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Urban FP/MCH Working Paper No. 3

Urban Health Extension Project

**Knowledge
and
Practice of
Contraception
in Dhaka
Urban Slums:
A Baseline
Survey**

Kanta Jamil
Abdullah Hel Baqui
Ngudup Paljor



**International Centre for Diarrhoeal
Disease Research, Bangladesh**

May 1993



The International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B) is an autonomous, non-profit organisation for research, education, training and clinical service. It was established in December 1978 as the successor to the Cholera Research laboratory, which began in 1959 in response to the cholera pandemic in southeast Asia.

The mandate of the ICDDR,B is to undertake and promote research on diarrhoeal diseases and the related subjects of acute respiratory infections, nutrition and fertility, with the aim of preventing and controlling diarrhoeal diseases and improving health care. The ICDDR,B has also been given the mandate to disseminate knowledge in these fields of research, to provide training to people of all nationalities, and to collaborate with other institutions in its fields of research.

The Centre, as it is known, has its headquarters in Dhaka, the capital of Bangladesh, and operates a field station in Matlab thana of Chandpur District which has a large rural area under regular surveillance. A smaller rural and a large surveyed urban population also provide targets for research activities. The Centre is organised into four scientific divisions: Population Science and Extension, Clinical Sciences, Community Health, and Laboratory Science. At the head of each Division is an Associate Director; the Associate Directors are responsible to the Director who in turn answers to an international Board of Trustees consisting of eminent scientists and physicians and representatives of the Government of Bangladesh.

The **Urban Health Extension Project (UHEP)** is a follow-on activity of the Urban Volunteer Program (UVP). In 1981, the International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B) began training women volunteers in urban Dhaka in the use of ORS packets for diarrhoeal disease on the assumption that community women could play an important role in teaching others about the home treatment of diarrhoea with ORS. The United States Agency for International Development (USAID) began funding the project in 1986 with a mandate to provide primary health care services to the urban slums and conduct research on child survival related issues. UHEP continues to focus on health and family planning issues of the urban slums with an overall goal to strengthen the ability of the government and non-governmental agencies to provide effective and affordable family planning and selected maternal and child health services to the urban poor through research, technical assistance, and dissemination of its research findings.

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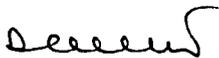
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Foreword

I am pleased to release these reports on urban health and family planning issues which are based on the activities of the Urban Health Extension Project (UHEP). UHEP is a follow-on activity of the former Urban Volunteer Program, a pilot project funded by the United States Agency for International Development (USAID)

The poor health status and the health needs of the urban poor continues to be an important emerging public health issue in the Developing World. Bangladesh is no exception. Despite the constraints of poverty and illiteracy, there are proven strategies to provide basic health and family planning services to the urban poor. In Dhaka alone, aside from the Government health care facilities, there are numerous NGOs and private sector providers giving needed services to the urban population. The Centre's own Urban Health Extension Project continues to focus on the urban poor, especially the slum populations, in providing basic family planning and health services through outreach activities (viz. health education, ORS distribution and referral services to service points).

However, enormous challenges remain in providing an optimum level of services to the urban poor. The UHEP, with the support of the USAID, will focus on health and family planning services delivery strategies in reaching the needed services to the urban poor. We certainly look forward to learning more about the health and family planning needs of the urban poor, testing sustainable strategies and applying these proven strategies in collaboration with other partners in government, NGOs and the private sector.



Demissie Habte, MD
Director

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This Working Paper is from the baseline information of the Urban Surveillance System (USS) of the Urban Health Extension Project (UHEP). The USS is a comprehensive health and demographic longitudinal surveillance of the slum populations of Dhaka. Numerous project staff are involved in the functioning and maintenance of the USS. Sincere acknowledgement is extended for the hard work and dedication of the USS staff, both the field-based staff and the data management and the project management support side of the USS.

Much effort has been put into the analysis and review of the information presented in this report. We would like to acknowledge the valuable input of the following individuals in this report.

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Summary

The findings from the survey suggest that knowledge of contraceptive methods among the slum women was high. Knowledge of at least four modern methods was almost universal in this population. Among the ever married women, 63% had used contraception at least once, while about 55% had ever used a modern method. Oral pill had been most widely ever used followed by periodic abstinence. The contraceptive prevalence rate among the currently married women living in the slums was 36%; about 31% were using a modern method. Among the current users, 43.3% used oral pills, 20.1% had received tubectomy, 13.1% used injectables and 12.2% practiced periodic abstinence. Over half of the current users (54%) used government and non-government clinics to obtain their supplies of modern contraceptive methods. About half of the pill and condom users received their supplies from the field workers, more than one-third obtained them from pharmacies and shops, and a quarter of the users received their supply from clinics.

About 62% of the non-users intended to use contraception sometime in the future and among them more than three-fourths preferred to use a modern method. More than 96% of those who intended to use a modern method in the future had knowledge of a source from where they could obtain their contraceptive supplies.

Introduction

A major new factor in the demographic growth of developing countries is urbanization, and the analysis of its consequences has become one of the most widely discussed social issues of the last three decades. For a long time it has been assumed that the majority of the population of the Third World countries is rural and they are significantly disadvantaged relative to the urban minority, particularly in terms of access to services (Donohue, 1982). Projections on urbanization indicate that by the year 2000, 44% of the developing countries' population will be living in the large urban areas and about half of these city dwellers will be struggling for survival in the low income settlements--referred to as 'slums' and 'shanty towns' (Harpham et al., 1990).

Bangladesh has also followed the urbanization trend of the other Third World countries. In 1961, about 5% of the population lived in the urban areas of the country; in 1991, more than one-fifth of the population are urban. According to a projection of the World Bank, one-third of the country's population will live in the urban areas by the year 2010, which translates to 55 million urban population.

Dhaka, the capital and the largest metropolis of Bangladesh, is ranked by the Population Crisis Committee among the five lowest metropolises in the world for general living conditions and among the three lowest for public health services. Dhaka was the 31st largest city in the world in 1985, and is expected to become the 15th largest by the year 2000 (United Nations, 1987). With a current population of 6 million,

Dhaka is projected to have 10 million people by the year 2000. One-third of Dhaka's population is estimated to be living in the slums. The urban slums are characterized by very high population density (600 persons per acre are common), consisting of very poor housing structures, inadequate water resources and latrine conditions, and having almost no drainage or garbage disposal facilities. The population of the slums live under precarious socioeconomic conditions and are exposed to an extremely poor health environment.

Very little is known about the reproductive behavior and family planning needs of the relatively vulnerable population of the urban slums. Although the Government of Bangladesh has a structured health and family planning service delivery system for the rural population, it does not have a comparable infrastructure for the urban poor. International and local non-government agencies are the primary service providers for this population, but their resources are limited, services are often selective, less than optimum, and their coverage incomplete. This report provides some information on the contraceptive behavior of women in the urban slums in order that research and program strategies can be planned to address the family planning needs of this population. The data come from the Urban Surveillance System of the Urban Volunteer Program of the International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B).

The Urban Volunteer Program (UVP), later known as the Urban Health Extension Project (UHEP) of ICDDR,B was conceived as an operations research and service delivery pilot project to test the feasibility

and impact of women volunteers from slum communities providing preventive health care and referral services to slum residents of Dhaka city. Special attention was paid to the health needs of women and children under five years of age. The program's original focus was on diarrhoea prevention and management through health education and distribution of oral rehydration solutions (ORS). Over time the program's focus expanded to nutrition, immunization and family planning.

The program recruited health volunteers from its catchment area, the slum communities of five *thana* of Dhaka city. The vast majority of these volunteers are illiterate slum mothers. After recruitment, the volunteers received two weeks of basic health training on diarrhoea, nutrition, immunization and family planning. They also received a four-day refresher training every four months. Each volunteer covers about forty households.

In 1990, the program developed a comprehensive health and demographic surveillance system, known as the Urban Surveillance System (USS). The two main objectives of the USS were to produce reliable slum-specific data and to evaluate the effectiveness of its volunteer service. The sample households were registered and a baseline survey was carried out to assess mothers' health knowledge, health practices and selected health status indicators in the areas of diarrhoea, immunization, nutrition and family planning. This report presents the findings of the contraception component of the survey.

Methodology

Sampling Procedure

The Urban Surveillance System (USS) is comprised of a probability sample of the slum communities of five *thana* of Dhaka city (UVP's catchment communities). It is based on multi-stage areal sampling and the ultimate sampling units are clusters of average size of 30 households. For the purpose of sampling, a sampling frame was created by mapping all the slums in the catchment communities. The population was then divided into primary sampling units (PSUs). A PSU was either a slum or segment of a large slum in the size range of 20 to 200 households. Slums below this size range were excluded and above this size range were segmented.

The PSUs were then stratified into eight strata based on aggregate water and sanitation conditions. This information was collected from a random sample of households in each PSU. The sample size required was estimated as 168 clusters which would allow detection of a 2% difference in infant mortality rates with a 95% confidence limit between the intervention and non-intervention communities over a three-year period. The total first stage sample of 168 PSUs was allocated to strata approximately proportionate to their population, subject to the provision that the number of PSUs in each stratum must be a multiple of four, but must not exceed one quarter of the total number of PSUs in the stratum. Each PSU was assigned a "measure of size" equal to its number of clusters, this number being determined as the smallest integer that divides the PSU's total number of households into clusters of 20 to 50 households. PSUs were then

selected with probability proportional to their size using the "PPS sequential method" (Sunter, 1986). This method has the advantages of simplicity, unbiased variance estimation (Sunter, 1989a) and capability of being updated (Sunter, 1989b). Each selected PSU was then divided, on the ground, by the mapping teams into the number of clusters assigned prior to PSU selection. Finally, one cluster was randomly selected from each selected PSU yielding 168 clusters.

Data Collection

Household registration and a phase-I baseline survey which included information on socioeconomic status of the households, mothers' knowledge on immunization, and immunization coverage, was carried out in the sampled clusters between January and April 1990. A phase-II baseline survey covering mothers' knowledge and practices in the areas of diarrhoea, nutrition, breastfeeding, and contraception was administered between August and November 1990.

The phase-II survey included the following information in the contraception component:

For ever married women under age 50:

- knowledge of various contraceptive methods;
- knowledge of sources from where information on specific methods is available;
- ever use of various methods.

For non-pregnant currently married ever users:

- current use of contraceptives and method specific contraceptive use;
- sources used to obtain specific methods;
- duration of use of currently used methods.

For currently non-contracepting married women:

- intention of using family planning;
- preferred method and knowledge of the sources from where to obtain the method, for those who wish to use contraceptives;
- reasons for not intending to use family planning for those who do not wish to use any method.

Data Management and Analysis

Data were entered twice (entry and verification) into a microcomputer. All necessary range and consistency checks were made. Feedback was sent to the field for corrections whenever necessary.

Data were analyzed to calculate the percentage of ever married women having knowledge of specific contraceptive methods, overall knowledge of contraceptives and the mean number of contraceptive methods women were aware of. Overall ever use, average number of contraceptives ever used, and method specific ever use rates were determined. This report provides estimates of overall contraceptive prevalence rate and method-specific rates. Differentials in contraceptive prevalence by selected socioeconomic and demographic characteristics of the users were examined. The sources from which contraceptives were obtained were explored. Included also is information on intentions of contraceptive use in the future.

Results

Characteristics of the Respondents

Ever married women under age 50 were eligible respondents for the questionnaire on contraceptive knowledge and use. Approximately 60% of the 3,090 ever married females were in the age group 13 - 29 years, and less than one-tenth of the respondents were above age 39. About 94% of the respondents were married. An overwhelming majority of the women (over 85%) received no formal education; less than 3% had more than primary education. About one-third of the women reported working. (Among the working group were women involved in paid and unpaid work, home-based self-employment and irregular employment). Over 94% of the women were Muslims and the rest were Hindus. About 7% of the women were recent migrants from the rural areas (Table 1).

Table 1. Characteristics of Respondents: Ever Married and Currently Married Women Under Age 50: Dhaka Urban Slums, 1990

Age (in years)	Ever Married (%) (n = 3,090)	Currently Married (%) (n = 2,899)
13-19	12.1	12.6
20-24	22.5	22.8
25-29	24.2	24.5
30-34	19.4	19.6
35-39	12.6	12.1
40+	9.2	8.4
Total	100.0	100.0
Median age	27 years	27 years
EDUCATION		
No Education	85.5	85.3
1-5 years	11.7	11.9
6+ years	2.8	2.8
Total	100.0	100.0
Mean years of schooling	0.6 years	0.6 years
EMPLOYMENT		
Not working	64.4	68.1
Working	33.6	31.9
Total	100.0	100.0
REGLIGION*		
Muslim	94.4	94.4
Hindu	5.6	5.6
Total	100.0	100.0
RESIDENCE LAST		
YEAR*	92.9	92.9
Urban	7.1	7.1
Rural	100.0	100.0
Total		

* 16 cases had missing information

Knowledge of Contraceptives

Women under 50 years of age were asked about their knowledge of different contraceptive methods. If they were aware of any particular method, information was also gathered on their knowledge of the sources from which they could obtain or be advised of, the methods.

Knowledge was assessed by asking which contraceptive methods they had heard of. All methods spontaneously recalled were recorded as "spontaneous" or "unprompted" answers. Methods that were not mentioned spontaneously were prompted by the interviewers to determine the respondents' awareness of those methods. If a method was recognized after prompting it is referred to as "prompted" awareness in this report.

Both prompted and unprompted techniques to gather information on knowledge of family planning methods may produce biased results. Unprompted techniques are likely to suffer from under-reporting. The rationale for using prompting techniques is that respondents may not be able to recall spontaneously the various contraceptive methods that they have heard of. However, the use of this approach may produce over-reporting to some extent, because respondents might feel embarrassed about their lack of knowledge and/or are likely to give answers to please the interviewers.

Knowledge about contraceptives in this report refers to the respondents' ability to name or recognize the names of different contraceptive

methods. It does not imply any assessment of their knowledge of the basic features of the different methods.

Overall awareness of family planning methods was high among the ever married women under age 50 in the urban slums of Dhaka. Knowledge of at least four modern methods was almost universal. On average, women had heard of about 6.4 methods, of which 5.7 methods are modern. Spontaneously, women recalled an average of 3.2 methods, 3.1 of those being modern. It should be noted that prompting almost doubled the average number of methods the women said they were aware of, compared to the number of methods they could spontaneously recall (Table 2).

Table 2. Knowledge of Contraceptive Methods Among Ever Married Women Under Age 50: Dhaka Urban Slums, 1990.

Number of Methods Known	Percentage of Ever Married Women Having Knowledge of			
	Any Method ¹		Modern Methods ²	
	Prompted + Unprompted	Unprompted	Prompted + Unprompted	Unprompted
0	0.3	5.6	0.4	5.7
1	0.5	10.5	0.5	10.6
2	1.5	17.7	1.6	17.8
3	2.3	23.5	3.0	23.6
4	6.1	22.0	6.9	22.2
5+	89.3	20.7	87.7	20.2
Total	100.0	100.0	100.0	100.0
N	3,090	3,090	3,090	3,090
Mean	6.4	3.2	5.7	3.1

1. Any method: Oral pills, IUD, injectable, vaginal methods, implant, menstrual regulation, male and female sterilization, condom, periodic abstinence, withdrawal.
2. Modern method: Excludes periodic abstinence and withdrawal.

Figure 1 presents the women's knowledge of different methods. Oral pill was the most widely known method (99.3%), followed by female sterilization (97.7%) and injectables (95.8%). However, for the latter two methods, prompted responses were over 40% of the total affirmative responses in these categories. Other commonly known methods in the urban slums of Dhaka were condom, IUD and male steriliza-

tion. Among the modern methods, vaginal methods were least well known. In general, and as expected, unprompted responses for female methods were higher than for male oriented methods. Among those who had knowledge of male sterilization, only 25% mentioned it without prompting. Over 94% of the women who were aware of traditional methods mentioned the methods only after prompting.

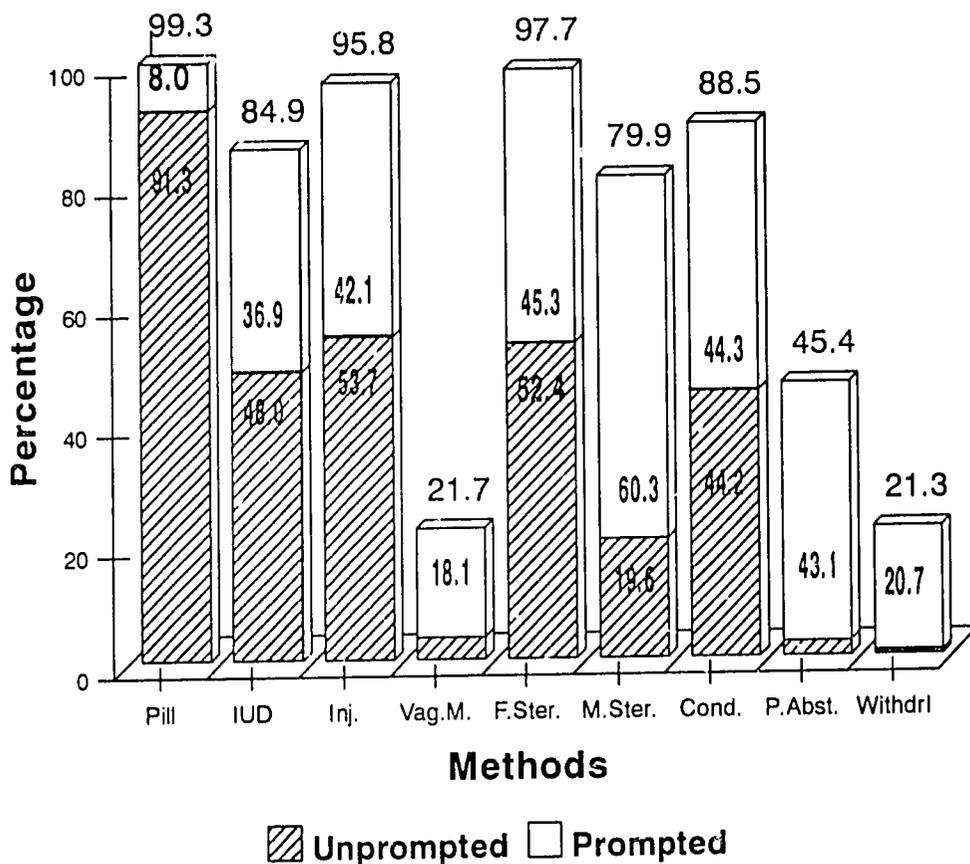


Fig 1: Awareness of contraceptive methods among ever married women under age 50: Dhaka urban slums, 1990 (n = 3,090)

How does knowledge of the Dhaka urban slum women compare with the contraceptive knowledge levels of other sections of the population of Bangladesh? The findings of the Contraceptive Prevalence Survey (CPS)-1990 (Rafiquzzaman et al., 1991) indicate that both the urban and rural currently married women have higher knowledge of modern contraceptives than the Dhaka slum dwellers. However, according to the Bangladesh Fertility Survey (BFS)-1989 (Huq et al., 1990a), awareness of modern methods of contraception among the currently married rural women is less and among the urban women higher, than those of the urban slum residents (Table 3). It should be mentioned that the population sampled both by the CPS-1990 and the BFS-1989 had an older age structure and a much higher percentage of women with some level of education, compared to the urban slum women surveyed in the USS-1990.

Table 3. Knowledge of Modern Contraceptive Methods Among Currently Married Women Under Age 50: Comparisons

	USS 1990 (Dhaka urban slums)	CPS 1990* (Urban)	BFS 1989* (Urban)	CPS 1990* (Rural)	BFS 1989* (Rural)
Mean no. of modern methods known	5.7	6.9	5.7	6.5	5.4

* Source: Rafiquzzaman A.K.M. et al. (1991). Contraceptive prevalence survey, 1990. Dhaka: NIPORT.

Ever Use of Contraceptives: Ever Married Women

Of the 3,090 ever married females, 62.8% had used at least one method of contraception, while 54.8% had used a modern method. A little over half of the ever users had used only one method. While 12.8% of the ever users had not tried a modern method, approximately one-third had used two or more modern methods. On average, ever users had used 1.7 methods and 1.3 modern methods (Table 4).

Table 4. Ever Use of Contraceptives Among Ever Married Women Under Age 50: Dhaka Urban Slums, 1990.

Ever Used		Ever Married
Any method		62.8*
Any modern method		54.8
N		3,090

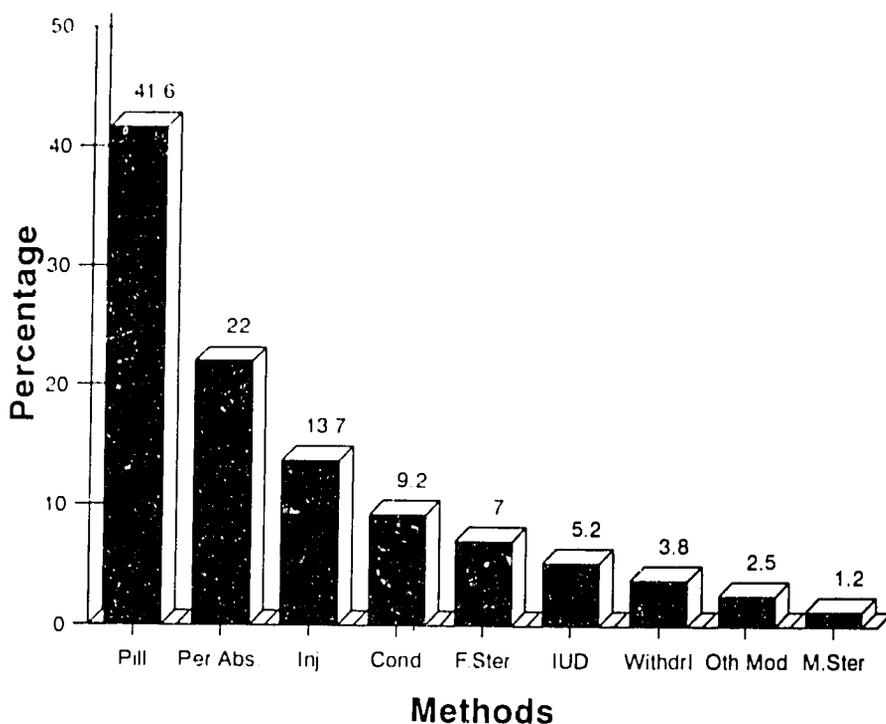
Number of Methods	Ever Users (%) (n=1,941)	
	Any Method	Modern Method
1	53.2	55.8
2	30.3	23.1
3	11.5	7.0
4+	5.2	1.3
Never used	0.0	12.8
Total	100.0	100.0
Mean	1.7	1.3

1 Any method: Pills, IUD, injectable, vaginal methods, male & female sterilization, implants, menstrual regulation, condom, periodic abstinence, withdrawal.

2 Modern method: Excludes periodic abstinence and withdrawal.

* This percentage does not include those women who reported ever used only 'methods' like kabiraji, herbal medicine, homeopathy, amulet and talisman, reciting religious verses, sitting after intercourse, etc.

Among all methods, oral pill had been most widely ever used (41.6%) followed by traditional methods like periodic abstinence (22%). Among modern methods, injectables were the second most common method ever used, after pills. IUD was ever used by only 5.2% of the women. Less than one-tenth of the women in the Dhaka urban slum reported that their partners had ever used condoms. The ever use rates of other male oriented contraceptive methods were much lower, namely 3.8% for withdrawal and 1.2% for male sterilization (Figure 2).



Other Modern Methods = Vaginal method/Implant/M.R.

Fig 2: Ever contraceptive use among ever married women under age 50 by method: Dhaka urban slums, 1990 (n = 3,090)

The figures in Table 5 indicate that the ever use of modern contraceptives among the currently married women in Dhaka urban slums (57.0%) is much higher than the ever use rate of the rural women of Bangladesh (CPS-1990 estimate is 43.3%, and BFS-1989 estimate is 33.6%), but lower than that of the Bangladesh urban population in general (CPS-1990 and BFS-1989 estimates are 67.2% and 59.1% respectively).

Table 5: Ever Use of Modern Contraceptives Among Currently Married Women Under Age 50: Comparisons

	USS 1990 (Dhaka urban slums)	CPS 1990* (Urban)	BFS 1989* (Urban)	CPS 1990* (Rural)	BFS 1989* (Rural)
Modern methods	57.0%	67.2%	59.1%	43.3%	33.6%

* Source: Rafiqzaman A.K.M. et al. (1991). Contraceptive prevalence survey, 1990. Dhaka: NIPORT.

Current Use of Contraceptives: Currently Married Women

To assess current use rate of contraceptives, all currently married women who ever used contraceptives and were not pregnant at the time of the interview were asked, "Are you currently doing something or using any method to delay or avoid getting pregnant?" Those who responded "yes" were further asked, "Which method are you using?"

Among the 2,899 currently married women, 36.0% said they were using a contraceptive method at the time of the survey, and 31.3% reported using a modern method. Oral pill was most commonly being used, followed by female sterilization. Modern reversible methods were used by 23.1% of the women, compared to 8.3% who were protected by sterilization. A total of 5.4% of the women residing in the slums reported using traditional methods (Table 6).

Table 6. Contraceptive Use Among Currently Married Women Under Age 50 by Method: Dhaka Urban Slums, 1990.

METHODS ³	Currently Married Women (%) (n = 2,899)
	All
MODERN METHOD	31.3
Oral Pill	15.6
IUD	1.0
Injectable	4.7
Female sterilization	7.2
Male sterilization	1.1
Condom	1.6
Others ¹	0.2
TRADITIONAL METHOD	5.4
Periodic abstinence	4.4
Withdrawal	1.0
All method ²	36.0*
No method	64.0

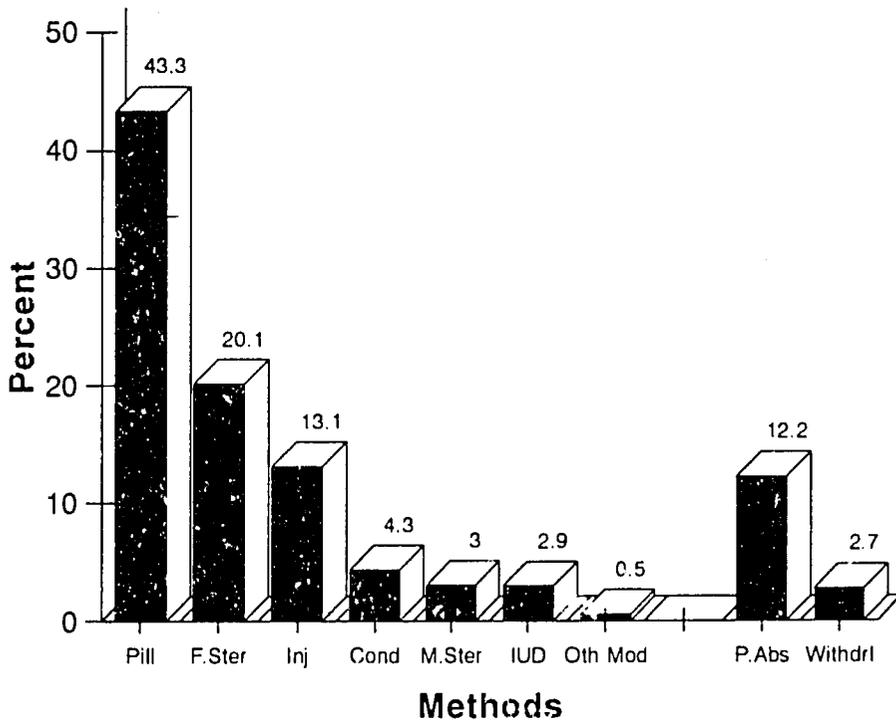
1. Others: Vaginal method/implant/menstrual regulation

2. All method: Oral pills, IUD, injectable, vaginal methods, male & female sterilization, implants, menstrual regulation, condom, periodic abstinence, withdrawal.

3. Modern method: Excludes periodic abstinence and withdrawal.

* Total does not add up to 36.0%, because 2.4% of the current users use more than one method. This rate excludes women who reported currently using methods like kabiraji, homeopathy, amulet and talisman, herbal medicine, reciting religious verses, etc. Including the women who use these methods, exclusively, as current users makes the contraceptive prevalence rate 36.8%

Figure 3 shows that most (76.5%) of the current contraceptive users use pills, tubectomy and injectables. Only 7.3% of the current users were using any male-oriented modern methods like vasectomy and condom. Traditional methods, like periodic abstinence and withdrawal, were used by about 15% of the current users.



Other Modern Methods = Vaginal meihod/Implant/M.R.

Fig 3: Distribution of current users (currently married women under age 50) by method: Dhaka urban slums (n = 1,044)

Table 7 presents the contraceptive prevalence rates of modern methods among the rural and urban women of Bangladesh from the CPS-1990 (Rafiquzzaman et al., 1991) and the BFS-1989 (Huq et al., 1990a), and among the Dhaka urban slum women from the USS-1990 baseline survey. The findings show that the modern contraceptive use rate of the urban slum dwellers falls in between the rural and urban prevalence rates -- it is higher than the rural population but lower than the overall urban population in general. It is interesting to note the method-specific rates of the Dhaka urban slum residents, and compare it with the rates available from the CPS-1990 and BFS-1989 for the rural and the urban population in general, to get a picture of the method-specific popularity of different methods among different groups of the population. Among the modern methods used, injectables appear to be far more popular among the urban slum population than that observed either among the rural or the urban population in general. One likely reason for their relative lower use rate in the rural areas is the relative lack of supply or promotion of injectables through government programs in the rural areas. Female sterilization is again less common among the Dhaka slum women (7.2%) compared to the rates of the urban (9.6%) or the rural women (9.9%) in general (CPS-1990). The IUD was least popular among the Dhaka urban slum women compared to the other population groups. The slum dwellers were also much less likely to use condoms than the general urban population.

Table 7. Current Use of Modern Contraceptives Among Currently Married Women Under Age 50: Comparisons

	USS 1990 (Dhaka urban slums)	CPS 1990* (Urban)	BFS 1989** (Urban)	CPS 1990* (Rural)	BFS 1989** (Rural)
MODERN METHODS	31.3	39.8	38.5	31.2	22.0
Pills	15.6	16.8	18.7	13.4	8.6
Injectables	4.7	1.9	1.5	2.4	0.6
IUD	1.0	3.6	2.5	2.3	1.3
Tubectomy	7.2	9.6	8.0	9.9	8.9
Vasectomy	1.1	1.1	0.9	0.8	1.2
Condom	1.6	6.3	6.5	2.3	1.3
Other	0.2	0.6	0.4	0.0	0.1

* Source: Rafiquzzaman A.K.M. et al. (1991). Contraceptive prevalence survey, 1990. Dhaka: NIPORT.

** Source: Huq M.N. et al. (1990). Bangladesh fertility survey 1989 (analytical tables), Table 3.9, A62, NIPORT.

Differentials in Current Use

Contraceptive prevalence was highest among those in their thirties. This group of women also had the highest use rates of modern methods. This implies that contraception among the slum women is mostly used for limiting rather than spacing births. The use of traditional methods was found to rise steadily with age (Table 8).

Table 8. Contraceptive Use Among Currently Married Women Under Age 50 by Selected Characteristics: Dhaka Urban Slums, 1990.

AGE*	No. of Currently Married Women	Contraceptive Users (%)	
		All Methods	Modern Methods
13-19	364	21.2	19.0
20-24	662	30.8	26.9
25-29	709	36.1	31.6
30-34	569	45.3	40.4
35-39	351	44.2	38.5
40+	244	38.5	29.5
Total	2,899	36.0	31.3
EDUCATION*			
None	2474	34.3	29.7
Primary	344	45.6	39.5
Higher	81	48.2	45.7
Total	2,899	36.0	31.3
EMPLOYMENT STATUS			
Not working	1974	35.8	31.0
Working	925	36.5	32.5
Total	2,899	36.0	31.3
RELIGION**			
Muslim	2,721	35.4	30.7
Hindu	162	45.7	39.5
Total	2,883	35.9	31.2
RESIDENCE LAST YEAR			
Urban Area	2,677	36.4	31.6
Rural Area	206	30.1	25.7
Total	2,883	35.9	31.2

* The overall distribution was significantly different by Chi-square test, $p < 0.001$.

** The distribution was significantly different by a Chi-square test, $p < 0.01$

Contraceptive use was positively related to women's education. The use rate was 33% higher for those with primary education compared to those with no education. Women with more than five years of schooling were most likely to use modern methods. Although working women were more likely to use contraceptives, the difference in the use rates between working and non-working women was small, and not statistically significant. The contraceptive use rate was 29% higher for the Hindus compared to the Muslims. Respondents whose residency was in a rural area a year back had a use rate 17% lower than those who reported residency in urban Dhaka a year back (Table 8).

Table 9 presents the method-specific use rates by age among the current users. In each age group up to age 39, pill was the most commonly used method, while in the older ages (40+) sterilization gained prominence. The second most widely used method in the age groups <25, 25-39, and 40+ were injectables, sterilization and pills respectively.

Oral pill was the most widely used method both among the working and non-working currently contracepting women. However, a much higher percentage of the working women used a modern irreversible method, like sterilization (33.4%), compared to the percentage of non-working women using this method (18.1%). A majority of the women in each of the education groups were using pills. Among the current users, the use of pills was more common among women with some education compared to those with no education. On the other hand, sterilization was more likely among women with no schooling compared to those with some education. It is interesting to note that among the Hindus, the most widely used method is sterilization -- this method being used by about 45% of the current users. Among the Muslims, on the other hand, oral pill was the most widely used, accounting for more than 44% of the current users. A larger percentage of the current users who recently migrated from a rural area used sterilization (29%), compared to those who were exposed to Dhaka city relatively longer (Table 9).

Table 9. Percentage Distribution of Current Users Under Age 50 by Selected Characteristics and Contraceptive Methods Used: Dhaka Urban Slums, 1990

AGE	Methods							Total ²	N
	Pills	IUD	Injectable	Sterili- zation ¹	Condom	Periodic absti- nence	With- drawal		
13-19	61.0	5.2	14.3	2.6	5.2	9.1	1.3	100	77
20-24	51.5	6.9	19.6	4.9	3.9	11.8	3.4	100	204
25-29	46.9	2.7	15.6	18.8	3.1	12.1	2.7	100	256
30-34	38.8	0.8	12.8	29.5	7.0	10.0	1.9	100	258
35-39	37.4	1.9	6.5	32.3	2.6	12.9	2.6	100	155
40+	23.4	0.0	3.2	46.8	3.2	20.2	4.3	100	94
N									1,044
EMPLOYMENT STATUS									
Not working	47.0	2.7	13.0	18.1	4.7	13.2	2.4	100	706
Working	35.5	3.3	13.3	33.4	3.6	10.1	3.3	100	338
N									1,044
EDUCATION									
None	40.2	2.9	14.3	24.9	4.1	12.6	2.6	100	848
Primary	56.1	3.2	7.6	14.6	4.5	11.4	3.8	100	157
Higher	59.1	0.0	10.2	18.0	7.7	5.1	0.0	100	39
N									1,044
RELIGION									
Muslim	44.3	2.9	13.9	21.6	4.0	12.3	2.5	100	962
Hindu	27.0	2.7	2.7	44.6	8.1	12.2	5.4	100	74
N									1,036
RESIDENCE LAST YEAR									
Urban	43.5	2.9	13.0	22.9	4.3	12.0	2.7	100	974
Rural	35.5	3.2	14.5	29.0	3.2	16.1	3.2	100	62
N									1,036

1 Sterilization includes both male and female sterilization.

2 Total does not add upto 100, because multiple methods are used, and 0.5% of the current users use vaginal methods and Norplant.

Source of Contraceptive Supply

All current users of modern contraceptives were asked about the source from which they obtain their supplies or services. In the urban areas, some modern methods like IUD, sterilization and injectables, can only be obtained in clinics (including mobile clinics), while methods like oral pills and condoms are not only found in the clinics but are also distributed through field workers, and sold in the shops. About half of the women who used non-clinical methods like pills and condoms, obtained their supplies from field workers, while more than one-third used pharmacies and shops, and about a quarter received the methods from clinics (Figure 4).

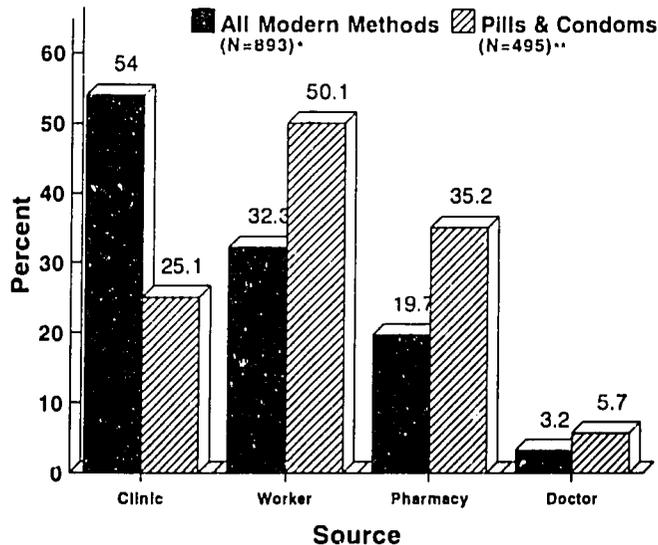


Fig 4: Supply source of modern contraceptive methods among current users under age 50: Dhaka urban slums, 1990

Total does not add to 100% because multiple sources are used

* Out of 908 women who used modern contraceptives, 2 cases did not know the source and 13 cases had missing information.

** Out of 496 women who used pills/condoms, 1 had missing information.

Intentions to Use Contraceptives in the Future

Married women who were not contracepting at the time of the survey were asked whether they intended to use contraceptives in the future and if they wished to, what method would they prefer to use, and from where they can obtain their method of choice; and if they did not intend to use contraception, what is the main reason for it.

The majority (61.9%) of the women expressed their intentions to use a family planning method sometime in the future. Approximately one-tenth of the women were not sure (Table 10).

Among those who did not intend to use contraceptives, the most prominent reason cited for the decision was that they wanted to have children (40.1%). About 13% of the women were not exposed to the risk of pregnancy, since they reported having reached menopause or had a hysterectomy. Close to 12% of the respondents who did not intend to use contraception said that they felt "no need" to practice contraception. (Among these women, some believed that they were infertile, some thought they were not exposed to the risk of pregnancy because they had infrequent sex, some did not menstruate regularly, etc). One in twelve of those who did not wish to use family planning reported side effects/health concerns to be the primary reason for non-use. One in nine of the respondents said they or their family were opposed to the use of family planning or felt that religious barriers exist against contraceptive use (Table 11).

Table 10. Intention to Use Contraceptives Among Currently Married Non-contracepting Females Under Age 50: Dhaka Urban Slums, 1990

Intends to Use Contraceptives	Currently Married Non-contracepting Females	
	Number	Percentage
No	517	28.4
Yes	1,128	61.9
Not sure	178	9.7
Total	1,823	100.0

Note: Of the 1,832 non-users, 9 cases had information missing on future contraception intentions.

Table 11. Reasons for Not Intending to Use Contraceptives in the Future Among Currently Married Non-contracepting Females Under Age 50: Dhaka Urban Slums, 1990

Main Reasons	Currently Married Non-contracepting Females	
	Number	Percentage
Wants child	207	40.1
Menopause/hysterectomy	69	13.3
No need	61	11.8
Side effects/health concerns	44	8.5
Opposed to family planning	34	6.6
Religious barrier	23	4.4
Other	79	15.3
Total	517	100.0

Among the women who intend to use contraceptives in the future, over three fourths would prefer to use a modern method, pills and injectables being most popular. Only 6.8% expressed the desire to accept sterilization. About 18% of the non-contracepting women were not sure which specific method they would like to use (Table 12).

Table 12. Preferred Choice of Family Planning Method Among Currently Married Females Under Age 50 Who Intend to Use Contraceptives in the Future: Dhaka Urban Slums, 1990

Preferred Method	Currently Married Non-contracepting Females Who Intend to Use Family Planning Method in the Future	
	Number	Percentage
Pill	406	36.1
IUD	30	2.7
Injectable	336	29.9
Female Sterilization	76	6.8
Implant	3	0.3
Condom	7	0.6
Periodic Abstinence	32	2.8
Others ¹	29	2.5
Unsure/D.K	206	18.3
Total	1,125	100.0
Modern Method	858	76.3

1. Other = Kabiraji, herbal medicine, amulet and talisman

Note: Of the 1,128 respondents who intended to use contraceptives in the future, 3 cases had no information on the preferred method.

More than 96% of the slum women who said they intended to use a modern contraceptive method in the future had knowledge of the sources from where they could obtain the supply of the methods they wanted. It is interesting to note that about 52% of those who intend to use pills or condoms, mentioned pharmacy/shops as the supply source, while about 37% said they could obtain supplies from field workers (Figure 5).

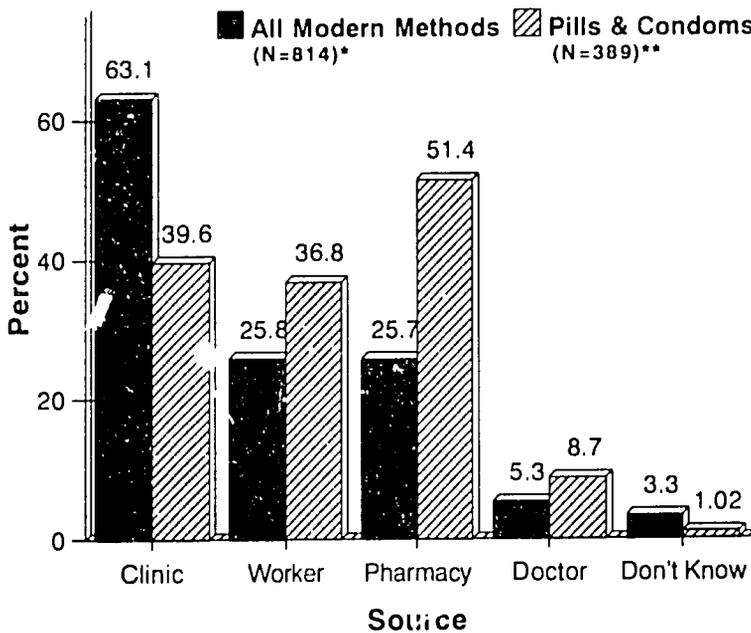


Fig 5: Knowledge of supply source among non-users intending to use modern contraceptive method in the future: Dhaka urban slums, 1990

Total does not add to 100% because multiple sources are used

- * Out of 958 respondents who intend to use modern contraceptives, 44 cases had missing information
- ** Out of 413 respondents who intend to use pills/condoms, 24 cases had missing information.

Discussion

In the urban slums of Dhaka, knowledge of contraceptive methods among ever married women is almost universal. About 95% of the women have heard of at least four modern methods. Knowledge about modern methods (except vaginal methods) is higher compared to the traditional methods, partly because neither the NGOs nor the government programs promote traditional family planning methods. Yet ever use of periodic abstinence is most common after pills. It implies that women who are aware of periodic abstinence as a contraceptive method are more likely to have ever used this method compared to the use-likelihood of most other methods that they are aware of.

It seems quite clear that lack of "knowledge" about methods is not a major factor that hinders use of contraceptives in the Dhaka slums. Future research on the area of contraceptive knowledge needs to examine slum women's understanding about the basic features of the methods they know of, regarding how to use these methods, the perception they have about their effectiveness, their knowledge and fear of the use-related side effects and complications, etc. This information would be useful in comparing the use-effectiveness of different methods, and it can indicate the type and quality of care that service providers should emphasize to improve the acceptance and continuation of contraception.

About 63% of the Dhaka slum women reported having ever used a method. Among all methods ever used among the Dhaka urban slum women, oral pills were most popular, followed by traditional methods like periodic abstinence. Findings from the CPS-1990 (Rafiquzzaman et al., 1991), CPS-1991 (Mitra et al., 1992), BFS-1989 (Huq et al., 1990a) also

indicate that a significant percentage of both the rural and urban women had used this traditional method. A research area of interest would be in understanding of the way periodic abstinence is used and how effective it has been in delaying or avoiding pregnancies. While contraceptive providers should try to motivate the users of traditional methods to switch to more effective methods, it is likely that a sizeable proportion will remain users of traditional methods in the near future. A practical step in family planning education seems to be to provide information on how to effectively use these methods and at the same time to discuss their likelihood of failure so that switching to more effective methods may be considered a desirable option by the users.

The current use rate of contraceptives in the Dhaka urban slums is 36%. Among the currently married, the three most widely used methods are pills (15%), tubectomy (7.2%) and injectables (4.7%). Analysis of the USS 1990 baseline survey shows that the number of women using pills is more than three times greater than the number using injectables. On the other hand, it is interesting to note that among the non-users who intend to use contraceptives in the future, the percentage desiring to use pills is only 20% higher than those who want to use injectables. Is the observed difference between the use rates of pills and injectables a reflection of the relative availability and accessibility of these two methods? In urban Dhaka, pills are widely available -- they are distributed by NGO field workers, and also can be obtained from clinics, pharmacies and other shops. The availability of injectables is mostly through clinics, including some mobile clinics. Data show that when injectables become available on a door to door basis with pills, their use rate exceeds that of pills in the rural Matlab population of Bangladesh (Khan et al., 1989). In the MCH-FP extension areas of ICDDR,B in Abhoynagar and Sirajganj, the prevalence of injectables in 1983 was only 0.1% in both the areas. With the introduction of injectables

delivery through field workers, the prevalence increased to 9.2% and 12.8% in 1991 in Abhoynagar and Sirajganj respectively (Rahman et al. 1992). Are such modes of delivery required in the urban slum areas for a significant increase in the use of injectables? Or is the availability in clinics within a "reasonable" distance sufficient to increase their acceptance? Research directed to unravel such queries can have important implications on the development of an appropriate family planning service delivery structure for the urban poor.

The IUD is used by only 1% of the slum population, and less than 3% of those who intend to use a method in the future desire to use this method. These findings are rather disappointing, in view of the priority given towards IUD insertion in the current five-year plan. Condoms' unpopularity (use rate of 1.6%) among the Dhaka slum residents is discouraging, particularly with respect to concern about the likelihood of high prevalence of sexually transmitted diseases among the slum population. Research needs to be directed towards understanding male attitudes about, and involvement in fertility decisions, and studying the characteristics of those who use male-oriented methods in particular, to design programmatic strategies to increase contraceptive usage among both the males and the females of the slums.

A rough measure of "unmet need" can be determined by the proportion of the 1,823 non-users who wish to use a method in the future. About 62% of the non-users in the urban slums expressed their desire to use contraception in the future, and 47% of the non-users wish to use a modern method. An overwhelming majority (96%) of those who intend to use modern methods are aware of the supply sources. The two most preferred methods mentioned are pills and injectables. Comparatively, according to the BFS-1989 (Huq et al., 1990a) estimates, 49% of the non-users (both urban and rural) intend to use a method in the future. Their two most preferred

methods are similar to the preferences of the slum women. One obvious strategy to increase the contraceptive prevalence among the slum population is to target these women to be acceptors of contraception.

Among those who do not intend to use a method, the main reason mentioned for non-use is that they want to have a child/children. More information is needed to find out whether any of these women are likely to space their births to determine the extent of unmet need for contraceptives among these women. In-depth analysis is required to know more about the non-users who do not intend to use a method because of side effects and health concerns (whether feared or experienced), and those who perceive that they have 'no need' to use contraception.

About half of the current users of pills and condoms receive their supply of contraceptives from field workers and about 35% from the pharmacies and/or shops. On the other hand, about 52% of the non-users who intend to use pills or condoms mention pharmacy/shop as the source to obtain the supply of their preferred method. This leads one to ask several questions? Are field workers reaching out to the non-users as extensively as they are to the current users of contraceptives? Or, are most non-users dissatisfied with the type or brand of contraceptives available from the outreach workers and thus, consider other supply sources to meet their needs? While these questions point negatively to the services of the outreach workers, the positive note of this finding is that a sizeable proportion of the slum dwellers may seek out other service providers besides field workers. It implies that development of a more cost-effective mode of family planning service delivery than the door-to-door service provision may be a possible option to address the family planning needs of the urban poor. Further research is needed in this area.

References

- Donohue, J.J. (1982). Facts and figures on urbanisation in the developing world. *Assignment Children* 57/58:135-156.
- Harpham, T., Lusty, T. and Vaughan, P. (eds) (1990). *In the Shadow of the City: Community Health and the Urban Poor*. Oxford: Oxford University Press, New York.
- Huq, N. and Cleland, J. (1990a). Bangladesh fertility survey 1989: Main report. Report by the National Institute of Population Research, Dhaka.
- Huq, N., Cleland, J. et al. (1990b). Bangladesh fertility survey 1989: Analytical tables. Report by the National Institute of Population Research, Dhaka.
- Khan, M.A. et al. (1989). Contraceptive use patterns in Matlab, Bangladesh: Insights from a 1984 survey. *Journal of Biosocial Science* 21: 47-58.
- Mitra, S.N., Lerman, C. and Islam, S. (1992). Contraceptive prevalence survey 1991: Key findings. Report by Mitra and Associates, Dhaka.
- Rafiquzzaman, A.K.M. et al. (1991). Contraceptive prevalence survey 1990. Report by National Institute of Population Research, Dhaka.
- Rahman, F., Islam, M. and Maru, R. (1992). Home delivery of injectable contraceptives: An operations research study in Bangladesh. Working Paper, MCH-FP Extension Project, International Center for Diarrhoeal Disease Research, Dhaka.

Sunter, A. (1986). Solutions to the problem of unequal probability sampling without replacement. *International Statistical Review* 54(1): 33-50.

Sunter A. (1989a). PPS sampling in multistage designs: Does it matter which method? Unpublished document: Sunter Research Design & Analysis Inc., 63 Fifth Av., Ottawa, Canada.

Sunter A. (1989b). Updating size measures in a PPSWOR design. *Survey Methodology* 15(2): 253-260.

United Nations. (1987). Population growth and policies in mega-cities -- Dhaka. Population Policy Paper No.8, ST/ESA/SER.R/69, Department of International Economic and Social Affairs, United Nations, New York.



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