

MANOSHI: COMMUNITY HEALTH SOLUTIONS IN BANGLADESH

Baseline Survey in Dhaka Urban Slums 2007

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MANOSHI: COMMUNITY HEALTH SOLUTIONS IN BANGLADESH

Baseline Survey in Dhaka Urban Slums 2007

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CONTENTS

Page

Summary of Findings.....	iii
Map of Slums in Dhaka Metropolitan Area.....	vi

CHAPTER 1 INTRODUCTION

1.1 Health Service Delivery for Urban Poor.....	1
1.2 Background of the Study.....	1
1.3 Slums of Dhaka Metropolitan Area	2
1.4 MANOSHI Impact Evaluation Methodology.....	2
1.5 Organization of 2007 MANOSHI Baseline Survey.....	3
1.5.1 Survey Objectives and Implementing Organizations.....	3
1.5.2 Sample Design.....	3
1.5.3 Questionnaire.....	4
1.5.4 Training and Fieldwork.....	5
1.5.5 Sample Coverage.....	6

CHAPTER 2 HOUSEHOLD POPULATION AND HOUSING CHARACTERISTICS

2.1 Household Population by Age, Sex and Area.....	7
2.2 Educational Attainment.....	9
2.3 Household Characteristics.....	10
2.4 Socioeconomic Status and Wealth Index.....	11

CHAPTER 3 CHARACTERISTICS OF SURVEY RESPONDENTS

3.1 Background Characteristics of Respondents.....	14
3.2 NGO Involvement and Income/employment Activities.....	15
3.3 Migration History.....	16
3.4 Reproduction.....	18

CHAPTER 4 KNOWLEDGE OF MATERNAL COMPLICATIONS AND NEWBORN CARE

4.1 Knowledge of Maternity Care.....	20
4.2 Knowledge of Newborn and Child Health.....	24
4.8 Pregnancy Planning.....	28

CHAPTER 5 PRACTICES ON MATERNAL AND NEWBORN HEALTH

5.1 Maternity Care and Services Received.....	30
5.2 Pregnancy Complications and Management.....	34
5.3 Immediate Newborn Care.....	37

CHAPTER 6 CHILD HEALTH

6.1 Childhood Vaccination.....	41
6.2 Childhood Morbidity and Management.....	42

CHAPTER 7 PERCEPTION ON DELIVERY FACILITIES AND BRAC BIRTHING HUT

7.1 Opinion on Local Healthcare Facilities.....	44
7.2 Awareness of BRAC Birthing Hut.....	45

CHAPTER 8 POLICY IMPLICATIONS OF MANOSHI 2007 BASELINE

8.1 Status of Maternal and Child Health in Dhaka Urban Slums.....	47
8.2 Policy and Programs for Maternal and Child Health in Bangladesh	47
8.3 Policy Implication of 2007 MANOSHI Baseline Survey.....	49
8.4 Conclusion.....	50

REFERENCES.....	51
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SUMMARY OF FINDINGS

The 2007 MANOSHI Baseline Survey is a community based, cross sectional survey of 2,483 women having under-five child(ren) and residing in a slum in Dhaka city. The survey was carried out during August to September 2007 in Dhaka City Corporation area as a part of impact evaluation activity of MANOSHI program. In the same year BRAC initiated MANOSHI project for improving maternal, newborn and child health in urban slums of Bangladesh through implementation of a community-based, comprehensive package of essential health services.

Fifty percent of the study subjects (1,256 in number) comprised mothers who delivered a child in the last one year and the rest (1,227 in number) have a child aged 1 to under-5 years old. All the mothers were residing in selected slums in Dhaka City Corporation area.

Household population and housing characteristics

- The population structure was predominantly young, having 75% of the household population under 30 years and 25% under five years of age
- Average household size was 4.8 in program slums and 4.9 in comparison slums
- Households were predominantly headed by males, only 7% households in program slums and 8% households in comparison slums are female-headed
- Educational attainment was lower in program slums than comparison slums – 44% of the population aged five years or more in program slums and 35% in comparison slums had no schooling; 30% of population in program slums and 41% in comparison slums completed primary level of education or higher
- Water and sanitation (WATSAN) situation in comparison slums was much better than the program slums – 56% of the households had access to piped water inside dwelling and 20% had modern toilet facility in program slums compared to 65% and 41% respectively in comparison slums.

Characteristics of the sampled respondents

- 23% respondents were involved with non-government organizations (NGOs) in both areas – apart from small, localized NGOs, ASA and BRAC were the leading NGOs in Dhaka urban slums
- 78% respondents in program slums and 70% respondents in comparison slums married before reaching 18 years of age
- 31% of the respondents in program slums and 26% respondents in comparison slums were living in the current slum for less than one year
- Leading cause of migration into current slum was familial – 47% respondents in program slums, 54% in comparison slums

Knowledge of respondents on maternity and child healthcare

- 45% respondents in program slums and 50% in comparison slums knew the number of antenatal care (ANC) visits required was four or more.
- 52% of the respondents in program slums and 53% in comparison slums knew the number of postnatal care (PNC) visits required was three or more.
- Among essential newborn care practices, drying (64% in program slums, 68% in comparison slums) wrapping with warm clothes (59% in program slums, 60% in comparison slums) were most known to the respondents
- Own experience (32% in program slums, 28% in comparison slums), followed by friends (21% in program slums, 19% in comparison slums) and NGO workers (18% in program slums, 21% in comparison slums) were the major sources of knowledge on pregnancy care.

Maternity and child healthcare practices

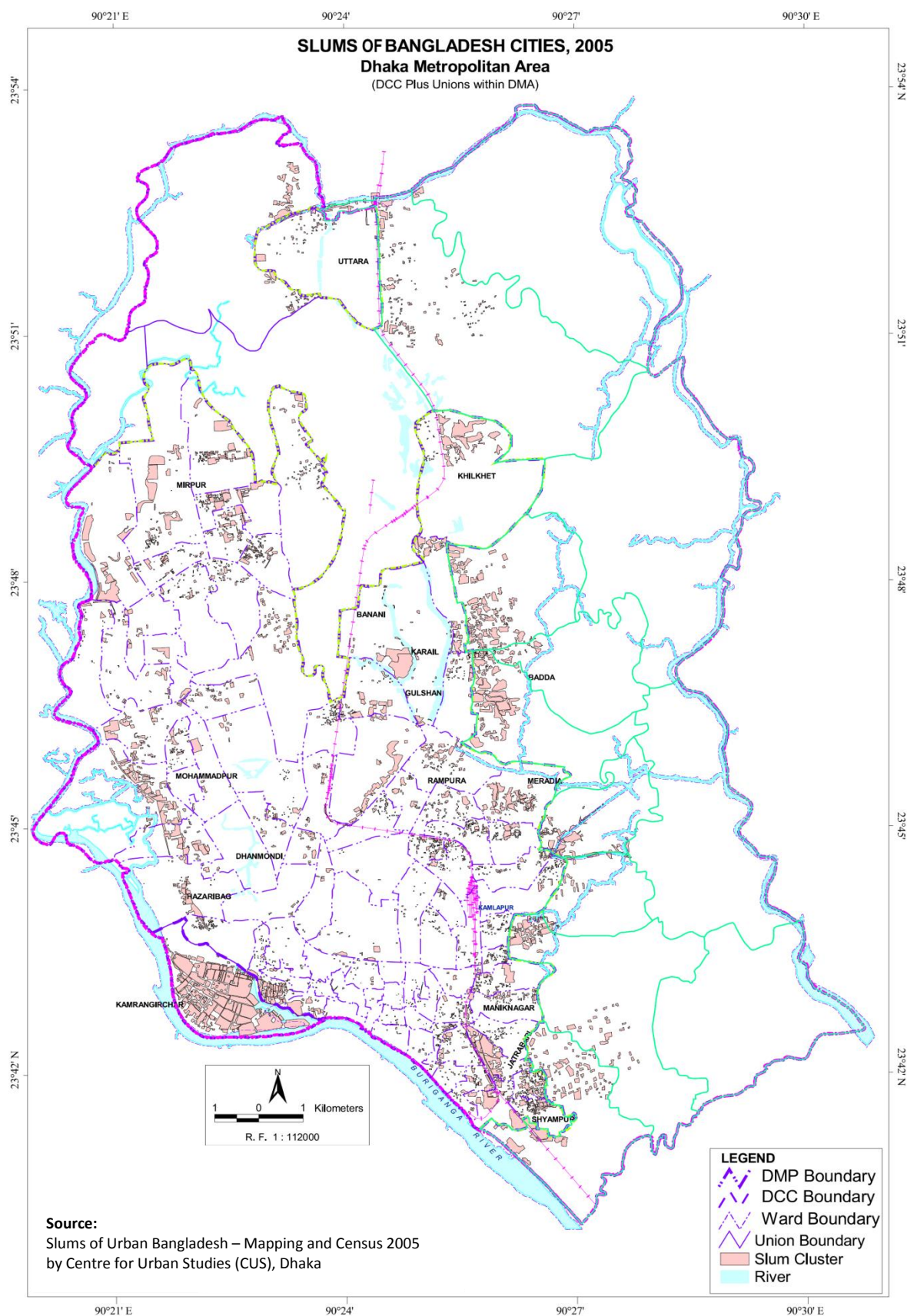
- 25% respondents in program slums and 19% in comparison slums did not receive any ANC care during their most recent birth; proportion of respondent making four or more ANC visits during their most recent birth was 27% in program slums and 36% in comparison slums
- 84% respondents in program slums and 75% in comparison slums delivered their baby at home
- 37% of all facility deliveries in program slums and 28% in comparison slums took place in government hospitals
- 76% respondents in program slums and 68% in comparison slums did not received any PNC care during their most recent birth; proportion of respondent making three or more PNC visits during their most recent birth was 9% in program slums and 14% in comparison slums
- 36% respondents in program slums and 45% in comparison slums received neonatal checkup for their babies by a doctor or health worker
- 97% under-five children in program slums and 98% in comparison slums received polio vaccination followed by BCG (94% in program slums and 96% in comparison slums) and DPT (92% in program slums and 95% in comparison slums)
- Fever was most prevalent morbidity among under-five children (45% in program slums and 43% in comparison slums), followed by cough (33% in program slums and 35% in comparison slums) and diarrhoea (19% in program slums and 12% in comparison slums)
- Packet saline was used most (88% in program slums and 80% in comparison slums) to manage diarrhoea among under-five children.

Perception on local delivery facilities and BRAC Birthing Hut

- 47% respondents in program slums and 55% in comparison slums responded that healthcare and delivery facilities did not exist in their slum

- Among the facilities available, NGO health centers were (38% in program slums and 39% in comparison slums) known most, followed by BRAC Birthing Hut (21% in program slums).
- Effective treatment (78% in program slums and 69% in comparison slums), followed by good behavior of the staff (51% in program slums and 60% in comparison slums) were the leading qualities that would satisfy the respondents
- 25% of the respondents in program slums knew there existed BRAC Birthing Hut in the locality
- Antenatal checkup (60%), followed by delivery care (28%) and skilled delivery assistance (28%) were most known features of BRAC Birthing Hut among the respondents
- BRAC staff (SS/midwife) are the major source of information on BRAC Birthing Hut (44%), followed by neighbors and friends (28%)
- Among respondents who were aware of existence of BRAC Birthing Hut in the locality, 72% did not register to receive services - major reason for not registering was not knowing that registration required to avail services (31%), followed by not getting permission from family (19%)
- BRAC Birthing Hut was most known to the respondents for providing good quality of care (53%) and for availability of services at low cost (27%).

Slums of Dhaka Metropolitan Area (DCC plus unions under DMA)



CHAPTER 1: INTRODUCTION

Worldwide, urbanization has become a crucial issue in recent years. The 2005 Revision of the UN World Urbanization Prospects report described the 20th century as witnessing "rapid urbanization of the world's population", as the global proportion of urban population rose dramatically from 13% (220 million) in 1900, to 29% (732 million) in 1950, to 49% (3.2 billion) in 2005. The same report projected that the figure is likely to rise to 60% (4.9 billion) by 2030 (15). The *2007 Revision* of the UN World Urbanization Prospects corroborates that the world population will reach a landmark in 2008: for the first time in history the urban population will equal the rural population of the world and, from then on, the world population will be urban in its majority (25). This event is a consequence of rapid urbanization in the last decades, especially in the less developed regions. It is estimated 93% of urban growth will occur in Asia and Africa and by 2050, over 6 billion people will be living in urban areas worldwide. As a consequence of rapid urbanization in the developing regions, significant portions of the urban population will be excluded from the benefits of industrial growth and economic development (16). In the first global assessment of slums, UN-HABITAT emphasized their problems and prospects, and presents estimates of the numbers of urban slum dwellers, suggesting that the slum population would reach two billion by 2030.

Bangladesh, along with other Asian countries, also experienced rapid urbanization in recent decades. Among the major cities of Bangladesh, a country of 146 million people, Dhaka has emerged as one of the fastest growing megacities in recent times – starting from a manageable population of 2.2 million in 1975, it reached 13 million in 2001, having an exceptionally high 6.9 percent annual growth rate (14). The country will likely have an urban population approaching 50 million by 2015 (3), out of which the slum population in Dhaka alone is estimated to be 21 million (8). The staggering growth of cities in developing countries has contributed to widespread urban poverty – a quarter live in urban settlements and a third of these live in slums (9). Among Dhaka's population, 32% can be defined as 'poor' (defined under 'Cost of basic needs' as method, earning under Taka 619) (13). This rapid growth has been due primarily to migration by the rural poor, particularly to large metropolitan areas. On arrival, these poor migrants routinely turn to slums and squatter settlements for shelter (24).

1.1 HEALTH SERVICE DELIVERY FOR URBAN POOR

Although the government has a structured health and family planning service delivery system for the rural poor, it does not have any comparable infrastructure for the urban poor (28). Nongovernmental organizations (NGOs) are the primary service providers for the urban poor population. Notable programs working in Bangladesh with a special focus on urban poor are discussed below.

Urban PHC Project 1998-2002 (ADB funded): To cater to the needs of urban poor, a five-year, US\$ 60 million urban primary health care project (UPHCP) was launched in 1998 through the Local

Government Division of MoLGRD&C in four city corporations of Bangladesh (Dhaka, Chittagong, Khulna and Rajshahi) targeting 9.5 million urban poor, representing 41% of Bangladesh's urban population. The major components of UPHCP included provision of primary health care (PHC) through partnership agreement, strengthening urban PHC and sanitary infrastructure, and capacity building of City Corporation, municipality health departments and partner NGOs. UPHCP recommended formulating better pro-poor targeting scheme to effectively address healthcare needs in urban setup. UPHCP also recommended that the essential health service mix in urban setting ought to be different and sanitation, nutrition and waste management should also be included to health program. The second phase of this project (UPHCP II) is currently underway, providing a package of high-impact PHC services to the urban population, and it is expected that evidence and experiences from UPHCP II will give better insights into framing effective PHC services with pro-poor focus in urban setup.

NGO Service Delivery Programme (NSDP): Another relevant program is the urban component of USAID-funded NGO Service Delivery Programme (NSDP), which is a partnership of eight international and Bangladeshi organizations. NSDP delivers family health services in terms of delivering an Essential Service Package (ESP) of primary health care interventions to under-served urban populations of Bangladesh (26). The principal aim of NSDP is to expand the range and improve the quality of the ESP which is provided by NGOs at the clinic and community levels and also to influence GOB policy, in coordination with other donors.

Urban Immunization Program by BASICS (Basic support for Institutionalizing Child Survival): BASICS assist GoB to develop and implement strategies to extend supply and demand for EPI in selected municipalities, with special emphasis on urban poor living in the slum areas. Five steps for this strategy are: map slum areas and identify health resources available, strengthen local coordination among EPI service providers, improve access, study EPI related health behavior of the slum community, and adopt communication interventions to raise demand for EPI services and improve case identification and reporting.

1.2 BACKGROUND OF THE MANOSHI BASELINE STUDY

In 2007 BRAC initiated the MANOSHI project for improving maternal, newborn and child health in urban slums of Bangladesh through implementation of a community-based, comprehensive package of essential health services. For implementation of the MANOSHI program covering all the slum populations in Bangladesh over a five-year period, BRAC received grants from Bill and Melinda Gates Foundation and ICDDR,B was involved with this study to conduct monitoring, formative study, and impact evaluation of the program along with Research and Evaluation Division of BRAC. A MOU was signed between the two organizations in 2007 to this effect.

In order to evaluate the impact of this community based package, the two organizations decided to conduct baseline and endline surveys over the program duration. As a part of this activity, baseline

survey was conducted in selected slums of Dhaka City Corporation in 2007, and the survey findings are described in this report.

1.3 SLUMS OF DHAKA METROPOLITAN AREA

Dhaka City Corporation (DCC) has an area of 145 sq. kilometers and an estimated population of 7.2 million (2005). Dhaka Metropolitan Area (DMA), with an estimated 2005 population of 9.1 million, comprises DCC and adjoining areas totaling 306 sq. kilometers. The 2005 Slum Census of Urban Bangladesh identified 4,966 slum clusters in DMA with a total slum population of 3.4 million (37.4 percent of the city's total population), more than doubling of the slum population over the 1996 levels (3).

The 2005 slum survey also identified conspicuous growth of slums in peripheral and suburban areas of Dhaka city. In the central areas of the city, slum concentrations were relatively sparse compared with the periphery. The major slum concentrations (3) in DMA are as follows:

- Eastern fringe of the city, along the border of the city corporation:
 - Khilket, directly opposite to the Zia International Airport
 - Badda-Satarkul area, in the vicinity of the Gulshan and Baridhara residential areas
 - Area between Meradia and the Kamalapur Railway Station
- Western fringe of the city:
 - Kamrangir Char on the bank of the River Buriganga, just outside Dhaka City Corporation (DCC)
 - Hazaribagh and west Mohammadpur, along the western embankment
 - Mirpur

The single largest concentration of slums was found in Kamrangir Char, having a slum population of 265,000. The largest single slum in Dhaka is Karail in Mohakhali near Gulshan, with more than 100,100 people (3).

1.4 MANOSHI IMPACT EVALUATION METHODOLOGY

The major challenge for MANOSHI impact evaluation activity is that there is no clear comparison group to follow-up for the program duration, as BRAC targets to expand coverage of MANOSHI program to all urban slum areas of Bangladesh. MANOSHI program covered six slums of Dhaka city under the first phase of program implementation and planned to deploy intervention in phases to reach complete nationwide coverage by the fifth year. Under such a scenario, one of the best possible approaches for impact evaluation would be to implement intervention in randomly selected slums during the phases so that by the end of program duration, five groups of slums with different intensity of intervention were obtained (i.e. a group of slums with 5 years exposure to the MANOSHI program, a second groups with 4 years of exposure, and so on). With such a dataset, it was possible to estimate a model with duration of exposure as the main explanatory variable of interest and

evaluate the impact without a control group. But in practical scenario, BRAC planned to initiate the program in selected slums already having other BRAC projects (viz. programs on general health, education, and microfinance) and could not randomize the intervention.

Another possible approach was to keep a control group during baseline and, as new slums are established in new areas, hope to get comparison slums even by the end of program that didn't yet exist. But there might well be something different about the new slums, as compared to the more established slums, which would make them less useful as a comparison group.

Given the challenges presented by the lack of a proper control group, impact evaluation planned to focus on contribution, rather than attribution. In doing so, baseline conducted only in Dhaka with a comparison area with the idea that a segment of baseline sample would be retained during subsequent data collection rounds and a cohort-style analysis with the data would be conducted.

1.5 ORGANIZATION OF 2007 MANOSHI BASELINE SURVEY

1.5.1 Survey Objectives and Implementing Organizations

The information collected under the 2007 MANOSHI Baseline Survey provides up-to-date information on the level of knowledge, perception and practice related to maternity, neonatal and child care of mothers living in slums of Dhaka city. The specific objectives of the 2007 MANOSHI Baseline Survey are to:

- Assess knowledge and perception on pregnancy, delivery, local facilities and sickness care among the mothers dwelling in slums of Dhaka city
- Assess the pregnancy, maternity and newborn care received by mothers who had delivered in last one year
- Assess the child morbidity management and immunization practices among mothers having a 1-4 years old child.

The 2007 MANOSHI Baseline Survey was conducted under the overall supervision of Public Health Sciences Division, ICDDR,B and Research and Evaluation Division, BRAC. The survey was implemented by Associates for Community and Research (ACPR), a Bangladeshi health and social research firm located in Lalmatia, Dhaka, selected through a competitive process. For quality control, an independent Quality Control team was assigned from BRAC and ICDDR,B.

1.5.2 Sample Design

The target population of this baseline comprised of i) mothers with infants born in last year and ii) mothers with one-to-four year old children, and the survey was designed to conduct a four-cell comparison – MANOSHI program area vs. non-program area, and pre vs. post MANOSHI program. Sample size was determined with the provision that impact surveys would be able to ascertain significant improvements in the measurable indicators (see below) over the program duration. The

following table describes minimum sample sizes required to identify significant changes in different indicators:

Table 1.5.1 Sample size calculation					
Estimation of sample sizes required to determine desired impact in selected indicators in Dhaka City Corporation slum area					
Process indicators	Current status ¹	50% increase	Deflator	Program area	Comparison area
ANC 3+	37%	55%	1.5	179	179
Facility delivery	12%	18%	1.5	628	628
PNC for child	21%	31%	1.5	452	452
Child immunization	50%	60% ²	1.5	581	581
Sickness care from skilled providers	50%	60% ²	1.5	581	581
¹ Source: Urban Health Survey 2006					
² 20% increase for this indicator					

In view of the above, sample size was determined to be 600 mothers with infant and 600 mothers with under-five children in each area, so that baseline survey could identify significant changes in most of the above indicators. Therefore in total, 2,400 mothers were included in the interview for the baseline survey.

With available crude birth rate (CBR) of 20 per thousand (10) and average household size of 3.63 (Source: BRAC MIS), about 9000 households in each area were surveyed to interview 1,200 mothers having live births in last five years. For selecting sample, mothers having an infant or 1-4 year old children, a two stage cluster sampling method was followed. Fifty clusters, each of about 175-200 households, from each of the areas (100 clusters in total) were selected randomly in the first stage. In the second stage, from each clusters, twelve mothers were selected at random who had an infant and 12 mothers were selected likewise who had a 1-4 year old child.

The comparison slums were chosen around MANOSHI program slums and the clusters were allotted to six program and six comparison slums by probability proportional to size (PPS) in terms of slum population (3).

The first phase of MANOSHI program was implemented in Gulshan, Shyampur, Kamrangir Char, Shabujbag, Mohammadpur and Uttara – these six slums constituted the program area. As comparison area, slums in Badda, Hazaribagh, Jatrabari, Khilkhet, Meradia and Mirpur were selected in the baseline survey.

1.5.3 Questionnaire

The 2007 MANOSHI Baseline Survey used a Household Questionnaire and a Woman's Questionnaire. The content of the questionnaires was based on MEASURE DHS+ model questionnaire adapted for Bangladesh Demographic and Health Survey (BDHS) and Urban Health Survey (UHS). The content

was further modified to suit MANOSHI Impact Survey objectives and on the basis of Technical Committee's review.

The main purpose of the Household Questionnaire was to identify eligible respondents for individual interview. The Household Questionnaire was used for listing all the regular members of the selected households. Selected basic information was collected on the characteristics of each person listed, including his/her age, sex, marital status, pregnancy status (for married women), education, occupation, and relationship to the head of the household. In addition, information was collected about the dwelling itself, such as the source of water, type of toilet facilities, materials used to construct the house, and possession of various durable goods.

The Women's Questionnaire was used for collecting information from eligible respondents (mother of an infant or 1-4 year old child). These women were asked questions on the following topics:

- Background characteristics (age, religion, etc.)
- Migration history
- NGO involvement and exposure to mass media
- Employment and economic activities
- Reproductive history
- Knowledge of pregnancy, maternity, and newborn care; management of common morbidities among under-five children
- Antenatal, postnatal and delivery care for mothers with infant
- Essential newborn care and feeding practices for mothers with infant
- Vaccinations and health of children under age five
- Perception of local delivery facilities including BRAC's Birthing Huts
- Perception on pregnancy and childbirth.

1.5.4 Training and fieldwork

The 2007 MANOSHI Baseline Survey questionnaire was pre-tested in September 2003 by a 3-member pre-testing team from ICDDR,B. For the pretest, male and female interviewers received orientation and training in ICDDR,B. After training, the teams conducted 14 interviews in various slum locations in the field under the observation of staff from ICDDR,B and BRAC.

Based on observations in the field and suggestions made by the pre-test field teams, the baseline questionnaire was revised and the final version was provided to ACPR for field-staff training. ACPR recruited and trained 2 pools of staff for household listing and household survey. Training for the baseline survey was conducted for two weeks (21 - 23 July 2007 for household listing, followed by 24 July to 02 August 2007 for main survey). The training was supervised by ACPR and consisted of lectures on how to complete the questionnaires, with mock interviews between participants to develop interview skills. Towards the end of the training course, the participants spent two days in field practice followed by review and evaluation.

Fieldwork for the 2007 MANOSHI Baseline Survey was carried out by 6 interview teams. Each consisted of one male supervisor, one female supervisor, three female interviewers and a field assistant, thus totaling 36 field staff for the survey.

1.5.5 Sample coverage

For 2007 MANOSHI Baseline Survey, after conducting a complete household listing in the selected slums, a total of 2,546 households were selected for the sample (1,295 households from program slums, 1,251 households from comparison slums). Interviewers successfully interviewed respondents from 2,483 households (1,256 from program slums, 1,227 from comparison slums); for the remaining households, the eligible respondent was either not available or not able to give time to the interviewer for various reasons. In order to reduce non-response rate (3 percent in program slums and 2 percent in comparison slums) during this baseline survey, the interviewers visited a number of sampled households for several times.

Table 1.5.2 Interview completion status and type of respondents			
Distribution of women respondents by interview completion status and area, Dhaka City Corporation slum area, 2007			
Interview completion status and type of respondents	Program area	Comparison area	Total
Interview completion status			
Completed	1,256	1,227	2,483
Not available	22	10	32
Refused	0	2	2
Dwelling vacant	1	0	1
Other	16	12	28
Type of respondents¹			
Mother of an infant	455	443	898
Mother of 1-4 year old child(ren)	582	613	1,195
Mother of both	219	171	390
¹ For completed interviews only			

Out of 2,483 respondents, 898 are mothers of an infant, 1,195 are mothers of 1-4 year old child(ren), and 390 are mothers of both an infant and 1-4 year old child(ren). These sampled respondents are divided into program slums and comparison slums.

CHAPTER 2: HOUSEHOLD POPULATION AND HOUSING CHARACTERISTICS

In accordance with standard Demographic and Health Survey (DHS) questionnaire module, in 2007 MANOSHI Baseline Survey, a household was defined as a person or a group of related and/or unrelated persons who usually lived in the same dwelling unit(s), who had common cooking and eating arrangements, and who acknowledged one adult member as a head of the household. A member of the household was defined as any person who usually lived in the household.

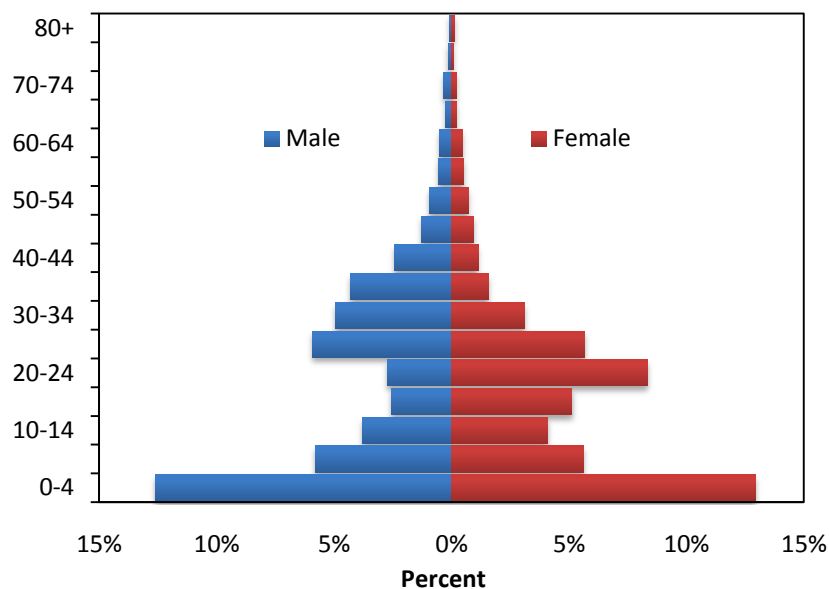
For all members of the selected households, the 2007 MANOSHI Baseline Survey collected information on age, sex, marital status (for members aged 10 years or more), pregnancy status (for married female members of the household), education attainment, and income/employment.

2.1 HOUSEHOLD POPULATION BY AGE, SEX AND AREA

In 2007 MANOSHI Baseline Survey, households were sampled from slums in Dhaka City Corporation area. The population from sampled households showed a young population structure with 75 percent of the population under 30 years of age. Moreover, the base of the population pyramid was very wide, showing that more than 25 percent of the population was children under five years of age.

Table 2.1.1 Household population by age, sex, and area					
Percent distribution of the de facto household population by five-year age groups, according to sex and area, Dhaka City Corporation slum area, 2007					
Characteristic	Program area		Comparison area		Total
	Male	Female	Male	Female	
Age group					
<5	26.3	25.8	25.0	25.1	25.6
5-9	12.1	11.7	11.5	10.3	11.4
10-14	7.8	8.0	7.6	8.0	7.9
15-19	5.5	10.8	4.9	9.4	7.7
20-24	5.7	15.6	5.4	17.4	11.1
25-29	11.8	11.0	12.3	11.3	11.6
30-34	9.2	6.4	10.9	5.8	8.1
35-39	8.3	3.0	9.2	3.3	5.9
40-44	5.0	2.2	4.8	2.2	3.5
45-49	2.7	1.9	2.5	1.8	2.2
50-54	2.1	1.1	1.7	1.8	1.7
55-59	1.2	1.0	1.1	1.0	1.1
60-64	1.1	0.8	1.0	1.1	1.0
65-69	0.3	0.2	0.8	0.6	0.5
70-74	0.6	0.3	0.8	0.5	0.5
75-79	0.3	0.1	0.4	0.2	0.2
80+	0.1	0.2	0.2	0.4	0.2
Total	100.0	100.0	100.0	100.0	100.0
Number	3,078	3,183	3,006	3,095	12,362

Figure 2.1 Population pyramid, Dhaka City Corporation slums, 2007



For age-groups 15 to 24 years, the female population in the slums of Dhaka City Corporation was markedly larger than the male population. As slums were major residence of migratory young female workers of ready-made garments (RMG) sector, the female population was predominant in the aforementioned age groups.

Table 2.1.2 Household composition

Percent distribution of households by sex of household head and household size, by area, Dhaka City Corporation slum, 2007

Characteristics	Program area	Comparison area
Sex of head of household		
Male	93.4	92.5
Female	6.6	7.5
Number of household members		
1	0.1	0.0
2	0.5	0.6
3	22.9	22.2
4	25.5	27.7
5	23.1	21.2
6	13.9	12.1
7	6.6	8.1
8	3.6	3.9
9	2.2	1.8
10+	1.6	2.4
Total	100.0	100.0
Number of households	1,295	1,250
Mean household size	4.8	4.9

The slum households were almost entirely headed by a male member, only one in every fifteen households, the head of the family was female. Almost half of the households consisted of 3 to 4 household members and the average household size was 4.8 persons in program slums and 4.9 in comparison slums.

2.2 EDUCATIONAL ATTAINMENT

Educational attainment in terms of ever attending to schools in the comparison slums was markedly higher than the program slums (65 percent and 56 percent respectively). Education level of secondary complete or higher (year 10 or more) in comparison slums (8 percent) were more than double that in the program slums. Other than secular schools, proportion of household members attending madrasa (Islamic faith schools), non-formal (under Government of Bangladesh's Mass Literacy Program) and non-institutional (vocational, etc.) was very low in both the areas.

Table 2.2.1 Educational attainment of household members		
Percent distribution of household population aged 5 years or more by educational attainment and area, Dhaka City Corporation slum, 2007		
Ever attending educational institution and years completed	Program area	Comparison area
Ever attended school/madrasa		
Yes	56.2	64.6
No	43.8	35.4
Type of school attended		
None	43.8	35.4
Non-formal	1.7	1.4
School	53.3	62.0
Non-institutional	0.5	0.2
Madrasa	0.6	0.9
Don't know	0.0	0.1
Years of education completed		
No education	43.8	35.4
0	5.6	5.3
1	4.9	4.3
2	5.1	5.5
3	5.9	5.0
4	3.8	4.4
5	13.1	13.6
6	3.5	3.6
7	3.0	4.0
8	4.2	6.2
9	3.7	5.0
10+	3.4	7.7
Total	100.0	100.0
Number	4,628	4,575

2.3 HOUSEHOLD CHARACTERISTICS

In Dhaka City Corporation slums, around 90 percent of households had electricity connections. In terms of source of drinking water and modern sanitation facilities, comparison slums were better off than the program slums. Most of the slum households had tin roof, pacca (cement/concrete) or tin walls, and pacca floor.

Table 2.3.1 Household characteristics		
Percent distribution of households by household characteristics and area, Dhaka City Corporation slum, 2007		
Household characteristics	Program area	Comparison area
Electricity		
Yes	88.9	95.4
No	11.1	4.6
Source of drinking water		
Piped inside dwelling	55.7	64.6
Piped outside dwelling	20.0	13.0
Tubewell	23.6	20.5
Pond/tank/canal	0.7	1.8
River	0.0	0.0
Other	0.0	0.0
Sanitation facility		
Modern toilet	20.2	41.1
Water sealed/slab latrine	13.3	17.7
Pit latrine	40.8	25.3
Open latrine/bush/field	23.8	15.6
Pond/tank/canal/river	1.9	0.4
Other	0.0	0.0
Type of main dwelling		
Jhupri	1.9	1.8
Other	98.1	98.2
Main roof material		
Cement/concrete	3.1	9.4
Tin	95.5	90.2
Bamboo/wood	0.6	0.3
Polythene	0.7	0.1
Other	0.1	0.0
Main wall material		
Brick/cement	28.6	56.4
Tin	50.0	31.2
Bamboo/wood	20.6	11.9
Polythene	0.7	0.6
Other	0.1	0.0
Floor material		
Pacca	58.0	75.5
Semi-pacca	3.2	2.3
Earth	26.3	19.1
Other	12.5	3.1
Total	100.0	100.0
Number	1,295	1,250

The very low proportion of *jhupri* (makeshift dwelling of low height and built with flimsy, temporary materials like polythene, board, etc.) dwellings among the sampled households could be due to selection of relatively older, more established slums within the sampling scheme. The proportion of *jhupri* (definition) households was expected to be higher in the newer, more mobile slums – a study conducted in 1996 estimated that around 18% of the slum dwellers lived in *jhupri* dwellings in Dhaka City Corporation area (17), whereas a more recent study estimated that slightly more than 6 percent of the slum dwellings in Dhaka city were *jhupri* dwellings (3).

Beyond having better water and sanitation facilities, the comparison slums also showed a better economic status than the program slums in terms of possession of household durables and assets – especially in terms of household possession of sewing machines and mobile phones.

Table 2.3.2 Household possession of durable goods/assets		
Percent distribution of households by household assets and area, Dhaka City Corporation slum, 2007		
Possession of durable goods in the household	Program area	Comparison area
Household assets		
Almira/wardrobe	31.3	42.1
Table	24.7	33.6
Chair/bench	26.6	33.3
Radio	14.3	16.9
Television	42.9	55.2
Clock/watch	50.0	65.5
Bicycle	4.7	5.0
Motor-cycle	0.5	0.8
Rickshaw/van	6.1	5.5
CNG scooter	0.5	0.2
Sewing machine	3.5	6.9
Mobile phone	32.7	47.2
Total	100.0	100.0
Number	1,295	1,250

2.4 SOCIOECONOMIC STATUS AND WEALTH INDEX

A wealth index of household was created using information on ownership of durable household assets (see: Table 2.3.2) and access to selected basic amenities (viz. source of drinking water, type of latrine, dwelling characteristics). Household assets and other related information was collected with the 2007 MANOSHI Baseline Survey's Household Questionnaire and covered information on household ownership of a number of consumer items, ranging from a mobile phone to a bicycle, as well as dwelling characteristics, such as source of drinking water, sanitation facilities, and type of material used for main dwelling's floor, wall and roof.

The procedure used for creating the wealth index was developed and tested in a large number of countries in relation to inequities in household income, use of health services, and health outcomes (29). This wealth index was a relative index on household's socioeconomic status, which served as an

indicator of the level of wealth consistent with expenditure and income measures (30). The wealth index was constructed using principal components analysis (31). Each asset was assigned a weight (factor score) generated through principal components analysis, and the resulting asset scores were standardized in relation to a normal distribution with a mean of zero and standard deviation of one (29). Each household was then assigned a score for each asset, and the scores were summed for each household; individuals were ranked according to the total score of the household in which they resided. The sample was then divided into quintiles from one (poorest) to five (richest). For 2007 MANOSHI Baseline Survey, a single wealth index was developed for the whole sample.

Table 2.4.1 Standardized variables in wealth index

Mean, standard deviation and factor loadings of standardized variables used for constructing wealth index, Dhaka City Corporation slum, 2007

Selected household possessions	Mean	Std. Deviation	Factor Loading
Drinking water			
Piped inside dwelling	0.6053	0.48888	0.302
Piped outside dwelling	0.1615	0.36806	-0.328
Sanitation facility			
Modern toilet	0.3069	0.46129	0.370
Pit latrine	0.3306	0.47054	-0.143
Open latrine/bush/field	0.1945	0.39591	-0.269
Electricity	0.9227	0.26716	0.410
Household assets			
Almira/wardrobe	0.3637	0.48115	0.546
Table	0.2908	0.45421	0.496
Chair/bench	0.2996	0.45819	0.544
Radio	0.1542	0.36126	0.232
Television	0.4889	0.49998	0.591
Clock/watch	0.5763	0.49424	0.577
Bicycle	0.0491	0.21619	0.170
Sewing machine	0.0516	0.22116	0.272
Mobile phone	0.3991	0.48981	0.577
Type of main dwelling			
Jhupri	0.0185	0.13487	-0.186
Main roof material			
Cement/concrete	0.0616	0.24051	0.387
Tin	0.9295	0.25600	-0.314
Other	0.0089	0.09373	-0.136
Main wall material			
Brick/cement	0.4249	0.49443	0.750
Tin	0.4076	0.49148	-0.401
Katcha	0.1611	0.36769	-0.443
Other	0.0064	0.08003	-0.133
Floor material			
Pacca	0.6673	0.47126	0.724
Semi-pacca	0.0278	0.16440	-0.156
Earth	0.2255	0.41802	-0.595
Other	0.0793	0.27032	-0.248

Table 2.4.1 in the above shows descriptive statistics and factor loadings of the household assets (including basic amenities and structural materials of household). On the basis of factor loadings, only significant variables at 1% level of significance were retained in the final Principal Component Analysis (18, 19). The extracted factor (first principal component) explained 18 percent of the total variance.

Table 2.4.2 in the following shows distribution of respondents in terms of their relative socioeconomic status (wealth quintiles).

Table 2.4.2 Households by wealth quintiles		
Distribution of households by wealth quintiles, Dhaka City Corporation slum, 2007		
Socioeconomic Status	Number	Percent
Wealth quintiles		
Poorest	496	20.0
Second	497	20.0
Middle	497	20.0
Fourth	497	20.0
Richest	496	20.0
Total	2,483	100.0

CHAPTER 3: CHARACTERISTICS OF SURVEY RESPONDENTS

3.1 BACKGROUND CHARACTERISTICS OF RESPONDENTS

Majority of the sampled respondents (76 percent) were aged between 15 to 29 years. In both areas, respondents were predominantly Muslim (98 percent), currently married (98 percent), and unemployed (75 percent).

Table 3.1.1 Background characteristics of respondents

Percent distribution of women by selected background characteristics, Dhaka City Corporation slum area, 2007

Background characteristic	Program area	Comparison area
Age		
10-14	0.3	0.2
15-19	16.4	12.6
20-24	34.6	38.2
25-29	25.1	25.9
30-34	14.2	14.5
35-39	5.9	6.0
40-44	2.6	2.0
45-49	0.7	0.5
50-54	0.2	0.1
Religion		
Islam	98.5	98.0
Hinduism	1.4	1.8
Buddhism	0.0	0.1
Christianity	0.1	0.2
Marital status		
Currently married	98.1	98.7
Divorced, separated, or widowed	1.9	1.3
Married once or more		
Married once	95.9	95.6
Married more than once	4.1	4.4
Highest level of education		
None	49.2	35.8
Primary incomplete	16.6	14.7
Primary complete	15.6	18.1
Secondary incomplete	16.4	23.7
Secondary complete or higher	2.2	7.7
Regular exposure to mass media		
Reads newspaper	3.7	5.5
Listens to radio	18.9	17.9
Watches television	77.5	81.8
Currently employed		
Yes	24.9	26.2
No	75.1	73.7
Total	100.0	100.0
Number	1,256	1,227

In terms of educational attainment, status of the comparison slums was markedly better-off than the program slums – the proportion of respondents who attained post-primary (secondary incomplete or higher) education in program slums was 19 percent, compared to 31 percent in comparison slums. Moreover, proportion of respondents having secondary complete or higher education in comparison slums (8 percent) was close to four times higher than the respondents in program slums.

Regular exposure to electronic media, i.e. television, was widespread among the respondents – around 80 percent of the respondents in both the areas watched television at least once a week. In comparison to television, respondents' exposure to print media (i.e. newspaper) was very low – only 4 percent respondents in program slums and 6 percent in comparison slums read newspaper at least once a week. The 2007 MANOSHI Baseline Survey also found that almost all the respondents (more than 90 percent) got married before reaching age 20, having a median age at marriage of only 15 years in program slums and 16 years in comparison slums.

3.2 NGO INVOLVEMENT AND INCOME/EMPLOYMENT ACTIVITIES

Of the 2,483 respondents interviewed from program and comparison areas, 575 (23 percent) were currently involved with a non-government organization (NGO) working in their locality. BRAC was the leading NGO in the program slums and ASA in the comparison slums, though the smaller, localized NGOs were predominant in both the areas.

Table 3.2.1 Involvement with NGO activities		
Percent distribution of women by selected background characteristics, Dhaka City Corporation slum area, 2007		
Background characteristic	Program area	Comparison area
Currently involved with NGO		
Yes	22.9	23.4
No	77.1	76.6
Number of NGOs involved with		
None	77.1	76.6
One	18.9	19.4
Two	2.5	3.0
Three or more	0.3	0.5
Has membership of...¹		
Grameen Bank	6.3	9.4
BRAC	31.3	23.3
ASA	27.8	36.2
Proshika	5.2	4.9
Mother's Club	0.0	0.3
Other	38.5	40.8
Total	100.0	100.0
Number	1,256	1,227
¹ Among the respondents who are involved with NGO activities		

Out of 2,483 respondents selected from program and comparison slums, 607 respondents (around 25 percent in both areas) were currently employed. The major types of employment were service, followed by domestic work and daily labor. The 2007 MANOSHI Baseline data indicated a possible clustering of employment types in Dhaka City Corporation slums, though it has no implication of being selected for the MANOSHI program – skilled labors were markedly more likely to live in slums selected for MANOSHI program (8 percent program slums, 17 percent in comparison slums), whereas the scenario was reversed for domestic workers (23 percent in program slums, 12 percent in comparison slums).

Table 3.2.2 Employment and economic activities		
Percent distribution of women by selected background characteristics, Dhaka City Corporation slum area, 2007		
Background Characteristic	Program area	Comparison area
Type of employment		
Service	37.3	33.2
Skilled labor	8.3	17.1
Construction worker	0.3	0.7
Handicrafts	5.6	9.9
Trader	9.2	7.6
Daily labor	15.2	16.1
Domestic worker	22.8	12.5
Other	1.3	3.0
Seasonality of employment		
All year round	80.9	80.3
Seasonal	3.0	5.6
Irregular	16.5	14.5
Control over spending income¹		
Respondent	29.5	26.8
Husband	3.6	6.4
Someone else	1.0	1.0
Respondent and husband jointly	64.6	60.5
Respondent and someone else jointly	1.3	5.4
Total	100.0	100.0
Number	303	304
¹ Applicable for cash incomes only		

For both the areas, more than 60 percent of the respondents had control over spending their own cash income jointly with their husbands. Slightly less than one in every three respondents (30 percent in program areas and 27 percent in comparison areas) had complete control over their income.

3.3 MIGRATION HISTORY

Around half of the respondents were living in the current slum for two or less years. More than 70 percent of the respondents migrated to the current slum from villages in Dhaka division, followed by

Barisal (10 percent in program slums and 7 percent in comparison slums). The major reason for living in the current slum was familial, followed by employment, and security reasons.

Table 3.3.1 Migration history		
Percent distribution of women by selected background characteristics, Dhaka City Corporation slum area, 2007		
Background Characteristic	Program area	Comparison area
Duration of living in the current slum		
<1 year	31.1	26.3
1-2 years	21.4	19.5
3-5 years	16.5	17.0
6+ years	23.6	26.3
Always	7.3	10.9
Previous place of living (division)		
Barisal	9.9	7.0
Chittagong	4.0	5.5
Dhaka	73.6	70.7
Khulna	1.4	1.8
Rajshahi	3.3	3.3
Sylhet	0.2	0.7
Same as current	7.3	10.9
Reasons for migrating into current location		
Income/employment	34.5	32.3
Familial	46.6	54.3
Eviction from previous place	11.3	8.1
Security reasons	24.4	21.5
Others ¹	2.3	1.8
Total	100.0	100.0
Number	1,256	1,227
¹ Includes river erosion, education, etc.		

Figure 3.1 Place of birth of respondents, by area

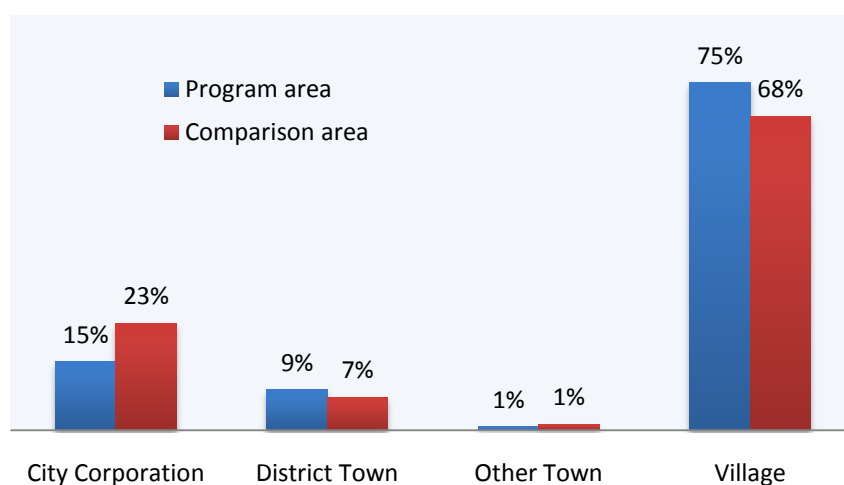


Figure 3.1 showed that among the respondents, almost three out of four were born outside urban areas (viz. city corporation and district municipalities).

3.4 REPRODUCTION

The 2007 MANOSHI Baseline data showed that the mean number of children ever born to respondents is 2.7 in program slums and 2.5 in comparison slums, which is much lower than the national estimates (9) considering that the sample includes only women who had given birth to at least one child in last five years.

Table 3.4.1 Children ever born and living		
Percent distribution of women by number of children ever born and died, Dhaka City Corporation slum area, 2007		
Number	Program area	Comparison area
Number of children ever born		
1	30.4	31.9
2	25.8	30.6
3	18.2	17.8
4	12.3	9.0
5	6.4	5.5
6	2.9	2.5
7	2.7	1.3
8	0.6	0.6
9	0.6	0.6
10+	0.3	0.2
Mean number of children ever born	2.66	2.46
Number of children currently living		
1	33.3	35.0
2	27.2	31.5
3	18.2	17.8
4	12.1	8.0
5	4.5	4.9
6	2.8	1.5
7	1.2	0.8
8	0.5	0.4
9	0.2	0.1
10+	0.0	0.1
Mean number of children currently living	2.44	2.27
Total	100.0	100.0
Number	1,256	1,227

Of the 2,483 respondents interviewed for this baseline survey from program and comparison slums, one in ten respondents experienced a pregnancy termination (242 in total) in the last five years. Here the phrase 'pregnancy termination' referred to miscarriage, abortion, or anything else that

ended in a stillbirth, including menstrual regulation (MR). Use of MR in the comparison slums reached nearly 50% while in the program slums, nearly a third had had an MR. Termination was also earlier in the comparison slums.

Use of public or private facilities differed between the program and comparison slums: in the program slums, about 15 percent used a government hospital and 30 percent private facilities i.e. private clinics and Chamber), while in the comparison slums, only 13 percent used the government hospitals and 40 a private facility.

Table 3.4.2 Pregnancy terminations		
Percent distribution of women by selected characteristics on pregnancy terminations, Dhaka City Corporation slum area, 2007		
Pregnancy terminations, timing, and place of care	Program area	Comparison area
Type of pregnancy termination		
Stillbirth	12.9	11.9
Spontaneous abortion	32.3	25.4
Induced abortion	22.6	16.1
Menstrual regulation (MR)	32.3	46.6
Duration of pregnancy on termination		
First month	12.1	13.6
Second month	29.8	38.1
Third month	26.6	26.3
Second trimester	18.5	14.4
Last trimester	12.9	7.6
Place of treatment for pregnancy termination¹		
Home	20.2	20.3
BRAC delivery hut	0.8	0.8
Pharmacy	8.1	3.4
Government Hospital	14.5	12.7
Private Clinic	12.9	35.6
Chamber	17.7	5.9
NGO Health Facility	21.8	14.4
Other	0.0	2.5
Total	100.0	100.0
Number	124	118
¹ Multiple responses allowed		

CHAPTER 4: KNOWLEDGE OF MATERNAL COMPLICATIONS AND NEWBORN CARE

4.1 KNOWLEDGE ON MATERNITY CARE

The basic knowledge of respondents about services required during pregnancy was high – knowledge of the requirement for antenatal care (ANC) visits and TT vaccination were universal, and for iron supplement, it is over 90 percent. However, around half of the respondents knew that the required number of ANC visits was four or more (45 percent in program slums and 50 percent in comparison slums).

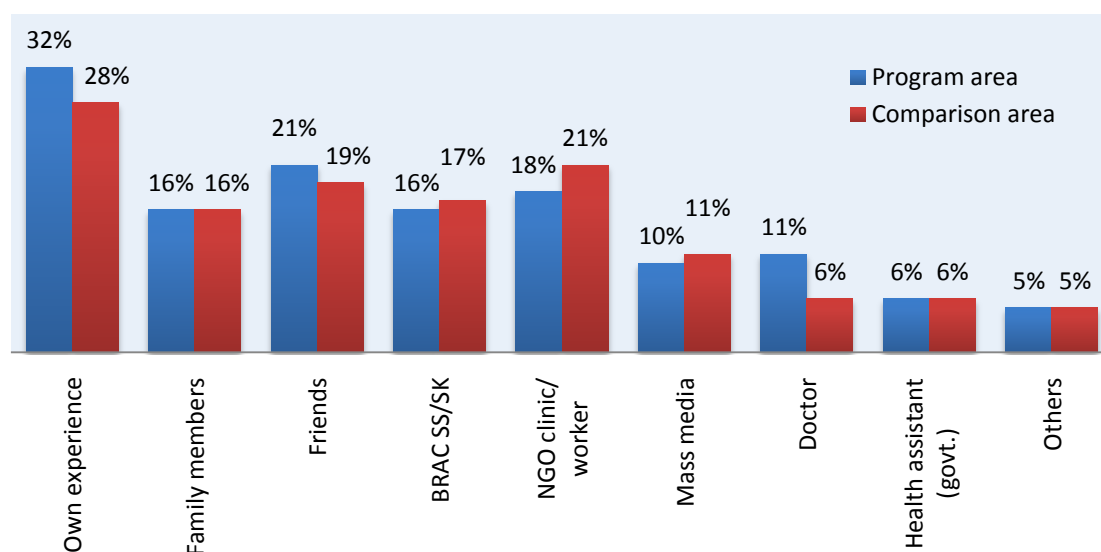
Table 4.1.1 Knowledge of services required during pregnancy		
Percent distribution of women by knowledge of services required during pregnancy, Dhaka City Corporation slum area, 2007		
Knowledge on...	Program area	Comparison area
Requirement of ANC visit during pregnancy		
Required	97.2	97.9
Not required	2.1	2.1
Don't know	0.6	0.0
Number of ANC visits required		
None	2.8	2.1
1	1.4	1.2
2	8.4	8.8
3	36.2	32.0
4 or more	44.7	49.9
Don't know	6.4	5.9
Requirement of TT¹ vaccination		
Required	99.3	99.6
Not required	0.1	0.2
Don't know	0.6	0.2
Requirement of Iron supplementation²		
Required	90.7	93.5
Not required	5.1	3.3
Don't know	4.2	3.2
Total	100.0	100.0
Number	1,256	1,227
¹ Tetanus Toxoid		
² In form of tablet or syrup		

The level of knowledge on requirement of maternity care was similar in both the areas. Among the sampled respondents, 94 percent respondents in program slums and 92 percent in comparison slums knew about the requirement of postnatal care (PNC); 72 percent respondents in program slums and 76 percent in comparison slums knew about the requirement of iron supplement after

delivery; and 67 percent respondents in program slums and 76 percent in comparison slums knew about the requirement of vitamin A supplementation after delivery.

Table 4.1.2 Knowledge of services required after delivery		
Percent distribution of women by knowledge of services required after delivery, Dhaka City Corporation slum area, 2007		
Knowledge on...	Program area	Comparison area
Requirement of PNC visit		
Required	93.7	91.9
Not required	4.7	6.6
Don't know	1.6	1.5
Number of PNC visits required		
None	6.3	8.1
1	8.5	9.7
2	32.8	29.9
3	32.0	28.5
4 or more	20.4	23.8
Don't know	0.0	0.0
Requirement of Iron supplementation		
Required	72.1	76.1
Not required	17.3	17.7
Don't know	10.6	6.2
Requirement of vitamin A supplementation		
Required	66.6	75.8
Not required	11.7	11.2
Don't know	21.7	12.8
Total	100.0	100.0
Number	1,256	1,227

Figure 4.1 Source of information on pregnancy care, by area



Sources of information for knowledge of ANC and other safe motherhood practices during pregnancy were primarily own experience (32 percent in program slums and 28 percent in comparison slums), followed by friends (21 percent in program slums and 19 percent in comparison slums) and NGO clinic or workers (18 percent in program slums and 21 percent in comparison slums).

Only 6 of the 2,483 women interviewed (<1 percent; 2 respondents in program area, 4 in comparison area) from both areas had knowledge of all five danger signs during pregnancy (viz. severe headache, high fever, blurry vision, convulsion, and vaginal bleeding) that required immediate medical treatment. Among other pregnancy complications, lower abdominal pain (50 percent in both areas) was known as a life-threatening pregnancy complication, followed by severe headache (41 percent in program slums and 36 percent in comparison slums), and reduced/absence of fetal movement (27 percent in program slums and 31 percent in comparison slums).

Table 4.1.3 Knowledge on pregnancy complications		
Percent distribution of pregnancy complications known to respondents, Dhaka City Corporation slum area, 2007		
Knowledge on...	Program area	Comparison area
Complications that require medical treatment¹		
Severe headache	41.2	35.5
High fever	16.0	17.9
Blurry vision	20.9	11.2
Reduced/absent fetal movement	27.1	30.6
High blood pressure	0.9	2.0
Edema of hands/feet	23.1	21.5
Edema of face	1.4	1.3
Convulsions	21.2	21.8
Vaginal bleeding	17.5	24.0
Abortion/miscarriage	3.4	4.6
Lower abdominal pain	49.7	50.4
Others	0.3	0.2
Place of treatment for pregnancy complications¹		
Home	0.5	0.2
BRAC Delivery hut	2.3	0.1
Pharmacy	2.5	2.0
Government hospital	58.8	51.4
Private clinic	19.2	26.6
Chamber	11.5	10.1
NGO health centre	44.3	40.7
Other	0.1	0.1
Total	100.0	100.0
Number	1,256	1,227
¹ Multiple responses		

Despite lack of proper knowledge on life-threatening maternal complications during pregnancy, knowledge on place of treatment in case of such conditions was almost universal. The baseline found that only 9 respondents (<1 percent; 6 respondents in program slums, 3 in comparison slums)

responded that home was the suitable place for managing pregnancy complications whereas the rest had the knowledge that pregnant women suffering from any life-threatening maternal condition should be taken to a medical facility. The government hospital was most known to the respondents for treating pregnancy complications followed by NGO health centers and private clinics.

Like knowledge on maternal complications during pregnancy, the level of proper knowledge on major maternal complications during as well as within 42 days of delivery that required medical treatment was low. Prolonged labor (53 percent), followed by excessive vaginal bleeding (41 percent) and severe abdominal pain (35 percent) were also known to the respondents.

Table 4.1.4 Knowledge on illness/complications after delivery		
Percent distribution of complications after delivery known to respondents, Dhaka City Corporation slum area, 2007		
Knowledge on...	Program area	Comparison area
Complications that require medical treatment		
Excessive vaginal bleeding	36.7	45.9
Prolonged labor	58.7	47.8
Hand/feet prolapsed	28.5	26.0
Foul-smelling discharge	1.6	1.9
High fever	5.7	9.1
Inverted nipples	0.2	0.3
Retained placenta	17.0	12.7
Severe abdominal pain	33.8	36.2
Convulsion	28.8	28.8
Engorged breasts	1.0	0.8
Tetanus	6.8	5.2
Other	0.1	0.2
Place of treatment for after delivery complications		
Home	0.7	0.6
Health and family welfare center	4.8	6.3
Government hospital	67.4	55.7
Private clinic	20.5	28.0
NGO health centre	34.2	32.1
Chamber	9.3	12.0
Maternity center	2.3	2.5
Other	0.1	0.0
Total¹	-	-
Number	1,256	1,227
¹ Both contains multiple responses		

In both areas, less than 1 percent of respondents reported that home or other non-medical facilities are suitable for managing potentially fatal post-delivery complications. Like knowledge on managing pregnancy complications, government hospital was most known to the respondents for managing any life-threatening maternal condition during or after 42 days of delivery, followed by NGO health centers and private clinics.

4.2 KNOWLEDGE ON NEWBORN AND CHILD HEALTH

Knowledge on serious health problems during the first week after birth that could endanger the life of a newborn is high: difficult or fast breathing was most known to the respondents (70 percent in program slums, 67 percent in comparison slums), followed by asphyxia (65 percent in program slums, 57 percent in comparison slums), convulsions (28 percent in program slums, 30 percent in comparison slums), and jaundice (26 percent in program slums, 29 percent in comparison slums).

Table 4.2.1 Knowledge on newborn's serious health problems that can occur during the first 7 days after birth

Percent distribution of respondents' knowledge on life-threatening health problems of newborn during the first week after birth, Dhaka City Corporation slum area, 2007

Knowledge on...	Program area	Comparison area
Newborn's serious health problem		
Difficult or fast breathing	69.8	66.5
Asphyxia	64.8	57.0
Reduction in food intake	14.7	9.3
Poor sucking of breast milk	14.3	13.3
Jaundice	25.6	28.8
Skin rash/pustule	10.4	6.4
Infection in umbilical cord	4.9	8.3
Discharge from eyes	0.5	0.3
Low-birth weight	1.6	2.4
Swelling of head scalp	3.2	2.5
Convulsion	27.7	29.7
Lethargy	8.9	5.9
Excessive vomiting and swelling in belly	7.8	11.4
Other	0.6	0.5
Place of treatment for newborn's health problems		
Home	0.6	0.6
Health and family welfare center	2.6	5.6
Government hospital	74.8	66.3
Private clinic	17.2	24.4
Chamber	13.8	12.6
NGO health centre	23.2	23.1
Other	1	1.3
Total¹	-	-
Number	1,256	1,227

¹Both contains multiple responses

In both areas, less than 1 percent of the respondents reported that home or other non-medical facilities were suitable for managing newborns' health problems. For treatment, government hospital (75 percent in program slums, 66 percent in comparison slums) was the place most known to respondents followed by NGO health centers (23 percent in both program and comparison slums) and private clinics (17 percent in program slums, 24 percent in comparison slums).

Level of knowledge on selected indicators of newborn and child health care was similar in both the areas. Among the essential newborn care practices, drying and wrapping were known to most of the respondents whereas the respondents knew least about eye care (one percent in both areas), followed by feeding colostrum (25 percent in program slums, 32 percent in comparison slums). Knowledge of the requirement for childhood vaccination after birth as well as requirement of vitamin A for under-five children was universal.

Table 4.2.2 Knowledge on newborn and child health care		
Percent distribution of essential newborn and child health care practices known to respondents, Dhaka City Corporation slum area, 2007		
Knowledge on essential newborn and child health care	Program area	Comparison area
Essential newborn care immediately after birth¹		
Drying thoroughly	64.4	67.6
Wrapping with warm clothes	59.4	59.6
Feeding colostrums	25.4	32.0
Cord care	46.5	38.5
Eye care	0.9	1.2
Others	0.4	0.7
Don't know	0.0	0.1
Requirement of vaccination right after birth		
Yes	99.6	99.7
No	0.1	0.0
Don't know	0.3	0.3
Requirement of vitamin A for under-5 children		
Yes	95.9	96.4
No	1.7	1.1
Don't know	2.5	2.4
Total	100.0	100.0
Number	1,256	1,227
¹ Multiple responses		

In terms of knowledge on feeding practices, honey was most commonly known as the first feed for the newborn (49 percent in program slums, 40 percent in comparison slums) followed by colostrum (39 percent in program slums, 48 percent in comparison slums). Slightly more than half the respondents knew that breastfeeding should be initiated just after birth (54 percent in program slums, 52 percent in comparison slums), and two-third of the respondents knew the duration of exclusive breastfeeding to be 6 months (73 percent in program and 68 percent in comparison slums).

Table 4.2.3 Knowledge on newborn and child feeding		
Percent distribution of newborn and child feeding practices known to respondents, Dhaka City Corporation slum area, 2007		
Knowledge on newborn and child feeding	Program area	Comparison area
Newborn's first feeding¹		
Colostrums	38.9	48.0
Plain water	1.1	1.1
Misri/sugar-water	7.7	8.6
Honey	48.6	39.5
Mustard oil	2.5	1.6
Any milk except breast milk	1.0	1.0
Other liquid	0.1	0.1
Initiation of breastfeeding		
Just after birth	53.7	52.2
<24 hours of birth	38.0	38.3
Second day	2.6	2.9
Third day	5.0	5.9
Later	0.2	0.1
Don't know	0.4	0.5
Duration of exclusive breastfeeding		
None ²	0.6	0.9
<1 month	0.5	3.7
1-5 months	22.4	24.1
6 months	72.8	68.1
More than 6 months	3.7	3.2
Supplementary foods for child after exclusive breastfeeding		
Any milk except breast milk	70	67
Suji	65	57
Ground rice	15	9
Egg	14	13
Pulses	26	29
Khichuri	10	6
Other liquid food	5	8
Fruits	1	0
Rice/chapatti	2	2
Fish/meat	3	3
Biscuit	28	30
Leaves/vegetables	9	6
Others	1	1
Total	100.0	100.0
Number	1,256	1,227
¹ Food/liquid that should put first in baby's mouth		
² Includes "Don't know"		

Of all 2,483 respondents interviewed in the baseline survey, 1,015 respondents (41 percent each in both areas) knew the signs and symptoms of acute respiratory infection (ARI refers to cough with either rapid or difficult breathing or chest indrawing).

Table 4.2.4 Knowledge on child morbidity and management		
Percent distribution of respondents' knowledge on child morbidity and management practices, Dhaka City Corporation slum area, 2007		
Knowledge on child morbidity and place of treatment	Program area	Comparison area
Signs of pneumonia among under-five children		
Fever	42.7	48.0
Cough	49.5	48.3
Fast breathing	39.9	47.2
Difficulty on breathing	68.2	63.3
Chest indrawing	33.8	31.1
Other	0.3	0.2
Don't know	5.4	3.9
Food should be given to under-5 children with diarrhoea		
Packet saline	95.3	97.2
Home-made saline	15.0	16.1
Plain water	5.7	5.8
Usual diet	13.4	8.1
Other liquid food	61.9	63.6
Other	0.2	0.2
Amount of food should be given to under-5 children with diarrhoea		
Usual diet	6.2	6.6
Less food than usual	17.1	21.7
More food than usual	76.7	71.6
Person to seek advice to manage pneumonia/diarrhoea		
BRAC SS	0.3	0.2
SACMO/MA	22.4	23.4
Nurse/midwife/FWV (Government)	29.9	27.8
Nurse/midwife/FWV (NGO)	8.4	10.0
MBBS doctor	60.7	57.8
Pharmacist	0.7	2.5
Spiritual healers	0.1	0.3
Homeopathic	1.1	0.4
Kabiraj/Hekim	0.1	0.5
Others	0.0	0.1
Total¹	-	-
Number	1,256	1,227
¹ All of the above are multiple responses		

Respondents' knowledge on giving packet saline to children suffering from diarrhea was also universal (95 percent in program slums, 97 percent in comparison slums). To seek advice on managing diarrhoea and pneumonia among under-five children, the MBBS doctor was the most known health care provider (61 percent in program slums, 58 percent in comparison slums), followed by government nurse/midwife/family welfare visitor (30 percent in program slums, 28

percent in comparison slums) and government medical assistants (22 percent in program slums, 23 percent in comparison slums).

4.3 PREGNANCY PLANNING

Almost all respondents reported that they made plans regarding place of delivery beforehand (96 percent in program slums, 93 percent in comparison slums). Home was the most planned place for delivery (85 percent in program slums, 76 percent in comparison slums), followed by government hospital and NGO health centers.

Table 4.3.1 Pregnancy planning		
Percent distribution of respondents by pregnancy planning prior to pregnancy/child birth, Dhaka City Corporation slum area, 2007		
Pregnancy planning	Program area	Comparison area
Made plans regarding place of delivery		
Yes	95.5	93.2
No	4.5	6.8
Place of delivery planned		
Did not have any plan	4.5	6.8
Home	84.7	75.6
BRAC delivery hut	1.1	0.2
Government hospital	4.5	7.4
Private clinic	1.6	5.3
Chamber	0.0	0.1
NGO health center	3.6	4.6
Other	0.1	0.1
Made plans regarding assistance during delivery		
Yes	88.3	87.4
No	11.7	12.6
Assistance during delivery planned		
Did not have any plan	11.7	12.6
None	0.1	0.0
Relative/neighbor	1.0	1.9
Untrained TBA	54.8	42.2
Trained TBA	24.0	27.9
BRAC midwife	0.4	0.0
SACMO/MA	0.3	1.8
Nurse/Midwife/FWV (Government)	0.8	3.9
Nurse/Midwife/FWV (NGO)	2.2	2.1
MBBS Doctor	4.6	7.4
Pharmacist	0.0	0.1
Other	0.0	0.1
Saved money to bear expenses related to childbirth		
Yes	72.1	74.5
No	27.9	25.5
Total	100.0	100.0
Number	1,256	1,227

The better socioeconomic status of the respondents from comparison slum than their counterparts might be reflected here in terms of choosing private clinics/chambers more than the respondents from program slums (5 percent and 2 percent respectively). Although in both the areas, untrained traditional birth attendants (TBAs) were the most sought after choice for delivery (55 percent in program slums, 42 percent in comparison slums), followed by trained TBAs (24 percent in program slums, 28 percent in comparison slums). Three out of every four respondents also save money to bear delivery expenses.

CHAPTER 5: PRACTICES ON MATERNAL AND NEWBORN HEALTH

5.1 MATERNITY CARE AND SERVICES RECEIVED

Around three of every four women received antenatal care (ANC) for the most recent birth, and the government recommended four or more ANC visits were made by 27 percent of the respondents in program slums and 36 percent in comparison slums. The median number of ANC visits was 2.0 in program slums and 3.0 in comparison slums.

Table 5.1.1 Number, timing and place of antenatal care visits

Percent distribution of women who had a live birth in last one year by antenatal care (ANC) visits for the most recent birth, Dhaka City Corporation slum area, 2007

Number and timing of ANC visits And median number of visits	Program area	Comparison area
Received any ANC during the last pregnancy		
Yes	75.4	80.7
No	24.6	19.3
Number of ANC visits		
None	24.6	19.3
1	12.4	13.1
2	18.0	12.9
3	18.3	18.5
4+	26.7	36.3
Don't know	0.0	0.0
Median number of visits	2.0	3.0
Number of months pregnant at the time of first ANC visit		
No ANC visit	24.6	19.3
<4 Months	28.0	33.3
4-5 months	28.9	33.0
6-7 months	13.7	10.3
8+ months	4.3	4.1
Don't know	0.6	0.0
Median months pregnant at first visit	5.0	5.0
Place of first ANC visit		
No ANC visit	25%	19%
Home	2%	1%
Pharmacy	0%	1%
BRAC delivery hut	6%	0%
Government hospital	15%	16%
Private clinic	6%	16%
Chamber	3%	2%
NGO health centre	40%	42%
Maternity center	3%	2%
Other	0%	0%
Total	100.0	100.0
Number	672	612

Respondents tended to start making ANC visits somewhat later in pregnancy than recommended, having a median of 5 months pregnancy at first ANC visit in both areas. NGO health centers were the predominant place for receiving ANC (40 percent in program slums, 42 percent in comparison slums) followed by government hospitals (15 percent in program slums, 16 percent in comparison slums).

Examination of the abdomen was most frequently performed during ANC visits (33 percent in program slums, 29 percent in comparison slums), followed by measurement of weight (23 percent in program slums, 21 percent in comparison slums) and blood-pressure recording (15 percent in program slums, 14 percent in comparison slums). During ANC visits, respondents were advised mostly on proper diet (33 percent in both areas), taking rest, and not to lift heavy items during pregnancy (23 percent in both areas).

Table 5.1.2 Services and messages received during ANC visits		
Percent distribution of women who had a live birth in last one year by services and messages received during antenatal care (ANC) visits for the most recent birth, Dhaka City Corporation slum area, 2007		
Services and messages received during ANC visit	Program area	Comparison area
Services received during ANC visit		
Height measured	0.7	0.5
Weight measured	22.7	20.5
Blood-pressure measured	14.6	14.4
Blood tested	6.1	8.2
Urine tested	9.6	11.1
Abdomen examined	32.6	28.9
Internal examination	0.4	0.8
Ultrasonic test	7.8	12.7
Tetanus vaccination	5.0	4.1
Iron supplementation	6.2	4.2
Others	0.0	0.0
Messages received during ANC visit		
Delivery plan	2.0	2.6
Breast care	0.1	0.1
Danger signs of pregnancy	1.0	1.9
Facility delivery	1.4	2.4
Danger signs of newborns'	0.4	0.9
Essential newborn care	0.6	1.0
Use of clean delivery kit	0.2	0.1
TT vaccination	3.1	2.5
Iron supplementation	9.2	6.8
Vitamin A intake	8.8	6.8
Advice on proper diet	33.3	32.6
Advice to take rest	23.2	23.7
Advice on not to lift heavy items	23.0	23.0
Advice on regular checkups	7.1	8.0
Referral	0.0	0.1
Others	0.0	0.0
Total	100.0	100.0
Number	672	612

In the slums of Dhaka City Corporation, 85 percent of deliveries in program slums and 75 percent in comparison slums took place at home, followed by government hospitals (6 percent in program slums, 7 percent in comparison slums) and NGO health centers (5 percent in program slums, 8 percent in comparison slums).

Table 5.1.3 Delivery care

Percent distribution of women who had a live birth in last one year by place, assistance and procedures during delivery for the most recent birth, Dhaka City Corporation slum area, 2007

Delivery characteristics	Program area	Comparison area
Place of delivery		
Home	84.4	74.5
BRAC delivery hut	1.2	0.0
Government hospital	5.8	7.4
Private clinic	2.4	9.0
Chamber	0.1	0.0
NGO health center	4.6	8.3
Other	1.5	0.8
Location of place of delivery		
Same slum	59.1	51.5
Other slum	5.5	3.4
Same city	12.2	21.9
Other city	8.2	6.5
Village	15.0	16.7
Assistance during delivery¹		
None	0.9	0.5
Relative/neighbor	6.3	8.3
Untrained TBA	58.0	44.0
Trained TBA	20.1	21.6
BRAC SS	0.3	0.3
BRAC Midwife	0.9	0.0
SACMO/MA	1.0	1.3
Nurse/Midwife/FWV	4.8	9.8
MBBS Doctor	7.6	14.2
Pharmacist	0.1	0.0
Mode of delivery		
Normal delivery	92.3	85.1
Assisted delivery ²	1.6	3.6
Caesarian section	6.1	11.3
Procedures used in delivery³		
Injection	28.9	40.8
Saline	27.2	37.4
Drip	15.2	23.2
Episiotomy	3.0	8.5
Change fetal position	1.8	7.8
Total	100.0	100.0
Number	672	612

¹The person who actually caught the baby

²Using vacuum, forceps, etc.

³Multiple responses

Three out of four respondents delivered in their own home and most of the deliveries were assisted by untrained TBAs (58 percent in program slums, 44 percent in comparison slums), followed by trained TBAs (20 percent in program slums, 22 percent in comparison slums) and MBBS doctors (8 percent in program slums, 14 percent in comparison slums). Among the respondents from both the areas who had delivered at home, 75 percent delivered at their own home followed by parental home (21 percent) and in-law's home (4 percent).

Unlike ANC, the proportion receiving post-natal care (PNC) among the sampled respondents was low – only 24 percent respondents with infant in program slums and 33 percent in comparison slums received any PNC for their most recent birth and only 5 percent in program slums and 8 percent in comparison slums received four or more PNCs after delivery, having a median of zero in both areas.

Table 5.1.4 Number, timing and place of postnatal care

Percent distribution of women who had a live birth in last one year by postpartum care visits for the most recent birth, Dhaka City Corporation slum area, 2007

Number and timing of PNC visits And median number of visits	Program area	Comparison area
Received any PNC during the last pregnancy		
Yes	23.8	32.5
No	76.2	67.5
Number of PNC visits		
None	76.2	67.5
1	10.0	10.3
2	5.7	8.5
3	3.6	5.9
4+	4.5	7.5
Don't know	0.1	0.3
Median number of PNC visits	0.0	0.0
Number of days after delivery for PNC visit		
No PNC visit	76.2	67.5
Same day	5.8	9.6
1-2 days	4.0	4.1
3-7 days	5.4	5.6
8 days – 1 month	4.8	7.8
1 month+	3.1	5.1
Don't know	0.7	0.3
Place of first PNC visit		
No PNC visit	76.2	67.5
Home	0.9	0.8
BRAC delivery hut	1.8	0.0
Pharmacy	1.3	1.0
Government hospital	5.2	6.4
Private clinic	2.2	9.2
Chamber	2.7	1.8
NGO health centre	9.4	13.4
Other	0.3	0.0
Total	100.0	100.0
Number	672	612

Moreover, only 10 percent of the PNCs in program slums and 14 percent in comparison slums took place within 2 days of delivery and NGO health centers were the most sought after place for PNC visits (9 percent in program slums, 13 percent in comparison slums).

5.2 PREGNANCY COMPLICATION AND MANAGEMENT

Pregnancy and childbirth-related complications are among the leading causes of maternal mortality in Bangladesh. Though the knowledge and technology to cure/prevent most of these complications are available, proper knowledge and awareness regarding the symptoms is crucial.

Of the 1,283 respondents who had delivered a child in the last one year, 26 percent respondents in program slums and 38 percent in comparison slums suffered from pregnancy complications. Lower abdominal pain was reported to be most prevalent among respondents (14 percent in program slums, 24 percent in comparison slums), followed by severe headache or blurry vision (5 percent in program slums, 10 percent in comparison slums) and edema of hands/feet (4 percent in program slums, 6 percent in comparison slums).

Among those who sought treatment for pregnancy complications, NGO health centers were visited most frequently by respondents (5 percent in program slums, 11 percent in comparison slums), followed by a government hospital (5 percent in program slums, 6 percent in comparison slums). Medicine from pharmacy (8 percent in program slums, 14 percent in comparison slums), followed by medicines prescribed by doctor or nurse (7 percent in program slums, 13 percent in comparison slums) were the predominant treatments sought to manage pregnancy complications.

Table 5.2.1 Pregnancy complications and management

Percent distribution of women who had a live birth in last one year by complications and its management during pregnancy for the most recent birth, and by area, Dhaka City Corporation slum, 2007

Pregnancy complications during pregnancy and its management	Program area	Comparison area
Complications during pregnancy¹		
No complications	74.4	61.9
Severe headache/blurry vision	5.2	9.6
High fever	3.0	3.4
Smelly vaginal discharge	0.6	0.3
Convulsions	0.7	0.7
Excessive vaginal bleeding	1.3	1.6
Reduced/absent fetal movement	1.3	2.9
High blood pressure	0.6	1.1
Edema of hands/feet	4.0	6.4
Edema of face	0.1	1.0
Lower abdominal pain	13.7	23.5
Untimely water break	0.9	2.1
Others	0.3	0.3
Place for treatment of pregnancy complications²		
No complications	74.4	61.9
Did not seek any treatment	8.9	10.0
Home	0.6	0.5
BRAC delivery hut	0.6	0.0
Pharmacy	1.2	1.0
Government hospital	4.5	6.2
Private clinic	2.1	6.9
Chamber	1.9	2.6
NGO health centre	5.4	10.5
Other	0.3	0.2
Type of treatment received³		
No complications	74.4	61.9
No treatment sought	8.9	10.0
Medicine from pharmacy	7.7	13.9
Advice from FHW ⁴	2.1	4.2
Referral from FHW	1.2	0.3
Spiritual water/substance	0.4	0.3
Amulets	0.1	0.2
Homeopathic medicine	0.0	0.5
Injection/saline	0.3	3.1
Medicine from doctor/nurse	7.4	13.1
Medicine from Kabiraj/Hakim	0.6	0.2
Others	0.0	0.2
Total	100.0	100.0
Number	672	612

¹Multiple responses

²Place where the respondent sought care/treatment first

³Multiple responses

⁴Female Health Worker

Of the 284 respondents who sought treatment for pregnancy complications, 21 (7 percent) were referred to other place(s) for treatment. The respondents were mostly referred to government hospitals in program slums and private clinics in comparison slums, followed by NGO health facilities in program slums and government hospitals for comparison slums.

The major reasons for referral were to avail better treatment (73 percent in program slums, 60 percent in comparison slums), followed by lack of required skill to treat (0 percent in program slums, 40 percent in comparison slums) and unavailability of equipments in the facility (9 percent in program slums, 30 percent in comparison slums).

Figure 5.4 Reasons for referral to manage pregnancy complications by area

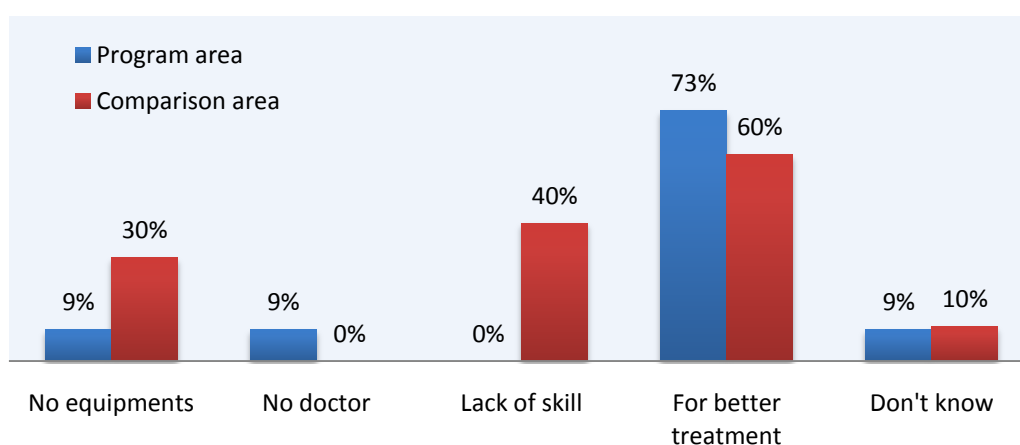
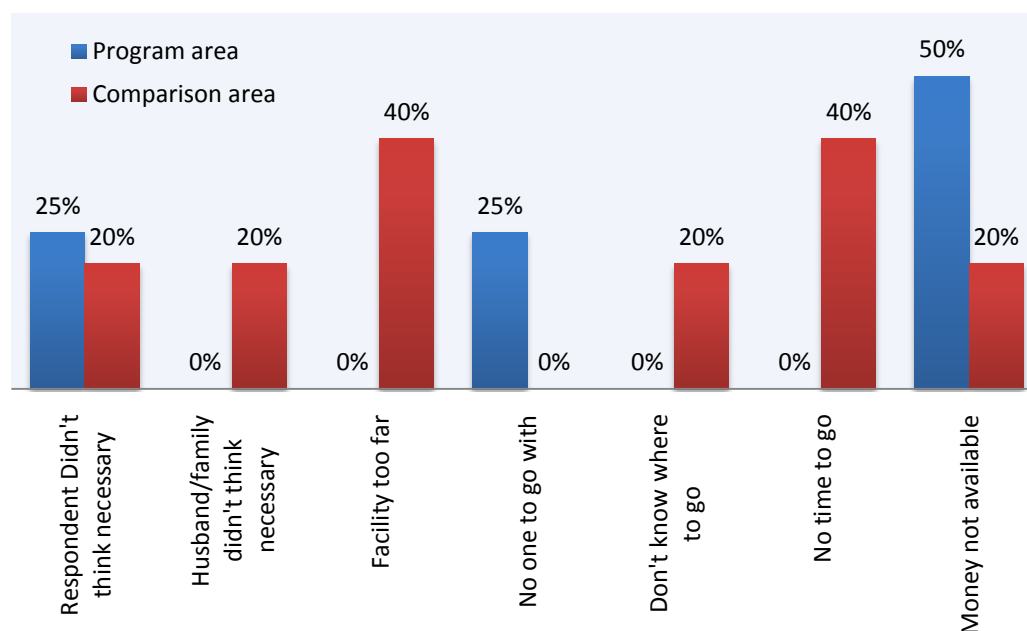


Figure 5.5 Reasons for not availing referred treatment by area



Among respondents who were referred to other medical facilities for pregnancy complications, 4 of 11 respondents in the program area and 5 of 10 respondents in the comparison area did not go to the referred place for treatment. In program slums, the major reasons for not availing referral were lack of money (50 percent) followed by respondent didn't think it was necessary, or no one was there to go with (25 percent each). In the comparison slums, the major reasons for not availing referral were the fact that the facility was too far and there was no time to go (40 percent each).

5.3 IMMEDIATE NEWBORN CARE

The 2007 MANOSHI Baseline Survey collected information on immediate newborn care and morbidity management for the neonates. In accordance with respondents knowledge on immediate newborn care (see Chapter 4), 40 percent of the respondents in program slums and 36 percent in comparison slums fed honey first to the newborns, followed by colostrum (36 percent in program slums, 43 percent in comparison slums). Half of the respondents in both areas started breastfeeding within an hour of birth, and 83 percent respondents in program slums and 86 percent in comparison slums reported that they provided colostrum to their newborn.

The practice of bathing just after birth was considerably high in both the areas (55 percent in program slums, 45 percent in comparison slums) and majority of the respondents (93 percent in program slums, 89 percent in comparison slums) reported that their child's head was shaven within one week of birth. Almost all the respondents took 'special' cord-care of the baby (98 percent in both areas), which was also not recommended except keeping it dry. The proportion of respondents taking 'Kangaroo-mother care' (skin-to-skin contact between mother and child) was low (6 percent in program slums, 17 percent in comparison slums).

Table 5.2.2 Immediate newborn care

Percent distribution of women who had a live birth in last one year by initial feeding and other care for the most recent birth, Dhaka City Corporation slum area, 2007

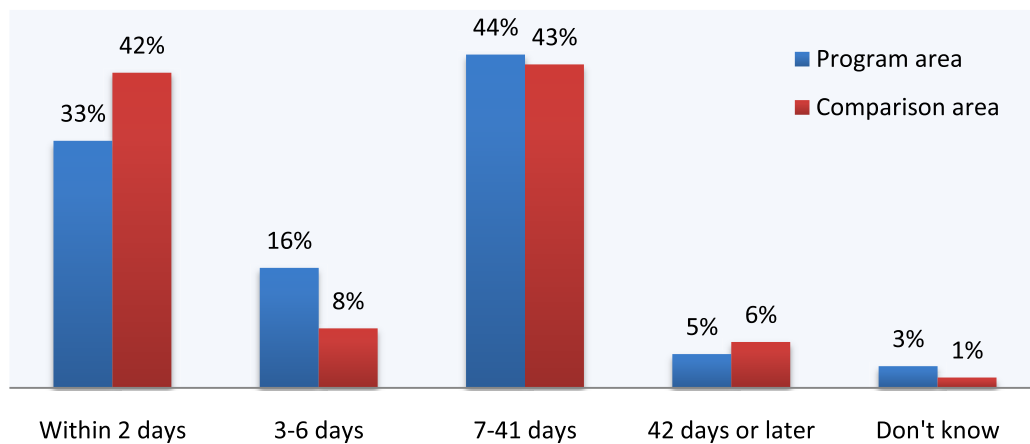
Initial feeding and immediate newborn care practices	Program area	Comparison area
Pre-lacteal feed after birth¹		
Colostrum	36.2	42.8
Plain water	0.9	2.6
Misri/Sugar/Glucose water	15.6	13.6
Honey	39.6	35.8
Mustard oil	4.5	1.8
Any milk other than breast milk	3.1	2.9
Other liquid	0.1	0.3
Don't know	0.0	0.2
Initiation of breastfeeding		
Breastfed within one hour of birth	50.1	49.0
Breastfed within one day of birth	35.1	36.3
Breastfed after first day of birth	14.4	14.5
Never breastfed	0.1	0.0
Don't know	0.1	0.2
Received colostrum		
Yes	83.2	86.3
No	16.8	13.7
Timing of bathing the baby		
Just after birth	54.6	44.6
Within 24 hours of birth	17.4	20.4
On second day after birth	14.1	12.3
Within third day to one week after birth	12.5	20.4
Later	0.7	2.1
Don't know	0.6	0.2
Timing of shaving the baby's head		
Just after birth	0.6	1.3
Within 24 hours of birth	0.3	0.7
On second day after birth	0.7	2.0
Within third day to one week after birth	91.4	84.6
Later	6.3	10.6
Never shaved hair	0.7	0.8
Taken special cord care of the baby		
Yes	98.5	98.5
No	1.5	1.5
Wrapping the baby with warm clothes		
Yes	97.2	95.9
No	2.8	4.1
Taken 'Kangaroo mother care' of the baby		
Yes	6.0	16.8
No	94.0	83.2
Total	100.0	100.0
Number	672	612

¹First thing put into mouth

Table 5.2.3 Neonatal complications and their management		
Percent distribution of women who had a live birth in last one year by neonatal complications and its management for the most recent birth, Dhaka City Corporation slum area, 2007		
Neonatal health care and complications	Program area	Comparison area
Health checkup of the neonate¹		
Yes	36.5	45.4
No	63.5	54.6
Neonatal complications²		
No complications	64.3	64.2
Fever	20.4	18.0
Cough	14.0	12.9
Difficulties in breathing	7.0	6.5
Rapid breathing	2.8	2.8
Jaundice	3.7	5.9
Diarrhoea	1.9	2.3
Umbilical infection	1.3	1.0
Skin rash/pustule	4.2	4.1
Convulsion	0.6	0.7
Inability to suck breast milk	1.0	1.1
Lethargy/weakness	0.7	1.0
Body become cold	3.0	3.9
Others	0.4	0.0
Place of treatment for neonatal complications³		
No complications	64.3	64.2
Did not seek any treatment	7.1	3.4
Home	1.3	0.3
BRAC delivery hut	0.4	0.0
Pharmacy	5.4	5.7
Government hospital	5.2	4.1
Private clinic	0.7	6.2
Chamber	9.2	6.7
NGO health centre	3.3	6.5
Other	2.8	2.8
Type of treatment received¹		
No complications	64.3	64.2
No treatment sought	7.1	3.4
Medicine from pharmacy	12.8	16.0
Referral from FHW	0.7	0.2
Advice from FHW	1.6	2.3
Spiritual water/substance	0.6	0.3
Amulets	0.6	0.2
Homeopathic medicine	3.9	4.4
Injection/saline	0.4	2.6
Medicine from doctor/nurse	9.7	9.0
Medicine from Kabiraj/Hakim	2.4	2.1
Others	0.0	0.0
Total	100.0	100.0
Number	672	612
¹ Conducted by a doctor or health worker		
² Multiple responses		
³ Place where the child was taken first		

In terms of neonatal checkup of the baby, 37 percent of the respondents in program slums and 45 percent in comparison slums reported to conduct health checkup of their neonates by a doctor or health worker. In terms of health complications/illnesses among the neonates, fever was predominant (20 percent in program slums, 18 percent in comparison slums), followed by cough (14 percent in program slums, 13 percent in comparison slums) and difficulty in breathing (7 percent in both areas).

Figure 5.5 Timing of neonatal checkup of the baby



CHAPTER 6: CHILD HEALTH

6.1 IMMUNIZATION

Vaccine coverage among the children of sampled respondents was universal, having 97 percent of the under-five children received any vaccine before the survey in program slums and 98 percent in comparison slums. 90 percent children in program slums and 89 percent in comparison slums received three or more polio vaccines whereas for DPT, the proportions are 47 percent and 45 percent respectively.

Table 6.1.1 Vaccination coverage among 1-4 years old children		
Percent distribution of women who had a child aged 1-4 years by vaccines received at any time before the survey, Dhaka City Corporation slum area, 2007		
Vaccinations received at any time before the survey	Program area	Comparison area
Child ever received any vaccination		
Yes	97.1	98.0
No	2.9	2.0
Type of vaccinations received		
None	2.9	2.0
BCG	94.1	96.2
Polio	96.9	97.8
DPT	91.8	94.6
Measles	80.7	86.0
Vitamin A	91.1	92.5
Number of vaccinations received – Polio		
None	3.1	2.2
1	0.6	1.1
2	5.8	7.4
3 or more	89.8	89.0
Don't know	0.6	0.3
Number of vaccinations received – DPT		
None	8.3	5.4
1	5.1	6.0
2	39.5	42.9
3 or more	47.1	45.2
Don't know	0.0	0.5
Total	100.0	100.0
Number	807	783

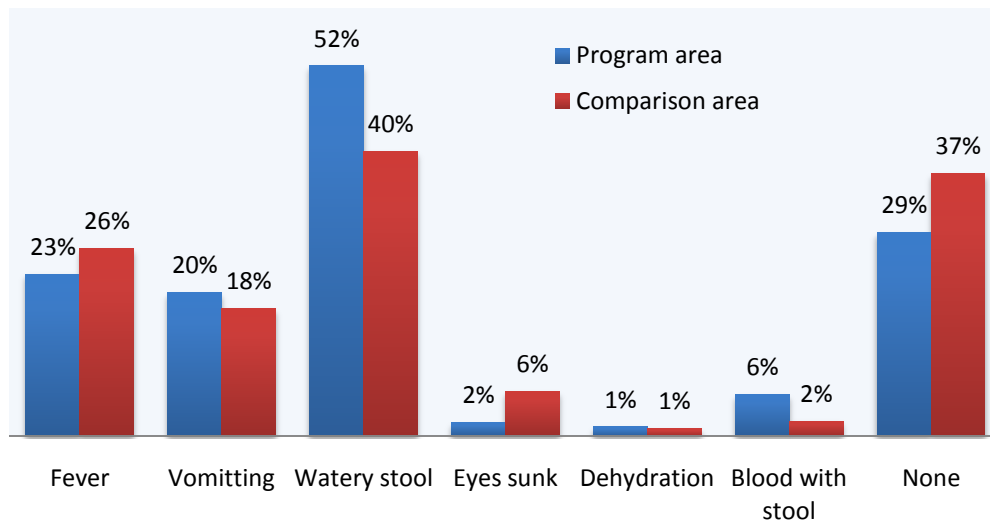
6.2 CHILD MORBIDITY AND MANAGEMENT

Among under-five children of the sampled respondents, fever (45 percent in program slums, 43 percent in comparison slums) and cough (33 percent in program slums, 35 percent in comparison slums) were most prevalent during the time of survey (July-August, 2007).

Table 6.2.1 Childhood illness and treatment		
Percent distribution of women who had a child aged 1-4 years by prevalence of common childhood illnesses in last two weeks, Dhaka City Corporation slum area, 2007		
Morbidity and health-care seeking behavior for 1-4 years old children	Program area	Comparison area
Child had suffered from...¹		
Fever	44.7	43.2
Cough	33.1	35.1
Fast breathing	6.1	5.6
Difficulty in breathing	10.2	9.3
Chest indrawing	3.8	5.1
Diarrhoea	19.1	12.1
Place of treatment for ARI^{2,3}		
Did not seek any treatment	26.1	20.5
Home	0.0	1.1
BRAC delivery hut	0.0	0.0
Pharmacy	38.0	33.0
Government hospital	13.0	9.1
Private clinic	1.1	9.1
Chamber	19.6	17.0
NGO health centre	5.4	14.8
Other	0.0	0.0
Place of treatment for diarrhoea		
Did not seek any treatment	29.2	37.9
Home	2.6	3.2
BRAC delivery hut	0.0	0.0
Pharmacy	35.7	29.5
Government hospital	9.1	10.5
Private clinic	0.6	3.2
Chamber	18.2	15.8
NGO health centre	7.8	3.2
Other	0.0	0.0
Total	100.0	100.0
Number	807	783
¹ Multiple responses		
² Refers to cough with either rapid or difficult breathing, or chest indrawing;		
³ Multiple responses for the children who suffered from ARI in last two weeks		

For management of acute respiratory infection (ARI) among under-five children, treatment was sought most in the pharmacies (38 percent in program slums, 33 percent in comparison slums), followed by chamber (20 percent in program slums, 17 percent in comparison slums) and government hospitals (13 percent in program slums, 9 percent in comparison slums). For treatment of diarrhoea, a similar pattern was seen.

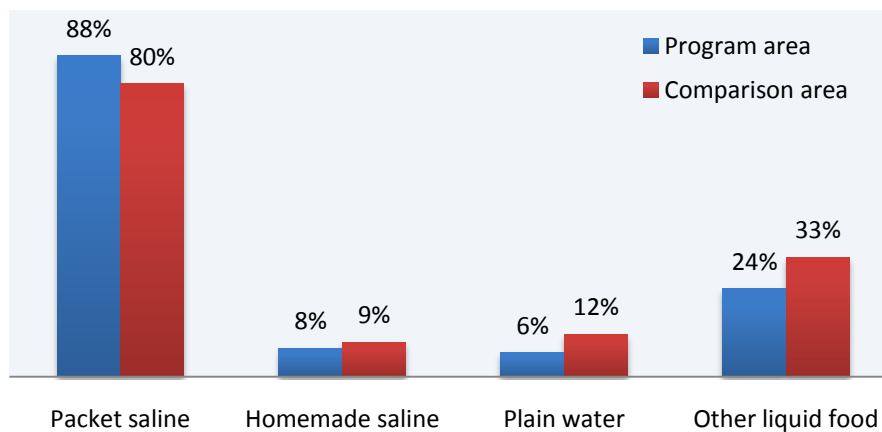
Figure 6.1 Illnesses associated with diarrhoea



Fever (23 percent in program slums, 26 percent in comparison slums) and vomiting (20 percent in program slums, 18 percent in comparison slums) were the most common illnesses associated with diarrhoea, apart from watery stool (52 percent in program slums, 40 percent in comparison slums).

To the under-five children suffering from diarrhoea, 88 percent in program slums and 80 percent in comparison slums were given packet saline, followed by other liquid (viz. coconut water, etc.).

Figure 6.2 Type of liquid given during diarrhoea



CHAPTER 7: PERCEPTION ON DELIVERY FACILITIES AND BRAC BIRTHING HUT

7.1 OPINION ON LOCAL HEALTHCARE FACILITIES

In the baseline survey, questions were asked to the respondents on their perception of local healthcare and delivery facilities. The baseline found that 53 percent respondents in program slums and 45 percent in comparison slums reported on availability of healthcare and delivery facilities in their locality, out of which, NGO health centers (38 percent in program slums, 39 percent in comparison slums) and BRAC delivery hut (21 percent in program slums) are the major ones.

Table 7.1.1 Respondents' opinion on local healthcare and delivery facilities		
Percent distribution of women by their opinion on services in local healthcare and delivery facilities, Dhaka City Corporation slum area, 2007		
Opinion on services in local healthcare and delivery facilities	Program area	Comparison area
Healthcare and delivery facilities available in the slum area		
Yes	52.6	44.8
No	47.4	55.2
Type of facilities available¹		
BRAC delivery hut	20.7	0.2
Private clinic	3.8	8.6
NGO health center	38.2	39.3
Chamber	4.9	0.5
Other	0.0	0.2
Qualities of Health centers that would satisfy respondents¹		
Good behavior	50.5	59.6
Availability of drugs/supplies	39.4	31.9
Do not have to wait	11.5	13.7
Treatment effective/cured	77.8	68.9
Willing to answer questions	17.0	20.1
Affordable	16.5	16.9
Clean	1.4	2.4
Amiable and easy to communicate	4.2	6.8
Other	0.0	0.0
Qualities of Health centers that would dissatisfy respondents¹		
Bad behavior	53.8	65.6
Non-availability of drugs/supplies	32.2	22.2
Have to wait to get treatment	35.4	38.1
Costly/unaffordable	20.6	19.9
Not willing to answer questions	18.9	21.3
Dirty/lack of cleanliness	2.0	2.0
Not friendly and hard to communicate	7.0	8.7
Treatment not effective/not cured	56.8	40.3
Other	0.0	0.0
Total	100.0	100.0
Number	1,256	1,227
¹ Multiple responses		

The respondents mentioned effective treatment, good behavior and availability of drugs/supplies to be the most important factors for satisfaction in the health facilities.

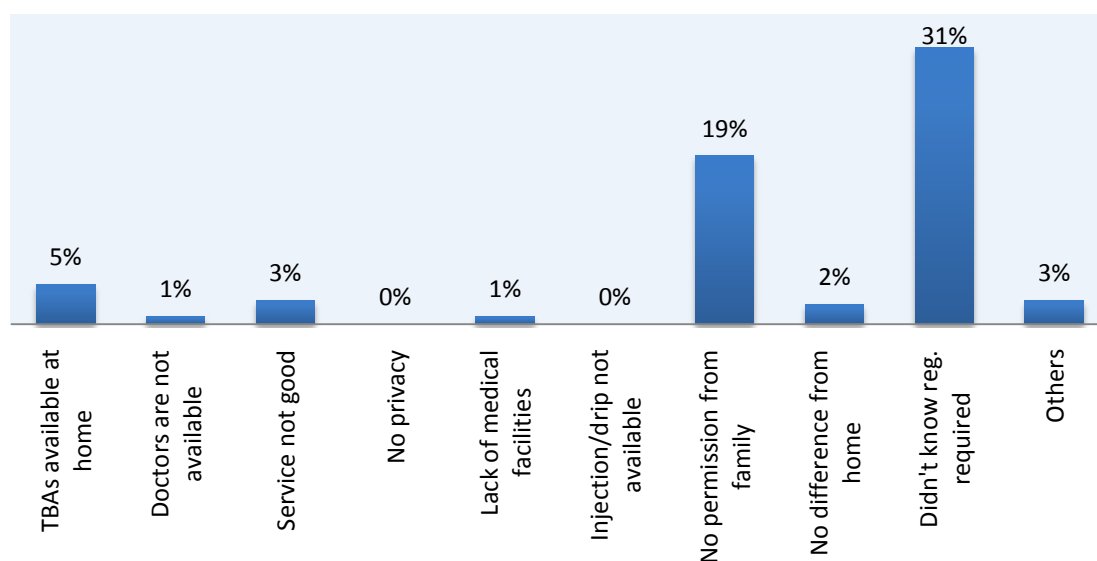
7.2 AWARENESS OF BRAC BIRTHING HUT

Out of 1,256 respondents from BRAC MANOSHI program area, 313 respondents (25 percent) had knowledge of existence of BRAC birthing huts in the locality.

Table 7.2.1 Information of BRAC's Birthing Hut	
Percent distribution of women who had a child in last five years by knowledge and usage of BRAC's birthing hut, BRAC MANOSHI program area in Dhaka City Corporation, 2007	
Knowledge and usage of services from BRAC's Birthing Hut	Program area
BRAC Birthing Hut exists in the locality	
Yes	24.9
No	75.1
Services provided by BRAC Birthing Hut¹	
Antenatal checkup	14.7
Skilled delivery assistance	6.5
Delivery care	7.2
Newborn care	2.9
Post-partum care	2.9
Child health care	5.3
Others	0.0
Don't know	6.9
Source of information on BRAC Birthing Hut¹	
From own experience	1.8
From family members	1.3
From neighbor/friends	7.1
From BRAC SS/staff/midwife	11.0
From posters/leaflet/advertisement	0.2
From BRAC's other program	0.7
Other	0.0
Registered to BRAC Delivery Hut	
Yes	7.3
No	17.6
Services for which registered to Delivery Hut	
Did not register	17.6
Antenatal checkup	5.7
Skilled delivery assistance	2.4
Delivery care	3.5
Newborn care	2.1
Post-partum care	1.5
Child health care	2.2
Others	0.0
Total	100.0
Number	1,256
¹ Multiple responses, applicable only for respondents who were aware of Birthing Hut in the locality	

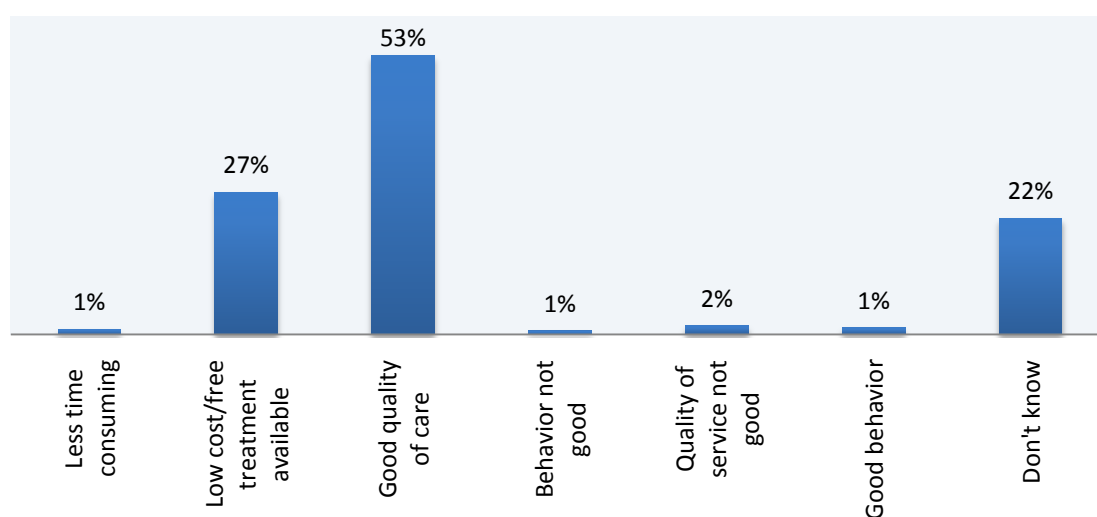
Antenatal care (15 percent), followed by delivery care and skilled delivery assistance (7 percent each) were most known services of BRAC delivery huts. BRAC field workers including midwives were the main source of information on services provided by BRAC delivery huts. In the program slums, 18 percent of the respondents registered and one of the main reasons for not registering to BRAC birthing hut was not knowing the requirement of registering to receive its service (31 percent).

Figure 7.1 Reason for not registering to BRAC birthing hut



The MANOSHI baseline survey also sought general opinions on BRAC birthing huts and it could be seen that quality of service and provision of low cost or free services provided by BRAC birthing hut had already been noted by the respondents.

Figure 7.2 Opinion regarding BRAC birthing hut



CHAPTER 8: POLICY IMPLICATIONS OF 2007 MANOSHI BASELINE SURVEY

8.1 STATUS OF MATERNAL AND CHILD HEALTH IN URBAN SLUMS

The recently published preliminary report of the Urban Health Survey 2006 revealed that for most of the maternal and child health indicators, the slum population exhibits a worse condition than urban non-slums and district municipalities across Bangladesh: use of contraception (58% in urban slums vs. 63% in urban non-slums and 58% in district municipalities); any ANC received for last birth (67% in urban vs. 86% in urban non-slums and 79% in district municipalities); home delivery (88% in urban slums vs. 54% in urban non-slums and 69% in district municipalities); skilled attendance in delivery (18% in urban slums vs. 56% in urban non-slums and 39% in district municipalities); postnatal care (22% in urban slums vs. 54% in urban non-slums and 42% in district municipalities). The infant mortality rate (IMR) and the under-five mortality rate (U5MR) in City Corporation slums were 63 and 81 respectively (per 1,000 live births) compared to 30 and 31 respectively in urban non-slums and 53 and 61 respectively in district municipalities (10).

The preliminary report of the Bangladesh Demographic and Health Survey (BDHS) 2007 also showed that for aforementioned maternal and child health indicators, the status of the slum population remained very close to the rural population in Bangladesh (21). Findings from 2007 MANOSHI Baseline Survey reiterated these findings.

8.2 POLICY AND PROGRAMS FOR MATERNAL AND CHILD HEALTH IN BANGLADESH

The Bangladesh Health and Family Planning Program has made remarkable progress over the last three decades – the fertility transition is well underway and the success of the national immunization programme is most impressive (20). The contraceptive prevalence rate is close to 60 percent and the total fertility rate (TFR) has declined from 6.3 in 1975 to 2.7 in 2007 (21). The under-five mortality has declined from 133 for the period of 1989-90 to 65 in 2007; and over the same period infant mortality has also declined from 87 to 52 per 1,000 live births (20, 21). In terms of infrastructure also, Bangladesh's health system is well placed in the South Asian region, having govt. health care and family planning facilities extended up to the grass-root level (Upazila Health Complex in each of the 460 upazilas, 4068 Health & Family Welfare Centers in 4500 unions), increasing number of physicians and health assistants, and steady upward trend of govt./non-govt. funding in health sector (22).

Despite these success stories and health reforms of recent years in Bangladesh, not much has been done in building health systems for the poor population in the urban setup, especially for those who lives in slums. Till now, the national focus has been on improving health service delivery in rural areas – partly or altogether ignoring the crises of health services among of poorest of urban settlers.

Under the present system, slum dwellers in metropolitan cities of this country need to seek treatment and care directly from tertiary level hospitals and facilities, which involves time, money and lack of necessary compliance by the care-seekers.

Bangladesh Health and Population Sector Programme (HPSP) 1998-2003, a five year sector-wide program of the Ministry of Health and Family Welfare supported by a consortium of donors and led by the World Bank, aimed to contribute to the improvement of health and family welfare among the most vulnerable women, children and poor of Bangladesh. The reforms under HPSP also targeted to provide basic and emergency obstetric care (EmOC) services mainly through district hospitals and upazila health complex (20), which missed the urban poor living in slums. The priority actions for HPSP also include technical support and quality monitoring of trained medical officer at upazila level only.

Health and Nutrition Population Sectoral Program (HNPSPP) 2003-06 and the National Nutrition Program (NNP), worked through NGOs to deliver community-based nutrition services, also did not implement any urban components targeting the slum population. Bangladesh National Health Policy, though acknowledged the importance to ensure health services to urban poor, focused on health service delivery to rural population and infrastructure development within primary tier of existing health systems.

8.3 POLICY IMPLICATIONS OF 2007 MANOSHI BASELINE

There exists little research in healthcare seeking behavior of the urban poor, who are known to have different priorities, and are not well captured by the existing health system due to their mobility and other reasons. Moreover, very little is currently known about MNCH related behavior of the urban slum populations. To launch an effective MNCH intervention, it is imperative to understand the existing level of knowledge and practices with respect to pregnancy and its care, neonatal and child care practices and relevant health-seeking behavior. This Baseline survey undertook to fill in this knowledge gaps for informed designing of program interventions with an aim to reduce maternal, neonatal and child morbidity and mortality of this vulnerable section of the urban poor.

The 2007 MANOSHI Baseline Survey provides some important statistics on knowledge, practice and perception of mothers residing in slums in Dhaka City Corporation. The survey not only provides a benchmark to be used for MANOSHI program evaluation, it also provides information useful for researchers to understand the factors behind current maternal and child healthcare practices and isolate the most vulnerable population group for targeted interventions.

This baseline survey suggests that majority of population in Dhaka urban slums are young and one in every four people living in slums are under five years of age. Moreover, the baseline also suggests that for mothers living in slums, access to print media (e.g. newspapers) is very limited, though one in every two households has a television. Hence any intervention or behavior change communication (BCC) program should target population under 30 years of age, particularly females of 15-24 year age group and use of interpersonal communication (major source of information is neighbors and

relatives) and television (using VCP to screen informative videos) may prove to be an efficient mechanism of information dissemination in slum setup.

Despite a very high level of knowledge of requirement for PNC visits after pregnancy, only one in four mothers received PNC during their most recent birth. Moreover for ANC, only one in three pregnant women made their first visit in the first trimester of pregnancy, as recommended. There exists a greater need to promote ANC and PNC as an integral part of a total care package through pregnancy, delivery, and postnatal period for women residing in slums.

The baseline found that in Dhaka urban slums, 80 percent of the deliveries take place at home, with the government hospital accounting for one-third of facility deliveries. Moreover, untrained local TBAs assisted in more than half of the deliveries. Both of these findings indicate that a substantial effort is needed to improve delivery facilities with skilled assistance around urban slums. Innovative efforts (such as group discussion, problem analysis, role-playing etc.) are also necessary to educate families on complications and management of pregnancy and delivery as respondents had poor knowledge on these aspects.

To improve the health status of slum dwellers, a mechanism may be developed to involve private practitioners along with government health care providers. Intensive efforts may also be made to sensitize the slum dwellers about the importance of health by undertaking systematic health awareness activities. Nutrition and health surveillance may generate data that is needed to formulate powerful evidence-based advocacy material and stimulate action.

8.4 CONCLUSION

The MANOSHI programme aims to improve the health of the mother, neonate and child among the urban slum population through community-based solutions and contribute to the attainment of MDGs 4 and 5. Towards this, the 2007 MANOSHI Baseline Survey provides a number of interesting and useful observations on knowledge, practice, and perception of slum mothers regarding neonatal and child health, as well as their own health with respect to pregnancy and delivery. The findings from this survey will fill in the knowledge gaps existing in this field and help design customized interventions by the program.

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