vasectomy	0.2	1.5	0.1	0.4
Tubectomy	1.2	2.3	2.0	3.5
Foam tablet/Emko	0.3	0.7	0.6	0.4
Safe period	0.2	0.1	0.1	-
Kabiraji	0.1	-	0.1	-
Total: %	100.0	100.0	100.0	100.0
(N)	(986)	(940)	(993)	(855)

using the first method (60.1%), followed by rural pill acceptors (52.5%). Least likely to be still using their first method were the rural condom acceptors (46.4%). Nevertheless, because the rural condom acceptors were more likely than pill acceptors to switch methods, they were slightly less likely than pill acceptors to be unprotected by a method at the time of the survey (21.4% vs. 24.0% for the two pill samples). Condom acceptors no longer using condoms were especially likely to be using pills; substantial proportions also were using IUDs. Among pill dropouts condoms, IUDs, and tubectomies were the most commonly used alternatives. These findings are all consistent with the

findings presented above, since current status is a function of continuation and switching patterns taken together with the variation in timing of acceptance.

4.10. CONTINUATION RATE DIFFERENTIALS

Table 35 shows variations in 12-month continuation rates in relation to selected demographic, socio-economic, and service-related variables. First, we examine the relationship between NGO agency and continuation. For both pills and condoms, urban continuation rates were highest among acceptors of the FPSTC (80 for both methods) and lowest for TPF acceptors (56 for condoms and 52 for pills). The other two NGOs had rates between 64 and 68. In rural areas TAF continuation rates were higher than TPF rates, which in turn were higher than CWFP rates. In general, within NGOs, urban rates were greater than rural rates.

Turning to wife's age we find a consistent pattern of rising rates with increasing age up to 35 and then declining somewhat or leveling off after age 35 for all samples except the rural pill acceptors. In that sample the rates do not vary much by age before age 35, and the highest rate is found for the "35+" category. The pattern found in the first three samples appears to be more easily explained in motivational terms. As couples pass beyond their earliest years, they are likely to have more children and therefore be more motivated. However after age 35 they are increasingly likely to be unable to bear more children and therefore to discontinue contraceptive practice. The rural pill pattern is not so readily explained.

There is no consistent relationship between religion and continuation rates in the four samples. Because of the small numbers of non-Muslim respondents, only one difference

Table 35: Twelve-months continuation rates by wife's age, socio-economic variables, and supply source, by method and centre location (N's in parentheses)

Independent variable	Condoms		Pills	
	Urban	Rural	Urban	Rural
NGO				
FPSTC	79.6 (540)	-	79.7 (192)	-
CWFP	65.7 (140)	-	64.9 (268)	53.7 (95)
TPF	56.4 (94)	52.0 (198)	59.5 (328)	59.6 (94)
TAF	63.7 (212)	61.7 (742)	68.2 (192)	65.6 (662)
Wife's age				
Under 25	64.1 (312)	56.9 (422)	64.2 (229)	64.1 (245)
25-29	70.8 (380)	57.4 (272)	65.8 (363)	60.1 (281)
30-34	83.2 (202)	66.4 (152)	70.5 (258)	61.6 (211)
35+	78.3 (92)	66.0 (94)	65.4 (130)	74.6 (114)
Religion				
Muslim	72.4 (897)	58.2 (735)	65.2 (840)	63.5 (765)
Other	68.5 (89)	64.9 (205)	75.0 (140)	64.0 (86)
Husband's Education				
None	70.2 (124)	58.7 (312)	63.6 (209)	65.1 (372)
1-9 years	75.9 (266)	58.4 (437)	67.4 (347)	60.7 (303)
10 years or more	60.4 (596)	63.4 (191)	67.5 (424)	65.3 (176)
Supply Source				
NGO only	70.8 (790)	57.3 (789)	66.0 (861)	63.1 (813)
Other as well	77.0 (196)	72.2 (151)	71.4 (119)	73.7 (38)

is statistically significant at the .05 level—the difference in the urban pill sample between the Muslim rate of 65 and the non-Muslim rate of 75.

There is also no evidence for a consistent or pronounced relationship between socio-economic status, as indicated by husband's educational attainment, and continuation. The most pronounced variation is among urban condom users, and there it is not the most highly educated users who show the higher continuation rate, as might be expected, but rather those with some education but less than ten years. The highest educated in that sample tend to have the lowest continuation rate, although in the other samples they tend to have marginally (and non-significantly) higher continuation rates than the rest.

Looking at the supply source (whether the respondent received supplies only from the NGO or from both the NGO and other sources) we find a consistent and generally statistically significant tendency for those who received supplies from multiple sources to continue using the first method longer than those who relied solely on the NGO. This finding suggests that the home-delivery of supplies may have sometimes been interrupted or delayed, forcing couples without other sources to terminate use earlier than they might have if they had had ready access to other sources.

4.11. *FAILURE RATE DIFFERENTIALS*

There were fewer pronounced differentials in failure rates than in continuation rates (Table 36). The failure rates for condom acceptors at FPSTC clinics were considerably lower than those for ohter condom acceptors. Failure rates among older condom users in urban areas tended to be lower than for younger condom users, but this pattern was probably due at least in part to their lower natural fecundability,

Table 36: Twelve-month net failure rates by wife's age, socio-economic variables, and supply source, by method and centre location (N's in parentheses)

Independent variable	Condoms		Pills	
	Urban	Rural	Urban	Rural
NGO				
NGO	2.6 (540)	-	1.6 (192)	-
CWFP	5.7 (140)	-	2.2 (268)	1.1 (95)
TPF	4.3 (94)	6.6 (198)	1.2 (328)	3.2 (94)
TAF	6.6 (212)	4.0 (742)	2.6 (192)	1.2 (662)
Wife's age				
Under 25	5.4 (312)	6.4 (422)	2.6 (229)	0.8 (245)
25-29	5.3 (380)	2.6 (272)	1.7 (363)	1.8 (281)
30-34	1.0 (202)	4.6 (152)	1.2 (258)	1.4 (211)
35+	1.1 (92)	2.1 (94)	2.3 (130)	1.8 (114)
Religion				
Muslim	4.1 (697)	4.9 (735)	1.4 (840)	1.4 (765)
Other	3.4 (89)	3.4 (205)	4.3 (140)	1.2 (86)
Husband' Education				
None	2.4 (124)	5.8 (312)	2.9 (209)	1.6 (372)
1-9 years	4.5 (266)	4.3 (437)	1.4 (347)	1.0 (303)
10 years or more	4.2 (596)	3.1 (191)	1.7 (424)	1.7 (176)
Supply Source				
NGO only	3.7 (790)	4.9 (789)	1.7 (861)	1.4 (813)
Other as well	5.6 (196)	2.6 (151)	2.5 (119)	2.6 (38)

which is expected to decline with age. Furthermore this pattern was not seen for any other sample, suggesting that it may also have been partly the result of chance. Similarly, no consistent failure rate differentials were found in relation to religion, husband's education, or supply source.

CHAPTER FIVE

MISCELLANEOUS INFORMATION RELATING TO CONDOM USE

5.1. INTRODUCTION

The preceding chapter has presented data on the duration of use of condoms and pills, on the net effect of the quality of use as reflected in failure rates, and on the joint effect of continuation and quality of use on overall pregnancy rates. However, it has not provided detailed information relating to the nature and quality of use. The present chapter augments the use-effectiveness analysis by providing such information regarding condom acceptors, and the next chapter provides similar information on pill acceptors. In this chapter we will be concerned with questions concerning condoms on hand, condom storage and disposal, other supply sources, non-contraceptive use, re-use side effects, perceiving effectiveness, and coital frequency.

5.2. CONDOMS ON HAND

Table 37 shows that about five-sixths of the current condom users at both categories of centres said that they had condoms on hand (83.4% at urban and 83.7% at rural centres). Among those with condoms on hand, the mean number of condoms on hand, varied to a sizeable extent between the urban (9.6) and rural (6.5) centres (Table 38).

Table 37: Percentage distribution of current condom users according to whether they had any condom on hand, and by centre location

Whether had condom on hand	Centre location	
	Urban	Rural
Yes	83.4	83.7
No	16.6	16.3
Total: %	100.0	100.0
(N)	(682)	(436)

Table 38: Percentage distribution of current condom users with condoms on hand according to the number of condoms they had on hand, and by centre location

Number of condom on hand	Centre location	
	Urban	Rural
1 - 6	37.4	62.7
7 - 12	33.9	24.1
13 - 18	9.4	5.3
19 - 24	11.3	3.8
25 - 30	3.7	1.9
31 +	4.3	2.2
Total: %	100.0	100.0
(N)	(569)	(365)
Mean:	9.6	6.5

It is interesting to see that although the acceptors had been able to get condoms free from the centres, 8.0 percent of the acceptors at urban centres and 4.0 percent at rural centres had on hand brands of condoms obtained commercially (Table 39).

Table 39: Percentage distribution of current condom users according to the physically verified brand of condom they were using, and by centre location

Brand names	Centre location	
	Urban	Rural
BDG Brands		
Tahiti & Sultan	92.0	96.0
SMP Brands		
Raja, Panther and Majestic	6.0	3.0
Both BDG and SMP Brands	2.0	1.0
Total: %	100.0	100.0
(N)	(569)	(365)

Among the acceptors who were not using condoms currently, 6.3 percent at urban centres and 1.6 percent at rural centres said they had condoms on hand (Table 40). On average, the non-users with condoms on hand had 13.6 condoms (urban) and 3.2 condoms (rural) on hand (Table 41). Of the acceptors who were not using condoms currently but had some

Table 40: Percentage distribution of condom acceptors who were not using condom currently according to whether they had any condom on hand, and by centre location

Whether have any condom on hand	Centre location	
	Urban	Rural
Yes	6.3	1.6
No	93.7	98.3
Total: %	100.0	100.0
(N)	(304)	(504)

Table 41: Percentage distribution of condom acceptors who were not using condom currently according to the number of condoms they had on hand, and by centre location

Number of condom on hand	Centre location	
	Urban	Rural
1 - 6	44.6	100.0
7 - 12	24.6	-
13 +	30.8	-
Total: %	100.0	100.0
(N)	(20)	(8)
Mean:	13.6	3.2

condoms on hand, only a few were found to have SMP condoms (Table 42). Irrespective of the current use status of the acceptors, 5.0 percent of the acceptors at urban centres and 1.9 percent at rural centres said that they had some condoms on hand which they could not show (Table 43). The

Table 42: Number distribution of condom acceptors who were not using condom currently according to the physically verified brand of condom they were keeping, and by centre location

Brand names	Centre location	
	Urban	Rural
BDG[1] Brands	16	7
Tahiti & Sultan		
SMP[2] Brands	1	1
Raja, Panther & Majestic		
Both BDG and SMP Brands	2	-
Total: N	19	8

Table 43: Percentage distribution of verified condom acceptors according whether they had any condom on hand which they could not show, and by centre location

Whether could show	Centre location	
	Urban	Rural
No	5.0	1.9
Yes	95.0	98.1
Total: %	100.0	100.0
(N)	(986)	(940)

mean number of condoms which could not be shown at urban centres was estimated at 15.1 and at rural centres as 12.1 (Table 44). The median numbers of condoms on hand in urban and rural centres were 8.5 and 10.9 respectively. The median are probably more accurate since the means are inflated by reports of very large numbers of condoms (especially among acceptors at rural centres) which are of relatively doubtful accuracy.

Table 44: Number distribution of condom acceptors who could not show the condom that they had according to the number of condoms they said they had, and by centre location

Number of condoms	Centre location	
	Urban	Rural
1 - 5	23.5	22.4
6 - 10	52.9	30.6
11 - 15	11.8	20.4
16 +	11.8	26.5
Total: %	100.0	100.0
(N)	(17)	(49)
Mean:	15.1	12.1
Median:	8.5	10.9

At urban centres of those acceptors who said they had condoms on hand but could not show them, 49.0 percent gave the reason that they felt ashamed to show the condoms in the presence of the children (Table 45). The corresponding percentages at rural centres was 44.4. Other reasons given by substantial proportion of cases were that the condoms were with the wife, the key to the box in which they were kept was not at hand or the respondent did not know where they were at the moment.

Table 45: Percentage distribution of verified condom acceptors having condom on hand but could not show according to the reasons for not showing, and by centre location

Reasons	Centre location	
	Urban	Rural
Feel shy infront of children	49.0	44.4
Lying with wife and she is away	24.5	16.7
In the box and key not available	12.2	22.2
Can not find	6.1	11.1
Others	8.2	5.6
Total: %	100.0	100.0
(N)	(49)	(18)

5.3. CONDOM STORAGE AND PROBLEMS IN CONDOM STORAGE

A large majority of acceptors at both categories of centres said they kept condoms either in boxes or in almirahs[1] (Table 46). Almirahs were commonly reported by acceptors at urban centres (46.8%) and boxes were commonly reported by acceptors at rural centres. However the urban and rural percentages reporting almirah or box are 80.3 percent at urban centres and 74.4 percent at rural centres. Sizeable proportions of acceptors at both categories of centres said they kept condoms under their beds--urban 7.2 percent and rural 8.7 percent. Three percent of acceptors at urban centres and 4.9 percent at rural centres reported that they kept the condoms in a pot. Acceptors mentioned a number of other types of containers in which they kept

[1] An almirah is similar to a wardrobe in which a person's stock of clothes and important articles are kept.

Table 46: Percentage distribution of verified condom acceptors according to the types of places where they used to keep the condom, and by centre location

Place of keeping condom	Centre location	
	Urban	Rural
In a box	33.5	63.6
In an almirah	46.8	10.8
Under the bed	7.2	8.7
In a pot	3.0	4.9
In a drawer	4.4	1.8
In a bag	2.2	1.8
In an earthen vessel	0.6	2.5
On a shelf	0.9	2.7
In a safe place	0.2	1.3
In side a quilt	0.5	0.5
In side a wooden or bamboo pillar	0.4	0.5
On a mosquito net	0.4	0.7
On a desk	-	0.2
Total: %	100.0	100.0
(N)	(986)	(940)

condoms, including drawers, bags, shelves, wooden or bamboo pillars. Data show that the majority of acceptors kept condoms in a safe place in their houses. In response to a question on the problem of storage of condoms, only nine acceptors at urban centres and six acceptors at rural centres mentioned that they had problems of finding a place beyond the reach of the children.

5.4. DISPOSAL OF USED CONDOMS

Table 47 shows the places where the acceptors used to dispose of the condoms. Acceptors at urban and rural centres varied considerably in their responses. Urban respondents were most likely to say they disposed of their condoms in

Table 47: Percentage distribution of verified condom acceptors according to the types of places where the used condoms were disposed of, and by centre location

Types of places	Centre location	
	Urban	Rural
In the latrine	37.9	19.0
In the drain	24.2	4.7
In the bush	5.4	31.1
Buried	6.0	23.0
In the dustbin	19.2	0.7
In the pond	2.9	2.7
In the ditch	1.3	1.8
In the river	1.3	5.5
In the water	0.3	4.7
In the field	0.9	4.7
Behind the house	0.4	1.9
Burnt	0.1	0.2
Total: %	100.0	100.0
(N)	(986)	(940)

the latrine, in the drain, or in the dustbin. These responses accounted for 81.3 percent of the acceptors at urban centres but only 24.4 percent of the acceptors at rural centres. Among the acceptors at rural centres, the most common responses were in the bush, buried, and in the latrine. These responses accounted for 73 percent of the rural responses. The two response distributions reflect the differences in availability of places to dispose of condoms in urban and rural areas.

All acceptors at urban centres and all but two at rural centres said they did not have problems in disposing of used condoms.

5.5. OTHER SOURCES OF CONDOMS

In addition to receiving condoms from NGO centres, 20.0 percent of the urban acceptors and 16.1 percent of the rural acceptors said they had obtained condoms from other sources on some occasions (Table 48). In each category of centres, almost all acceptors who obtained condoms from time to time

Table 48: Percentage distribution of verified condom acceptors according to whether they received any condom from any source than the centres, and by centre location

Other source	Centre location	
	Urban	Rural
Shop/pharmacy	19.2	15.2
Other centres	0.4	0.1
F.P. worker/social welfare worker	0.1	0.6
Collected from neighbours/others	0.2	0.1
Did not receive from other source	80.0	83.9
Total: %	100.0	100.0
(N)	(986)	(940)

from other sources had purchased the condoms from a shop or a pharmacy. The sources mentioned by the few remaining acceptors were other centres, family planning worker/social welfare workers, and neighbours/others.

5.6. MISUSE OF CONDOMS

Only 1.4 percent of the acceptors at urban centres and 3.7 percent of the acceptors at rural centres said they used any condoms for purposes other than contraception (Table 49). The few respondents who reported such misuse also tended to state that only small numbers of condoms were involved (Table 50). The median number of condoms reported misused

Table 49: Percentage distribution of verified condom acceptors according to whether they used any condom for any purpose other than birth prevention, and by centre location

Type of use	Centre location	
	Urban	Rural
Yes	1.4	3.7
No	98.6	96.3
Total: %	100.0	100.0
(N)	(986)	(940)

Table 50: Percentage distribution of condom acceptors who said they misused some condoms according to the number of condoms they misused, and by centre location

Number of condoms misused	Centre location	
	Urban	Rural
1 - 5	35.7	40.0
6 - 10	57.1	37.1
11 +	7.1	22.9
Total: %	100.0	100.0
(N)	(14)	(35)
Mean:	6.8	6.8

by these respondents at both categories of centres was 6.8. In practice, the misuse of condoms was thus negligible. All those who reported misusing condoms said that they had given them to their children to play with as balloons.

5.7. FAILURE TO USE A CONDOM DURING INTERCOURSE

In response to a question whether acceptors ever failed to use a condom during intercourse while they were on condoms, one out of every ten acceptors in both categories of centres said yes (Table 51). The reasons for failure to use a condom were almost the same in the two categories of centres and the rates for specific causes for failure also did not vary widely (Table 52). About half of the acceptors at urban centres and 42.8 percent at rural centres said they did not use a condom during intercourse on a few occasions, as their wives were either in a safe period or amenorrheic. Slightly over 27.0 percent at urban centres and 24.2 percent at rural centres said they forgot to use a condom. Dissatisfaction during intercourse was given as a cause for failure to use a condom by 12.1 percent of acceptors at urban centres and 16.5 percent acceptors at rural centres. Seven acceptors

Tnble 51: Percentage distribution of verified condom acceptors according to whether they were regular in using condom, and by centre location

Whether was regular	Centre location	
	Urban	Rural
Yes	10.0	10.0
No	90.0	90.0
Total: %	100.0	100.0
(N)	(986)	(940)

Table 52: Percentage distribution of irregular condom users according to the reasons for not using condoms in few intercourse while they were on condom, and by centre location

Reasons for not using	Centre location	
	Urban	Rural
Wife was on safe period/ amenorrhea	49.5	42.8
Forgot to use	27.3	24.2
For satisfaction	12.1	16.5
Did not have supply/it was not around	-	7.7
Others	11.1	8.8
Total: %	100.0	100.0
(N)	(99)	(91)

from rural centres, reported they failed to use a condom because of a shortage of supply or because it was not near their beds; however, none of the urban respondents reported these reasons.

5.8. RE-USE OF CONDOMS

Eight acceptors, all from rural centres, reported that, on a few occasions, a condom which was used once during intercourse, was used a second time in another act of intercourse. Shortage of supply (four cases), inability to wait to get another condom (two cases) and 'no harm' (two cases) were given as reasons for using a used condom.

5.9. SIDE EFFECTS AND OTHER COMPLAINTS

Very few of acceptors at either of the two categories of centres reported side effects or complications--5.0 percent at urban centres and 2.0 percent at rural centres (Table 53).

Table 53: Percentage distribution of verified condom acceptors according to whether they suffered from any side effect of condom, and by centre location

Whether suffered from any side effect	Centre location	
	Urban	Rural
Yes	5.0	2.0
No	95.0	98.0
Total: %	100.0	100.0
(N)	(986)	(940)

The most common complaint of these acceptors (41.6 percent at urban centres and 85.7 percent at rural centres) was allergic reaction to using condoms (Table 54). Other side effects or complications reported by acceptors, mostly at urban centres, were burning sensation, uterine infection and menstrual problems. However, the uterine and menstrual complaints most likely are unrelated to condom use.

Table 54: Percentage distribution of condom acceptors who said that they suffered from side effects according to the types of side effects, and by centre location

Side effects	Centre location	
	Urban	Rural
Allergy	41.6	85.7
Burning sensation	31.3	-
Uterus infection	16.7	9.5
Menstrual problems	10.4	4.8
Total: %	100.0	100.0
(N)	(48)	(21)

Thirty-seven acceptors at urban centres (3.8%) and 49 acceptors at rural centres (5.2%) reported that they had experienced problems with condom use (Table 55). Bursting of condom during use was the main complaint among acceptors at urban centres who reported non-medical reasons. The proportion of acceptors who complained about a condom bursting varied widely between the two categories of centres--62.2 percent at urban centres and 32.7 percent at rural centres. Dissatisfaction, disturbance or discomfort during intercourse were reported by a majority of acceptors at rural centres but also by 32.4 percent of acceptors in the urban centres.

Table 55: Percentage distribution of verified condom acceptors reporting non-medical problems according to the types of non-medical problems they faced in using condom, and by centre location

Types of problems	Centre location	
	Urban	Rural
Condom bursted	62.2	32.7
Bad smell	-	14.3
Did not get satisfaction in intercourse/felt disturbed/ felt uncomfortable	32.4	51.0
Faced problem in wearing	5.4	2.0
Total: %	100.0	100.0
(N)	(37)	(49)

Large majorities of acceptors at both urban (63.6%) and rural (60.4%) centres felt that the condom was more than moderately effective. About one out of every twenty acceptors said that condoms were either not so effective or not at all effective (Table 56). More acceptors at

Table 56: Percentage distribution of verified condom acceptors according to their impression on the effectiveness of condom, and by centre location

Impression of effectiveness of condom	Centre location	
	Urban	Rural
Very effective	12.3	17.4
Quite effective	51.3	43.0
Moderately effective	32.8	34.0
Not so effective	3.3	4.7
Not at all effective	0.3	0.9
Total: %	100.0	100.0
(N)	(986)	(940)

rural centres (5.6%) than at urban centres (3.6%) felt that the condom was ineffective.

5.10. PERCEIVED EFFECTIVENESS OF CONDOMS

Those who said the condom was ineffective were asked why they felt so. Most said that a condom had burst during use (Table 57). In addition, two acceptors at urban centres and one acceptor at a rural centre had the impression that condoms might have holes.

5.11. COITAL FREQUENCY

All the sample acceptors were asked how many times they had intercourse during the past one month period prior to the date of interview. The mean coital frequency per month at the urban centres was 10.2 and at the rural centres 10.4 (Table 58). It was thought that the monthly rate might be affected by memory lapse and, therefore, after completing

Table 57: Percentage distribution of verified condom acceptors who doubted condom effectiveness according to reasons for feeling that condom was not so effective or at all effective, and by centre location

Reasons	Centre location	
	Urban	Rural
Condom bursts	80.6	69.2
Sometimes holes are found in condom	5.5	1.9
Fails to protect pregnancy	13.9	28.8
Total: %	100.0	100.0
(N)	(36)	(52)

Table 58: Percentage distribution of verified condom acceptors according to their coital frequencies during the past one-month period, and by centre location

Coital frequency in the past one-month	Centre location	
	Urban	Rural
0 -.5	16.3	19.5
6 - 10	43.4	39.8
11 - 15	26.6	27.3
16 - 50	13.7	13.4
Total: %	100.0	100.0
(N)	(986)	(940)
Mean:	10.2	10.4

32.0 percent of the field interviews,in addition to the monthly coital frequency, the weekly coital frequency of the remaining 68.0 percent of acceptors was collected, which is presented in Table 59. The weekly mean coital frequency rate varied slightly between the two categories

Table 59: Percentage distribution of verified condom acceptors according to their coital frequencies during the past one-week period, and by centre location

Coital frequency in the past one-week	Centre location	
	Urban	Rural
0	10.9	18.0
1	14.9	11.9
2	29.7	26.1
3	26.4	24.0
4 +	18.1	20.0
Total: %	100.0	100.0
(N)	(690)	(621)
Mean:	2.4	2.3

of centres--at urban centres, 2.3 and at rural centres 2.4. The majority of the acceptors in the two categories of centres reported that they had intercourse 2-3 times in the past week. The weekly coital frequency means of 2.4 and 2.3 are equivalent to monthly means of 10.3 and 9.9 and therefore validate the monthly estimates reported above.

The condom acceptors were asked, on average, how many condoms they required in a month while they were using condoms. The mean number of condoms required in a month by the acceptors at urban centres was 12 and that at the rural centres was 12.4 (Table 60). These figures are consistent with the data on coital frequency, allowing for a wastage factor of one or two condoms each month.

Table 60: Percentage distribution of vefified condom acceptors according to the number of condom they said they usually required in a period of one month, and by centre location

Number of condoms	Centre location	
	Urban	Rural
1 - 6	9.0	11.1
7 - 12	64.3	54.3
13 - 18	16.4	18.5
19 - 24	8.3	13.4
25 - 30	1.3	2.2
31 +	0.6	0.4
Not stated	-	-
Total: %	100.0	100.0
(N)	(986)	(939)
Mean:	12.0	12.4

CHAPTER SIX

MISCELLANEOUS INFORMATION RELATING TO PILL USE

6.1. INTRODUCTION

Like Chapter Five, the present chapter provides detailed information relating to the nature and quality of pill use. Several of the topics in this chapter are similar to those covered in Chapter Five, but there are substantial differences, since some information that applies to condom users does not apply to pill users and vice versa. In this chapter we will be concerned with questions concerning pills on hand, pill storage, other supply sources, compliance with instructions, side effects, perceived effectiveness, and overlap with lactation. For comparison with data from condom users, we will also look at data on coital frequency of pill users.

6.2. PILLS ON HAND

A large majority of the current pill users at both urban centres (94.1%) and rural centres (96.4%) said they had pills on hand (Table 61). The mean number of pill cycles on hand was estimated at 1.6 at urban centres and at 1.2 at rural centres. The corresponding medians were 1.5 and 0.9. Twenty eight percent of the acceptors at urban centre and 57.9 percent of the acceptors at rural centres said that they did not have any more pills on hand other than the cycle they were using currently. It may be noted that 8.8 percent of the acceptors at urban centres and only 3.8 percent of the acceptors at rural centres had more than three cycles of pills on hand. Data indicate that the acceptors at urban centres received pill supply more frequently as compared to their rural counterparts.

Table 61: Percentage distribution of current pill users according to the number of pill cycles they had on hand, and by centre location

Number of pill cycles on hand	Centre location	
	Urban	Rural
None	5.9	3.6
Less than one cycle	28.0	57.9
One cycle	6.5	7.4
More than one but less than two cycles	23.1	18.5
Two cycles	5.0	2.0
More than two but less than three cycles	17.1	6.0
Three cycles	5.5	0.7
More than three but less than four cycles	7.0	2.0
Four or more than four cycles	1.8	1.8
Total: %	100.0	100.0
(N)	(597)	(449)
Mean:	1.62	1.2
Median:	1.50	0.9

Of those of the acceptors who were not using pills currently, 7.6 percent at urban centres and 4.9 percent at rural centres had pills on hand (Table 62). The mean number of pill cycles on hand among these few cases was 1.8 at urban centres and 2.2 at rural centres. On-site examination of the partially used pill cycle(s) which were available with the current users revealed that 6.7 percent of the current users at urban centres and 3.9 percent at rural centres did not use the pills in the right sequence (Table 63). The pills were used either at random or starting from iron pills or from

Table 62: Percentage distribution of pill acceptors who were not using pill currently according to the number of pills they had on hand, and by centre location

Number of pill cycles on hand	Centre location	
	Urban	Rural
Less than one cycle	10.5	10.2
One cycle	32.9	10.2
More than one but less than two cycles	6.6	24.5
Two cycles	13.2	20.4
More than two cycles	36.8	34.7
Total: %	100.0	100.0
(N)	(396)	(406)
Mean number of cycles:	1.8	2.2
Median number of cycles:	1.5	1.75

Table 63: Percentage distribution of current pill users who had pills on hand according to the sequence of use verified with the current cycle by the investigators, and by centre location

Sequence of use	Centre location	
	Urban	Rural
Used in right sequence	93.3	96.1
Used on wrong sequence	5.6	2.4
Used at random	0.6	0.8
Started to use from iron tablet	0.4	0.8
Total: %	100.0	100.0
(N)	(462)	(392)

Note: 98 percent users from urban centres and 51 current users from rural centres were found to have just finished the current cycle and therefore their sequence of use could not be verified. These cases were excluded from the above table.

any point other than the pill marked as first. Of the pill acceptors who were not using the pills currently and had at least one partially used pill cycle on hand, 24.0 percent of them at urban centres and 23.0 percent of them at rural centres did not use the pills in right sequence (Table 64).

Irrespective of the current use status of the acceptors, only 0.8 percent of the acceptors at urban centres and 1.1 percent at rural centres said that they had some pills on hand which they could not show. They could not show the pills either because the pills were with the husband or mothers-in-law, they were afraid of their husbands, they did not know where the pills were at the moment, felt shy to show the pills in the presence of the children or others. Whereas the main reason for not showing the pills by the

Table 64: Percentage distribution of both previous and current pill users who said they had partially used one pill cycle(s) (except the current one) according to the sequence of use verified by the investigators, and by centre location

Sequence of use	Centre location	
	Urban	Rural
Used in right sequence	76.0	77.0
Used in wrong sequence	24.0	23.0
Total: %	100.0	100.0
(N)	(37)	(31)

acceptors at rural centres was "fear of husband," the main reason for not showing the pills by the acceptors at urban centres was "pills were lying with husband or mother-in-law" (Table 65)

Table 65: Number distribution of pill acceptors having pills on hand but unable to show, according to the reasons for not showing, and by centre location

Reasons	Centre location	
	Urban	Rural
Lying with husband/mother-in-law	3	-
Fear of husband	1	4
In the box and key can not be found	-	1
Can not find	2	1
Feels shy in front of children	1	-
Others	1	3
Total: N	8	9

6.3. PILL STORAGE AND PROBLEMS IN PILL STORAGE

Over half of the acceptors at urban centres and over one-third of the acceptors at rural centres said they kept pills either in boxes or in almirahs (Table 66). One seventh of the acceptors at urban centres and one-fifth of the acceptors at rural centres said they kept pills under their beds. Acceptors mentioned a number of other types of containers in which they kept pills, including shelves, pots, drawers, shika[1/], earthen vessels and bags. Only 1.6 percent of acceptors at urban centres and 0.5 percent acceptors at rural centres said that they had problems finding a place either to keep it beyond the reach of children or to keep them hidden from other family members (Table 67).

6.4. OTHER SOURCES OF PILLS

In addition to receiving pills from the centres, 12.3 percent of acceptors at urban centres and 4.4 percent of acceptors at rural centres said that they obtained pills from other sources on some occasions (Table 68). A large majority of the acceptors at both urban centres (88.0%) and rural centres (65.0%) who obtained pills from other sources had purchased the pills from a shop or a pharmacy (Table 69). About one-twelveth of the acceptors at urban centres and about one-fourth of the acceptors of rural centres said that they had received pills from family planning workers or social welfare workers. The remaining sources mentioned by the workers were other centres and neighbours or others.

1/ A home made device usually made of jute which is used for hanging containters to keep some special types of household articles.

Table 66: Percentage distribution of verified pill acceptors according to the types of places where they used to keep the pill packets, and by centre location

Place of keeping pill	Centre location	
	Urban	Rural
In a box	20.8	26.4
In an almirah	34.9	10.1
Under the bed	14.4	20.0
In a pot	7.9	5.7
On a shelf	6.2	15.0
In a bag	3.6	2.5
Inside a wooden or a bamboo pillar	1.1	2.5
In a drawer	7.5	3.6
In a 'shika'	0.2	5.7
In an earthen vessel	1.2	5.5
In a basket	1.1	1.2
Inside a quilt	-	0.4
On a mosquito net	0.2	-
On a desk	0.1	0.4
Others	0.7	1.1
Total: %	100.0	100.0
(N)	(993)	(885)

Table 67: Number distribution of pill acceptors who said that they faced problems in keeping the pills, and by centre location

Type of problem	Centre location	
	Urban	Rural
To keep them beyond the reach of children	10	2
To keep them hidden from other family members	6	2
Total: N	16	4

Table 68: Percentage distribution of verified pill acceptors according to whether they received pills from any source other than the centres, and by centre location

Whether received from any other source	Centre location	
	Urban	Rural
Yes	12.3	4.4
No	87.7	95.6
Total: %	100.0	100.0
(N)	(993)	(885)

6.5. COMPLIANCE WITH INSTRUCTIONS

6.5.1. When to Begin Use of Pill

In response to a question on what day of the menses they began to use their first cycle of pills, 56.2 percent at urban centres and 36.6 percent at rural centres said that they had begun to use the pills on the fifth day of menses (Table 70). In this connection it is worth mentioning that they are expected to start each cycle of pills on the first day of menses. About one-eighth of the acceptors at urban

Table 69: Percentage distribution of pill acceptors who said that they received pills from any sources other than the centres, according to the types of sources, and by centre location

Type of other sources	Centre location	
	Urban	Rural
Shop/pharmacy	88.0	65.0
F.P. worker/social welfare worker	8.0	24.0
Other centre	4.0	3.0
Collected from neighbours/others	-	8.0
Total: %	100.0	100.0
(N)	(122)	(38)

Table 70: Percentage distribution of verified pill acceptors according to the day of the menstrual cycle on which they started taking the pills, and by centre location

Starting day	Centre location	
	Urban	Rural
First day	12.2	26.3
Second day	0.9	1.4
Third day	8.8	11.3
Fourth day	5.3	5.8
Fifth day	56.2	36.6
Sixth day	5.3	4.9
Seventh day	9.1	10.9
Eighth day	1.8	1.8
Ninth day	-	0.5
Other days	0.4	0.5
Total: %	100.0	100.0
(N)	(993)	(855)

centres and over one-fourth of the acceptors at rural centres said that they had begun to use the pills on the first day. A substantial proportion of the acceptors at both categories of centres said that they had begun to use the pills on other days, mostly within the first seven days following the onset of menses.

6.5.2. Beginning a Second Cycle

Of those of the acceptors who began a new cycle, one-fith at urban centres and one-third at rural centres said they began to use the second cycle on the next day they had finished the first cycle (Table 71). One-fifth of the acceptors at urban centres and one-fourth of the acceptors at rural centres reported that they had started to use the second cycle either on the first, second, third, or fourth day of the menses. Over two-fifths of the acceptors at urban centres and one-fourth of the acceptors at rural centres said they started the second cycle on the firth day of menses. The distributions of responses on the beginning day of first cycle (Table 70) and the beginning day of the second cycle (Table 71) are similar.

6.5.3. Time for Taking Pill

Almost all the acceptors at both urban and rural centres (99.0%) and rural centres (98.5%) said that they used to take pill every day at bed time (Table 72). At urban centres, 0.6 percent of the acceptors said that they used to take pills in the morning. Only 0.2 percent of the acceptors at urban centres and 0.9 percent of the acceptors at rural centres mentioned some other time of the day when they had taken pills.

Table 71: Percentage distribution of pill acceptors who at least started the second cycle according to when they started the second cycle, and by centre location

When started the second cycle	Centre location	
	Urban	Rural
Next day	19.6	33.1
First day of menses	8.2	17.7
Second day of menses	1.0	0.5
Third day of menses	6.7	6.0
Fourth day of menses	3.6	2.8
Fifth day of menses	44.7	25.3
Sixth day of menses	4.9	2.6
Seventh day of menses	6.9	7.9
After menses was over	3.2	2.1
Some other time	0.2	0.6
Did not know	0.9	1.4
Total: %	100.0	100.0
(N)	(988)	(851)

Note: Five acceptors from urban centres and four acceptors from rural centres were excluded from the above table as they did not start the second cycle.

6.5.4. Missing of One Pill

A little over two-fifths of the acceptors at both urban and rural centres said that they had missed at least one pill (Table 73). Those of the acceptors who said that they had missed one pill, 63.6 percent of those at urban centres and 51.5 percent at rural centres said that they took the missed pill next morning (Table 74). At urban centres, 8.0 percent

Table 72: Percentage distribution of verified pill acceptors according to the time when they used to take the pill, and by centre location

Time of taking pill	Centre location	
	Urban	Rural
At bed time	99.0	98.5
In the morning	0.8	0.6
Some other time	0.2	0.9
Total: %	100.0	100.0
(N)	(993)	(885)

Table 73: Percentage distribution of verified pill acceptors according to whether they ever missed one pill, and by centre location

Whether missed one pill	Centre location	
	Urban	Rural
Yes	42.0	42.6
No	58.0	57.4
Total: %	100.0	100.0
(N)	(993)	(885)

and at rural centres 35.1 percent said that they took the missed pill next day as soon as it occurred to their mind. About one-fourth at urban centres and 8.1 percent at rural centres said they took the missed pill with the next day's pill. It is important to note that 4.0 percent at urban centres and 5.3 percent at rural centres said that they skipped the missed pill.

Table 74: Percentage distribution of pill acceptors who said that they missed one pill, according to what they did with the missed pill, and by centre location

Response	Centre location	
	Urban	Rural
Took the missed pill next morning	63.6	51.5
Took it with the next day's pill	23.9	8.1
Took the missed pill next day as soon as recollected	8.0	35.1
Skipped the missed pill	4.0	5.3
Other	0.5	-
Total: %	100.0	100.0
(N)	(423)	(359)

6.5.5. Missing Pill for Two Consecutive Days

At urban centre, 8.3 percent and at rural centres 9.1 percent of the acceptors said that they missed pill for two consecutive days (Table 75). Of the acceptors who had missed two pills, only 8.5 percent at urban centres and 2.6 percent at

Table 75: Percentage distribution of verified pill acceptors according to whether they missed pills for two consecutive days, and by centre location

Whether missed two pills	Centre location	
	Urban	Rural
Yes	8.3	9.1
No	91.7	90.9
Total: %	100.0	100.0
(N)	(993)	(855)

rural centres said they took an additional pill on each of the following two days (Table 76). About half of the acceptors at urban centres and about three-fifth of the acceptors

Table 76: Percentage distribution of pill acceptors who said that they missed pills for two consecutive days according to what they did with the missed pills, and by centre location

Response	Centre location	
	Urban	Rural
Took an additional pill in the following two days	8.5	2.6
Took the missed two pills on the third day as soon as recollected	19.5	12.8
Took three pills together on the third day	19.5	35.9
Skipped the missed two pills	23.2	23.1
Stopped taking that cycle and used some other method until the next menstruation	1.2	-
Stopped taking that cycle and started a new cycle	13.4	12.8
Took the missed two pills on the third day morning	11.0	7.7
Missed one pill and took the other on the third day	1.2	2.6
Took one pill on the third morning and the other one the third night	2.4	2.6
Total: % (N)	100.0 (82)	100.0 (78)

at rural centres either said that they took the missed two pills on the third day as soon as recollected or took three pills together on the third day. It may be noted that 23.2

percent of the acceptors at urgan centres and 23.1 percent of the acceptors at rural centres said that they skipped the missed two pills. A few other interesting responses were received from the respondents, such as starting a new cycle or taking one pill on the third morning and the other one the third night.

6.6. SIDE EFFECTS

Majority of the pill users at both urban centres (62.3%) and rural centres (62.0%) reported that they suffered from any side effects of pill. Of those acceptors who reportedly suffered from side effects, a large majority of them both at urban centres (74.0%) and rural centres (81.5%) mentioned dizziness (Table 77). It may be noted that dizziness was also the main cause for discontinuation of pill at each of the two categories of centres. The next most important side effect reported by the acceptors at both urban centres (10.7%) and rural centres (8.5%) was menstrual problems. A number of other types of side effects were mentioned by the acceptor, including weakness, burning sensation of the extremities, gastric problems, pelvic pain and headache.

6.7. PERCEIVED EFFECTIVENESS

Almost all the acceptors at both urban centres said that they thought pill was at least moderately effective (Table 78). Above one-third of the acceptors at urban centres and one-fourth of the acceptors at rural centres said they thought the pill was very effective.

6.8. OVERLAP WITH LACTATION

A major question about pill use in countries like Bangladesh, where prolonged breastfeeding is the norm, is whether adoption of pills during lactation tends to shorten the duration

Table 77: *Percentage distribution of pill acceptors who said that they suffered from side effects according to the types of side effects, and by centre location*

Side effects	Centre location	
	Urban	Rural
Dizziness	74.0	81.5
Weakness	3.9	3.4
Menstrual problems	10.7	8.5
Burning sensation in different parts of the body	2.3	1.9
Gastric problems	2.1	0.9
Pelvic pain	1.6	0.4
Headache	1.8	1.1
Weight gain	0.8	0.2
High blood pressure	0.6	0.2
Jaundice	0.2	0.4
Other side effects (loss of hair, excitement, etc.)	2.1	1.5
Total: %	100.0	100.0
(N)	(619)	(530)

of lactation. This is because the use of oral contraceptives is expected to have a depressing effect on lactation. Among urban and rural pill acceptors, respectively, the mean durations of lactation were 22.8 and 27.6 months, respectively (Table 79). These durations were both greater than the corresponding durations among condom acceptors, indicating little effect of pill use on lactation. The difference in the rural areas may be partly due to delayed acceptance: rural pill acceptors waited 22.8 months on average after

Table 78: Percentage distribution of verified pill acceptors according to their impression of the effectiveness of pill, and by centre location

Impression of effectiveness of pill	Centre location	
	Urban	Rural
Very effective	34.7	24.6
Quite effective	47.7	57.5
Moderately effective	17.4	17.7
Not so effective	0.1	0.1
Not at all effective	-	0.1
Total: %	100.0	100.0
(N)	(993)	(855)

Table 79: Mean duration of lactation, interval from birth to acceptance, and overlap between pill use and lactation, by method and centre location

Mean duration of (in months):	Condom		Pill	
	Urban	Rural	Urban	Rural
Lactation	20.7	23.0	22.8	27.6
Interval from birth to acceptance	23.0	18.8	21.5	22.8
Overlap of pill use and lactation:				
- Among all acceptors	7.6	8.3	8.0	9.8
- Among those still lactating at time of acceptance	14.1	14.6	15.2	16.0

their last live birth before accepting pills, whereas rural condom acceptors waited an average of four months less. On the other hand, urban pill users accepted somewhat

earlier than urban condom users (21.5 months vs. 23.0 months), yet their mean duration of lactation was longer. Perhaps the most rigorous test of the effect of pill use on lactation is to compare the pill and condom acceptors with regard to the overlap between contraceptive practice and lactation. Among all pill acceptors, including those no longer breastfeeding at the time of acceptance, the mean duration of overlap was 8.0 months in the urban areas and 9.8 months in the rural areas. Among those still breastfeeding, the means were 15.2 and 16.0, respectively. All of these means were greater than the corresponding means for condom acceptors, indicating that pill use had no effect on depressing lactation, probably because most acceptors waited more than one year after birth before accepting. Only one-third (33.0%) of the urban pill acceptors accepted within one year after birth; the proportion among rural pill acceptors was even lower -- one-fourth (25.6%).

6.9. COITAL FREQUENCY

The mean coital frequency per month at urban centres was 8.6 and at rural centres was 8.7 (Table 80). The reported monthly coital frequencies reported by pill acceptors were thus considerably lower than the mean monthly coital frequencies reported by condom acceptors (10.2 and 10.4). This difference may be spurious, since the pill respondents were wives, whose responses regarding coital frequency may be less reliable than their husbands', owing to the delicate nature of the topic.

It was mentioned in the previous chapter that after completion of about one-third of the interviews, the weekly coital frequency of the remaining two-thirds of the acceptors was collected, which is presented in Table 81. The weekly mean coital frequency at urban centres was 2.5 and at rural centres was 3.3. These means imply monthly means of 10.7

Table 80: Percentage distribution of verified pill acceptors according to their coital frequencies during the past one-month, and by centre location

Coital frequency in the past one-month	Centre location	
	Urban	Rural
0	6.6	4.3
1 - 5	39.7	39.7
6 - 10	31.1	27.1
11 - 15	14.2	15.7
16 - 30	8.4	13.2
Unknown	-	-
Total: %	100.0	100.0
(N)	(983)	(851)
Mean:	8.6	8.7

and 14.1, respectively, which supports the hypotheses that the wives' response regarding coital frequency are less reliable than the husbands'.

Table 81: Percentage distribution of verified pill acceptors according to their coital frequencies during the past one-week, and by centre location

Coital frequency in the past one-week	Centre location	
	Urban	Rural
0	11.2	20.2
1	26.1	26.1
2	31.3	24.6
3	14.9	13.3
4	9.2	8.5
5 +	7.3	7.3
Total: %	100.0	100.0
(N)	(578)	(633)
Mean:	2.5	3.3

Note: 415 cases from urban centre and 222 cases from rural centre are excluded from the above table because the weekly coital frequencies for them were not collected.

CHAPTER SEVEN

DISCUSSION

7.1. INTRODUCTION

In this concluding chapter we shall briefly discuss the implications of the findings presented in this report for analysis of the impact of pill condom use on fertility and the applicability of the findings from the survey of NGO acceptors for assessing the performance and impact of the family planning program of the Bangladesh Government and the Social Marketing Project.

7.2. IMPLICATIONS FOR IMPACT ASSESSMENT

The most straightforward way to estimate the fertility effect of supply methods like condoms and pills is (1) to convert information on supply distribution into estimates of couple-years of protection; (2) to adjust the estimate for wastage, unnecessary use, and failure rates, yielding an estimate of couple-years of effective protection; and (3) to compare the number of couple-years of effective protection to the birth interval expected in the absence of contraceptive protection. The value of the present study lies in the information it provides for the second step: converting couple-years of protection (CYP) to couple-years of effective protection (CYEP).

The effectiveness of protection is determined by three factors: wastage, the extent to which contraceptive use is unnecessary, and the extent to which it fails (i.e., results in accidental pregnancy) The evidence from this survey does not tell us much about pill wastage. Less than one percent of rural users in either sample reported use of pills for non-contraceptive purposes, but this does not tell us about the number of cycles that remain unused at

the time of termination or lost or accidentally destroyed at other times. Condom wastage is largely taken into account in the estimate that an average of 12 condoms are needed for one month of protection. However, there is probably some additional wastage (e.g., condoms still on hand at the time of termination).

The circustances under which unnecessary use is most likely are as follows: use during periods of sexual inactivity (e.g., husband away), use following the onset of secondary sterility, and use during post-partum amenorrhea. Use of contraception during periods of sexual inactivity is likely only with methods that do not require continual resupply, such as the IUD, injections, or sterilization. Pills and condoms are unlikely to be used during periods of sexual inactivity; therefore, this problem can be disregarded. Both pills and condoms tend to be used by relatively young, high-fertility subgroups; therefore, overlap with secondary sterility is unlikely to have enough effect to be worth considering. In contrast, overlap with postpartum amenorrhea can be substantial in places with prolonged lactation and is therefore worth considering.

Data from the present survey reveal very little overlap with postpartum amenorrhea in the case of pill acceptors. Only five percent of urban pill acceptors and six percent of rural pill acceptors were amenorrheic at the time of acceptance. These few cases reported means of 5.2 and 5.7 months, respectively, of overlap, but the overall effect works out to an average of only 0.2 and 0.3 months of overlap per pill acceptor in urban and rural areas respectively. This amount of overlap is too inconsequential to be worth adjusting for. On the other hand, much larger proportions of condom acceptors reported overlap with postpartum amenorrhea: 15.7 percent in the urban sample and 21.6 percent in the rural sample.

These cases reported mean overlap periods of 5.9 and 6.7 months, respectively, implying an overall average of .9 months of overlap per urban condom acceptor and 1.4 months per rural condom acceptor. The mean period of use of condoms implicit in the first method continuation rates is well over two years (the median duration of use) in urban areas and 19.5 months in rural areas. Thus the overlap with amenorrhea amounts to less than .9/24 = 3.8 percent of all urban condom CYP and 7.2 percent of all rural condoms. To be conservative, these upper estimates may be the best ones to use.

The adjustment for failure is very small for pills. The first-method 12-month gross failure rate for urban pill acceptors was 2.2 and for rural pill acceptors 1.8. We lack precise data on expected fertility levels of acceptors in the absence of contraception, but a fairly reliable rule of thumb for a population of users centering on the peak reproductive ages (as in all four samples) would be to expect more than half of them to have become pregnant within one year without contraception. To be conservative, we can use the lower limit of 50 percent as the expected fertility level, which indicates that use of the pills has reduced the percentage becoming pregnant by at least 96 percent (i.e., from 50 to 2) in both urban and rural areas.

A larger adjustment factor is needed for the condom acceptors, whose 12-month gross failure rates were 4.6 (urban) and 5.8 (rural). Using the same assumption about expected fertility, this yields estimates of the percentage reduction in fertility of 91 percent (urban) and 88 percent (rural).

To convert information on pill distribution into estimates of CYEP, we can begin by crudely estimating CYP as one-thirteenth of the number of pill cycles distributed (since 13 cycles of pills provides one year of pretection). This

estimate should then be multiplied by an arbitrary factor to allow for wastage, .95, which is commonly used in the absence of better data. Finally, the result should be multiplied by .96 to adjust for failure, yielding an estimate of CYEP.

For condoms, distribution figures can be converted to CYP (already adjusted for most wastage) by dividing the number of pieces distributed by 144 (12 months of use at 12 condoms per month). To allow for additional wastage in the form of unused condoms at the time of termination and other loss or damage that might not be reflected in the responses concerning number of condoms needed each month, this number should be increased to about 150 to make the CYP estimate more conservative. The CYP estimate should then be multiplied by different factors depending on whether the condoms are distributed in urban or rural areas. In urban areas, the recommended adjustment factors are .96 (to adjust for the four-percent overlap with amenorrhea) and .91 (for failure). In rural areas, the corresponding adjustment factors are .93 and .88.

The number of births averted can be estimated by dividing the number of CYEP by the expected birth interval in the absence of contraception.

7.3. APPLICABILITY OF FINDINGS TO NON-NGO ACCEPTORS

The survey of condom and pill acceptors from NGO centres was undertaken in the hope that the information on these pill and condom acceptors would be useful for assessing performance of the Social Marketing Project and the family planning program of the Government of Bangladesh. The purpose of this concluding section of the report is to comment briefly on how realistic such applications are likely to be.

Analysis of continuation rate differentials has revealed that the acceptors of different agencies have differing continuation rates. If there are substantial differences among the acceptors NGOs' programs, which are more similar to each other than any of them are to the government or Social Marketing Project, it seems likely that the continuation rates of these other programs may vary substantially in comparison with those of the NGOs, in which case the continuation results presented here may not be very applicable to these other programs.

However, failure rates were not found to vary greatly, either among -the various NGOs or in relation to other factors, suggesting that they may be more reliable as indicators of failure rates of pill and condom acceptors in Bangladesh as a whole. Nevertheless, it is recommended that any use of the findings presented in this report for evaluation of non-NGO programs be undertaken with great caution and that the questionable applicability of these findings for such evaluation be explicitly noted.

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APPENDIX-A

INTERVIEW SCHEDULE

ON

USE-EFFECTIVENESS OF CONDOMS

SECTION 1

Type of acceptor: 1 ___ Condom Acceptor

2 ___ Oral Pill Acceptor

Client's Registration Number:_____ Date:_____

Client's Serial Number:_____ Wife's Age:_____

Husband's Age:_____

Number of Living Children: ____Son(s) ____Daughter(s)____

101. Client's Identification:

Name:_____

Husband's name:_____

One receiving the first supply: 1 ___ Husband

2 ___ Wife

Village:_____ Union:_____

Ward:_____ Area:_____

Road:_____ House Number:_____

Upazila:_____ District:_____

Others:_____

102. Serial number of client (for office use):_____

103. Service Outlet's Identification:

Name:_____

Village:_____ Union:_____

Ward/Area:_____ Road:_____

Upazila:_____ District:_____

Name of the supplier(s):_____

_____

_____

104. Name of the NGO:

1 ___ FPSTC

2 ___ CWPF

3 ___ TPF

4 ___ TAF

105. Status of the Service Outlet:

1 ___ Urban

2 ___ Rural

106. Interview Status:

1 ___ Complete

2 ___ Incomplete

3 ___ Deferred

4 ___ Refused

5 ___ Others: _____
(specify)

107. Client's Residence:

1 ___ Urban

2 ___ Rural

Remark: _____

SECTION 2

INFORMATION TO BE GATHERED FROM THE SERVICE RECORDS

Serial number of supply	Date of supply	Pieces of condoms supplied	Delivery place		No date	Remarks
			Home	Clinic		
1.			1___	2___		
2.			1___	2___		
3.			1___	2___		
4.			1___	2___		
5.			1___	2___		
6.			1___	2___		
7.			1___	2___		
8.			1___	2___		
9.			1___	2___		
10.			1___	2___		
11.			1___	2___		
12.			1___	2___		
13.			1___	2___		
14.			1___	2___		
15.			1___	2___		
16.			1___	2___		
17.			1___	2___		
18.			1___	2___		
19.			1___	2___		
20.			1___	2___		
21.			1___	2___		
22.			1___	2___		

SECTION 3

301 What is your age? (Probe)

_____years

302 What is the age of your wife?

_____years (probe)

303 How many living children do you have now?

Sons _____
write the number

Daughters _____
write the number

Total _____
write the number

304 How many live births did your wife give so far?

_____
write the number

305 What is the age of your youngest living child?

_____years _____months

306 Have you ever attended school?

1 ___ Yes

2 ___ No (SKIP TO 309)

307 Was it a primary school, madrasa, secondary school or any higher that you last attended?

1 ___ Primary

2 ___ High School

3 ___ College

4 ___ University

5 ___ Madrasa

6 ___ Other: _____
(specify)

308 What was the highest class that you passed at that level ?

_____class

309 What is your religion ?

1 ___ Islam

2 ___ Hindu

3 ___ Christian

4 ___ Buddhist

310 What is your occupation ?

1 ___ Farming

2 ___ Business

3 ___ Labor

4 ___ Service holder

5 ___ Unemployed

6 ___ Other:_____
(specify)

311 Besides doing normal housework, does your wife do any other work (for cash or kind) on a regular basis such as agricultural work, making things (to sell), selling things in the market, or anything else ?

1 ___ Yes

2 ___ No (SKIP TO 313)

312 Did she earn any money from this work last year ?

1 ___ Yes

2 ___ No

313 How well can your family be maintained by your family's total income ?

1 ___ Well

2 ___ So so

3 ___ Hardly

314 *Did your wife ever attend school ?*

1 ___ *Yes*

2 ___ *No (SKIP TO 401)*

315 *Was it a primary school, madrasa, secondary school or any higher that she last attended?*

1 ___ *Primary*

2 ___ *High School*

3 ___ *College*

4 ___ *University*

5 ___ *Madrasa*

6 ___ *Others:*_____
(specify)

316 *What was the highest class which she passed at that level ?*

_____*class*

SECTION 4

CONTRACEPTIVE ACCEPTANCE

401 Service records of _____ (name of service centre) show that _____ received condoms from there on you/your wife _____ (date of receipt).

On this date, did _____ you/your wife receive this supply of condoms from any worker of this centre or from this centre ?

1 ___ Received supplies as recorded (FILL IN 405 AND SKIP TO 406)

2 ___ Received supplies but on a different date (SKIP TO 405)

3 ___ Did not receive any such supply (SKIP TO 403)

4 ___ Received supplies on this date but from other source

402 Where did you receive this supply from?

_____

INSTRUCTION: EXAMINE THE ANSWER TO THE QUESTION OF 402. IT MAY SO HAPPEN THAT THE FIELD WORKER OF THE RECORDED SERVICE CENTRE HAD SUPPLIED THE CONDOM TO THE RESPONDENT'S WIFE OR THE RESPONDENT'S ANSWER MAY INDICATE THE RECORDED CENTRE. IF THIS IS THE CASE, CORRECT THE ANSWER TO THE QUESTION OF 401. HOWEVER, IF THE REPORTED SUPPLY WAS NOT ACTUALLY TAKEN FROM THE RECORDED CENTRE, ASK THE QUESTIONS 403 AND 404.

403 Did you or your wife visit that service centre at that time for any purpose ?

1 ___ Yes, why ? _____

2 ___ No

404 *Did any worker of that centre visit you/your family at that time ?*

1 ___ *Yes, why ?* _____

2 ___ *No*

> *INSTRUCTION: EXAMINE THE ANSWERS TO THE QUESTIONS OF 403 AND 404. IF THE ANSWER INDICATES THAT THE RESPONDENT ACTUALLY RECEIVED SUPPLY OF CONDOM AS REPORTED, CORRECT THE ANSWER TO THE QUESTION OF 401. IF IT IS CLEAR THAT THE RESPONDENT DID NOT RECEIVE THE SUPPLY OF CONDOMS AS REPORTED, STOP INTERVIEW.*

405 *When did you receive the supply ?*

_____ *month* _____ *year*

PROBE: How long before or after _____ *?*
(date of record)

_____ *month after*

or _____ *month before*

406 *Did you ever use the supply that you had received from the service centre ?*

1 ___ *Yes*

2 ___ *No (SKIP TO 408B)*

407 *When did you start using that supply ?*

_____ *month* _____ *year*

PROBE: How long after receiving the supply in _____
(date in 405)
did you start using that ?

_____ *months after*

408A *Were you using condom during the month before you started using that supply ?*

1 ___ *Yes (SKIP TO 409)*

2 ___ *No (COPY DATE FROM 407 TO 409 AND SKIP TO 501)*

408B Where you using condom in the month preceding _____.
(date in 401)

1 ___Yes

1 ___No (SKIP TO 410)

408C How long before accepting the condoms from this service centre were you using condoms ?

_____months age

INSTRUCTION: SUBTRACT THIS DATE FROM THE DATE Of 405 AND WRITE THE RESULTANT DATE IN 409 AND SKIP TO 501.

409 For how many months had you been using the condom before you started using that supply ?

_____months

INSTRUCTION: CALCULATE MONTH OF FIRST USE AND ENTER HERE.

Date of first use: _____month _____year

(SKIP TO 501)

INSTRUCTION: FOR THEM WHO RECEIVED THE SUPPLY FROM THIS SERVICE CENTRE BUT DID NOT USE THE CONDOM AND DID NOT USE CONDOM EVEN IN THE PREVIOUS MONTH'S TIME ASK QUESTIONS 410 TO 412.

410 Why did you not use the condom at all ?

Reason:_____

411 How many condoms did you receive

_____

412 What did you do with these condoms ?

_____

(STOP INTERVIEW)

SECTION 5

POST-ACCEPTANCE FAMILY PLANNING HISTORY (WITH PREGNANCY)

501 Has your wife become pregnant at any time since _____ ?
(date of starting use, 409)

1 ___Yes

2 ___No (SKIP TO 601)

3 ___Not Sure (SKIP TO 601)

502 When did she become pregnant ?

_____month _____year

PROBE: ENQUIRE IF MORE THAN ONE PREGNANCY OCCURRED SINCE THE DAY CONDOM WAS STARTED TO BE USED. IF MORE THAN ONE PREGNANCY OCCURRED , RECORD THE DATE OF THE PREGNANCY WHICH OCCURRED FIRST. ESTIMATE THE DATE OF OCCURRENCE BY ASKING:

a) How long ago did the pregnancy occur ?

_____months ago

b) How long after starting the use of condom, did the pregnancy occur ?

_____months after

c) (IF THE FIRST PREGNANCY IS STILL CONTINUING)
What is the duration of the current pregnancy ?

_____months

d) - How long ago was the pregnancy terminated ?

_____year _____month

- How long did the pregnancy last ?

_____months

503 *Between the time you started using condom (refer to the date in 409) and the time your wife became pregnant (refer to the date in 502), did you or your wife use any method other than condom?*

1 ___ *Yes*

2 ___ *No (SKIP TO 510)*

504 *Which method did you use?*

1 ___ *Oral pill*

2 ___ *IUD*

3 ___ *Injectable*

4 ___ *Others:* _____
(specify)

INSTRUCTION: IF MORE THAN ONE METHOD WAS USED CHECK THE ONE WHICH WAS USED FIRST AFTER DROPPING CONDOM.

505 *When did you last use condom before adopting* _____ *?*
(answer of 504)

_____ *month* _____ *year*

PROBE: ESTIMATE THE DATE BY ASKING:

a) *How long did you use the condom?*

_____ *months*

INSTRUCTION: (IF THIS PERIOD IS AVAILABLE) ADD IT WITH THE DATE OF STARTING USE OF CONDOM TO GET THE LAST DATE OF USE OF CONDOM.

b) *How long before the pregnancy did you stop using condom?*

_____ *months age*

INSTRUCTION: (IF THIS PERIOD IS AVAILABLE) SUBTRACT IT FROM THE DATE OF PRECNANCY IN 502.

506 Why did you stop using condom ?

1 ___Wanted a child

2 ___No need (could not conceive/husband away)

3 ___Suffered from side effects:_____
(specify)

4 ___Fear of health hazards:_____
(specify)

5 ___Other reasons:_____
(specify)

507 Did you adopt _____ immediately after you
(answer of 504)
stopped using condom or did you wait for sometime ?

1 ___Adopted immediatly (SKIP TO 509)

2 ___Waited for sometime

508 How long did you wait ?

_____months _____weeks

509 You said that you used condom upto _____.
(date in 505)
Was there a time before that date when you interrupted use of condom for more than a month but then started to use it again ?

1 ___Yes (SKIP TO 511)

2 ___No (SKIP TO 512)

510 You said that you had started using condom in
_____ and your wife became
(date of starting use, 409)
pregnant in _____. Was
(date in becoming pregnant, 502)
there a time between these dates when you interrupted use of condom for more than a month but then started to use it again ?

1 ___Yes

2 ___No (SKIP TO 512)

511 When did the first such interruption start ?

_____month _____year

PROBE: ESTIMATE THIS DATE BY ASKING:

How long after starting the use of the condom, did this interruption occur ?

_____months

INSTRUCTION: THE DATE OF FIRST INTERRUPTION WILL BE ACHIEVED BY ADDING THIS PERIOD WITH THE DATE OF STARTING THE USE OF CONDOM (SEE 409 FOR STARTING DATE).

512 Were you or your wife using any method for preventing pregnancy when your wife became pregnant in _____ ?
(date in 502)

1 ___Yes

2 ___No (SKIP TO 514)

513 Which method were you using ?

1 ___Condom (CHECK 503 TO MAKE SURE THAT THE ANSWER IS NO)

2 ___Other method

(SKIP TO 516)

514 When did you or your wife last use any method to prevent pregnancy before _____ ?
(date in 502)

_____month _____year

PROBE: ESTIMATE THIS DATE BY ASKING:

How long before her becoming pregnant did you stop using contraceptive ? (SEE 502 FOR DATE OF PREGNANCY).

_____months age

INSTRUCTION: TO GET THE DATE OF LAST USE OF CONTRACEPTIVE SUBTRACT THIS PERIOD FROM THE DATE OF PREGNANCY.

515 *Why did you stop using it ?*

1 ___*Wanted a child*

2 ___*No need (could not conceive/husband away)*

3 ___*Suffered from side effects:*_____
(specify)

4 ___*Fear of health hazards:*_____
(specify)

5 ___*Other reasons:*_____
(specify)

516 *Are you or your wife using any family planning method now ?*

1 ___*Yes*

2 ___*No (SKIP TO 701)*

517 *Which method are you using ?*

1 ___*Vasectomy*

2 ___*Tubectomy*

3 ___*Condom*

4 ___*Oral pill*

5 ___*IUD*

6 ___*Injectable*

7 ___*Other:*_____
(specify)

(SKIP TO 701)

SECTION 6

POST-ACCEPTANCE FAMILY PLANNING HISTORY (WITHOUT PREGNANCY)

601 Since the day you started using condom have you or your wife used any method other than condom?

1 ___Yes

2 ___No (SKIP TO 608)

602 Which method did you use?

1 ___Vasectomy

2 ___Tubectomy

3 ___Oral pill

4 ___IUD

5 ___Injectable

6 ___Other: _____
(specify)

INSTRUCTION: IF MORE THAN ONE METHOD WAS USED CHECK THE ONE WHICH WAS USED FIRST AFTER DROPPING CONDOM.

603 When did you last use condom before adopting _____ ?
(method in 602)

_____month _____year

PROBE: ESTIMATE THE DATE BY ASKING:

a) How long did you use the condom?

_____months

INSTRUCTION: (IF THIS PERIOD IS AVAILABLE) ADD IT WITH THE DATE OF STARTING USE OF CONDOM TO GET THE LAST DATE OF USE OF CONDOM.

b) How long ago was it that you stopped using condoms before starting _____ ?
(second method)

_____months

INSTRUCTION: (IF THIS PERIOD IS AVAILABLE) SUBTRACT IT FRCM THE DATE OF INTERVIEW TO GET THE LAST DATE OF USE OF CONDOM.

604 Why did you stop using condom.?

1 ___Wanted a child

2 ___No need (could not conceive/husband away)

3 ___Suffered from side effects: _____
(specify)

4 ___Fear of health hazards: _____
(specify)

5 ___Other reasons: _____
(specify)

605 Did you adopt _____ immediately after you stopped
(answer to 602)
using condom or did you wait for sometime ?

1 ___Adopted immediately (SKIP TO 607)

2 ___Waited for sometime

606 How long did you wait ?

_____months _____weeks

607 You said that you used condom upto _____.
(date in 603)
Was there a time when you interrupted use of condom for more than a month but then started to use it again ?

1 ___Yes (SKIP TO 609)

2 ___No (SKIP TO 610)

608 *Since the time you started using condom in*

_____, *did you interrupt use of*
(date of starting use, 409)
condom for more than a month but then start to use it again ?

1 ___*Yes*

2 ___*No (SKIP TO 610)*

609 *When did the first interruption start ?*

_____*month* _____*year*

PROBE: How long after starting the use of condom, did this interruption occur ?

_____*months*

INSTRUCTION: THE DATE OF FIRST INTERRUPTION WILL BE ACHIEVED BY ADDING THIS PERIOD TO THE DATE OF STARTING THE USE OF CONDOM (SEE 409 FOR STARTING DATE).

610 *Are you or your wife using any family planning method now ?*

1 ___*Yes*

2 ___*No (SKIP TO 612)*

611 *Which method are you using ?*

1 ___*Vasectomy*

2 ___*Tubectomy*

3 ___*Condom*

4 ___*Oral pill*

5 ___*IUD*

6 ___*Injectable*

7 ___*Other:*_____
(specify)

(SKIP TO 701)

612 *When did you or your wife last use any method to prevent pregnancy ?*

_____*month* _____*year*

PROBE: ESTIMATE THIS DATE BY ASKING:

How long ago did you or your wife last use any family planning method ?

_____*months ago*

INSTRUCTION: TO GET THE DATE OF LAST USE OF CONTRACEPTIVE SUBTRACT THIS PERIOD FROM THE DATE OF INTERVIEW

613 *Why did you stop using it ?*

1 ___*Wanted a child*

2 ___*No need (could not conceive/husband away)*

3 ___*Suffered from side effects:*_____
(specify)

4 ___*Fear of health hazards:*_____
(specify)

5 ___*Other reasons:*_____
(specify)

SECTION 7

701 Do you have any condoms presently ?

1 1 ___ Yes (SKIP TO 702

2 ___ No

> INSTRUCTION: IF THE RESPONDENT SAYS 'NO' , TELL HIM THAT WE ARE INTERESTED TO SEE THE BRANDS AND DATES OF MANUFACTURE OF ALL CONDOMS THAT HE HAS. IF HE CAN SHOW ANY CONDOM , CORRECT ANSWER OF 701 FILL IN THE TABLE UNDER 702. IF HE CAN NOT SHOW ANY CONDOM SKIP TO 703.

702 We are interested to see the date of manufacture and brand of the condom that you have. Would you please take the trouble to show me all the condoms that you have at hand ?

> INSTRUCTION: RECORD THE NUMBERS OF CONDOMS BY DATE OF MANUFACTURE AND BRAND NAME(S) IN THE TABLE BELOW. ASK HIM AGAIN IF HE HAS ANY MORE AND IF SOME MORE ARE AVAILABLE RECORD ALL THOSE TOO.

Brand name	Year of manufacture								Other years (specify)	No date
	85	84	83	82	81	80	79	78		
TAHITI										
RAJA										
PANTHER										
MAJESTIC										
SULTAN										
OTHER Specify___										

703 *Do you have any condom that you can not show now ?*

1 ___ *Yes*

2 ___ *No (SKIP TO 706)*

704 *Do you remember how many condoms you have which you can not show ?*

_____ *pieces*

705 *Why can you not show me those condoms ?*

_____

706 *Of all the condoms that you had received so far, did you use any of them for any purpose other than as a contraceptive ?*

1 ___ *Yes*

2 ___ *No (SKIP TO 709)*

707 *Would you please tell, how many you had used for other purpose ?*

_____ *pieces*

708 *How did you use these condoms ?*

_____

709 *Other than this* _____ *(name of centre), did you receive condom from any other source since* _____ *(date of acceptance, 401) ?*

1 ___ *Yes*

2 ___ *No (SKIP TO 712)*

710 *Where did you get them ?*

_____

711 *How many did you receive from the other source(s) ?*

_____ *pieces*

712 *During periods of condom use, has it ever happend that you had intercourse without using any condom ?*

1 ___*Yes*

2 ___*No (SKIP TO 714)*

713 *Would you please explain why ?*

_____

714 *Has it ever happend that you used the same condom in two or more intercourses ?*

1 ___*Yes*

2 ___*No (SKIP TO 717)*

715 *Can you remember on how many occasions you have used the same condom in more than one intercourse ?*

_____

716 *Would you please tell us why did you use the same condom more than once ?*

_____

717 *Where did you usually keep the condom ?*

_____

718 *Have you faced any problem in keeping the condom ?*

1 ___*Yes*

2 ___*No (SKIP TO 720)*

719 *What kind of problem(s) have you faced in keeping the condom ?*

_____

720 *Where do/did you usually dispose the condom after using it ?*

_____

721 *Have you faced any problem(s) in disposing the condom ?*

1 ___*Yes*

2 ___*No (SKIP TO 723)*

722 *What kind of problem(s) have you faced in disposing the condom ?*

_____

723 *How many pieces of condom do you normally require in one month's time ?*

_____*pieces*

724 *Have you suffered from any side effect(s) of the condom ?*

1 ___*yes*

2 ___*No (SKIP TO 726)*

725 *What side effects have you suffered from ?*

_____

_____

_____

INSTRUCTION: ASK THE RESPONDENT IF HE OR HIS WIFE HAVE SUFFERED FROM ANY MORE SIDE EFFECTS AND IF SO RECORD THOSE ALSO.

726 *Did you find any inconveniences in using the condom ?*

1 ___*Yes*

2 ___*No (SKIP TO 728)*

727 *Would you please tell what inconveniences you found in using condom ?*

_____

_____

_____

728 *According to your opinion, how effective the condom is ?*

1 ___Very effective

2 ___Quite effective

3 ___Moderately effective

4 ___Not so effective

5 ___Not at all effective

> *INSTRUCTION: IF THE RESPONDENT FEELS THAT CONDOM IS NOT SO EFFECTIVE OR NOT AT ALL EFFECTIVE , ASK HIM 729 OTHERWISE SKIP TO 730.*

729 *Why do you feel that condom is not so effective/not at all effective ?*

_____

_____

_____

730 *You said that you started using condom on* _____ *(date in 409)*

How long before starting the condom-use did your wife last give birth to a child ?

_____*months ago*

98 ____Did not give birth to any child (SKIP TO 736)

PROBE: How old was the child at that time ?

_____*year* _____*months*

731 *Did your wife breastfeed that baby ?*

1 ___Yes

2 ___Partially

3 ___No (SKIP TO 733

732 *How long did your wife breastfeed your baby?*

_____*months*

733 *How long after that child birth your wife had her first menstruation ?*

_____*months after*

PROBE: How old was the child at that time ?

_____*year* _____*months*

734 *Did your wife already have her first menstrual cycle (after the child birth) when you started using the condom ?*

1 ___Yes (SKIP TO 736)

2 ___No

735 *How long after you started using the condom your wife had her first menstrual cycle ?*

_____*months after*

INSTRUCTION: CHECK THE CONSISTENCY WITH 730 AND 733. IF INCONSISTENT , PROBE TO FIND OUT WHICH ANSWER IS WRONG AND CORRECT IT.

736 *Do you mind telling me how many times you had intercourse during the past one month's time ?*

_____

737 *Do you mind telling me how many times you had intercourse during the past one week's time ?*

_____

APPENDIX-B

INTERVIEW SCHEDULE

ON

USE-EFFECTIVENESS OF ORAL PILLS

SECTION 1

Type of acceptor: 1 ___Condom Acceptor

2 ___Oral Pill Acceptor

Client's Registration Number:_____ Date:_____

Client's Serial Number:_____ Wife's Age:_____

Husband's Age:_____

Number of Living Children:____ son(s)____ daughter(s)_____

101 Client's Identification:

Name:_____

Husband's name:_____

One receiving the first supply: 1 ___Husband

2 ___Wife

Village:_____ Union:_____

Ward:_____ Area:_____

Road:_____ House Number:_____

Upazila:_____ District:_____

Others:_____

102 Serial number of client (for office use):_____

103 Service Centre's Identification:

Name:_____

Village:_____ Union:_____

Ward/Area:_____ Road:_____

Upazila:_____ District:_____

Name of the supplier(s):_____

_____

_____

104 *Name of the NGO:*

1 ___*FPSTC*

2 ___*CWFP*

3 ___*TPF*

4 ___*TAF*

105 *Status of the Service Centre:*

1 ___*Urban*

2 ___*Rural*

106 *Interview Status:*

1 ___*Complete*

2 ___*Incomplete*

3 ___*Deferred*

4 ___*Refused*

5 ___*Others:*_____
(specify)

107 *Client's Residence:*

1 ___*Urban*

2 ___*Rural*

*Remark:*_____

SECTION 2

INFORMATION TO BE GATHERED FROM THE SERVICE RECORDS

Serial number of supply	date of supply	Number of cycles supplied	Delivery place		No date	Remarks
			Home	Clinic		
1.			1___	2___		
2.			1___	2___		
3.			1___	2___		
4.			1___	2___		
5.			1___	2___		
6.			1___	2___		
7.			1___	2___		
8.			1___	2___		
9.			1___	2___		
10.			1___	2___		
11.			1___	2___		
12.			1___	2___		
13.			1___	2___		
14.			1___	2___		
15.			1___	2___		
16.			1___	2___		
17.			1___	2___		
18.			1___	2___		
19.			1___	2___		
20.			1___	2___		
21.			1___	2___		
22.			1___	2___		

SECTION 3

301 What is your age? (Probe)

_____years

302 How many living children do you have now?

Sons _____
write the number

Ddughters _____
write the number

Total _____
write the number

303 How many live births did your wife give so far?

_____
write the number

304 What is the age of your youngest living child?

_____years _____months

305 Have you ever attended school?

1 ___Yes

2 ___No (SKIP TO 308)

306 Was it a primary school, madrasa, secondary school or any higher that you last attended?

1 ___Primary

2 ___High School

3 ___College

4 ___University

5 ___Madrasa

6 ___Other:_____
(specify)

307 What was the highest class that you passed at that level?

_____class

308 What is your religion ?

1 ___Islam

2 ___Hindu

3 ___Christian

4 ___Buddhist

309 What is the occupation of your husband ?

1 ___Farming

2 ___Business

3 ___Labor

4 ___Service holder

5 ___Unemployed

6 ___Other:_____
(specify)

310 Besides doing normal housework, do you do any other work (for cash or kind) on a regular basis such as agricultural work, making things (to sell), selling things in the market, or anything else ?

1 ___Yes

2 ___No (SKIP TO 312)

311 Did you earn any money from this work last year ?

1 ___Yes

2 ___No

312 How well can your family be maintained by your family's total income ?

1 ___Well

2 ___So so

3 ___Hardly

313 Did your husband ever attend school ?

1 ___Yes

2 ___No (SKIP TO 401)

314 *Was it a primary school, madrasa, secondary school or any higher that he last attended ?*

1 ___*Primary*

2 ___*High School*

3 ___*College*

4 ___*University*

5 ___*Madrasa*

6 ___*Other:*_____
(specify)

315 *What was the highest class which he passed at that level ?*

_____*class*

SECTION 4

CONTRACEPTIVE ACCEPTANCE

401 Service records of _____ (name of service centre) show that _____ (you/your husband) received oral pills from there on _____ (date of receipt).

On this date, did _____ (you/your husband) receive this supply of pills from any worker of this centre or from this centre ?

1 ___ Received supplies as recorded (FILL IN 405 AND SKIP TO 406)

2 ___ Received supplies but on a different date (SKIP TO 405)

3 ___ Did not receive any such supply (SKIP TO 403)

4 ___ Received supplies on this date but from other source

402 Where did you receive this supply from ?

_____

INSTRUCTION: EXAMINE THE ANSWER TO THE QUESTION OF 402. IT MAY SO HAPPEN THAT THE FIELD WORKER OF THE RECORDED SERVICE CENTRE HAD SUPPLIED THE PILLS TO THE RESPONDENT'S HUSBAND OR THE RESPONDENT'S ANSWER MAY INDICATE THE RECORDED CENTRE. IF THIS IS THE CASE , CORRECT THE ANSWER TO THE QUESTION OF 401. HOWEVER , IF THE REPORTED SUPPLY WAS NOT ACTUALLY TAKEN FROM THE RECORDED CENTRE , ASK THE QUESTIONS 403 AND 404.

403 Did you or your husband visit that service centre at that time for any purpose ?

1 ___ Yes, why ? _____

2 ___ No

404 *Did any worker of that centre visit you/your family at that time ?*

1 ___*Yes, why ?*_____

2 ___*No*

> *INSTRUCTION: EXAMINE THE ANSWERS TO THE QUESTIONS OF 403 AND 404. IF THE ANSWER INDICATES THAT THE RESPONDENT ACTUALLY RECEIVED SUPPLY OF PILLS AS REPORTED, CORRECT THE ANSWER TO THE QUESTION OF 401. IF IT IS CLEAR THAT THE RESPONDENT DID NOT RECEIVE THE SUPPLY OF PILLS AS REPORTED, STOP INTERVIEW.*

405 *When did you receive the supply ?*

_____*month* _____*year*

PROBE: How long before or after _____ *?*
(date in record)

_____*months after*

or _____*months before*

406 *Did you ever use the supply that you had received from the service centre ?*

1 ___*Yes*

2 ___*No (SKIP TO 408B)*

407 *When did you start using that supply ?*

_____*month* _____*year*

PROBE: How long after receiving the supply in _____
(date in 405)
did you start using that ?

_____*months aster*

408A *Were you using pills during the month before you started using that supply ?*

1 ___*Yes (SKIP TO 409)*

2 ___*No (COPY DATE FROM 407 TO 409 AND SKIP TO 501)*

408B Were you using pills in the month preceding _____ ?
(date in 401)

1 ___Yes

2 ___No (SKIP TO 410)

408C How long before accepting the pills from this service centre were you using pills ?

_____months ago

INSTRUCTION: SUBTRACT THIS DATE FROM THE DATE OF 405 AND WRITE THIS RESULTANT DATE IN 409 AND SKIP TO 501.

409 For how many months had you been using pills before you started using that supply ?

_____months

INSTRUCTION: CALCULATE MONTH OF FIRST USE AND ENTER HERE.

Date of first use: _____month _____year

(SKIP TO 501)

INSTRUCTION: FOR THEM WHO RECEIVED THE SUPPLY FROM THIS SERVICE CENTRE BUT NEVER USED THE CONDOM AND DID NOT USE CONDOM EVEN IN THE PREVIOUS MONTH'S TIME ASK QUESTIONS 410 TO 412.

410 Why did you not use the pills at all ?

Reason: _____

411 How many cycles of pills did you receive ?

_____

412 What did you do with these pills ?

_____

(STOP INTERVIEW)

SECTION 5

POST-ACCEPTANCE FAMILY PLANNING HISTORY (WITH PREGNANCY)

501 Have you become pregnant at any time since _____ ?
(date of starting use, 409)

1 ___Yes

2 ___No (SKIP TO 601)

3 ___Not Sure (SKIP TO 601)

502 When did you become pregnant ?

_____month _____year

PROBE: ENQUIRE IF MORE THAN ONE PREGNANCY OCCURRED SINCE THE DAY PILL WAS STARTED TO BE USED. IF MORE THAN ONE PREGNANCY OCCURRED , RECORD THE DATE OF THE PREGNANCY WHICH OCCURRED FIRST. ESTIMATE THE DATE OF OCCURRENCE BY ASKING:

a) How long ago did the pregnancy occur ?

_____months ago

b) How long after starting the use of pills, did the pregnancy occur ?

_____months after

c) (IF THE FIRST PREGNANCY IS STILL CONTINUING)
What is the duration of the current pregnancy ?

_____months

d) - How long ago was the pregnancy terminated ?

_____year _____month

- How long did the pregnancy last ?

_____months

503 *Between the time you started using pills (refer to the date in 409) and the time you became pregnant (refer the date in 502), did you or your husband use any method other than pill ?*

1 ___ *Yes*

2 ___ *No (SKIP TO 510)*

504 *Which method did you use ?*

1 ___ *Condom*

2 ___ *IUD*

3 ___ *Injectable*

4 ___ *Others:* _____
(specify)

> *INSTRUCTION: IF MORE THAN ONE METHOD WAS USED , CHECK THE ONE WHICH WAS USED FIRST AFTER DROPPING PILLS.*

505 *When did you last use pills before adopting* _____ *?*
(answer of 504)

_____*month* _____*year*

PROBE: ESTIMATE THE DATE BY ASKING:

a) How long did you use the pills ?

_____*months*

> *INSTRUCTION: (IF THIS PERIOD IS AVAILABLE) ADD IT WITH THE DATE OF STARTING USE OF PILLS TO GET THE LAST DATE OF USE OF PILLS.*

b) How long before the pregnancy did you stop using pills ?

_____*months ago*

> *INSTRUCTION: (IF THIS PERIOD IS AVAILABLE) SUBTRACT IT FROM THE DATE OF PREGNANCY IN 502.*

506 *Why did you stop using pills ?*

1 ___Wanted a child

2 ___No need (could not conceive/husband away)

3 ___Suffered from side effects:_____
(specify)

4 ___Fear of health hazards:_____
(specify)

5 ___Other reasons:_____
(specify)

507 *Did you adopt _____ immediately after you stopped*
(answer of 504)
using pills or did you wait for sometime ?

1 ___Adopted immediately (SKIP TO 509)

2 ___Waited for sometime

508 *How long did you wait ?*

_____months _____weeks

509 *You said that you used pills upto _____*
(date in 505)
Was there a time before that date when you interrupted use of pills for more than a month but then started to use it again ?

1 ___Yes (SKIP TO 511)

2 ___No (SKIP TO 512)

510 *You said that you had started using pills in*
_____ and you became pregnant
(date of starting use, 409)
in _____. Was there a time
(date of becoming pregnant, 502)
between these dates when you interrupted use of pill for more than a month but then started to use it again ?

1 ___Yes

2 ___No (SKIP TO 512)

511 *When did the first such interruption start ?*

_____*month* _____*year*

PROBE: ESTIMATE THIS DATE BY ASKING:

How long after starting the use of the pills, did this interruption occur ?

_____*months after (later)*

> *INSTRUCTION: THE DATE OF FIRST INTERRUPTION WILL BE ACHIEVED BY ADDING THIS PERIOD WITH THE DATE OF STARTING THE USE OF PILLS (SEE 409 FOR STARTING DATE)*

512 *Were you or your husband using any method for preventing pregnancy when you became pregnant in* _____
(date in 502)

1 ___*Yes*

2 ___*No (SKIP TO 514)*

513 *Which method were you using ?*

1 ___*Pill (CHECK 503 TO MAKE SURE THAT THE ANSWER IS NO)*

2 ___*Other method*

(SKIP TO 516)

514 *When did you or your husband last use any method to prevent pregnancy before* _____ *?*
(date in 502)

_____*month* _____*year*

PROBE: ESTIMATE THIS DATE BY ASKING:

How long before becoming pregnant did you stop using contraceptive ? (SEE 502 FOR DATE OF PREGNANCY).

_____*months ago*

> *INSTRUCTION: TO GET THE DATE OF LAST USE OF CONTRACEPTIVE SUBTRACT THIS PERIOD FROM THE DATE OF PREGNANCY.*

515 *Why did you stop using it?*

1 ___*Wanted a child*

2 ___*No need (could not conceive/husband away)*

3 ___*Suffered from side effects:*_____
(specify)

4 ___*Fear of health hazards:*_____
(specify)

5 ___*Other reasons:*_____
(specify)

516 *Are you or your husband using any family planning method now?*

1 ___*Yes*

2 ___*No (SKIP TO 701)*

517 *Which method are you using?*

1 ___*Vasectomy*

2 ___*Tubectomy*

3 ___*Condom*

4 ___*Oral pill*

5 ___*IUD*

6 ___*Injectable*

7 ___*Other:*_____
(specify)

SECTION 6

POST-ACCEPTANCE FAMILY PLANNING HISTORY (WITHOUT PREGNANCY)

601 Since the day you started using pills have you or your husband used any method other than pills?

1 ___Yes

2 ___No (SKIP TO 608)

602 Which method did you use?

1 ___Vasectomy

2 ___Tubectomy

3 ___Condom

4 ___IUD

5 ___Injectable

6 ___Other: _____
(specify)

> INSTRUCTION: IF MORE THAN ONE METHOD WAS USED, CHECK THE ONE WHICH WAS USED FIRST AFTER DROPPING PILLS.

603 When did you last use pills before adopting _____?
(method in 602)

_____month _____year

PROBE: ESTIMATE THE DATE BY ASKING:

a) How long did you use the pills?

_____months

> INSTRUCTION: (IF THIS PERIOD IS AVAILABLE) ADD IT WITH THE DATE OF STARTING USE OF PILLS TO GET THE LAST DATE OF USE OF PILLS.

b) How long ago was it that you stopped using pills before starting _____ ?
(second method)

_____months ago

INSTRUCTION: (IF THIS PERIOD IS AVAILABLE) SUBTRACT IT FROM THE DATE OF INTERVIEW TO GET THE LAST DATE OF USE OF PILLS.

604 Why did you stop using pills ?

1 ___Wanted a child

2 ___No need (could not conceive/husband away)

3 ___Suffered from side effects:_____
(specify)

4 ___Fear of health hazards:_____
(specify)

5 ___Other reasons:_____
(specify)

605 Did you adopt _____ immediately after you stopped using pills or did you wait for sometime ?
(answer of 602)

1 ___Adopted immediately (SKIP TO 607)

2 ___Waited for sometime

606 How long did you wait ?

_____months _____weeks

607 You said that you used pills upto _____.
(date in 603)

Was there a time when you interrupted use of pills for more than a month but then started to use it again ?

1 ___Yes (SKIP TO 609)

2 ___No (SKIP TO 610)

608 Since the time you started using pills in _____ did you interrupt use of pills
(date of starting use, 409)
for more than a month but then start to use it again?

1 ___Yes

2 ___No (SKIP TO 610)

609 When did the first interruption start?

_____month _____year

PROBE: How long after starting the use of pill, did this interruption occur?

_____months

INSTRUCTION: THE DATE OF FIRST INTERRUPTION WILL BE ACHIEVED BY ADDING THIS PERIOD TO THE DATE OF STARTING THE USE OF PILLS (SEE 409 FOR STARTING DATE)

610 Are you or your husband using any family planning method now?

1 ___Yes

2 ___No (SKIP TO 612)

611 Which method are you using?

1 ___Vasectomy

2 ___Tubectomy

3 ___Condom

4 ___Oral pill

5 ___IUD

6 ___Injectable

7 ___Other: _____
(specify)

(SKIP TO 701)

612 *When did you or your husband last use any method to prevent pregnancy ?*

_____*month* _____*year*

PROBE: ESTIMATE THIS DATE BY ASKING:

How long ago did you or your husband last use any family planning method ?

_____*months ago*

> *INSTRUCTION: TO GET THE DATE OF LAST USE OF FAMILY PLANNING METHOD SUBTRACT THIS PERIOD FROM THE DATE OF INTERVIEW.*

613 *Why did you stop using it ?*

1 ___*Wanted a child*

2 ___*No need (could not conceive/husband away)*

3 ___*Suffered from side effects:*_____
(specify)

4 ___*Fear of health hazards:*_____
(specify)

5 ___*Others reasons:*_____
(specify)

SECTION 7

701 Do you have any pills presently?

1 ___Yes (SKIP TO 702)

2 ___No

> INSTRUCTION: IF THE RESPONDENT SAYS 'NO', TELL HER THAT WE ARE INTERESTED TO SEE THE BRANDS AND DATES OF MANUFACTURE OF ORAL PILLS THAT SHE HAS. IF SHE CAN SHOW ANY PILL, CORRECT ANSWER OF 701 AND FILL IN THE TABLE UNDER 702. IF SHE CAN NOT SHOW ANY PILLS SKIP TO 703.

702 We are interested to see the date of manufacture and brand of the pills that you have. Would you please take trouble to show me all the pills that you have on hand?

> INSTRUCTION: RECORD THE NUMBERS OF PILL CYCLES BY DATE OF MANUFACTURE AND BRAND NAME(S) IN THE TABLE BELOW. ASK HER AGAIN IF SHE HAS ANY MORE AND IF SOME MORE ARE AVAILABLE RECORD ALL THOSE TOO.

Brand name	Year of manufacture								Other years (specify)	No date
	85	84	83	82	81	80	79	78		
Noriday										
Combination-5										
Maya										
Ovacon										
Ovral										
Nordette										
Minovlar										
Ovostat										
Lyndiol										
Marvelon										
Restovar										
Other (specify):___										

INSTRUCTION: IF THE RESPONDENT IS USING PILLS CURRENTLY, CHECK THE PILL PACKET (CYCLE) WHICH IS BEING USED AND FILL IN THE FOLLOWING TABLE.

Brand name	Number of pills used from this packet	Date of starting this packet	Observation
			1___Used in right sequence 2___Used in wrong sequence 3___Used at random 4___Started to use from iron tablet 5___Other (specify):_____

INSTRUCTION: TELL THE RESPONDENT THAT WE ARE INTERESTED TO SEE THE PILL PACKET (FULLY USED OR PARTIALLY USED) THAT SHE USED IN THE PAST. IF THE RESPONDENT CAN SHOW ANY SUCH PILL PACKET, FILL IN THE FOLLOWING TABLE (EXCLUDING THE PILL PACKET WHICH IS BEING USED CURRENTLY).

Brand name	Whether this packet is fully or partially used	If partially used, give your observation
	1___Fully used 2___Partially used	1___Used in right sequence 2___Used in wrong sequence 3___Used at random 4___Used only iron tablet 5___Others (specify):_____
	1___Fully used 2___Partially used	1___Used in right sequence 2___Used in wrong sequence 3___Used at random 4___Used only iron tablet 5___Others (specify):_____
	1___Fully used 2___Partially used	1___Used in right sequence 2___Used in wrong sequence 3___Used at random 4___Used only iron tablet 5___Others (Specify):_____
	1___Fully used 2___Partially used	1___Used in right sequence 2___Used in wrong sequence 3___Used at random 4___Used only iron tablet 5___Others (specify):_____

703 *Do you have any pill cycle that you can not show now ?*

1 ___*Yes*

2 ___*No (SKIP TO 706)*

704 *Do you remember how many unused pill cycles you have which you can not show ?*

_____*cycles*

705 *Why can you not show me those pills ?*

_____

706 *Of all the pills that you had received so far, did you use any of them for any purpose other than as a contraceptive ?*

1 ___*Yes*

2 ___*No (SKIP TO 709)*

707 *Would you please tell, how many you had used for other purpose ?*

_____

write the number

708 *How did you use these pills ?*

_____

709 *Other than this* _____*, did you receive pill*
(name of centre)
from any other source since _____ *?*
(date of acceptance, 401)

1 ___*Yes*

2 ___*No (SKIP TO 712)*

710 *Where did you get them ?*

_____

711 *How many did you receive from the other source(s) ?*

_____*cycles*

712 *From which day of your menses did you first start taking pills ?*

_____

713 *At what time every day, did you take pill ?*

1 ___*Before going to bed*

2 ___*In the morning*

3 ___*Others:*_____
(specify)

714 *In the course of using the pills, did it happen that you had forgotten to take pill for one day ?*

1 ___*Yes*

2 ___*No (SKIP TO 716)*

715 *What did you do when you had forgotten to take pill for one day ?*

_____
(SKIP TO 717)

716 *What would you do if you forgot to take pill for one day ?*

_____

717 *Did you forget to take pill for two consecutive days ?*

1 ___*Yes*

2 ___*No (SKIP TO 719)*

718 *What did you do when you had forgotten to take pill for two consecutive days ?*

_____
(SKIP TO 720)

719 *What would you do in case you forgot to take pills for two consecutive days ?*

_____

720 *After finishing a cycle, when did you begin to use the next cycle ?*

_____

721 *After finishing a cycle, when do you think you should begin to use the next cycle ?*

_____

722 *Did you face any problem in opening the pill from the packet ?*

1 ___*No*

2 ___*Yes:*_____
(specify)

723 *Where did you usually keep the pills ?*

_____

724 *Have you faced any problem in keeping the pills ?*

1 ___*Yes*

2 ___*No (SKIP TO 726)*

725 *What kind of problem(s) have you faced in keeping the pills ?*

_____

726 *Have you suffered from any side effect(s) of the pills ?*

1 ___*Yes*

2 ___*No (SKIP TO 728)*

727 What side effects have you suffered from ?

_____

_____

_____

INSTRUCTION: ASK THE RESPONDENT IF SHE SUFFERED FROM ANY MORE SIDE EFFECTS AND IF SO RECORD THOSE ALSO.

728 According to your opinion, how effective the pill is ?

1 ___Very effective

2 ___Quite effective

3 ___Moderately effective

4 ___Not so effective

5 ___No at all effective

INSTRUCTION: IF THE RESPONDENT FEELS THAT PILL IS NOT SO EFFECTIVE OR NOT AT ALL EFFECTIVE , ASK HER 729 OTHERWISE SKIP TO 730.

729 Why do you feel that pill is not so effective/not at all effective ?

_____

_____

_____

730 You said that you started using pill on _____ .
(date in 409)
How long before starting the pill-use did you give birth to a child ?

_____months ago

98 ____Did not give birth to any child (SKIP TO 736)

PROBE: How old was the child at that time ?

_____year _____months

731 *Did you breastfeed that baby ?*

1 ___ *Yes*

2 ___ *Partially*

3 ___ *No (SKIP TO 733)*

732 *How long did you breastfeed your baby ?*

_____ *months*

733 *How long after that child birth you had your first menstruation ?*

_____ *months after*

PROBE: How old was the child at that time ?

_____ *year* _____ *months*

734 *Did you already have your first menstrual cycle (after the child birth) when you started using the pills ,*

1 ___ *Yes (SKIP TO 736)*

2 ___ *No*

735 *How long after you started using the pills you had your first menstrual cycle ?*

_____ *months after*

INSTRUCTION: CHECK THE CONSISTENCY WITH 730 AND 733. IF INCONSISTENT , PROBE TO FIND OUR WHICH ANSWER IS WRONG AND CORRECT IT.

736 *Do you mind telling me how many times you had intercourse during the past one month's time ?*

_____

737 *Do you mind telling me how many times you had intercourse during the past one week's time ?*

_____