

Bangladesh

Urban Health Survey 2013

Final Report



Bangladesh

Urban Health Survey 2013

Final Report

National Institute of Population Research and Training (NIPORT)
Dhaka, Bangladesh

International Centre for Diarrhoeal Disease Research, Bangladesh (icddr,b)

MEASURE Evaluation, UNC-Chapel Hill, USA

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FOREWORD

The 2013 Bangladesh Urban Health Survey (UHS) is the second of this kind of survey conducted in Bangladesh which contains information collected through a micro-level interview of communities, households and individuals throughout the City Corporation areas, municipalities and large towns with population over 45,000. The first UHS was conducted in 2006. The main objective of the 2013 UHS is to provide policy-makers and program managers with detailed information on key health outcomes and service utilization indicators in slums and non-slums areas of City Corporations, and other urban areas in Bangladesh. The 2013 UHS also examined contribution of public, private and NGO sectors in utilizing various health services among urban population. Analysis of intra-urban differences in key health outcomes between 2006 and 2013 is a special feature of the survey that demonstrates progress towards better health and challenges ahead.

The preliminary results of the 2013 UHS, with its major findings, were shared with the stakeholders through a dissemination seminar in October 2014. The final report contains detailed analysis of findings addressing the important urban health issues including maternal and child health, family planning, migration etc.

The 2013 UHS revealed that Bangladesh has made progress in improving overall health of the marginalized slum population. The intra-urban differentials have narrowed for most of the health indicators between 2006 and 2013. In 2013, the fertility is below replacement level in all urban areas, indicating that the HPNSDP TFR goal of reaching 2.0 births per woman has already been achieved in urban areas. Maternal health has also articulated a success story for urban areas since it showed expected progress in ANC visits and using skilled providers for delivery. However, the disparity between slums and non-slum areas still prevail.

I hope that the survey results would be useful for monitoring as well as development of urban health programs focusing underserved groups, especially the slum population.

The successful completion of the 2013 UHS was made possible by the contributions of a number of organizations and individuals. I deeply appreciate the United States Agency for International Development (USAID) and the United Kingdom's Department for International Development (DFID) for providing financial support. I would like to thank NIPOIT, MEASURE Evaluation, University of North Carolina at Chapel Hill, USA, icddr,b and the Associates for Community and Population Research (ACPR) for the effort they put into implementing the 2013 UHS.

(Syed Monjurul Islam)



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PREFACE

The 2013 Bangladesh Urban Health Survey (UHS) is a representative household survey of slums and non-slums of City Corporations and other urban areas that was implemented through a collaborative effort of the National Institute of Population Research and Training (NIPORT), Measure Evaluation, University of North Carolina at Chapel Hill, USA, and icddr,b. Associates for Community and Population Research, a Bangladeshi private research agency, conducted the field survey in the City Corporation areas, municipalities and large towns with population over 45,000. The financial support for the survey was provided by the United States Agency for International Development (USAID) and the United Kingdom's Department for International Development (DFID).

The 2013 UHS is a follow-up survey conducted after seven years from the first UHS conducted in 2006. Primarily the survey was designed to examine the changes in the health and service utilization profile of the urban population with explicit attention to examine differences between slum and non-slum groups. The information collected in the 2013 UHS will be instrumental in determining directions for the urban health program in Bangladesh. Data concerning important urban health issues like migration, fertility and family planning, maternal and newborn health, childhood mortality, child health, feeding practices, and nutritional status etc. are crucial in designing policies and programs. Hopefully, intra-urban differentials in health service utilization between two surveys will be helpful to demonstrate an increased commitment to improving the lives of urban people in Bangladesh.

The Technical Review Committee (TRC) consisted of experts from government, non-governmental and international organization as well as researchers and professionals working in Health Nutrition and Population Sector put forth their valuable opinion in major phases of the survey. In addition, a Technical Working Group (TWG) was formed with the representatives from NIPORT, icddr,b, USAID/Bangladesh, and MEASURE Evaluation for designing and implementing the survey. I would like to extend my gratitude and appreciation to the members of the TRC and TTF for their contributions at different phases of the survey.

I express my heartfelt thanks to the professionals of MEASURE Evaluation, University of North Carolina at Chapel Hill, USA, and icddr,b and the staff of Associates for Community and Population Research, and the professionals of research unit of NIPORT for their sincere efforts in successful completion of the survey.

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Associates for Community and Population Research (ACPR) was the data collection and research partner in this survey. The technical requirements of this activity were many, which were handled in an efficient and professional manner by ACPR. We would particularly like to thank Dr. Sekander Hayat Khan, Mr. Shafiur Rahman, and Ms. Tauhida Nasrin for their efforts and dedication. We appreciate the hard work of all the data collectors for the survey. A slum mapping exercise was a prerequisite for the sampling method used for this survey. We acknowledge the cooperation of the Bangladesh Bureau of Statistics and of the Centre for Urban Studies in providing us with urban maps, without which the slum mapping activity would not have been possible.

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ACRONYMS

ANC	Antenatal care
ARI	Acute respiratory infection
ASFR	Age-specific fertility rates
BBS	Bangladesh Bureau of Statistics
BDHS	Bangladesh Demographic and Health Survey
BRAC	Bangladesh Rural Advancement Committee
CBR	Crude birth rate
CHW	Community Health Worker
CM	Child mortality
CPR	Contraceptive prevalence rate
CSBA	Community-skilled Birth Attendant
DGFP	Directorate General of Family Planning
DGHS	Directorate General of Health Services
EA	Enumeration area
EmOC	Emergency obstetric care
EPI	Expanded Program on Immunization
FP	Family planning
FWA	Family Welfare Assistant
FWV	Family Welfare Visitor
GFR	General fertility rate
GOB	Government of Bangladesh
HA	Health Assistant
HPNSDP	Health, Population, and Nutrition Sector Development Program
ICDDR,B	International Center for Diarrhoeal Disease Research, Bangladesh
IMCI	Integrated management of childhood illness
IMR	Infant mortality rate
IUD	Intrauterine device
IYCF	Infant and young child feeding
LAPM	Long-acting and permanent method
LARC	Long-acting and reversible contraceptive
MA	Medical Assistant
MCWC	Maternal and Child Welfare Centre
MOHFW	Ministry of Health and Family Welfare
MOLGRDC	Ministry of Local Government, Rural Development, and Cooperatives
NHSDP	NGO Health Service Delivery Project
NGO	Non-government organization

NIPORT	National Institute for Population Research and Training
NNM	Neonatal mortality
ORS	Oral rehydration salts
ORT	Oral rehydration therapy
PM	Permanent method
PNC	Postnatal care
PNN	Postneonatal mortality
SACMO	Sub-assistant Community Medical Officer
SAM	Short-acting methods
SBA	Skilled Birth Attendant
SES	Socioeconomic status
SMC	Social marketing company
TBA	Traditional Birth Attendant
TFR	Total fertility rate
TWG	Technical working group
UESD	Utilization of Essential Service Delivery Survey
UHC	Upazila health complex
U5MR	Under-five mortality rate
UPHCP	Urban Primary Health Care Project
USAID	United States Agency for International Development
VAQ	Verbal autopsy questionnaire

CHAPTER 1: INTRODUCTION AND METHODOLOGY

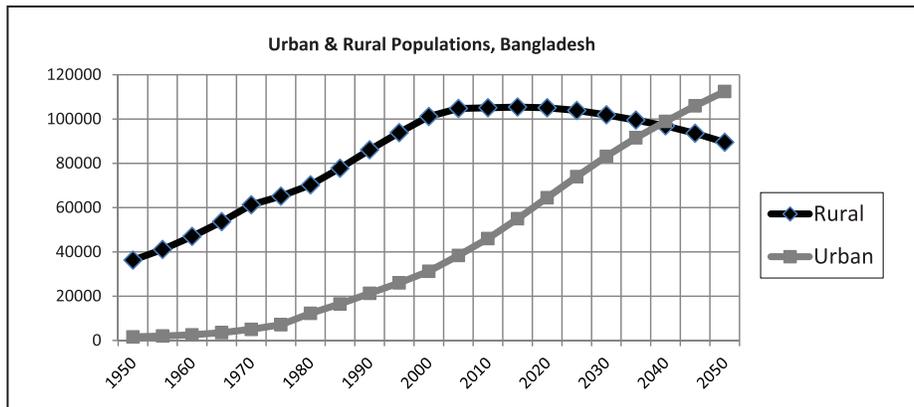
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1.1 RATIONALE

Bangladesh is undergoing a rapid urbanization process. According to United Nations estimates,¹ while the rural population is expected to peak at 105 million people in 2016 and then decline, the urban population will grow from its current (2015) level of 54 million people to 81.4 million in 2029, an increase of 50% in 14 years¹ (Figure 1). Starting next year, all future population growth in the country is expected to be in urban areas. Though it is largely a rural country now (65.7% of the population lives in rural areas in 2015¹), Bangladesh will be an urban country by 2039 when the majority of people will live in urban areas.

This urbanization process is part of a global trend: at the time of its independence (1971), there were only three mega cities (defined as having more than 10 million inhabitants) in the world, in 2014 there were 28.² Dhaka is now the 11th largest mega city, with 17 million people, up from being 24th in the population ranking in 1990. Since Dhaka has one of the highest rates of population growth among mega cities (3.6% annually for 2010-2015), it is expected to become the world's 6th largest city in 2030, with 27 million people.²

Figure 1: A century of trends in urban and rural populations, Bangladesh, 1950-2050.



Urban populations are diverse and varied, both economically and in terms of living conditions. Indeed, cities are characterized by large inequalities in health-related conditions. The heterogeneity of urban conditions is fueled by the migration process that is the primary factor of urban growth.³ Most rural migrants have few resources (financial and otherwise) when they arrive in cities where they are faced with inadequate infrastructure and public services, as well as slow-growing formal labor markets. The consequence of this process is growing intra-city inequality and urban poverty. An expression of this inequality is the coexistence in cities of well-developed areas with slums, which are areas of dense concentrations of people and of conditions that affect health negatively. At present it is estimated that one-third of the City Corporations' population lives in slums (Center for Urban Studies et al., 2006).

¹ United Nations, Department of Economic and Social Affairs, Population Division (2014). World Urbanization Prospects: The 2014 Revision, CD-ROM Edition. File 20 (Annual Rural Population at Mid-Year by Major Area, region and Country, 1950-2050) and File 19 (Annual Urban Population at Mid-Year by Major Area, region and Country, 1950-2050).

² United Nations, Department of Economic and Social Affairs, Population Division (2014). World Urbanization Prospects: The 2014 Revision, Highlights. Table II, page 26.

³ About two-thirds of the urban population growth is due to rural to urban migration; one-third is due to natural population increase.

Bangladesh has made impressive progress in reducing fertility and mortality and improving health and education conditions in recent decades, so arguably rapid urbanization and urban health are now among the major population issues facing the country. It has been conjectured that urban poverty in Bangladesh is an area in urgent need of research and of new policy measures if the country is to meet the national goals of poverty reduction (Banks, Roy, and Hulme, 2001).

Despite the recognized importance of examining intra-city inequalities there have been few datasets based on representative samples to support that analysis. The Demographic and Health Surveys provide urban-rural differences, which are undoubtedly useful, but do not provide information on intra-urban differentials. For this reason, in 2006 the first Urban Health Survey was conducted with separate sampling domains for slums and non-slum areas within City Corporations to identify the health challenges and use of services of different subpopulations of the cities. The Urban Health Survey 2013 (UHS 2013), is a follow-up survey conducted after seven years to examine the changes in the health and service utilization profile of the urban population, with explicit attention paid to examining the differences between slum and non-slum groups.

1.2 OBJECTIVES

The objectives of the UHS 2013 are:

- To measure changes in key health outcomes and service utilization indicators in major urban domains of Bangladesh, namely, in slums and non-slums of City Corporations, and other urban areas;
- To examine sources of care for various health services in slum and non-slum areas; and
- To examine whether intra-urban differences in key health outcomes have narrowed between 2006 and 2013.

The UHS 2013 is composed of a quantitative population-based household survey, presented in this report, and a qualitative study. Results of the qualitative component are presented in a separate report.

1.3 SAMPLING DESIGN

The sampling design of the UHS 2013 had as a main objective to calculate key representative indicators for three domains:

1. Slum populations in the 9 City Corporations;
2. Non-slum populations in the 9 City Corporations; and
3. District Municipalities and large towns/*Paurashavas* with populations over 45,000 habitants as listed in the 2011 Population Census. This domain is referred as “other urban areas” in the UHS 2013.

The sample frame of the survey is the complete list of urban *Mohallas* in the 9 City Corporations, District Municipalities and large towns with populations over 45,000 from the 2011 Census. In the case of Dhaka, the UHS includes the entire Dhaka metropolitan area; the other eight City Corporations are: Chittagong, Khulna, Rajshahi, Barisal, Sylhet, Rangpur, Narayanganj, and Comilla.⁴ Table 1.1 presents the population sizes of the two main survey strata and their proportions relative to the total urban population of the country as reported by the 2011 Population Census.⁵

⁴ In 2006 there were six City Corporations. Three new City Corporations have been created since 2006: Rangpur, Narayanganj, and Comilla.

⁵ The reader should notice that the total urban population of the country reported by the 2011 Population Census is different than the urban population estimates reported by the U.N. World Urbanization Prospects, 2014 revision (47,731,000 people for 2011).

Table 1.1: Population sizes of UHS 2013 main domains and total urban population of Bangladesh, UHS 2013

Domains	2011 Population	Percentage of UHS	Percentage of total urban ¹
City Corporations	14,755,994	61.7	44.0
District Municipalities and large towns	9,155,146	38.3	27.3
Total UHS population of reference	23,911,140	100.0	71.2
Total urban population Bangladesh ¹	33,563,183	-	100.0

¹ Total urban population Bangladesh combines two 2011 BBS population census categories: "Urban (BBS code 2)" with 27,468,789 people, and "other urban (BBS code 3)" with 6,094,394.

Source: Population and Housing Census 2011. Bangladesh Bureau of Statistics (BBS).

The UHS 2013 followed a stratified three-stage sampling procedure. The strata were (1) City Corporations, and (2) other urban areas (District Municipalities and large towns). In the first stage of sample selection, 450 *Mohallas*⁶ were randomly selected in City Corporations and 184 were selected in other urban areas. In each selected *Mohalla* in City Corporations, a mapping activity was conducted to identify and map all slum and non-slum clusters in the *Mohalla* (see next section). The second stage of selection consisted of, in each selected *Mohalla*, randomly selecting two slum clusters from the list of identified slum clusters, and one non-slum cluster was randomly selected from the non-slum portion of that *Mohalla*. No slum mapping was conducted in the other urban areas strata. In the other urban strata, two clusters were randomly selected from each selected *Mohalla*.

Finally, for the third stage of selection, a household listing activity was conducted in each selected cluster, and households were randomly selected to be visited by the teams of interviewers.

Mohalla mapping and identification of slums: The purpose of this activity was to identify slum and non-slum areas within each of 450 *Mohallas* selected in the nine City Corporations. The UHS 2013 used the same criteria and thresholds as in the *Slums of Urban Areas: Mapping and Census, 2005*, which defined slums as settlements with a minimum of 10 households with the following characteristics:

- Very high population density/high crowding: Over 300 persons per acre (or 751 persons per hectare) for the overall settlement density; and three or more adults per room, about 37 sq. ft. (or 4 sq. mt.) per person of floor space; and predominantly (over 75%) single room family occupancy in the settlement.
- Predominantly poor housing conditions: Over 75% of household units identified as shacks/*jhupris/kutcha* (flimsy structures of non-permanent materials like bamboo, cheap wood, scraps, etc.), semi-*pucca* (flimsy structures but with brick walls and corrugated iron sheets), or dilapidated or fragile old buildings.
- Poor water and sewerage conditions or high sharing of water sources and sewerage: Predominant sharing of water sources, limited water connection to homes, sharing of sanitary latrines, settlement with poor drainage defined as significant water logging (i.e., stagnation of water) after rains and being prone to flooding.
- Poor and very poor socioeconomic conditions: Over 75% of residents are apparently poor or very poor.

Fieldwork was conducted by 32 ground-truthing teams, each of which was composed of two professionals—one surveyor with experience in mapping and estimating population density, and one with experience in household surveys. The teams received five days of training and field practice to standardize the criteria and field protocols for the identification of slums. One member of the teams received training in the drawing of slum boundaries in *Mohalla* maps, and all members of the teams received training in the procedures for collecting and estimating the population sizes of the slums. Fieldwork lasted three months, from January to April 2013. During fieldwork, each team canvassed the entire area of the assigned *Mohallas* to identify slums. Once there was consensus among the team members about a settlement being classified as a slum, the slum boundaries were drawn in the *Mohalla* map

⁶ *Mohalla* is the lowest administrative division in the cities of Bangladesh.

and the team proceeded to estimate the number of households. Different procedures were used depending on the size and organization of the slums. For smaller size slums (10 to about 300 households), a rapid direct counting of households was conducted; for medium size (300 to 500 households) and large slums (more than 500 households), team members looked for key informants knowledgeable of the slum population. Presence of NGOs and voluntary organizations for providing services and improved sanitation facilities were common in large slums. Community workers or slum leaders were also considered key informants and were contacted to provide information on the number of households in the slum. In the absence of reliable key informants, team members estimated the household density by direct observation and estimated the area of the slum using the slum boundaries drawn in the *Mohalla* maps. Those two pieces of information were used to estimate the number of households of the slum.

The identification of slum and non-slum areas permitted the preparation of slum and non-slum cluster sample frames for those two domains in City Corporations.

UHS 2013 sample size estimation: The sample size was estimated to provide estimates of acceptable precision for (1) under-five mortality rate, and (2) percentage of birth deliveries in health facilities for all births in the previous three years, for the main domains themselves and for comparing across domains.

Given the large sample size required for estimating under-five mortality, the UHS 2013 used a long and a short questionnaire. The short questionnaire was administered to the entire sample and its main purpose was to estimate under-five mortality. The long questionnaire was applied in households selected from the total sample and its main purpose was to measure the percentage of births delivered in health facilities. Annex A presents more details on the estimation of the sample size.

The following table presents the sample sizes, number of clusters, and cluster size per domain.

Table 1.2: Sample sizes of households and clusters, City Corporation slum, City Corporation non-slum, and other urban areas, UHS 2013

Domains	Short questionnaire households	Long questionnaire households	Total households	Number of HHs per cluster	Number of clusters	Number of Mohallas
City Corporation slum	-	15,750	15,750	35	450	450
City Corporation non-slum	18,000	9,000	27,000	30	900	184
Other urban	-	11,040	11,040	30	368	184
Total	18,000	35,790	53,790	-	1,718	634

Note: The modules of the short questionnaire are also contained in the long questionnaire.

1.4 SURVEY SAMPLE AND RESPONSE RATES

Table 1.3 shows that the household and eligible women response rates were high (above 95%) in each of the three domains of the survey. Slightly lower response rates, but still above 90%, were obtained for the male sample.

Table 1.3: Results of the household and individual interviews

Number of households, number of interviews, and response rates, City Corporation slum, City Corporation non-slum, and other urban areas, UHS 2013.

Results	City Corporation slum	City Corporation non-slum ²	Other urban
Household interviews			
Households selected	15,750	26,970	11,040
Households occupied	15,331	26,376	10,892
Households interviewed	14,806	25,385	10,707
Household response rate (%) ¹	96.6	96.2	98.3
Interviews with ever-married women age 13-49			
Eligible women found	14,702	25,156	11,266
Eligible women interviewed	14,011	24,373	10,844
Eligible woman response rate (%)	95.3	96.9	96.3
Interviews with ever-married male age 15-54			
Eligible male found	4,806	3,103	3,218
Eligible male interviewed	4,408	2,865	3,107
Eligible male response rate (%)	91.7	92.3	96.6

¹ Households interviewed/households occupied.

² Long questionnaire sample.

1.5 QUESTIONNAIRES

The UHS 2013 used five questionnaires:

The Household Questionnaire: This instrument collected information on age, sex, and marital status of all household members and on household characteristics like dwelling ownership, housing conditions (living space and number of rooms; floor, roof and wall materials; water source and sharing; toilet type and sharing; number of rooms), and availability of assets or durable goods.

The Women's Questionnaire: Eligible respondents for the women's questionnaire were all ever-married women aged 15-49. The short questionnaire was answered by all respondents and collected information on individual background characteristics and birth history. The long questionnaire had additional modules on migration, family planning, child health and nutrition, and maternal health care practices, and it was administered to a sub-sample of women.

Verbal Autopsy: The verbal autopsy (VA) questionnaire collected information on causes of death for all under-five mortality events in the household during the five years preceding the survey. Two VA forms were used by interviewers, one for neonatal mortality and the other for under-five mortality.

The Men's Questionnaire: Eligible respondents were ever-married men aged 15-54. This questionnaire collected information on basic background characteristics, exposure to media, brief migration history, and on family planning and intention to use long-acting and permanent methods. It also asked about maternal health and child care practices.

The Community Questionnaire: This instrument was administered to key informants and community leaders. It collected information on availability of health and public services in the community (water, electricity, and sanitation), presence of NGOs and development activities, density of health services, and other general characteristics of the community.

1.6 TRAINING, FIELD WORK, AND DATA PROCESSING

Fieldwork-related activities were conducted by Associates for Community and Population Research (ACPR). The identification and mapping of slums in selected urban *Mohallas* was conducted from February 2 to April 13, 2013. Field staff for the UHS household listing phase were recruited during the second week of May, 2013 and trained at ACPR from May 14 to May 18, 2013. Listing operations and community surveys were conducted from May 19 to November 2, 2013. Twenty-one two-member teams, each consisting of one supervisor and one lister, were deployed for the listing operation and community survey.

Pretesting: The questionnaires were pre-tested two times: first on June 19, and then on June 22, 2013. For the pretest, male and female interviewers were trained at ACPR. Interviews were then conducted in Mirpur and Jafrabad areas in Dhaka under the observation of ACPR's research team members, MEASURE Evaluation and USAID. Altogether, 29 women's and 18 men's questionnaires were completed. Based on the experience in the field and suggestions made by pretest staff, modifications were made in the wording and translations of the questionnaire by the TRC members.

Training for data collectors: Field staff for the main survey were recruited during the third week of June 2013. Recruitment criteria included educational attainment, experience in other surveys, and the ability to spend three weeks in training and at least four to five months in the field. Training was conducted in three phases. The first phase of training was conducted at a rented venue for 21 days from June 26 to July 16, 2013, including two days for field practice. The second phase was conducted from July 21 to August 19, 2013; and the last phase of training was conducted from September 9 to September 25, 2013. Training consisted of lectures on the objectives and methodology of the survey, techniques for interviewing, how to complete the questionnaire, and a detailed discussion on different topics covered in the questionnaire. Group discussions and mock interviews between participants were used to gain practice in asking questions. Those with satisfactory performance in the course were selected for fieldwork. Those whose performance was considered superior were selected as supervisors.

Fieldwork for the survey: Fieldwork commenced on July 23, 2013 and was completed on December 12, 2013. It was carried out by 29 interviewing teams. Each team consisted of one male supervisor and one female supervisor, three female interviewers, two male interviewers, and one field assistant. Field work was done in five phases. ACPR fielded five quality control teams of two people, consisting of one male and one female, to monitor the field activities of the teams. In addition, research team members from ACPR monitored the field work by visiting the teams in the field. Special teams from NIPORT and icddr,b continuously monitored the teams and reported to ACPR and TRC. Moreover, survey experts from USAID, NIPORT, icddr,b, and MEASURE Evaluation also visited teams in the field. After completion of each phase of fieldwork, a debriefing session was conducted by ACPR. In the debriefing session, a thorough discussion on the field experience and the questionnaires in detail were held. After review, some decisions were made collectively.

In the second part of fieldwork, during the routine data quality check, it was found that child deaths were being under-reported. Several field actions were taken to improve field data collection, but, given the advance stage of fieldwork whereby a good proportion of the sample was already covered, it was decided to revisit all 450 slum clusters to re-administer the births-mortality history section of the questionnaire.

Data processing: Data processing commenced on August 22, 2013 and was completed on January 12, 2014. It was done at the ACPR office in Dhaka. All the filled-in questionnaires for the survey were returned to the data processing unit of ACPR. The data processing operations consisted of office editing, coding, data entry, and editing inconsistencies found by computer programs. The data were processed on 11 microcomputers working in double shifts, carried out by 22 data entry operators and two data entry supervisors. Data entry and editing programs were written in the software program CSPro 4.1. To minimize error, a double data entry procedure was followed.

1.7 IMPLEMENTING ORGANIZATIONS

The UHS 2013 is a multi-partner project intended to serve the programmatic and information needs of the Government of Bangladesh, development partners, and other organizations working on urban health. The UHS 2013 was conducted under the general coordination of NIPORT. A Technical Working Group (TWG), composed of representatives from NIPORT, USAID, icddr,b, and MEASURE Evaluation, was formed to develop the objectives, scope and coverage, and to oversee all implementation phases of the survey. ACPR was selected to be the data collection agency under the supervision of the TWG.

1.8 FUNDING SOURCES

Funding for the UHS 2013 was provided by the United States Agency for International Development (USAID) and the United Kingdom's Department for International Development (DFID).

CHAPTER 2: HOUSEHOLD POPULATION AND HOUSING CHARACTERISTICS

2



Photograph: Courtesy of Eminence

Key Findings:

- The population in slum households is slightly younger, 33% was less than 15 years old compared with about 30% in non-slum and other urban areas.
- The mean household size varied little across all three domains; 4.1 members in slums, 4.2 in non-slums, and 4.3 in other urban areas. Between 2006 and 2013, the mean household size declined by about half a person in all three areas.
- Thirty-eight percent of teenage females in slums were ever married, compared to 26% in non-slum households.
- Three out of four slum households were in the lowest two wealth quintiles, compared with one in five in non-slum areas.
- In slums, 75% of households lived in only one room. In comparison, 35% of households lived in one room in non-slum and other urban areas.
- The median living space per person was much smaller in slums, 48 sq. feet, compared to 120 and 110 sq. feet in non-slums and other urban areas, respectively. Compared to 2006, the median living space per person has increased in both slum and non-slum areas.
- Seventy-six percent of dwellings in slum areas, and 70% of dwellings in non-slum areas, were rented. By contrast, 65% of other urban households owned their dwellings.
- Eighty-six percent of the walls in slum households were made of tin/cement/bricks. In slums, the use of rudimentary materials like jute/bamboo/mud for the walls declined from 26% in 2006 to 9% in 2013.

- Access to electricity was universal in all three urban domains.
- Over 90% of households in all three domains owned a mobile phone. In slums, ownership of mobile phones increased from 20% in 2006 to 92% in 2013. In non-slums the increase was from 55% in 2006 to 98% in 2013.
- Access to “improved” water source was universal in all three survey domains. In slums, sharing of a water source with other households was very high; 65% of slum households reported sharing a water source with 10 or more households.
- Due to a high level of sharing of latrine facilities, access to improved sanitation was very low in slums. Only 13% of households in slums had access to improved sanitation, compared with over 50% in the non-slum and other urban areas.
- Almost half of all slum households disposed of garbage in open spaces, compared with one-quarter and two-thirds of households in non-slums and other urban areas, respectively.

This chapter presents information on characteristics of the household population, selected features of the sampled dwellings, and the socioeconomic status of households. The purpose is to compare the population and housing profiles of slums, non-slums, and other urban households. Such comparisons will provide useful insights regarding many policy relevant questions in other chapters of this report.

Focus areas in this chapter include the composition of household populations, socioeconomic status and/or standard of living, security of tenure, and certain physical features known to influence health of urban populations (e.g., source of drinking water, toilet facilities, garbage disposal, and cooking fuel). Indicators such as the presence of electricity, floor, wall and roof material, dwelling and land ownership, and possession of durable goods are also used in ranking households on a common scale describing socioeconomic status.

2.1 CHARACTERISTICS OF THE HOUSEHOLD POPULATION

The 2013 Urban Health Survey defines a household as a person or group of persons, regardless of age or relationship status, who meet the following criteria: they usually live in the same dwelling, share common cooking and eating arrangements, and can identify one member as the head of the household. Information recorded in the household roster allows for calculation of both the *de jure* population (persons who usually live in the household) and the *de facto* population (those who spent the night before the interview in the household). The tabulations presented in this chapter, unless otherwise stated, are for the *de facto* household population. Interviews were completed for a total of 14,806 households in slums, 25,385 in non-slums, and 10,707 in other urban areas. Households in the slum neighborhoods of the City Corporations contained 61,252 *de facto* members (31,348 males and 29,904 females). The figure for non-slum neighborhoods was 107,317 (55,974 males and 51,343 females), while that for other urban areas was 46,129 (23,285 males and 22,844 females).

2.1.1 Age and Sex Composition

Table 2.1 provides the age and sex distribution of the household populations in the three survey domains by five year age groups. Overall, the number of men exceeded the number of women. This pattern was pronounced in non-slum households (sex ratio 1.09) which was similar to the sex ratio estimate (1.10) of Census 2011 for urban Bangladesh. In slums, the male to female ratio was lower (1.05), and virtually even (1.02) in other urban areas. Sex distribution patterns were generally similar across age groups and survey domains. The exception was ages 50-54, where the proportion of males was four times more than females, plausibly due to heaping in age reporting of females.

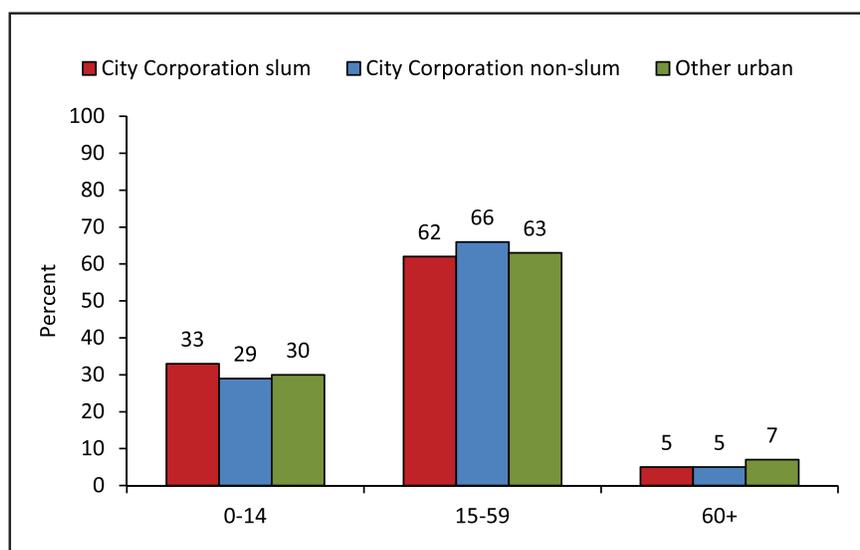
Figure 2.1 shows the age distribution for the total household population across three broad age ranges. The population in slum households was slightly younger (33% were less than 15 years old, compared to 29 and 30%, respectively, in non-slum and other urban areas). The proportion aged 60 and over in slum and non-slum households was almost similar (5%), and substantially more in other urban households (7%). The age structure of all three domains shifted slightly from younger to older ages since 2006 (data not shown). As a result, the child dependency ratio (percentage of children age 0-14 to adults aged 15-59) decreased by three percentage points in slum areas (from 57 to 54%) and by one percentage point in non-slum areas (from 45 to 44%).

Table 2.1: Household population by age, sex, and domain

Percent distribution of the de jure household population by five-year age groups, according to sex, City Corporation slum, City Corporation non-slum, and other urban areas, UHS 2013.

Age	City Corporation slum			City Corporation non-slum			Other urban		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4	9.9	10.0	9.9	8.5	9.1	8.8	9.1	9.7	9.4
5-9	11.7	12.1	11.9	9.5	9.8	9.6	10.5	10.7	10.6
10-14	11.2	11.6	11.4	9.1	10.3	9.7	10.0	10.3	10.2
15-19	9.5	11.7	10.6	9.1	10.5	9.8	9.3	10.3	9.8
20-24	8.5	12.2	10.3	10.5	12.0	11.2	9.2	11.1	10.1
25-29	10.8	11.2	11.0	10.8	11.6	11.2	9.5	10.7	10.1
30-34	8.9	9.1	9.0	9.2	9.5	9.3	8.4	8.3	8.4
35-39	8.3	6.8	7.6	8.7	7.3	8.0	7.8	6.9	7.4
40-44	6.7	4.6	5.7	6.9	5.9	6.4	6.6	5.8	6.2
45-49	4.8	3.8	4.3	5.3	5.3	5.3	5.1	5.6	5.3
50-54	4.0	1.1	2.6	4.2	1.3	2.9	4.6	1.0	2.8
55-59	1.5	2.1	1.8	2.5	2.6	2.6	2.3	2.9	2.6
60-64	1.6	1.7	1.6	2.3	2.1	2.2	2.5	2.8	2.6
65-69	1.0	0.7	0.9	1.4	1.1	1.3	1.8	1.6	1.7
70-74	0.9	0.6	0.8	1.1	0.8	0.9	1.6	1.0	1.3
75-79	0.4	0.2	0.3	0.5	0.3	0.4	0.7	0.4	0.5
80+	0.3	0.5	0.4	0.4	0.4	0.4	0.8	0.8	0.8
DK/Missing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	31,348	29,904	61,252	55,974	51,343	107,317	23,285	22,844	46,129

Figure 2.1: Age distribution of household population, UHS 2013.



2.1.2 Household Composition

Table 2.2 shows that a small minority of households in all three survey domains were headed by females, with about 90% headed by males. The female-headed households slightly declined between 2006 and 2013 but were still most common in slums (13%), followed by non-slums (12%), and other urban areas (11%). Little distinction was observed between slum and non-slum households in terms of the number of usual members. The overall mean number of usual members was 4.1, 4.2, and 4.3 respectively, in slum, non-slum, and other urban households. Between 2006 and 2013, the average household size declined by about half a person in all three areas.

Table 2.2: Household composition

Percent distribution of households by sex of the head of household, household size, according to study domain, UHS 2013.

Characteristics	City Corporation slum	City Corporation non-slum	Other urban
Sex of household head			
Male	87.4	88.5	89.4
Female	12.6	11.5	10.6
Total	100.0	100.0	100.0
Number of usual members			
1	1.9	1.8	2.1
2	12.6	10.2	10.5
3	22.8	22.4	22.1
4	26.8	30.1	28.0
5	18.3	18.6	18.1
6	9.8	8.5	9.3
7	4.2	4.1	4.6
8	1.9	2.0	2.2
9+	1.6	2.3	3.1
Total	100.0	100.0	100.0
Number	14,806	25,385	10,707
Mean size	4.1	4.2	4.3

2.1.3 Marital Status

The slum women tended to marry earlier than women living in non-slum households. Thirty-seven percent of teenage females in slums were ever married compared to 26% in non-slum households. The slum to non-slum difference in the proportion of ever married remained the same for women aged 20-24 and narrowed by age 25-29 (96% in slums and 90% in non-slum households). Between 2006 and 2013, the proportion of ever married among teenage slum women decreased by five percentage points, mainly due to a substantial decline in ever married women in ages 10-14 (from 3 to 1%). Marriage patterns for females in other urban areas was similar to women in slum households.

Table 2.3: Marital status of household population

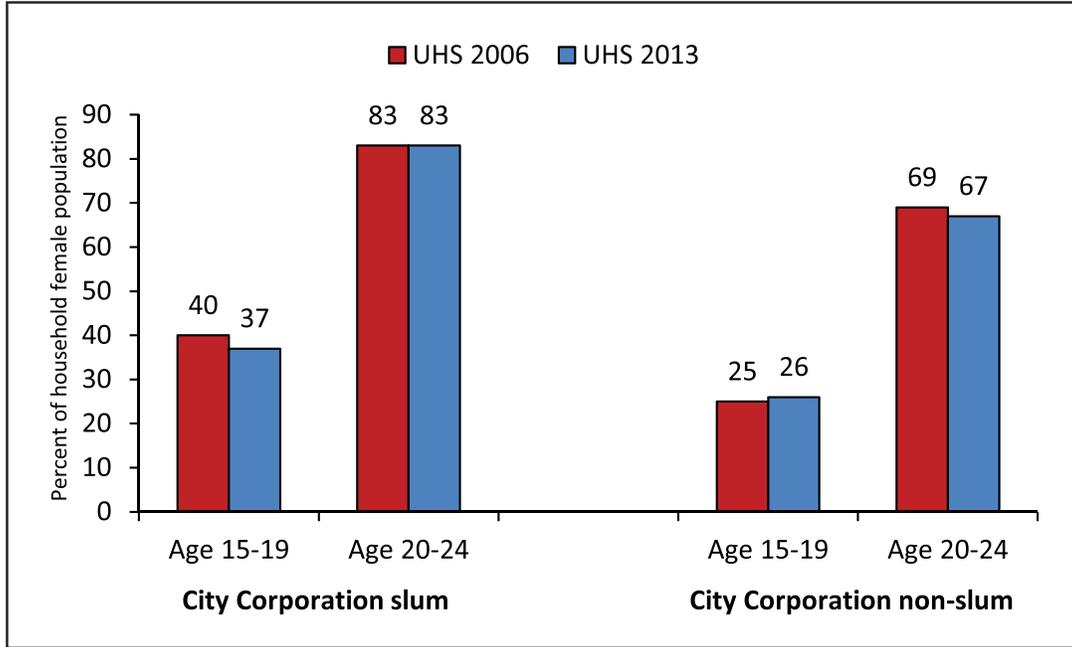
Percentage of household female and male population by five-year age group, according to marital status, according to major domains, UHS 2013.

Age group	City Corporation slum			City Corporation non-slum			Other urban		
	CM*	FM	NM	CM	FM	NM	CM	FM	NM
Female									
10-14	0.7	0.1	99.1	0.5	0.0	99.5	1.0	0.0	99.0
15-19	36.2	1.0	62.8	25.5	0.5	74.0	37.6	0.8	61.7
20-24	79.3	4.1	16.7	66.0	1.4	32.6	76.5	1.8	21.7
25-29	91.0	4.7	4.3	87.4	2.2	10.3	92.5	2.3	5.2
30-34	92.3	6.1	1.6	94.1	3.2	2.7	94.8	4.1	1.1
35-39	90.1	9.6	0.3	92.9	5.9	1.2	92.3	7.3	0.4
40-44	82.6	16.7	0.7	88.7	10.6	0.7	88.6	10.9	0.5
45-49	77.1	22.9	0.0	84.0	15.5	0.5	83.4	16.4	0.2
50-54	60.9	39.0	0.1	76.7	22.2	1.1	75.2	24.0	0.9
55-59	52.6	47.2	0.3	66.5	33.3	0.2	72.1	27.6	0.3
60-64	44.3	55.7	0.0	51.2	48.4	0.4	54.7	45.0	0.3
65-69	30.3	69.4	0.3	41.9	57.6	0.5	37.8	62.2	0.0
70-74	17.8	80.3	1.9	21.5	77.8	0.6	22.4	77.6	0.0
75-79	15.9	84.1	0.0	14.5	84.8	0.6	26.8	72.0	1.2
80+	4.9	95.1	0.0	8.3	91.7	0.0	11.1	88.9	0.0
DK/Missing	0.0	100.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0
Total	62.1	10.2	27.7	62.6	8.4	29.0	65.1	10.1	24.8
Number	14,463	2,381	6,464	26,060	3,479	12,083	11,845	1,837	4,505
Male									
10-14	0.2	0.0	99.8	0.1	0.1	99.8	0.1	0.0	99.9
15-19	3.1	0.2	96.7	1.5	0.1	98.4	2.5	0.1	97.4
20-24	35.6	0.8	63.6	13.7	0.2	86.1	25.8	0.3	73.9
25-29	76.1	0.9	23.0	51.7	0.3	48.1	65.6	0.6	33.8
30-34	92.7	0.7	6.6	85.3	0.3	14.5	89.5	0.5	10.0
35-39	98.5	0.5	1.0	96.9	0.3	2.8	97.2	0.3	2.5
40-44	98.9	0.7	0.4	97.9	0.5	1.6	98.3	0.4	1.3
45-49	97.9	1.4	0.7	99.0	0.3	0.6	98.7	0.5	0.8
50-54	98.8	0.8	0.4	98.1	1.4	0.5	98.8	0.8	0.4
55-59	96.1	3.9	0.0	97.7	1.8	0.5	96.8	3.0	0.2
60-64	96.5	3.5	0.0	95.6	4.2	0.2	96.2	3.5	0.3
65-69	95.0	5.0	0.0	95.8	4.1	0.1	96.0	3.5	0.5
70-74	90.1	9.9	0.0	92.9	6.7	0.4	91.7	8.0	0.3
75-79	85.4	14.2	0.4	89.8	10.2	0.0	92.2	7.1	0.6
80+	79.0	21.0	0.0	81.4	17.6	1.0	76.3	23.7	0.0
DK/Missing	100.0	0.0	0.0	60.6	39.4	0.0	75.0	25.0	0.0
Total	61.9	1.0	37.1	57.8	0.8	41.5	61.3	1.1	37.7
Number	15,203	251	9,122	26,497	350	19,035	11,466	197	7,043

* CM: Currently married; FM: Formerly married; NM: Never married.

There was a virtually small number of ever married men less than 20 years of age in all three survey domains (2-4%). Among those aged 20-24, the proportion of ever married men in slums was two and a half times more than in non-slum households (36 and 14%, respectively). The wide gap separating proportion ever married in slum (77%) and non-slum households (52%) carried over to the cohort aged 25-29. The proportion of ever married men in other urban households (66%) was in between for the same cohort. By ages 30-34, virtually all men and women in the household population had experienced marriage (i.e., they were currently or formerly married).

Figure 2.2: Percent of household female population ever married in City Corporation slum and non-slum, UHS 2006 and 2013.



2.2 HOUSING CHARACTERISTICS

2.2.1 Living Space

We now turn to room crowding, the definitions of which require the imposition of threshold figures. For purposes of this survey, 25 square feet per person of floor space was considered a bare minimum requirement. Table 2.4 presents information on the households by usable living space and includes all rooms/spaces, including kitchen and bathroom, and the number of living rooms by major domains.

Results show that the median living space per person was much smaller in slums, 48 square feet, compared to 120 and 110 square feet in non-slums and other urban areas, respectively. Compared to 2006, the median living space per person has increased in both slum and non-slum areas. The median living space per person in slum households increased from 36 sq. feet in 2006 to 48 sq. feet in 2013. The median living space in non-slum areas nearly doubled between 2006 and 2013 (Figure 2.3A).

There was wide disparity in the amount of space per person between slum and non-slum households. The households in slums were almost three times more likely to have less than 25 square feet per person (15%, against 5% in non-slum households). More than one-third of slum households had 26-50 square feet per person (37%). By contrast, among non-slum and other urban households, more than half had more than 100 square feet per person (54% in both areas).

In slums, three out of four households lived in only one room. In comparison, one out of three households lived in one room in non-slums and other urban areas. The mean household size was similar across the three domains (ranging from 4.1 to 4.3 members per household) but the median living space per person varied widely by domain. The average number of members in the household declined from 4.5 in 2006 to 4.1 in 2013 in slum areas; a similar decline occurred in non-slum areas (Figure 2.3B).

Table 2.4 Housing characteristics: Living space

Percent distribution of households¹ by living space and number of living rooms, according to major domains, UHS 2013.

Characteristics	City Corporation slum	City Corporation non-slum	Other urban
Usable space per usual resident¹			
<=25 square feet	14.9	4.6	2.6
26-50 square feet	37.4	17.5	16.6
51-75 square feet	21.1	14.3	16.2
76-100 square feet	9.1	9.2	10.8
101+ square feet	17.5	54.4	53.9
DK/missing	0.0	0.0	0.0
Total	100.0	100.0	100.0
Mean (sq. feet)	74	186	181
Median (sq. feet)	48	120	110
Number of living rooms			
1	74.6	35.2	34.9
2	18.1	30.0	31.2
3	5.0	19.8	18.2
4+	2.3	15.0	15.6
Total	100.0	100.0	100.0
Mean household size	4.1	4.2	4.3
Number of households	14,312	24,221	10,433

¹ Excludes 494, 1,164, and 274 mess-households from CC-slum, CC-non-slum, and other urban domains, respectively.

Note: Usable space includes all rooms/spaces including kitchen and bathrooms.

Figure 2.3A: Living space per person in City Corporation slum and non-slum areas, 2006 and 2013.

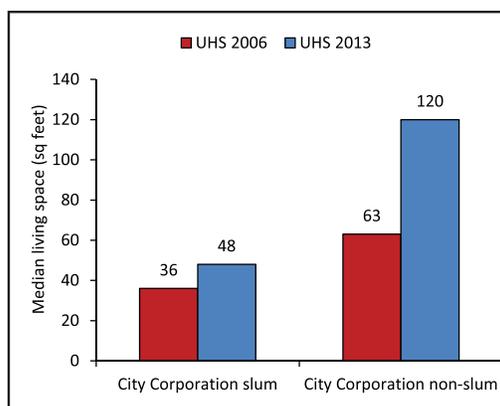
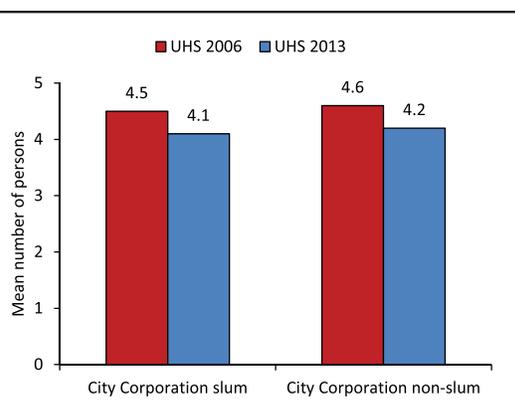


Figure 2.3B: Mean number of persons per household in City Corporation slum and non-slum areas, UHS 2006 and 2013.



2.2.2 Ownership of Land and Dwelling

Table 2.5 provides the distribution of household ownership of dwelling and land. Renting was the predominant form of tenure both in slum and non-slum areas. Three out of four dwellings in slum areas were rented; the tenure pattern was similar in non-slum areas. There were more rented dwellings in 2013 than in 2006. By contrast, 65% of other urban households owned their dwelling.

Consistent with the rented dwellings, the same proportion of slum and non-slum households (about three out of four) reported that the land for their dwelling was owned by a landlord. In other urban households, 63% owned the land for their dwelling by family, while only 32% of the land for their dwelling was owned by a landlord. The proportion of slum households on government land has declined from 20% in 2006 to 8% in 2013. A similar change was reported in non-slum areas.

Characteristics	City Corporation slum	City Corporation non-slum	Other urban
Tenure of dwelling			
Rented by household	75.6	69.9	33.0
Owned by household	21.2	27.3	65.4
Owned by employer	2.0	2.5	0.6
Other	1.2	0.2	1.0
Total	100.0	100.0	100.0
Ownership of land			
Owned by family	16.0	25.8	63.4
Owned by govt.	7.9	2.9	2.3
Owned by NGO	0.8	0.4	0.1
Owned by landlord	74.2	70.1	32.3
Relatives/other	1.0	0.8	1.8
Total	100.0	100.0	100.0
Number of households*	14,312	24,221	10,433

² Excludes 494, 1,164, and 274 mess-households from CC-slum, CC-non-slum, and other urban domains, respectively.

* Excludes mess households and missing values.

2.2.3 Electricity, Cooking Facilities, and Cooking Fuel

Table 2.6 presents the information on availability of electricity and cooking facilities in the household. Electricity was available in most of the households in the three domains. In 2013, electricity was available in almost 98% of slum households, an increase from 91% in 2006. Virtually all non-slum households had electricity, and 94% of other urban households had it.

Results showed that many of the households in all three urban domains had a separate cooking space/room. The proportion of separate cooking spaces/rooms was more common in non-slum households (76%) as compared to other urban and slum households (60% and 43%, respectively). A substantial proportion of households in slums (40%) and other urban (32%) areas did their cooking in separate rooms outside the house.

Table 2.6: Housing characteristics: Electricity and cooking facilities

Percent distribution of households by availability of electricity and cooking facility, according to major domains, UHS 2013.

	City Corporation slum	City Corporation non-slum	Other urban
Household has electricity			
Yes	97.8	99.5	93.8
No	2.2	0.5	6.2
Total	100.0	100.0	100.0
Cooking facilities in the household			
Inside household but separate room	43.4	76.1	59.8
Inside household but same room	10.2	3.3	4.6
In separate room outside house	39.9	19.3	31.8
Open space	5.6	0.9	3.4
Food not prepared in household	0.9	0.4	0.4
Total	100.0	100.0	100.0
Number of households ¹	14,806	25,385	10,707

¹ Excludes 494, 1,164, and 274 mess-households from CC-slum, CC-non-slum, and other urban domains, respectively.

Table 2.7 presents information on the main types of cooking fuel used by households. Gas (including liquid gas, natural gas, and bio-gas) and wood were by far the most commonly used fuels. Among non-slum households, a large majority (86%) used some form of gas, while only 12% burned wood. Among slum households, 63% used some form of gas, against the 31% that relied on wood. Wood was the primary type of cooking fuel in other urban areas (used by 55% of households in these areas).

Table 2.7: Type of cooking fuel

Percent distribution of households by type of cooking fuel, according to major domains, UHS 2013.

Type of fuel used for cooking	City Corporation slum	City Corporation non-slum	Other urban
Electricity	1.5	0.3	0.6
Liquid gas/natural gas/bio-gas	62.5	86.3	35.1
Kerosene/coal/coke/charcoal	1.8	0.4	0.6
Wood	31.1	11.7	55.1
Rice husk/wood powder/grass/dung cakes	2.3	1.0	8.2
No cooking in household	0.9	0.4	0.4
Total	100.0	100.0	100.0
Number of households	14,806	25,385	10,707

2.2.4 Drinking Water and Sanitation

The distributions of household water supply and sanitation facilities are presented in tables 2.8 and 2.9.

Three basic components of water safety are the availability of a drinking water connection to the home, whether the source of drinking water is shared, and if so, whether it is shared by more than five families.

Access to “improved” water source was universal in all three urban domains—slums, non-slums, and other urban areas (Table 2.8). Most urban households obtained their drinking water from a piped source or a tube well. In slums, half of the households had piped water into their dwelling, yard, or plot (an increase from only 27% in 2006) and 40% had a tube well or borehole. Piped water into dwelling/yard/plot was also a common source of drinking water in non-slum households (74%), while most of the households in other urban areas (70%) obtained drinking water from tube wells/boreholes.

Sharing of their drinking water source was reported by a large percentage of urban households, and a shared source was essentially a common practice among slum households. More than 80% of slum households shared a water source with five or more households. In non-slums and other urban households, sharing was much less common. One in three households in non-slums and other urban areas were found to share a water source with five or more households. Half of the non-slum households and about 40% of households in other urban areas reported that they did not share their drinking water source. Only 8% of slum households shared a water source with no families.

Table 2.8: Household drinking water

Percent distribution of households by source of drinking water, percentage sharing the source of drinking water, according to major domains, UHS 2013.

Source of drinking water	City Corporation slum	City Corporation non-slum	Other urban
Piped water into dwelling/yard/plot	51.1	73.5	24.7
Public tap/standpipe	8.2	4.2	4.8
Tube well or borehole	39.7	21.6	70.3
Protected (dug well/spring)/rainwater/bottled water	0.7	0.7	0.2
Unprotected (dug well/spring)/surface water/other	0.3	0.0	0.1
Total	100.0	100.0	100.0
Share water source with other			
Not shared	8.3	51.9	38.8
2-4 households	10.4	15.4	28.4
5-9 households	16.4	12.0	12.6
10+ households	64.7	20.5	20.1
Don't know/missing	0.3	0.2	0.1
Total	100.0	100.0	100.0
Number of households	14,806	25,385	10,707

Access to adequate sanitation facilities was another important determinant of health and environmental safety. Basic indicators included the presence of sanitary latrines or access to such latrines (i.e., septic tank/modern toilet, water sealed/slab latrine, or improved pit latrine). There were disparities between slum and non-slum households in terms of access to adequate sanitation. In slums, 85% of households shared toilet facilities with other households. Thus, only 13% of households in slums had access to “improved” toilet facilities that was not shared by other households, and 71% of households used a toilet facility that would be considered improved if it was not shared with other households (Table 2.9). In comparison, over 50% of households in non-slum and other urban areas had access to improved toilets that were not shared with other households. Use of open latrine among slum households has decreased noticeably. In 2006, about 40% of slum households reported use of an open latrine, which declined to 2% in 2013. Almost none of the households in non-slums and other urban households used open latrines.

Shared toilet facilities used by at least five families were found in two of every three slum households. Sharing of toilet facilities with other families was least common in non-slums and other urban households. Sixty-five percent of non-slums and 59% of other urban households did not share toilet facilities.

Table 2.9: Household sanitation facilities

Percent distribution of households by type of toilet facilities and sharing toilets, according to domain, UHS 2013.

Characteristics	City Corporation slum	City Corporation non-slum	Other urban
Improved, not shared facility			
Flush to piped sewer system/septic tank	0.4	14.8	4.8
Ventilated improved pit	12.2	35.7	48.4
Shared facility¹			
Flush to piped sewer system/septic tank	0.6	1.3	0.5
Ventilated improved pit	70.6	28.3	36.2
Non-improved facility			
Flush to somewhere	8.6	18.8	2.7
Pit latrine without slab	4.8	1.0	6.2
Bucket latrine/open/hanging latrine	2.4	0.1	0.8
No facility	0.2	0.1	0.4
Total	100.0	100.0	100.0
Shared sanitation facility			
Not shared	15.2	64.5	59.2
2-4 household	18.7	19.1	25.4
5-9 households	23.0	9.4	9.0
10+ households	42.9	7.0	6.3
Don't know/missing	0.3	0.1	0.0
Total	100.0	100.0	100.0
Number	14,806	25,385	10,707

¹ Shared facility of an otherwise improved type.

Hand washing, a new public health intervention is promoted to protect against communicable diseases. In the UHS 2013, interviewers were instructed to observe the place where household members usually washed their hands. They looked for availability of water supply and observed whether the household had cleansing agents near the place of hand washing. Table 2.10 provides information on designated places for hand washing in households and on the use of water and cleansing agents for washing hands, according to three survey domains.

Designated place for hand washing was almost universally available in non-slums and other urban households, while the majority of slum households (82%) also had this facility. Hand washing facilities varied across domains. Among households having a place for hand washing, three in four had soap and water available for hand washing in non-slum areas compared with only one in three in slum areas. About 60% of households in other urban areas had designated places with soap and water for hand washing. In contrast, about 60% of slum households had only water without any soap or cleaning agents available for hand washing. The same hand washing facilities were observed in 22% of households in non-slums and 35% of households in other urban areas.

Table 2.10: Hand washing

Percent distribution of households in which the place most often used for washing hands was observed, percent distribution by availability of water, soap, and other cleaning agent, according to major domains, UHS 2013.

Characteristics	City Corporation slum	City Corporation non-slum	Other urban
Percentage of households where place for washing observed	82.3	95.9	92.6
Number of households	14,806	25,438	10,707
Hand washing facilities			
Soap and water	32.7	75.6	58.8
Water and cleaning agent other than soap	1.2	0.4	2.3
Water only	58.9	22.2	35.3
No water	7.1	1.8	3.7
Number of households with place for hand washing observed	12,189	24,390	9,910

Note: Soap includes soap or detergent or bar. Cleaning agent other than soap includes: ash, mud, or sand.

2.2.5 Waste Disposal

Table 2.11 presents the distribution of the main method of household garbage disposal. Nearly 50% of slum households disposed of their garbage in an open space outside; 33% of garbage was collected from the home and 15% was disposed of in a bin outside the house. Among non-slum households, the majority (72%) of garbage was collected from the home or disposed of in a bin outside the house; with only 25% disposed of in an open space. However, since 2006 collection of garbage from the home increased—in slums from 22% to 33%, and in non-slums from 41% to 63%. Disposed in open space was the main method of garbage disposal (67%) in other urban areas.

Table 2.11: Housing characteristics: Waste disposal

Percent distribution of households by main method of garbage disposal, according to major domains, UHS 2013.

Characteristics	City Corporation slum	City Corporation non-slum	Other urban
Principal method for garbage disposal			
Collected from home	32.7	63.2	10.5
Household disposes within premises	4.4	2.7	8.7
Household disposes in bin outside house	15.2	9.1	12.1
Household disposes in open space outside house	47.4	24.8	67.4
Garbage burned/buried/other	0.3	0.2	1.3
Total	100.0	100.0	100.0
Number of Households	14,806	25,385	10,707

2.2.6 Roof, Wall, and Floor Material

Housing conditions are characterized by the materials used to construct the dwelling (see Table 2.12). In both slum and non-slum areas cement was the predominant floor material used in more than three in four households. Materials used for slum housing improved between 2006 and 2013. Slum households with earth or sand used as a floor material declined from 36% to 19%; most switched to cement, which was used in 75% of slum households. Earth and sand were still widely used flooring materials in other urban areas, as more than one in three households had earth or sand floors while the other households had cement floors.

Most slum households (88%) used tin roofs, showing no change since 2006. Tin roofing was also characterized most in other urban dwellings (78%). The most prevalent roof material in non-slum households was cement or ceramic tiles (62%).

Eighty-six percent of the walls in slum households were made of tin or cement. Use of basic materials like jute/bamboo/mud for the walls has declined in slums from 26% in 2006 to 9% in 2013. Among non-slum households, most walls were made of cement (88%). In over 80% of other urban households walls were made of cement or tin.

Table 2.12: Housing characteristics: Dwelling material

Percent distribution of households by dwelling materials of house, according to major domains, UHS 2013.

Characteristics	City Corporation slum	City Corporation non-slum	Other urban
Main material of floor			
Earth, sand	19.4	4.6	34.0
Wood planks/palm, bamboo	4.6	0.1	0.6
Parquet, polished wood/ceramic tiles	0.6	17.0	3.0
Cement	75.4	78.3	62.3
Other	0.0	0.0	0.0
Total	100.0	100.0	100.0
Main roof material			
No roof/thatch/palm leaf/polythin	1.3	0.2	0.2
Bamboo/wood planks/cardboard	1.0	0.2	0.2
Tin	88.4	37.9	77.7
Ceramic tiles/cement	8.9	61.6	21.1
Other	0.4	0.2	0.9
Total	100.0	100.0	100.0
Main wall material			
No walls/jute stick/palm/trunks/soil/mud	2.4	0.6	4.2
Bamboo with mud stone with mud/plywood/cardboard	6.9	1.9	4.4
Tin	42.6	7.6	35.1
Cement	43.5	87.9	49.8
Brick without plaster	4.1	1.9	6.0
Wood planks/shingles/other	0.4	0.1	0.5
Total	100.0	100.0	100.0
Number of households	14,806	25,385	10,707

2.2.7 Household Possession of Durable Goods

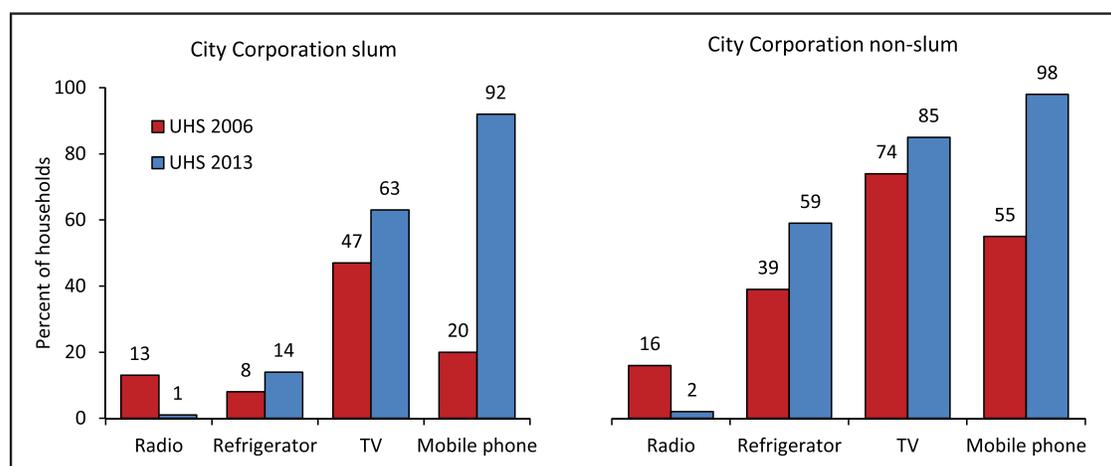
Table 2.13 presents information on the distribution of household ownership of various durable consumer goods, including household furnishings and various items associated with access to media, transportation, and communication. It is important to note that information on ownership of a common set of durable goods has been used in ranking households according to economic status (i.e., wealth). Sharp disparities between slum and non-slum households in terms of ownership of such goods are apparent. Only 14% of slum households had a refrigerator versus 59% of non-slum households. Other furnishings, such as an almirah, were owned by 40% of slum and 76% of non-slum households. Two-in-three other urban households owned an almirah and one in three owned a refrigerator. Mobile phones and electric fans were two equitably available durable items across the three survey domains. Televisions were more widely available in all three domains. Slum households were almost as likely (63%) as other urban households (70%) to own a television, compared to 86% of non-slum households. Although very few urban households owned a computer, non-slum households (28%) were almost ten times as likely to own a computer as households in slums (3%).

Table 2.13: Household possessions

Percentage distribution of households possessing various durable household goods, according to domains, UHS 2013.

Durable goods	City Corporation slum	City Corporation non-slum	Other urban
Radio	1.4	2.1	0.6
Television	62.5	85.5	69.8
Mobile telephone	92.0	97.8	94.1
Non-mobile telephone	0.8	8.2	2.5
Refrigerator	13.5	58.8	33.6
Computer/laptop	2.5	27.8	11.0
Almirah/wardrobe	39.6	75.9	59.9
Fan	92.5	97.2	89.3
Bicycle	5.7	8.5	19.6
Motorcycle	1.0	6.0	9.1
CNG/tempo	0.5	0.7	1.0
Car/truck/bus/microbus	0.2	3.4	0.8
Rickshaw/van	5.3	1.7	3.9
DVD/VCD player	2.4	7.4	3.8
IPS/generator	0.7	11.0	2.0
Air-conditioned	0.0	2.7	0.3
Do not own any durable goods	1.4	0.3	1.7
Number	14,806	25,385	10,707

Possession of durable goods in slum and non-slum households has changed between 2006 and 2013 (Figure 2.4). Ownership of a mobile phone showed a major increase in this period in both slum and non-slum areas, with a more than four-times increase in slum households. Ownership of TVs and refrigerators has also increased substantially. However, ownership of a radio has declined.

Figure 2.4: Ownership of durable goods in City Corporation slums and non-slums, UHS 2006 and 2013.

2.3. SOCIOECONOMIC STATUS

Households across all of the survey domains are assigned to socioeconomic status (SES) categories using an index based primarily on dwelling characteristics (e.g., presence of electricity; type of water source; type of toilet; and floor, wall, and roof material), household ownership of selected assets and durable goods, and two indicators of housing tenure (whether the household held title to the dwelling and/or the land). Using a common scale to classify households across all domains makes it possible to observe variation in SES within and across the different survey domains. A sample-wide SES index is constructed using a version of the principal components approach that can account for the binary and ordinal nature of the measures involved. The procedure assigns each variable a factor score or weight, and the index is constructed as a weighted sum of these variables. The index is then used to rank and classify households into quintiles referred to as household asset quintiles or “wealth quintiles.”

Table 2.14 presents information on the distribution of households by wealth quintiles across the three survey domains. Overall, 43% of urban households were in the two lowest wealth quintiles, and another 38% were in the two highest wealth quintiles. Three out of four (74%) slum households were in the lowest two wealth quintiles, compared with over one in five (22%) in non-slum areas. Almost 60% of non-slum households were in the two richest wealth quintiles, compared with 7% in slums.

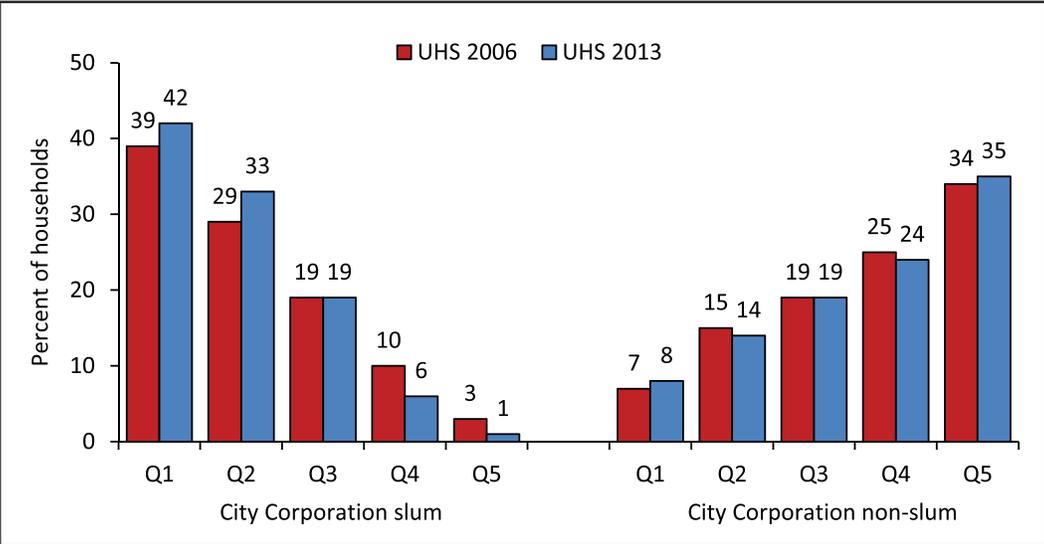
The distribution of wealth among the non-slum population has remained almost unchanged since 2006; however, in slums, a larger proportion of households were poorer in 2013 than in 2006 (Figure 2.5).

Table 2.14: Socioeconomic status index

Percentage distribution of household by SES quintile index according to domain, UHS 2013.

SES quintile	City Corporation slum	City Corporation non-slum	Other urban	All
Poorest	41.9	7.4	27.5	21.6
Poorer	32.5	14.3	22.4	21.3
Middle	18.5	19.3	21.5	19.5
Richer	6.1	24.5	19.3	18.1
Richest	1.0	34.4	9.2	19.5
Total	100.0	100.0	100.0	100.0
Number of households	14,806	25,385	10,707	50,876

Figure 2.5: Distribution of household wealth quintiles in City Corporation slums and non-slums, UHS 2006 and 2013.



An equal proportion (19%) of slum and non-slum households were in the middle quintile. In other urban areas, the ratio of the two poorest quintiles was just half of the households while the two highest wealth quintiles also contained only 29% of households.

CHAPTER 3: CHARACTERISTICS OF RESPONDENTS

3



Photograph: Courtesy of Eminence

Key Findings:

- Women in slums were younger than those in non-slums; 29% in slums were aged under 25 years, compared to 22% in non-slums and 25% in other urban areas.
- Forty-five percent of women in slums had completed at least primary education, compared with 79% in non-slums and 69% in other urban domains. The percent of slum women with no education has declined from 49% in 2006 to 32% in 2013.
- Forty-nine percent of men in slums had completed at least primary education, compared with 80% in non-slums and 69% in other urban areas. The percent of slum men with no education has declined from 39% in 2006 to 26% in 2013.
- One in three women in slums worked full time, compared with one in six in non-slum areas.
- Over 80% of women in slums and other urban areas watched television at least once a week. Among non-slum women TV exposure was 94%.
- Fifty-four percent of women in slums owned a mobile phone. In comparison, 79% of women in non-slums and 64% in other urban areas owned mobile phones.
- Twenty percent of women in other urban areas had NGO membership, followed by 14% among slum women and only eight percent among non-slum women.

Chapter three presents information on the background characteristics of individual male and female adult respondents to the 2013 Urban Health Survey. Its objective is to provide some degree of context for many of the disparities in health and health-related indicators across survey domains discussed in subsequent chapters. At the same time, the differences in the basic socioeconomic and demographic characteristics of eligible women and men across the survey domains are considered in this report broadly—City Corporation slum, City Corporation non-slum, and other urban communities. In this chapter, we present the basic demographic and socioeconomic characteristics of 49,168 ever married women aged 15-49 and 10,380 ever married men aged 15-54 who responded to the individual questionnaires.

3.1 BACKGROUND CHARACTERISTICS

We begin with the very basic differences in characteristics between women in slum and non-slum communities of the City Corporations and other urban areas, presented in Table 3.1. Women in slums were younger than those in non-slums; 29% in slums were aged under 25 years, compared to 22% in non-slums and 25% in other urban areas. Women in middle reproductive age in slums and non-slums appear to have been the same. For instance, 40% of adult female respondents in slum and non-slum areas were 25 to 34 years of age. The proportion of older age women was the same in non-slums and other urban areas. Older age ranges were less among slum respondents (31%) compared to the non-slum and other urban respondents (38%, respectively).

Results also showed that across three domains the majority of the women were currently married. About two-thirds of the women who resided in the slum and non-slum areas were from Dhaka and the rest of the women were from other divisions. In contrast, about two-thirds of women in other urban communities were from other divisions and more than one-third represented Dhaka.

As expected, those in slums appear to have been the poorest, with 40% of ever married female respondents in the poorest household wealth quintile (against 7% in non-slums and 25% in other urban areas). Figure 3.1 provides a visual indication of the distribution of wealth for women across the three domains. Those residing in non-slum areas were the most affluent across the three domains, with the greatest proportion of respondents in the richest and richer quintiles.

Figure 3.1: Wealth distribution of ever married women age 15-49 by domain, UHS 2013.

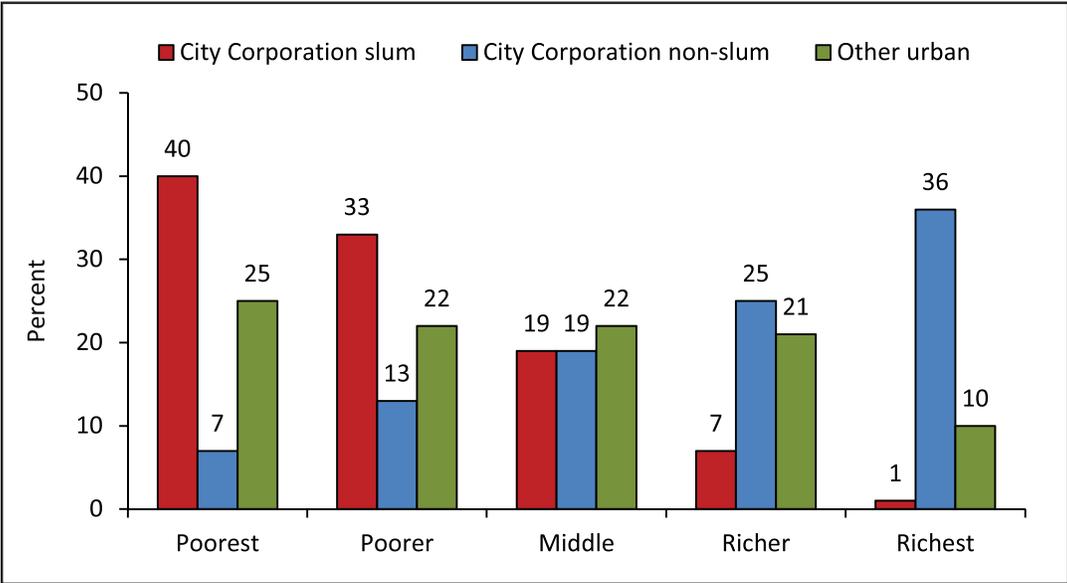


Table 3.1: Background characteristics of respondents: Women

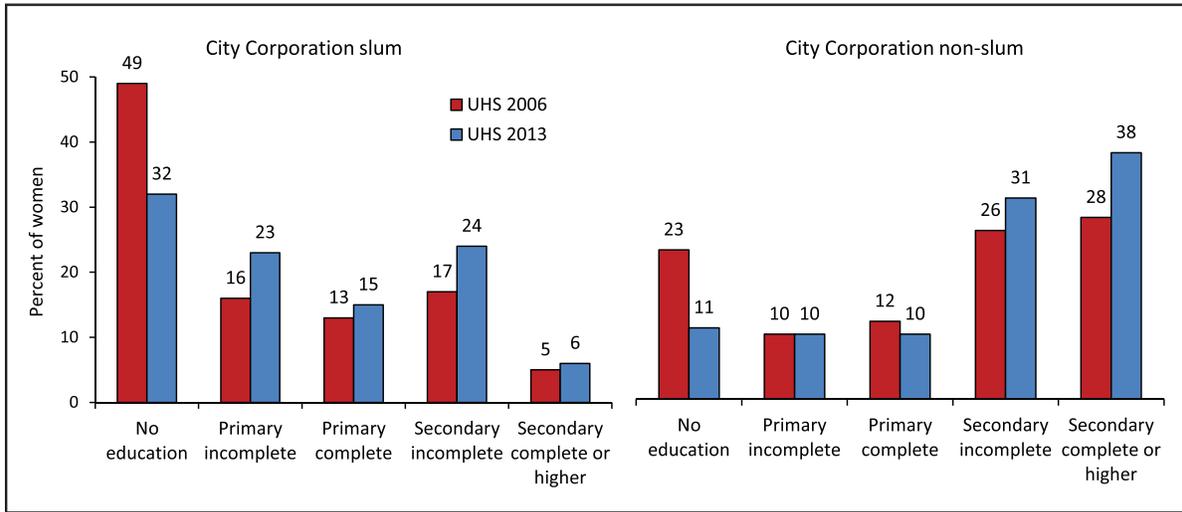
Percent distribution of ever married women age 15-49 by selected background characteristics, according to domain, UHS 2013.

Background characteristics	City Corporation slum		City Corporation non-slum		Other urban	
	Weighted percentage	Weighted number	Weighted percentage	Weighted number	Weighted percentage	Weighted number
Age						
15-24	29.1	4,069	22.0	5,347	25.0	2,704
25-34	40.0	5,600	40.3	9,812	37.5	4,062
35-49	30.9	4,325	37.7	9,192	37.5	4,056
Region						
Dhaka	62.9	8,805	64.7	15,758	36.8	3,983
Other division	37.1	5,189	35.3	8,594	63.2	6,839
Marital status						
Currently married	91.9	12,859	94.6	23,044	94.2	10,193
Divorced/separated/widowed	8.1	1,134	5.4	1,308	5.8	629
Wealth quintile						
Poorest	39.8	5,565	6.8	1,650	24.9	2,692
Poorer	32.6	4,562	13.4	3,271	21.5	2,328
Middle	19.4	2,709	18.6	4,541	22.1	2,394
Richer	7.0	978	25.0	6,079	21.3	2,303
Richest	1.3	179	36.2	8,811	10.2	1,104
Education						
No education	31.8	4,452	10.7	2,614	17.5	1,897
Primary incomplete	23.3	3,266	10.4	2,523	13.4	1,454
Primary complete	14.7	2,056	9.7	2,360	11.1	1,196
Secondary incomplete	24.3	3,397	30.9	7,530	33.6	3,632
Secondary complete or higher	5.9	823	38.3	9,325	24.4	2,644
Religion						
Muslim	95.3	13,342	93.6	22,781	91.1	9,863
Non-Muslim	4.7	651	6.4	1,571	8.9	959
Total	100.0	13,994	100.0	24,352	100.0	10,822

Note: A total of 62 un-weighted women aged 13-14 are excluded from the analysis.

Women in slums were less likely to be educated than women in non-slums and other urban domains (Figure 3.2). Forty-five percent of women in slums had completed at least primary education compared with 79% in non-slums and 69% in other urban domains. About one-third of the women in slums had no education, against 11 and 18% in non-slum and other urban areas, respectively. The percent of slum women with no education has declined from 49% in 2006 to 32% in 2013. The decline was mostly due to an increase in the percentage of slum women who had completed at least primary education (from 35 to 45%). Similarly, the percentage of non-slum women who had at least completed a primary level of education increased from 66 to 79% during the same period. However, those in non-slum areas appeared to be the most advantaged: the proportion in the most educated categories appeared highest in them, with those in other urban areas presenting a somewhat distant second.

Figure 3.2: Educational attainments of ever married women age 15-49 in slum and non-slum domains, UHS 2006 and 2013.



Interestingly, the distribution of religious affiliation was far from similar across the three domains. The slums and non-slums had slightly more Muslims (95%) against other urban communities (91%).

Table 3.2 provides the same indicators for ever married men across the three domains that Table 3.1 presented for female respondents. The age distribution of men appears to have been roughly similar across the three domains, with perhaps a slightly greater representation of the oldest age categories.

Almost all ever married men in three survey domains were currently married. Across the three domains, a far smaller proportion of men reported being divorced, separated, or widowed than was the case with women. Like women, more males who lived in slums (64%) and non-slums (67%) were from Dhaka division, while an almost similar proportion of males (61%) who resided in other urban areas were from other divisions.

As was the case with women, men living in slum areas were the poorest, followed by respondents in other urban areas. For instance, 73% in the slum domain were from the two lowest quintiles, against 22 and 48% in non-slum and other urban areas, respectively. The highest two household asset quintiles were by far the most well represented in non-slum communities in the City Corporations.

Men in slums were less likely to be educated than men in non-slums and other urban areas. The disparity in educational attainment of men by slum and non-slum domains was similar to that observed among women. Forty-nine percent of men in slums had completed at least primary education, compared with 80% in non-slums and 69% in other urban areas. The percent of slum men with no education declined from 39% in 2006 to 26% in 2013. The percentage of slum men who had completed at least primary education improved from 43 to 49% over the same period. In comparison, the percentage increase among non-slum men was from 72 to 80%. As was the case with women, Muslims were best represented in the slum areas of City Corporations.

Table 3.2: Background characteristics of respondents: Men

Percent distribution of ever married men age 15-54 by selected background characteristics, according to domain, UHS 2013.

Background characteristics	City Corporation slum		City Corporation non-slum		Other urban	
	Weighted percentage	Weighted number	Weighted percentage	Weighted number	Weighted percentage	Weighted number
Age						
15-24	8.3	365	3.9	113	6.5	201
25-34	38.7	1,707	33.3	953	34.1	1,058
35-54	53.0	2,336	62.8	1,799	59.5	1,848
Region						
Dhaka	63.6	2,805	67.0	1,920	38.6	1,199
Other division	36.4	1,603	33.0	945	61.4	1,908
Marital status						
Currently married	99.0	4,364	99.3	2,845	99.5	3,091
Divorced/separated/widowed	1.0	44	0.7	20	0.5	16
Wealth quintile						
Poorest	40.3	1,777	6.7	192	26.0	808
Poorer	32.8	1,444	15.2	436	22.1	687
Middle	19.2	847	19.0	544	21.4	665
Richer	6.6	290	24.8	711	21.0	654
Richest	1.1	50	34.3	982	9.4	293
Education						
No education	25.7	1,133	9.6	274	14.6	455
Primary incomplete	25.1	1,104	10.8	309	16.2	503
Primary complete	13.7	602	8.4	240	10.7	333
Secondary incomplete	24.9	1,095	22.6	649	24.6	764
Secondary complete or higher	10.7	473	48.6	1,394	33.9	1,053
Religion						
Muslim	96.0	4,232	93.0	2,663	90.9	2,825
Non-Muslim	4.0	176	7.0	202	9.1	282
Total	100.0	4,408	100.0	2,865	100.0	3,107

3.2 EMPLOYMENT

Table 3.3 presents distribution of ever married women aged 15-49 by employment status, and among currently working women the place of work by domains. Results showed that women in slums were more likely to work full time than women in non-slums and other urban domains. One in three women in slums had full time employment, compared to one in six in non-slum areas. Over 80% of women in non-slums and other urban areas were not employed in the last year, with slightly above 60% of women in slums not being employed in the last year.

It was observed that the majority of currently working women in all three domains were working inside the home. Women in slum and non-slum areas were more likely to work inside the home compared to women in other urban areas.

Table 3.3: Employment of Women

Percent distribution of ever married women age 15-49 by employment status and among currently working women by place of work and by domain, UHS 2013.

Characteristics	City Corporation slum	City Corporation non-slum	Other urban
Employment status in last 12 months			
Worked full time	33.4	16.7	14.6
Worked seasonal	1.2	0.6	0.4
Worked occasionally	3.5	1.2	1.5
Didn't work in last year	61.9	81.4	83.5
Total	100.0	100.0	100.0
Number of women	13,994	24,352	10,822
Place of work			
Inside home	86.5	84.6	77.3
Outside home	13.5	15.4	22.7
Total	100.0	100.0	100.0
Number of currently working women	4,875	4,191	1,675

Table 3.4 provides the distribution of basic employment indicators for men across the three major domains. Almost all men across three domains worked full time (98% in each domain) in the last year. As expected, the men were more likely to have full time work compared to the women.

Table 3.4: Employment of Men

Percent distribution of ever married men age 15-54 by employment status, and among currently working men by place of work and by domain, UHS 2013.

Characteristics	City Corporation slum	City Corporation non-slum	Other urban
Employment status in last 12 months			
Worked full time	97.9	98.2	98.2
Worked seasonal	0.5	0.3	0.7
Worked occasionally	1.1	0.4	0.3
Didn't work in last year	0.5	1.1	0.7
Total	100.0	100.0	100.0
Number of men	4,408	2,865	3,107

3.3 OWNERSHIP OF CELL PHONE

As shown in Table 3.5, 54% of women in slums owned a mobile phone. In comparison, 80% of women in non-slums and 64% in other urban areas owned mobile phones.

Table 3.5: Ownership of cell phone: Women

Percentage of ever married women age 15-49 who own a cell phone by background characteristics, according to domain UHS 2013.

Ownership of cell phone	City Corporation slum	City Corporation non-slum	Other urban
Yes	53.7	79.2	64.3
No	46.3	20.8	35.7
Total	100.0	100.0	100.0
Number of women	13,994	24,352	10,822

3.4 EXPOSURE TO MEDIA

Table 3.6 provides basic media exposure related statistics for women in three survey domains. A large majority of women across survey domains did not read newspapers at least once in a week. However, newspaper reading appeared to have been more practiced in non-slum areas, followed by other urban areas, and was almost absent in slums.

Women across the three domains hardly listened to the radio. By contrast, television viewing was far more common. The overwhelming majority of women in slums watched television at least once a week (82%), compared with 94% in non-slum areas. Exposure to television at least once a week has increased slightly among slum and non-slum women from 81 and 92%, respectively, in 2006.

Access to all three media at least once in a week among women in slum, non-slum, and other urban areas was found hardly ever. Only 17% of slum women reported no exposure to any of the three forms of mass media (newspaper, television, and radio) in 2013 compared with 5% in non-slum areas. Between 2006 and 2013, the percentage of slum women with no exposure to any mass media at least once a week remained unchanged at 17%.

Table 3.6: Exposure to mass media: Women

Percentage of ever married women age 15-49 who are exposed to specific media on a weekly basis by domain, UHS 2013.

Exposure to mass media	City Corporation slum	City Corporation non-slum	Other urban
Reads a newspaper at least once a week	3.4	27.6	16.9
Watches television at least once a week	82.0	94.0	85.3
Listens to the radio at least once a week	3.1	4.3	2.0
Accesses all three media at least once a week	0.2	2.5	0.6
Accesses none of the three media at least once a week	17.2	5.3	13.7
Number of women	13,994	24,352	10,822

3.5 NGO MEMBERSHIP

The distribution of NGO membership across women in the three major survey domains is presented in Table 3.7. A large majority of non-slum and slum women did not have membership in NGO income generating activities. Only small proportions of women in all three domains reported to have NGO membership. Compared with slum and non-slum women, slightly more women in other urban areas were involved in any NGO income-generating activity. Those who were involved with NGO activity were mostly involved with one NGO. About one-fifth of women in other urban areas and only 13% of women in slums were affiliated with one NGO activity. A very negligible proportion of women in all three domains had membership with two or more NGOs.

Table 3.7: NGO membership: Women

Percentage distribution of ever married women age 15-49 by membership of NGO, according to domain, UHS 2013.

NGO membership	City Corporation slum	City Corporation non-slum	Other urban
Not a member of NGO	85.8	92.3	79.8
1 NGO	13.0	7.1	18.2
2 or more NGO	1.2	0.6	2.0
Total	100.0	100.0	100.0
Number of women	13,994	24,352	10,822

CHAPTER 4: MIGRATION AND MIGRANTS' CHARACTERISTICS 4



Photograph: Courtesy of Eminence

Key Findings:

- Around one-third of the female slum population was born in the same city where they are residing now. In comparison, around 42% of women in non-slums and 54% in other urban areas were born in the same city. The pattern is similar for males in all three urban domains.
- Two-thirds of men and women living in slums were migrants while the remaining third had always lived there.
- About 20% of slum women have been living in their current city of residence for less than five years compared with 12% of men.
- Recent migrants (residing in the current city for less than two years) in the slums are poorer than those who have been living there longer. Sixty-four percent of recent female migrants and 75% of recent male migrants in slums (residing in the current city for less than two years) belonged to the poorest wealth quintile. In comparison, 39% of long-term female migrants and 42% of long term male migrants (residing in the current city for 5+ years) belonged to the poorest quintile. It is possible that economic status improves over time, as they settle into city life, or the selection of recent migrants is poorer than those who migrated in the past. It is probable that both of these processes are happening.
- The education levels of women in slums who have migrated recently (less than two years ago) were substantially higher than recent male migrants. This may be because reasons for migration are somewhat different for females, many of whom migrate for marriage, compared to males who predominantly migrate in search of work.
- Only one-third of male migrants in slums reported to have received any support in seeking accommodation or employment when they first arrived in cities.
- Women residing in slums were much more likely to be engaged in paid employment.

The annual increment in the urban population of Bangladesh is currently 1.6-1.7 million, which will peak at 1.9 million in the next few years, according to UN estimates in *World Urbanization Prospects, 2012*. One-third of this annual increase will be due to natural increases, with two-thirds due to in-migration from rural areas. This annual increment will decline gradually to 1.25 million over the next three decades to mid-century.

To identify migrants within the urban population, the Urban Health Survey (UHS) 2013 included questions on place of birth and duration of stay in current residence. Among migrants, the survey also obtained information on place of prior residence and reasons for migrating to their current residence.

For purposes of this study, a ‘migrant’ is defined as a respondent whose place of birth was different from their current place of residence and/or one who said they had not ‘always lived’ at their current location, which means he or she was from a different city. This chapter describes the characteristics of the migrant population, their reasons for migration, duration of stay in urban areas, and patterns of movements. Where possible, comparisons are made between the change in characteristics of urban migrants between 2006 and 2013 in slum and non-slum domains.

4.1 PLACE OF BIRTH OF URBAN RESIDENTS

Table 4.1 shows the place of birth of females and males currently residing in slums, non-slums, and other urban areas. Migrants to urban areas, both female and male, were preferentially moving to the slums. Only one in three slum dwellers were born in the same city. Two-thirds of slums dwellers arrived from elsewhere, a higher proportion than residents of non-slums or other urban areas. The likelihood of migrating from other divisions was not proportional to the population of those divisions, as arrivals from Barisal accounted for 16% whereas the Barisal division was only 6% of the national population. The other divisions accounted for a smaller proportion than their proportion of the national population (see Annex B, Figure 4.1.5 for place of birth in other divisions). The “other urban” population was the least likely to have originated in other divisions, with proportions in non-slums in between slums and other urban areas.

Table 4.1: Place of birth and current residence

Percent distribution of women's place of current residence, according to place of birth (Division), City Corporation slum, City Corporation non-slum, and other urban areas, UHS 2013.

Place of Birth	Current Residence		
	City Corporation slum	City Corporation non-slum	Other urban
Women (age 15-49)			
Same city	33.1	41.9	54.0
Barisal	16.1	10.3	2.5
Chittagong	14.2	16.9	8.8
Dhaka	21.3	17.4	15.9
Khulna	4.2	4.9	5.1
Rajshahi	3.4	3.7	6.7
Rangpur	5.2	2.9	5.9
Sylhet	2.1	1.6	0.8
Abroad & other	0.4	0.4	0.4
Total	100.0	100.0	100.0
Number of Women	13,994	7,914	10,822
Men (age 15-54)			
Same city	34.3	42.2	67.5
Barisal	16.5	12.2	3.5
Chittagong	12.3	14.1	4.3
Dhaka	21.5	18.3	12.4
Khulna	4.3	4.4	3.5
Rajshahi	3.3	3.9	4.0
Rangpur	5.6	3.5	3.7
Sylhet	1.9	1.2	0.8
Abroad & other	0.2	0.3	0.2
Total	100.0	100.0	100.0
Number of men	4,408	2,865	3,107

In the next section a more detailed look at the origins of slum dwellers is presented. Table 4.2 shows how the proportion of females that currently reside in the slums of different City Corporations but were born outside that city vary greatly. Among the residents of Dhaka slums, three-quarters were born outside of Dhaka city (could be other urban areas of Dhaka Division). In contrast, only about one-quarter of residents of slums in Rajshahi or Rangpur were born outside those cities. Because Dhaka accounts for one-third of the total urban population it weighs heavily on the overall proportion, with two-thirds of the slum residents nationally having migrated from outside their city of current residence. The major source of migrants to the slums of any of the listed City Corporations originated in the rural areas of the same Division, that proportion was mostly in the range from 15 to 25%.

Table 4.2: Place of current residence by place of birth (urban or rural): City Corporation slum: Women

Percent distribution of ever-married women age 15-49 by place of birth and current place of residence, UHS 2013.

Place of birth	Place of current residence — City Corporation slum										All CC
	Dhaka City Corporation	Chittagong City Corporation	Barisal	Comilla	Khulna	Narayanganj	Rajshahi	Rangpur	Sylhet		
Born in the same city	24.6	37.7	49.0	63.8	52.0	54.8	72.4	70.6	31.7	33.1	
Barisal urban	3.9	1.5	10.7		2.6	0.9	0.0	0.0	0.1	3.1	
Barisal rural	15.7	7.6	33.9	0.3	15.4	7.3	0.8	0.0	0.0	13.0	
Chittagong urban	2.3	4.7	0.1	2.3	0.1	0.5	0.0	0.0	1.2	2.4	
Chittagong rural	7.9	29.9	0.3	28.3	0.3	6.1	0.1	2.0	12.6	11.8	
Dhaka urban	5.6	1.3	1.5	0.3	1.7	5.5	0.3	0.9	0.9	4.0	
Dhaka rural	24.7	5.9	2.8	1.2	3.4	16.2	1.0	1.1	18.1	17.4	
Khulna urban	1.1	0.7	0.4	0.0	2.0	0.6	0.2	0.0	0.6	0.9	
Khulna rural	3.0	2.6	1.1	0.0	18.3	1.0	0.9	0.4	0.2	3.2	
Rajshahi urban	0.9	0.1	0.0	0.0	1.0	0.0	2.5	0.0	0.5	0.7	
Rajshahi rural	3.0	0.7	0.0	0.0	2.2	2.4	19.3	3.3	0.0	2.7	
Rangpur urban	1.1	0.5	0.0	0.6	0.5	0.6	0.7	2.7	0.5	0.9	
Rangpur rural	4.8	5.0	0.0	2.7	0.0	2.3	0.8	18.8	2.1	4.3	
Sylhet urban	0.3	0.2	0.2	0.0	0.0	0.0	0.0	0.0	3.3	0.3	
Sylhet rural	0.9	1.5	0.0	0.4	0.0	1.5	0.0	0.0	27.5	1.8	
Born abroad	0.3	0.2	0.0	0.0	0.5	0.3	1.0	0.0	0.5	0.3	
Do not know	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	
Total	100	100	100	100	100	100	100	100	100	100	
Number of women	8,432	2,760	476	254	599	373	437	208	455	13,994	

Note: Comparable tables for City Corporation non-slums (Table 4.2.B) and other urban areas (Table 4.2.C) can be found in Annex B.

The proportion of males born in the city in which they currently reside (Table 4.3) was similar to that of females, with the exceptions of Barisal and Rajshahi, where males were less likely to migrate from outside the city of current residence. That is, in these two cities men residing in slums were more likely to have been born in the same city (not necessarily in the slums).

Table 4.3: Place of current residence by place of birth (urban or rural): City Corporation slum: Men

Percent distribution of ever-married men age 15-54 by place of birth and current place of residence, UHS 2013.

Place of birth	Place of current residence — City Corporation slum									
	Dhaka City Corporation	Chittagong City Corporation	Barisal	Comilla	Khulna	Narayan-ganj	Rajshahi	Rangpur	Sylhet	All CC
Born in the same city	22.8	41.8	69.9	72.8	53.8	60.7	92.1	68.3	33.1	34.3
Barisal urban	4.3	4.6	3.0	0.0	3.9	1.9	0.0	0.0	0.0	3.8
Barisal rural	15.2	7.5	23.4	0.0	23.1	4.8	0.4	0.0	0.0	12.6
Chittagong urban	2.5	9.8	0.0	1.3	0.0	1.0	0.0	0.0	2.2	3.6
Chittagong rural	7.6	17.4	0.0	11.9	0.0	6.0	0.0	0.0	12.0	8.7
Dhaka urban	6.6	2.6	0.2	4.7	1.9	3.2	0.4	1.6	4.2	4.9
Dhaka rural	23.6	5.1	1.4	0.5	3.7	15.7	1.3	0.0	18.4	16.6
Khulna urban	1.4	1.8	1.2	0.0	1.0	1.1	0.0	0.0	0.0	1.3
Khulna rural	3.6	1.1	0.5	0.0	12.5	0.2	0.0	0.0	0.0	3.0
Rajshahi urban	0.9	0.4	0.4	0.0	0.0	0.5	0.0	1.6	0.2	0.7
Rajshahi rural	3.9	0.4	0.0	2.1	0.0	0.8	4.4	0.0	0.0	2.6
Rangpur urban	1.4	0.5	0.0	0.8	0.0	0.7	0.3	16.1	1.5	1.3
Rangpur rural	4.8	5.3	0.0	2.6	0.0	0.2	0.6	12.3	3.5	4.3
Sylhet urban	0.4	0.3	0.0	2.9	0.0	0.0	0.0	0.0	7.1	0.6
Sylhet rural	0.8	1.3	0.0	0.5	0.0	1.2	0.0	0.0	17.8	1.3
Born abroad	0.1	0.0	0.0	0.0	0.1	2.1	0.5	0.0	0.0	0.1
Do not know	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total	100	100	100	100	100	100	100	100	100	100
Number of women	2,684	858	143	78	192	121	135	61	136	4,408

Note: Comparable tables for City Corporation non-slums (Table 4.3.B) and other urban areas (Table 4.3.C) can be found in Annex B.

The patterns of some background characteristics were similar (i.e., little differential) for slum dwelling females who were born in the same city, or other city/urban area, or rural area (Table 4.4). Those born in the same city were only slightly older than the others. However, those born in the same city had considerably higher education (37% secondary plus, versus 29% other city or 26% other urban). Not surprisingly, those born in the same city were also wealthier (14% in the top two economic quintiles, versus 8% other city or 5% other urban).

Table 4.4: Place of birth by background characteristics: City Corporation slum: Women

Percent distribution of ever-married women age 15-49 by background characteristics, according to place of birth, UHS 2013.

Background characteristics	Place of Birth		
	Same city	Other city/ urban town	Rural
Age			
<20	8.3	7.7	8.8
20-34	59.3	62.2	61.1
35+	32.4	30.1	30.0
Total	100.0	100.0	100.0
Education			
No education	27.1	32.3	34.4
Primary incomplete	21.9	23.4	24.3
Primary complete	14.4	15.0	14.9
Secondary incomplete	28.6	23.6	21.8
Secondary complete or higher	8.0	5.7	4.6
Total	100.0	100.0	100.0
Region			
Dhaka	49.2	75.5	68.4
Other division	50.8	24.5	31.6
Total	100.0	100.0	100.0
Wealth quintile			
Poorest	32.2	37.9	44.8
Poorer	29.4	37.0	33.5
Middle	24.3	17.4	16.8
Richer	11.9	6.2	4.2
Richest	2.2	1.4	0.7
Total	100.0	100.0	100.0
Number of women	4,629	1,720	7,592

Note: Comparable tables for City Corporation non-slums (Table 4.4B) and other urban areas (Table 4.4C) can be found in Annex B.

The patterns seen for females were similar for males living in slums (Table 4.5). Males born in the same city were younger than those born in other cities or other urban areas. There seems to be a mix, with males born in the same city being more likely to be teenagers than among females, but there also were more older males than females. This is possibly because males were less likely to migrate from rural areas for marriage or seeking education.

Males born in the same city had similar education levels as those born in other cities, but better education than those born in other urban areas. The pattern by wealth quintile was a little different, with those males born in the same city being less likely to be poor (62% in the poorest two quintiles, versus 74% in other cities and 81% in other urban areas). Conversely, there were more males in the highest two quintiles among those born in the same city (14%, versus 8% in other cities or 3% in other urban).

Table 4.5: Place of birth by background characteristics: City Corporation slum: Men

Percent distribution of ever-married men age 15-54 by background characteristics, according to place of birth, UHS 2013.

Background characteristics	Place of Birth		
	Same city	Other city/urban town	Rural
Age			
<20	11.2	7.1	6.7
20-34	37.3	40.1	39.4
35+	51.6	52.8	54.0
Total	100.0	100.0	100.0
Education			
No education	21.1	22.4	30.0
Primary incomplete	21.1	24.1	28.2
Primary complete	14.2	10.2	11.0
Secondary incomplete	30.5	29.7	22.7
Secondary complete or higher	13.2	13.6	8.1
Total	100.0	100.0	100.0
Region			
Dhaka	45.2	67.4	75.1
Other division	54.8	32.6	24.9
Total	100.0	100.0	100.0
Wealth quintile			
Poorest	29.8	42.5	47.0
Poorer	32.0	31.3	33.7
Middle	24.2	18.7	15.9
Richer	11.7	6.4	3.1
Richest	2.3	1.1	0.3
Total	100.0	100.0	100.0
Number of men	1,514	715	2,171

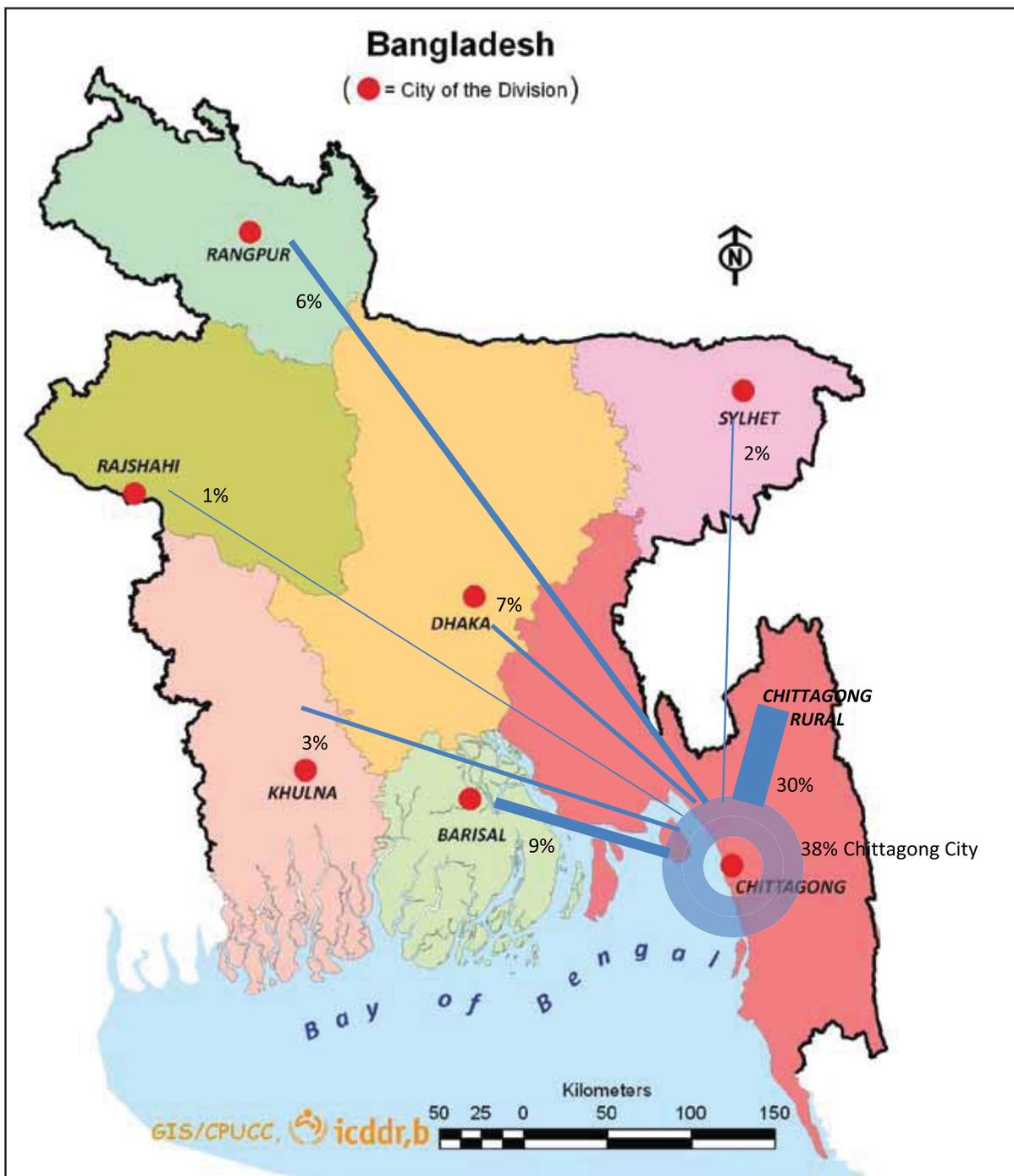
Note: Comparable tables for City Corporation non-slums (Table 4.5.B) and other urban areas (Table 4.5.C) can be found in Annex B.

Figures 4.1.1 and 4.1.2 present the place of prior residence of female slum dwellers of Dhaka and Chittagong before they moved to their current residence. These figures show that there was very little difference between the place of birth and the place of residence prior to moving to their current residence, implying that their prior residence was the place where they were born. The distribution of the place of prior residence of men was almost identical to that of the women presented in these figures.

Figure 4.1.1: Prior residence of Dhaka female slum dwellers.



Figure 4.1.2: Prior residence of Chittagong female slum dwellers.



4.2 DURATION OF STAY IN CURRENT RESIDENCE BY BACKGROUND CHARACTERISTICS

Two-thirds of women living in slums were migrants, while the remaining one-third had always lived there. About 20% had been living in their current city of residence for less than five years (Table 4.6).

About one-third of male residents in slums had always lived in the city of their current residence. About 12% in slums had been living there for less than five years. The proportion of migrants was relatively lower in the other two urban domains.

Table 4.6: Length of stay of females and males in city of current residence, City Corporation slum, City Corporation non-slum, and other urban

Percent distribution of women and men by number of years that they lived in their current residence, City Corporation slum, City Corporation non-slum, and other urban areas, UHS 2013.

Domain	Reported length of time in current residence				Total	Number of women
	<2 year	2-4 years	5+ years	Always lived here		
Women (age 15-49)						
CC slum	8.4	11.3	47.4	33.0	100	13,994
CC non-slum	6.3	8.6	43.4	41.8	100	7,914
Other urban	5.5	7.6	33.0	53.9	100	10,822
Men (age 15-54)						
CC slum	4.4	7.4	54.0	34.2	100	4,408
CC non-slum	3.6	4.2	49.9	42.2	100	2,865
Other urban	3.3	5.3	23.9	67.5	100	3,107

Table 4.7 shows the duration of stay, up to the time of the survey, in the slums of current residence for females by background characteristics (age, education, region, and wealth quintile).

Somewhat surprisingly, age was not a factor among those slum dwellers who had always lived in the same city, amounting to one in three women. As expected, younger women tended to have resided for a shorter duration than older women, while almost half of older women (35+ years) had lived ten or more years there.

Education showed a bimodal distribution with one group of well educated women residing for a short duration—presumably those who came to the city to study, and a second group of well educated women who had always lived in the same city. Women with no education tended to have lived the longest time in the current city.

For region, slum residents in Dhaka were less likely than slum residents of other Division City Corporations to have always lived there, or to have lived there for a shorter duration if in-migrants. This was consistent with the observation that Dhaka is the primary city for receiving in-migrants, and the other Division capital cities are more stable and attract fewer in-migrants proportionately.

In regard to economic status, slum dwellers who have always lived there were twice as likely to be in the wealthiest quintile than the poorest quintile. In contrast, the newer arrivals (up to 10 years) were more likely to be in the poorer quintiles than the wealthier quintiles.

Table 4.7: Duration of stay* in current place by background characteristics: City Corporation slum: Women

Percent distribution of women age 15-49 by duration of stay in current place, according to background, UHS 2013.

Background characteristics	Duration of stay in current city					Total	Number of women
	<2 years	2-4 years	5-9 years	10+ years	Always lived there		
Age							
<20	26.3	20.2	11.0	10.5	31.9	100	1,190
20-34	8.2	12.5	17.7	29.2	32.3	100	8,479
35+	3.7	6.4	8.7	46.5	34.7	100	4,325
Education							
No education	6.1	8.6	12.5	44.6	28.2	100	4,452
Primary incomplete	7.8	10.8	15.2	35.1	31.1	100	3,266
Primary complete	8.9	13.5	15.6	29.7	32.2	100	2,056
Secondary incomplete	11.1	13.3	16.1	20.7	38.9	100	3,397
Secondary complete or higher	10.2	13.1	11.3	20.3	45.1	100	823
Region							
Dhaka	9.3	12.9	16.3	35.6	25.8	100	8,805
Other division	6.7	8.5	11.1	28.4	45.3	100	5,189
Wealth quintile							
Poorest	13.6	13.6	15.2	30.5	27.2	100	5,141
Poorer	7.4	12.0	16.5	35.4	28.8	100	4,384
Middle	3.7	9.2	12.9	35.2	38.9	100	3,076
Richer	2.4	5.1	7.9	29.6	54.9	100	1,202
Richest	3.1	4.4	7.2	29.2	56.0	100	191
Total	8.4	11.3	14.4	33.0	33.0	100	13,994

* The duration of stay includes "always lived there," which refers to slum residents who were born in the same city, though not necessarily in the slums.

Note: Comparable tables for City Corporation non-slums (Table 4.7.B) and other urban areas (Table 4.7.C) can be found in Annex B.

When the wealth quintiles are presented as column percents (Table 4.8), it is easier to see the patterns. Again, the recent migrants were twice as likely to be in the poorest quintile than those who had always lived in the slums. Conversely, those who had always lived in the slums were more than four times more likely to be in the wealthiest quintile than recent migrants (<10 years). As duration of residence in the slums increased there was a shift from the poorer quintiles to the richer quintiles, presumably reflecting improvement in economic status over time as in-migrants assimilated to the urban environment, improved their employment prospects, and formed effective support networks.

More migrant males had spent longer durations than females (42% versus 33% staying 10+ years) in the slums (Table 4.9). Young males were less common than young females, presumably because fewer males came to the city for marriage (usually in the teenage years for females). Levels of higher education were somewhat higher for females than males, suggesting that females from rural areas may be more likely to migrate to a city for seeking education.

Table 4.8: Duration of stay* in current place by background characteristics: City Corporation slum: Women

Percent distribution of women age 15-49 by duration of stay in current place, according to background, UHS 2013.

Background characteristics	Duration of stay in current city					Total
	<2 years	2-4 years	5-9 years	10+ years	Always lived there	
Wealth quintile						
Poorest	59.6	44.3	38.9	34.0	30.2	36.8
Poorer	27.7	33.3	36.0	33.6	27.3	31.3
Middle	9.7	17.9	19.7	23.5	25.9	22.0
Richer	2.5	3.9	4.7	7.7	14.3	8.6
Richest	0.5	0.5	0.7	1.2	2.3	1.4
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	1,172	1,578	2,010	4,614	4,624	13,999

* The duration of stay includes "always lived there," which refers to slum residents who were born in the same city, though not necessarily in the slums.

Note: Quintiles do not account for 20% each here because these are slum populations, which are poorer.

Table 4.9: Duration of stay in current place by background characteristics: City Corporation slum: Men

Percent distribution of men age 15-54 by duration of stay in current place, according to background, UHS 2013.

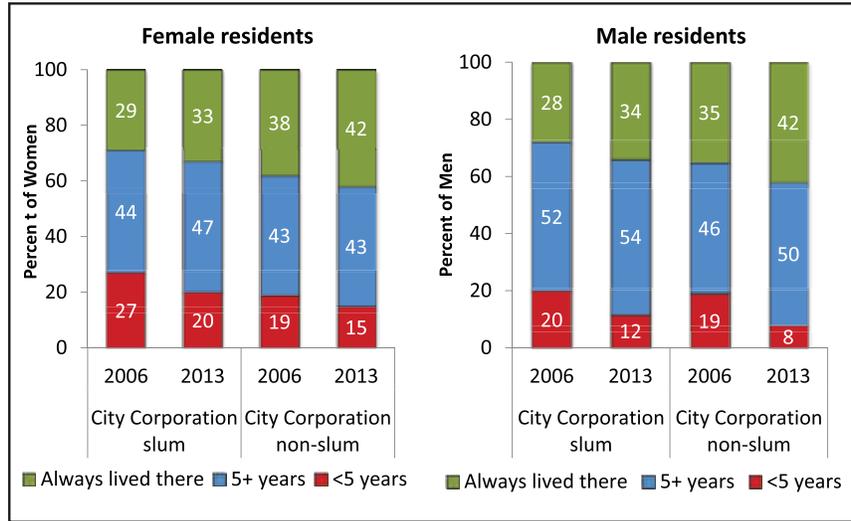
Background characteristics	Duration of stay in current city					Total	Number of women
	<2 years	2-4 years	5-9 years	10+ years	Always lived there		
Age							
<20	5.6	11.5	16.0	20.7	46.4	100	365
20-34	5.4	9.1	16.1	36.7	32.8	100	1,707
35+	3.5	5.6	9.3	48.3	33.4	100	2,336
Education							
No education	6.7	8.3	11.6	45.6	27.7	100	1,133
Primary incomplete	5.1	7.2	13.1	45.8	28.9	100	1,104
Primary complete	3.2	6.2	13.7	36.3	40.5	100	530
Secondary incomplete	2.6	7.5	12.8	37.5	39.5	100	1,168
Secondary complete or higher	2.5	6.8	10.9	37.4	42.3	100	473
Region							
Dhaka	4.7	8.1	15.0	47.9	24.2	100	2,805
Other division	3.7	6.2	8.0	30.3	51.8	100	1,603
Wealth quintile							
Poorest	8.4	9.9	15.4	40.5	25.8	100	1,642
Poorer	2.5	8.5	13.9	43.8	31.4	100	1,397
Middle	1.9	4.0	9.2	43.9	41.0	100	973
Richer	0.5	2.2	3.2	32.2	61.9	100	343
Richest	0.0	0.0	3.0	29.3	67.7	100	54
Total	4.4	7.4	12.4	41.5	34.2	100	4,408

Note: Comparable tables for City Corporation non-slums (Table 4.9.B) and other urban areas (Table 4.9.C) can be found in Annex B.

The proportion of recent female and male migrants (those who have lived in their current residence for less than five years) has declined between 2006 and 2013 in both slum and non-slum domains (Figure 4.3).

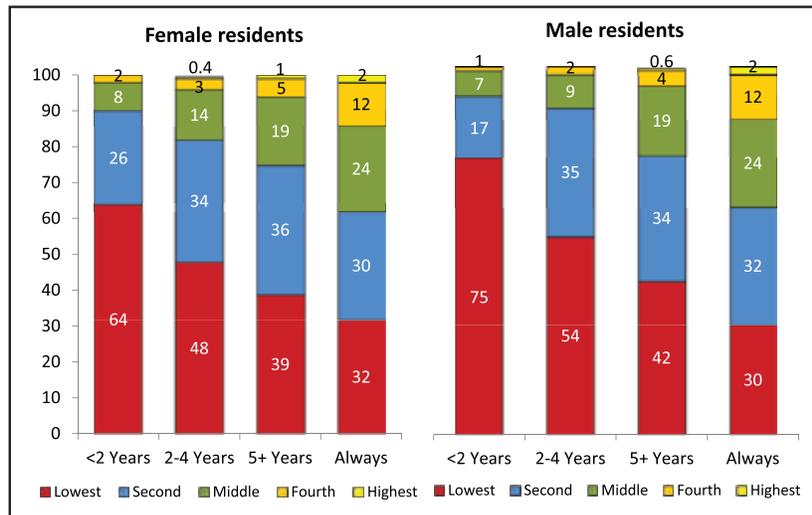
The median length of stay has increased by one year for slum women (from 14 to 15 years), and by two years for slum men (from 17 to 19 years) between 2006 and 2013 (not shown here).

Figure 4.2: Duration of stay of female and male residents in City Corporation slums, UHS 2013.



Recent migrants (residing in the current city for less than two years) in the slums were poorer compared to those who had been living there for longer than two years (Figure 4.4). Sixty-four percent of recent female migrants and 75% of recent male migrants in slums (residing in the current city for less than two years) belonged to the poorest wealth quintile. In comparison, 39% of long-term female migrants and 42% of long-term male migrants (residing in the current city for 5+ years) belonged to the poorest quintile. It is possible that economic status improves over time as they settle into city life, or the selection of recent migrants was poorer than those who migrated in the past. It is probable that both of these processes are happening.

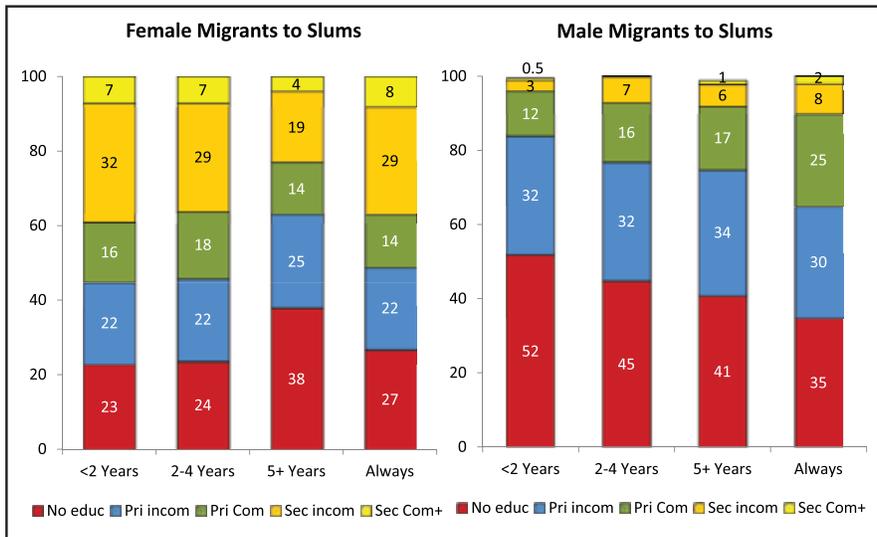
Figure 4.3: Duration of stay by wealth quintiles in City Corporation slums, UHS 2013.



The education levels of recent female migrants were better than of female migrants who migrated longer ago, whereas education levels of males were better in the past than for recent male migrants. This was surprising as education levels of young females and young males in rural areas were similar, suggesting a selection bias for males where less educated males were preferentially coming to the cities (Figure 4.5).

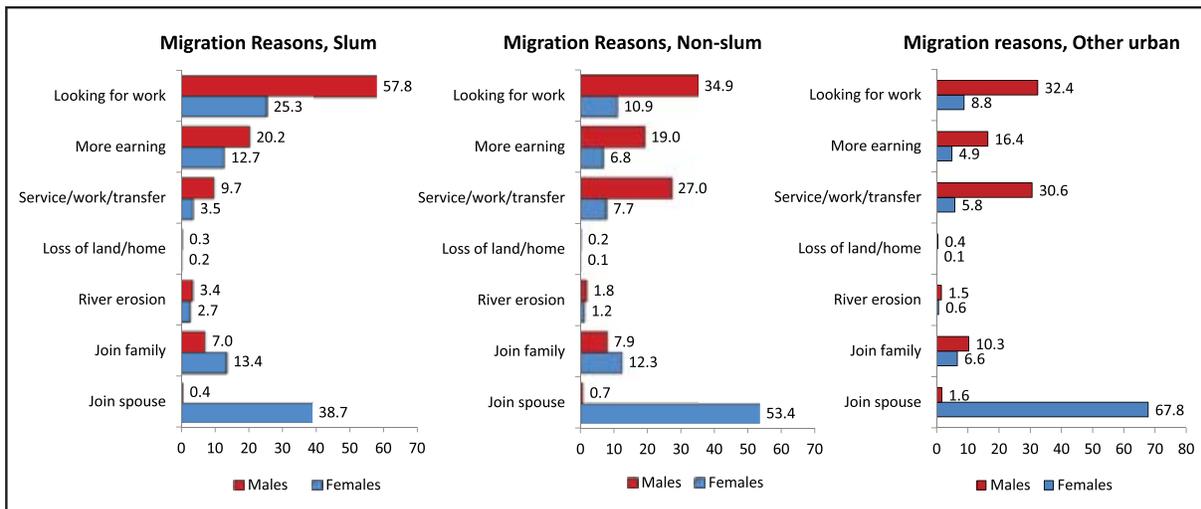
The education levels of women in slums who had migrated recently (less than two years ago) were substantially higher than for recent male migrants. This may be because reasons for migration were somewhat different for females, many of whom migrated for marriage, compared to males who predominantly migrated in search of work.

Figure 4.4: Duration of stay by education in City Corporation slums, UHS 2013.



Males were most likely to migrate to look for work, or service transfers. Females were most likely to migrate because of marriage, though seeking work was high among female slum dwellers. Environmental reasons, surprisingly, were negligible (Figure 4.6). However upon probing, it was found that environmental reasons accounted for about 7% of all migration to city slums (not shown in figure).

Figure 4.5: Reasons for migration, females and males, to cities (CC slums, CC non-slums, other urban areas).



4.3. EMPLOYMENT AND SUPPORT FOR MIGRANTS

Respondents in the survey were asked if they were involved in any kind of income-generating activity at the time of interview. Employment among men was more or less universal across all domains, as seen in Table 4.10. In slums, everyone (99.9%) among those who had migrated in the preceding two years was engaged in some form of paid employment. There was little variation within slums in employment status by duration of stay. The same trend was seen in the other two domains, that is, there was close to universal employment in the sampled urban domains irrespective of duration of stay.

Table 4.10: Working status by duration of stay in current place of residence: Men

Percent distribution of ever-married men age 15-54 by working status by number of years that they had lived at their current residence, City Corporation slum, City Corporation non-slum, and other urban areas, UHS 2013.

	City Corporation slum				City Corporation non-slum				Other urban			
	<2 years	2-4 years	5+	Always lived there	<2 years	2-4 years	5+	Always lived there	<2 years	2-4 years	5+	Always lived there
Currently working												
Yes	99.9	99.2	98.8	99.0	97.5	99.0	98.1	98.5	99.0	97.7	99.3	98.9
No	0.1	0.8	1.2	1.0	2.5	1.0	1.9	1.5	1.0	2.3	0.7	1.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of men	193	327	2,379	1,509	104	121	1,431	1,209	102	163	743	2,099

Among the female respondents in slums, about one in four women was engaged in some form of income-generating activity (Table 4.11). Over 35% of women residing in slums for over two years were employed at the time of interview, compared with over 42 and 39% among female migrants living in slums for 2-4 years and 5+ years, respectively. Fewer of the women who had not migrated to slums but had always lived there were in paid employment—around 26%. In the other urban domains, female employment was less common than in slums.

Table 4.11: Working status by duration of stay in current place of residence: Women

Percent distribution of ever-married women age 15-49 by working status by number of years that they had lived at their current residence, City Corporation slum, City Corporation non-slum, and other urban areas, UHS 2013.

	City Corporation slum				City Corporation non-slum				Other urban			
	<2 years	2-4 years	5+	Always lived there	<2 years	2-4 years	5+	Always lived there	<2 years	2-4 years	5+	Always lived there
Currently working												
Yes	35.4	42.5	39.2	25.9	17.9	19.7	19.3	13.9	17.4	18.4	17.2	13.8
No	64.6	57.5	60.8	74.1	82.1	80.3	80.7	86.1	82.6	81.6	82.8	86.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of Women	1,170	1,576	6,626	4,622	497	680	3,432	3,306	596	827	3,572	5,828

The questionnaire for male respondents in the survey included questions on whether the male migrants received any form of support upon arrival to cities (Table 4.12). In slums, one in three men reported to have received support among both the new and longer-term migrants. In the other two urban domains, the newer migrants were less likely to have received support from external sources when they first arrived at their current residence. ‘Relative’ was the main provider of support in slums and other urban domains, followed by a ‘family member’ among the urban migrants who had received support. In all three domains, support was received primarily in finding a place to live in. Among the recent migrants (those who migrated less than five years ago) in slums who had received support, 62% received assistance in finding accommodation in the new city they had arrived in. The second most common area

in which migrants in all domains received support was in finding employment. In slums, more than half of those who received support reported that it was in the form of assistance in finding a job in the city. About one-third of migrants receiving support in slums reported that they were given cash support.

Table 4.12: Support received upon first arriving to city: Men

Percentage of migrant men age 15-54 who received support and type of support by number of years that they had lived at their current residence, City Corporation slum, City Corporation non-slum, and other urban areas, UHS 2013.

Characteristics	CC slum		CC non-slum		Other urban	
	<5 years	5 or more years	<5 years	5 or more years	<5 years	5 or more years
Support received						
Yes	33.1	33.7	35.6	46.7	18.1	29.9
No	66.9	66.3	64.4	53.3	81.9	70.1
Number of men	520	2380	226	1430	265	744
Person received support from						
Family member	32.3	39.2	34.4	54.8	29.3	49.7
Relative	50.2	47.3	53.0	40.3	58.2	51.0
Friends	34.2	22.6	31.3	22.6	20.9	16.5
Other	0.0	0.8	0.0	0.0	2.1	0.5
Type of support received						
Residence	62.0	58.5	70.9	64.4	81.1	69.2
Employment	53.9	52.8	52.8	41.9	49.7	47.0
Cash money	35.5	34.6	26.6	45.8	37.1	35.5
Material support	9.1	16.0	9.9	16.2	2.1	10.5
Other	0.0	0.2	0.0	0.0	0.0	0.0
Number of men who received support	172	802	80	668	48	222

Among migrants in slums who received support in the last 12 months (Table 4.13), 7-8% reported to have received support from within the country and less than 1% from overseas. The overwhelming majority in slums, one in ten, reported that they did not receive any support from others in the last 12 months. The pattern was similar for migrants in the other urban domains.

Table 4.13: Source of support received in last 12 months

Percentage of migrant men age 15-54 who received support and type of support by number of years that they had lived at their current residence, City Corporation slum, City Corporation non-slum, and other urban areas, UHS 2013.

Characteristics	CC slum		CC non-slum		Other urban	
	<5 years	5 or more years	<5 years	5 or more years	<5 years	5 or more years
Bangladesh	7.9	6.8	9.7	6.2	3.0	2.4
Overseas	0.6	0.6	0.0	0.8	0.0	0.1
Both	2.7	0.6	1.3	2.2	3.0	4.2
No support received	88.8	91.9	88.9	90.8	94.0	93.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of men	520	2,380	226	1,430	265	744

Male respondents were asked if they provided support to relatives, beyond immediate family, in the form of cash or kind (Table 4.14). In the slum domain, migrants were less likely to support their relatives than those residing in the other urban domains. Within slums, 16% of the recent migrants sent any type of support compared with over 20% of longer term migrants. The same pattern was observed in all three domains, which is that the longer-term migrants were more likely to provide support to their extended families.

Table 4.14: Support provided to others in cash or kind

Percentage of migrant men age 15-54 who provided support to relatives by number of years that they lived at their current residence, City Corporation slum, City Corporation non-slum, and other urban areas, UHS 2013.

Characteristics	CC slum		CC non-slum		Other urban	
	<5 years	5 or more years	<5 years	5 or more years	<5 years	5 or more years
Support offered to relatives						
Yes cash/kind	15.8	20.5	27.1	35.6	22.2	25.8
No	84.2	79.5	72.9	64.4	77.8	74.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of men	520	2,380	226	1,430	265	744

CHAPTER 5: AVAILABILITY OF HEALTH SERVICES

5



Photograph: Courtesy of Eminence

Key Findings:

- Ninety-five percent of communities in slums and non-slums, and about 90% in other urban areas, had a health facility available within two kilometers.
- NGO facilities were the most commonly available health service providers in slum and non-slum areas. Fifty-eight percent of slum and 53% of non-slum communities had a NGO facility within one kilometer. In other urban areas, government health facilities were most commonly available within one kilometer.
- Almost one in three communities in City Corporations reported having a BRAC birthing hut/ maternity centre within one kilometer.
- Private facilities were also widely available in all three urban domains. About 40% of the communities in slum and non-slum domains, and about 30% in other urban areas, reported having a private facility within one kilometer.
- About two-thirds of slum communities, and about half of non-slum and other urban communities, reported having a community health worker.

The UHS 2013 implemented the community questionnaire in all the sampled clusters—for a total of 1,718 clusters (450 slums, 900 non-slums, and 368 other urban clusters) to collect information on the availability of health services.

5.1 AVAILABILITY OF HEALTH FACILITY

Table 5.1 and Figure 5.1 show the availability of health facilities within a specified distance according to the type of facility by three urban domains. As shown in the table below, around 70% of clusters in slums and non-slums had a health facility within one kilometer. This percentage was slightly lower in other urban areas. Fifty percent of slum and 45% of non-slum communities had a NGO facility within one kilometer. In other urban areas, government health facilities were most commonly available within one kilometer. Private facilities were also widely available in all three urban domains. About 40% of the communities in slum and non-slum domains, and about 30% in other urban areas, reported having a private facility within one kilometer. One in eight of the clusters in slum and non-slum domains reported having a government facility within one kilometer.

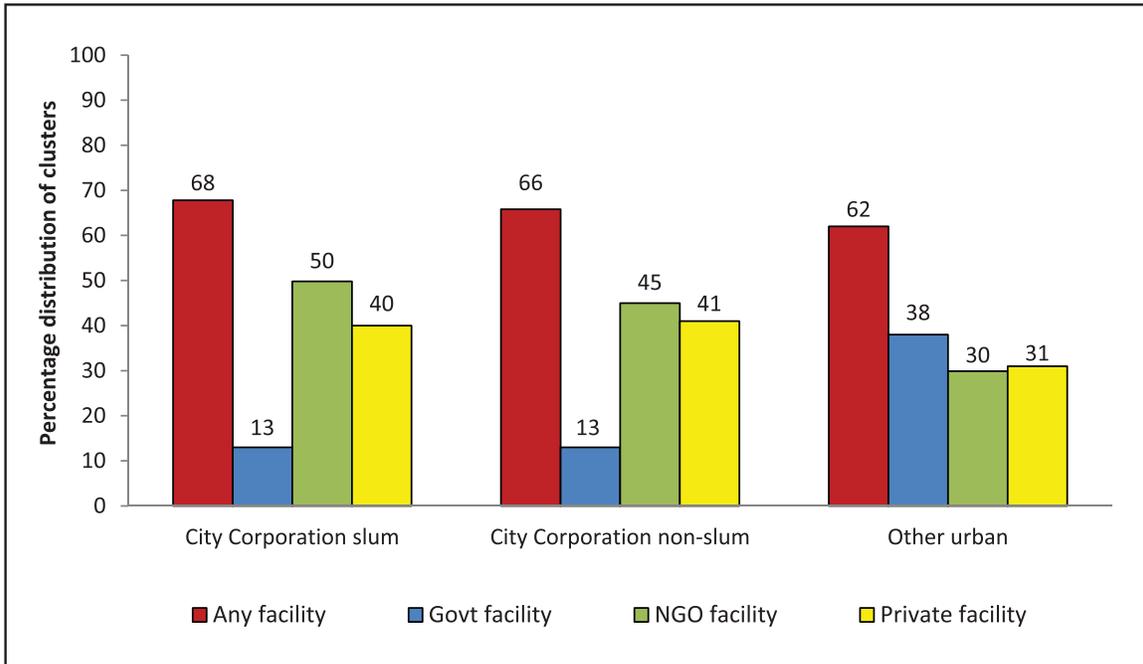
Table 5.1: Availability of health facility

Percentage distribution of clusters by availability of health facility* within specified distance according to type of health facility, City Corporation slum, City Corporation non-slum, and other urban, UHS 2013.

Distance in kilometers (km)	Any facility	Govt. facility	NGO facility	Private facility	Other facility
City Corporation slum					
<1 km	67.8	12.9	49.8	40.2	1.6
1 to <2 km	27.3	15.8	23.6	40.4	0.4
2 to <5 km	4.4	26.0	6.4	17.3	0.2
5 km or more	0.2	12.2	0.2	0.9	-
DK distance	0.2	0.4	0.9	0.2	-
No facility	-	32.7	19.1	0.9	97.8
Total	100.0	100.0	100.0	100.0	100.0
Number of clusters	450	450	450	450	450
City Corporation non-slum					
<1 km	65.8	12.7	45.0	41.0	1.6
1 to <2 km	27.3	14.7	23.0	39.2	1.0
2 to <5 km	6.1	23.0	7.1	17.3	1.0
5 km or more	0.6	12.9	0.4	1.0	-
DK distance	0.2	0.2	1.4	1.1	-
No facility	-	36.6	23.0	0.3	96.4
Total	100.0	100.0	100.0	100.0	100.0
Number of clusters	900	900	900	900	900
Other urban					
<1 km	62.0	37.5	29.9	31.0	0.3
1 to <2 km	27.4	32.3	28.8	34.8	-
2 to <5 km	9.5	26.6	19.8	30.4	-
5 km or more	1.1	2.7	3.0	3.8	0.5
DK distance	-	-	0.3	-	-
No facility	-	0.8	18.2	-	99.2
Total	100.0	100.0	100.0	100.0	100.0
Number of clusters	368	368	368	368	368

*Does not include BRAC birthing hut.

Figure 5.1: Availability of health facility within one kilometer, UHS 2013.



Almost one in three clusters in City Corporations reported the availability of a BRAC birthing hut/maternity centre within one kilometer (Table 5.2).

Table 5.2: Availability of BRAC birthing hut/maternity centre

Percentage distribution of clusters by availability of BRAC birthing hut/maternity centre within a distance of one kilometer, City Corporation slum, City Corporation non-slum, and other urban areas, UHS 2013.

Distance in kilometers (km)	City Corporation slum	City Corporation non-slum	Other urban
<1 km	31.1	28.0	3.3
Number of clusters	450	900	368

5.2 AVAILABILITY OF A COMMUNITY HEALTH WORKER

About two-thirds of slum communities and about half of non-slum and other urban communities reported having a community health worker (Table 5.3). In both slum and non-slum areas, community health workers were predominantly from NGOs. In other urban areas, there was equal availability of government and NGO workers. About one in four slum clusters and one in five non-slum clusters had BRAC community health workers.

Table 5.3: Availability of community health worker

Percentage distribution of clusters by availability of a community health worker, City Corporation slum, City Corporation non-slum, and other urban areas, UHS 2013.

Availability of health and FP workers	City Corporation slum	City Corporation non-slum	Other urban
Any health worker	63.1	49.0	53.3
Number of workers			
No worker	36.9	51.0	46.7
1	26.7	20.6	28.5
2	21.6	17.9	15.2
3 or more	14.9	10.6	9.5
Total	100.0	100.0	100.0
Number of clusters	450	900	368
Type of workers*			
No worker	36.9	51.0	46.7
Govt. worker	4.7	5.7	28.8
NGO BRAC worker	27.1	18.9	7.6
NGO non-BRAC worker	40.9	31.6	22.0
Private worker	1.6	1.6	1.6
Other	0.9	0.6	1.1
Number of clusters	450	900	368

* Includes multiple responses.

Table 5.4 shows the types of services provided by community health workers in the clusters, where they were available. Family planning, maternal, and child health services (counseling or providing methods) were provided in all communities that community health workers worked in. Community workers provided nutrition-related services less often—in two-thirds of City Corporation clusters (both slum and non-slum) and in slightly over half of the other urban clusters.

Table 5.4: Service delivered by community health worker

Percentage distribution of clusters where there was at least one community health worker working, by type of services provided, City Corporation slum, City Corporation non-slum, and other urban areas, UHS 2013.

Type of service	City Corporation slum	City Corporation non-slum	Other urban
Maternal health	99.6	98.2	99.0
Child health	93.3	96.1	96.4
Family planning	96.1	95.2	93.9
Nutrition	66.9	63.5	55.1
Other	12.7	12.0	1.5
Number of clusters with at least one worker	284	441	196

Table 5.5 shows the type of activities field workers did to provide different types of services. House to house visits were almost universal in all three areas.

Table 5.5: Type of activities by community health worker

Percentage distribution of clusters where there was at least one community/field worker working, by type of activities of community worker, City Corporation slum, City Corporation non-slum, and other urban areas, UHS 2013.

Type of activities	City Corporation slum	City Corporation non-slum	Other urban
Provides services at static clinic	48.2	52.2	28.1
Does Uthaa boithak	71.8	72.1	62.2
Provides services at satellite clinic	65.8	73.2	46.9
Visiting house to house	95.4	94.3	94.4
Number of clusters with at least one worker	284	441	196

CHAPTER 6: FERTILITY, MARRIAGE, AND FERTILITY PREFERENCES

6



Photograph: Courtesy of EngenderHealth

Key Findings:

- Fertility was considerably below the replacement level in all three urban areas, including the slums, indicating that the HPNSDP's TFR goal of 2.0 births per woman has already been achieved in 2010-2013.
- TFR was lowest (1.7 births per woman) in non-slums, highest (2.0 births per woman) in slums, and 1.9 births per woman in other urban areas in 2010-2013.
- About six in ten women did not want to have any more children, almost equally in the slum, non-slum, and other urban areas. One in five women in the slums, one in seven in non-slums, and one in ten in other urban areas could not achieve their reproductive goals in terms of spacing and limiting of pregnancy.
- Median age at marriage remained very low—below 16.5 years—in the slums and other urban areas. It was 17.4 years in non-slum areas.
- Childbearing begins in approximately 2.5 years of marriage in the slums and other urban areas, and in 2.0 years in non-slum areas.
- There has been no change in the incidence of teenage pregnancy over the period of seven years between 2003-2006 and 2010-2013 in the slums and non-slums. Almost one in five women began childbearing before age 20 in the slums and other urban areas, compared to about one in eight in the non-slums.

The estimates of urban fertility are important in determining environmental and economic inequalities and their impact on socioeconomic development and resource allocation. This chapter elaborates on a description of urban fertility estimates, birth intervals, age at first birth, and the reproductive behavior of adolescents. We also compare selected fertility indicators between the 2006 Urban Health Survey (UHS) and the current survey, the Urban Health Survey (UHS) 2013.

The fertility measures presented in this chapter are based on the retrospective reproductive histories of ever-married women aged 15-49 who were interviewed (14,011 in slums; 24,373 in non-slums, and 10,844 in other urban areas) in the UHS. Each woman was asked to provide information on the number of sons and daughters to whom she had given birth and who were living with her, the number living elsewhere, and the number who had died. The women were then asked for a history of all their live births, including such information as: name, month and year of birth, sex, and survival status. Based on this information, measures of age-specific fertility and total fertility rates were examined. The information was also analyzed to provide information on the length of interval between births, age at first birth, and the extent of childbearing among teenage women.

6.1 CURRENT FERTILITY LEVEL

We measured fertility level mainly through two inter-related indicators—age-specific fertility rate (ASFR) and total fertility rate (TFR). First, we calculated ASFR based on the reported number of births in the three-year period preceding the survey per 1,000 women. TFR is the weighted sum of ASFRs, which is a useful means of summarizing the level of fertility. It can be interpreted as the number of births a woman would have by the end of her childbearing years if she were to pass through those years bearing children at the currently observed age-specific rates. We also show the general fertility rate (GFR), which represents the annual number of live births in a population per 1,000 women aged 15-44. All of these measures were calculated using the birth history data for the three-year period preceding the survey.

Table 6.1 shows ASFR, GFR, and TFR for the slum, non-slum, and other urban areas for the period 2010-2013. For the slum and non-slum areas, we also compared the ASFRs for the period 2003-2006 with those for the period 2010-2013 in Figure 6.1. We did not have a comparable sample for other urban areas in the 2006 and 2013 UHSs, and therefore, did not compare fertility indicators for the other urban areas.

Women in all three domains achieved below-replacement fertility during the period 2010-2013. TFR was lowest (1.7 births per woman) in non-slums and highest (2.0 births per woman) in slums; it was 1.9 births per woman in other urban areas (Table 6.1). The prime age of childbearing was the age group 20-24 followed by the age group 25-29. Fertility rate was low in ages 40 and onward. Women achieved about 1.5 births before age 30 in all domains.

Childbearing occurred at younger ages in the slums and other urban areas than in the non-slums; and between the slum and other urban areas it occurred at slightly younger ages in the slums. ASFR per 1,000 for the age group 15-19 was 84, 56, and 75 in the slums, non-slums, and other urban areas, respectively. Similarly, for the age group 20-24 it was 127, 110, and 123 in the three areas, respectively.

During 2003-2006, TFR was highest in the slums, at 2.5 births, followed by 2.1 births in other urban areas, and lowest, at 1.9, in non-slums. It has since declined to 2.0, 1.9, and 1.7 in these respective areas. Therefore, absolute decline was 0.5, 0.2, and 0.2 births, respectively, in the slums, non-slums, and other urban areas. In Figure 6.1, we examine the trend of ASFRs between the periods 2003-2006 and 2010-2013. In the slum areas, fertility reduction occurred in all age groups from 15-19 through 30-34; the age groups in which most births occur. In non-slums, a noticeable reduction of fertility was observed for the age group 25-29, and for other age groups there was no reduction (ASFR even increased in age groups 30-34 and 35-39). It may be worth noting that the prime age of fertility (having the highest ASFR) was 25-29 during 2003-2006 in non-slum areas, which has shifted to the younger age group 20-24 during 2010-2013. The prime age group of fertility was 20-24 in all areas during 2010-2013.

Table 6.1: Current fertility

Age-specific fertility rates, general fertility rate, crude birth rate, and total fertility rate for the three years preceding the survey (1-36 months), by domains, UHS 2013.

Age group	Age-specific fertility rate per 1,000		
	City Corporation slum	City Corporation non-slum	Other urban
15-19	84	56	75
20-24	127	110	123
25-29	92	99	100
30-34	56	58	58
35-39	31	20	23
40-44	12	4	5
45-49	1	1	1
GFR	79	67	73
CBR	19.8	17.2	18.3
TFR	2.01	1.74	1.93

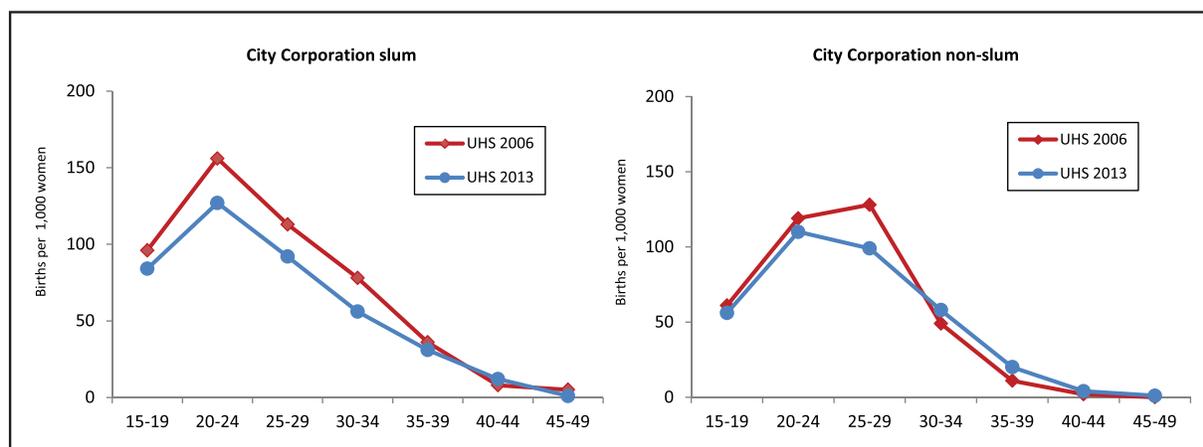
Note: Age-specific rates are per 1,000 women. Rates are for the period 1-36 months prior to the interview; i.e. during 2010-2013.

TFR: Total fertility rate expressed per woman.

GFR: General fertility rate expressed per 1,000 women age 15-44.

CBR: Crude birth rate expressed per 1,000 population.

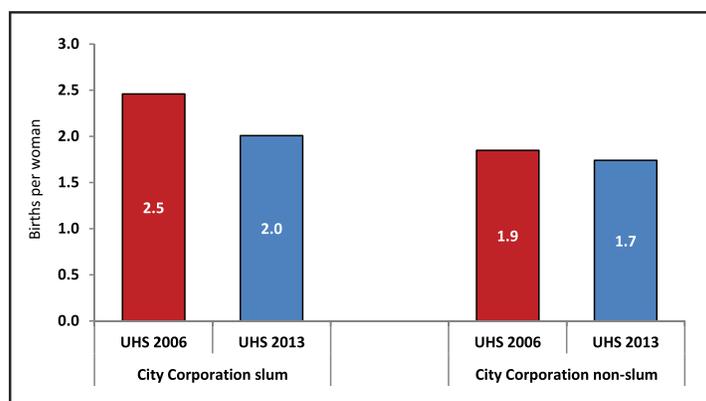
Figure 6.1: Trends in age-specific fertility rates, UHS 2006 and UHS 2013.



6.2 TRENDS IN TOTAL FERTILITY RATES

We compare the fertility trend between 2006 and 2013 only for the slum and non-slum areas (Figure 6.2). Fertility has declined in both the slums and non-slums, with a greater relative decline in the slums than non-slums. Total fertility was 2.5 births per woman in the slums in 2006, which declined to 2.0 in 2013—a 20% decline over a period of seven years. In non-slums total fertility was already low in 2006, at 1.9 births per woman, which further declined to 1.7 births per woman in 2013. In non-slums, fertility decline was 11% during 2006 and 2013.

Figure 6.2: Total fertility rate (TFR), UHS 2006 and UHS 2013.



6.3 BIRTH INTERVALS

A birth interval, defined as the length of time between two live births, provides information about birth spacing patterns. Studies indicate that short birth intervals may adversely affect maternal health and children's chances of survival. Children born too close to a previous birth, especially if the interval between the births is less than two years, are at an increased risk of health problems and dying. Longer birth intervals, on the other hand, contribute to the improved health status of both mother and child. By and large, for populations that have entered into fertility transition, birth interval is inversely related to the level of fertility, that is, birth interval is longer in populations where TFR is high, and vice versa. This section presents the percent distribution of non-first births (second and higher order) in the five years preceding the UHS by the number of months since the previous birth.

Relatively long birth intervals, between 54 and 60 months, were found in all three major domains of the 2013 UHS. The intervals were in the expected direction, highest (60 months) in non-slums where TFR was lowest (1.7), and lowest (54 months) in the slums where TFR was highest (2.0).

Table 6.2: Birth intervals

Percent distribution of non-first births in the five years preceding the survey, by number of months since preceding birth, in City Corporation slum, City Corporation non-slum, and other urban areas, UHS 2013.

Domain	Months since preceding birth						Total	Number of non-first births	Median number of months since preceding birth
	7-17	18-23	24-35	36-47	48-59	60+			
City Corporation slum	4.2	4.4	15.5	17.9	15.4	42.7	100	3,629	54.0
City Corporation non-slum	3.5	4.3	12.0	14.0	14.3	50.3	100	5,068	60.0
Other urban	2.7	4.6	13.0	16.0	13.0	49.8	100	2,439	59.0

Note: First-order births are excluded. The interval for multiple births is the number of months since the preceding pregnancy that ended in a live birth.

Only a small proportion of non-first births occurred in the high-risk birth intervals in the urban areas of Bangladesh. Approximately 8%, or about one in 12 non-first births, occurred in less than 24 months of interval, almost equally in the three domains. In contrast, about half of non-first births occurred after 60 months of interval in non-slums and other urban areas. And, 54% of non-first births were born after 60 months in the slum areas.

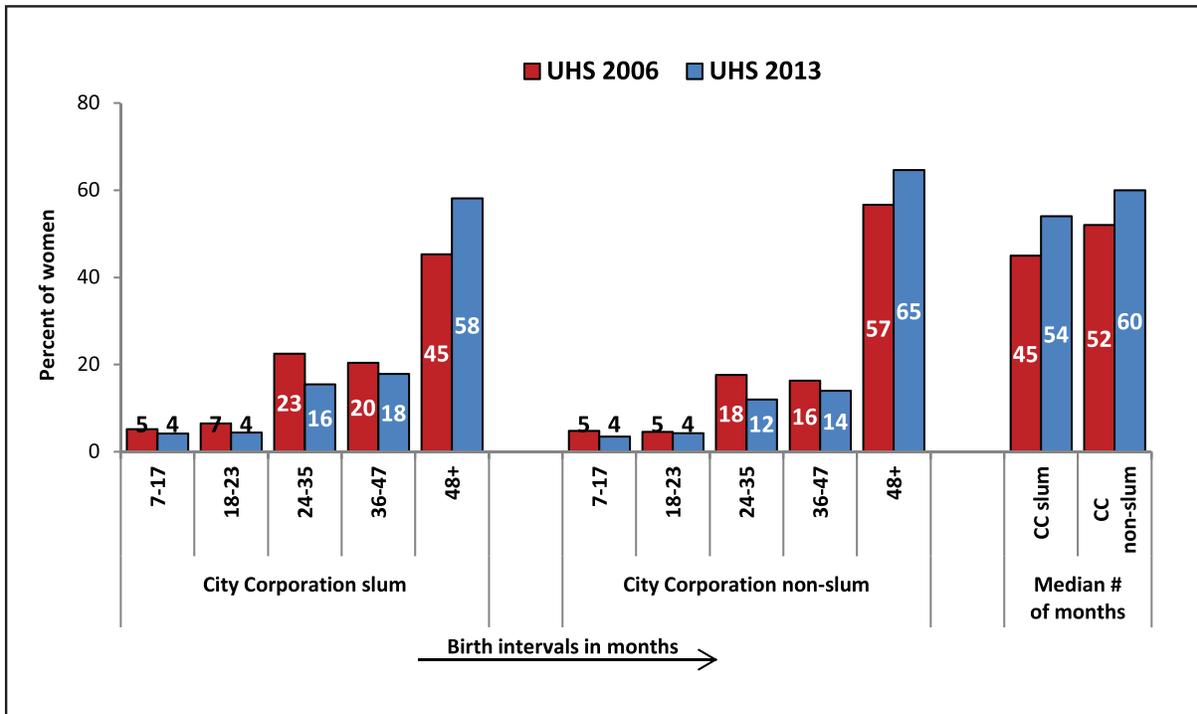
Time trend of birth interval is shown in Figure 6.3 for the slum and non-slum areas. There was a sizeable increase in birth interval: between 2006 and 2013 birth interval increased by nine months in the slums and eight months in non-slum areas. This increase was expected as there had been a decline of fertility. The birth interval improvement was observed from the distribution of intervals: the proportion of births with 60 months or higher intervals increased from 45 to 58% in the slums and 57 to 65% in non-slums.

Annex Tables 6.2.A-C show differentials of birth intervals for the slum, non-slum, and other urban areas. Median birth interval was positively associated with women’s age, education, and household asset quintile in all areas. There was one exception, in non-slums the median birth interval was almost the same across the education groups. The distributions also reflect the differentials. For example, the proportion of births with 60 months or higher intervals was positively associated with age, education, and household asset quintile. The exception mentioned above was true for the distributions.

6.4 TRENDS IN BIRTH INTERVALS

A comparison with UHS 2006 shows that the median birth interval has increased, rising from 45 months to 54 months in slums, and 52 months to 60 months in non-slum areas. Between UHS 2006 and UHS 2013, the median birth interval increased by above eight percentage points.

Figure 6.3: Birth intervals and median number of months since preceding birth.



6.5 AGE AT FIRST MARRIAGE

Marriage took place at young ages in all areas. Median age at first marriage for the women aged 20-49 and women aged 25-49 is shown in Table 6.3. Median ages of marriage were between 16.1 and 17.4 years.

Median age was higher for women aged 20-49 than for women aged 25-49, by at least 0.2 years for each of the areas. This probably indicates a slight and steady increase in age at marriage which was occurring in all areas.

Marriage took place at younger ages in all areas, as shown in Table 6.3; more so in the slums than the other urban areas and non-slums. For both age groups (20-49 and 25-49), age at marriage was lowest in the slums followed by other urban areas and non-slums. For example, for women aged 20-49 median age at marriage was 16.1 years, while it was 16.4 in other urban areas and 17.4 in non-slums. A noticeable difference was found between the slum and non-slum areas—age at marriage was higher in non-slums by over one year compared to slum areas (17.4 years vs. 16.1 years). The lower age at childbearing in the slums than non-slums and other urban areas is partly explained by early marriages in the slums.

Table 6.3: Median age at first marriage

Median age at first marriage among women age 20-49 and 25-49, in City Corporation slum, City Corporation non-slum, and other urban, UHS 2013.

Median age at first marriage	City Corporation slum		City Corporation non-slum		Other urban	
	Women age 20-49	Women age 25-49	Women age 20-49	Women age 25-49	Women age 20-49	Women age 25-49
Total	16.1	15.8	17.4	17.2	16.4	16.2

6.6 AGE AT FIRST BIRTH

Age at first birth is an important determinant of fertility. It has significant demographic and health consequences for mother and child. Usually, the postponement of first births—reflecting an increase in the age at marriage—contributes greatly to overall fertility decline. The proportion of women who become mothers before age 20 is also a measure of the magnitude of adolescent fertility, which is a major health and social concern in many countries. Table 6.4 presents the percent distribution of women by age at first birth according to current age.

Like age at marriage, childbearing also began early in the urban areas. Median age at first birth was between 18.2 and 19.4 years. It began roughly two years after marriage.

Table 6.4: Age at first birth

Percentage of women 25-49 who gave birth by exact ages, percentage who have never given birth, and median age at first birth, according to survey domains, UHS 2013.

Survey domains	Percentage who gave birth by exact ages					Percentage who have never given birth	Number of women	Median age at first birth
	15	18	20	22	25			
City Corporation slum	6.4	51.1	72.9	85.1	92.1	4.8	10,113	18.2
City Corporation non-slum	3.7	35.9	56.6	70.6	82.8	8.4	19,777	19.4
Other urban	5.2	46.8	68.2	80.0	88.8	5.3	8,278	18.5

Childbearing begins earlier in the slums compared to other urban areas and non-slums. Median age at first birth was more than one year lower in the slum than non-slum areas. Median age at first birth was lower in the slums than other urban areas but the difference was small, only 0.3 years of difference. The incidence of early childbearing, as well as its difference between domains, was also reflected in the age distribution of first birth, as seen in Table 6.4. Over half (51%) of first births took place by age 18 in the slums, nearly half (47%) of them took place by age 18 in other urban areas, and over one-third (36%) in non-slum areas.

The age distributions of age at first birth are further shown by domain in Annex Tables 6.4.A-C. It appears that incidence of early childbearing is slowly declining for younger cohorts, which is true for almost all the domains. For example, between age groups 30-34 and 45-49, the percentage of women who had their first birth by age 18 increased with age, an indication that older women had their first birth earlier than younger women.

Table 6.5: Median age at first birth

Median age at first birth among women age 20-49 and 25-49, in City Corporation slum, City Corporation non-slum, and other urban, UHS 2013.

Median age at first birth	City Corporation slum		City Corporation non-slum		Other urban	
	Women age 20-49	Women age 25-49	Women age 20-49	Women age 25-49	Women age 20-49	Women age 25-49
Total	18.2	18.2	19.3	19.4	18.5	18.5

6.7 TEENAGE PREGNANCY AND MOTHERHOOD

It is well known that teenage pregnancy, early childbearing, and motherhood have negative socioeconomic and health consequences. Teenage mothers are more likely to have complications during labor, which results in higher morbidity and mortality for both themselves and their children. Childbearing among teenagers also has adverse social consequences, particularly on female education and job opportunities.

Teenage pregnancy or childbearing was common among the urban residents of Bangladesh, as between 13% and 21% of 15-19 year old women had begun childbearing (Table 6.6). There was quite a bit of variation of this behavior between domains, especially between non-slums and slums or non-slums and other urban areas. Teenage pregnancy was more prominent in the slums and other urban areas than in non-slum areas. Teenagers from the slums were eight percentage points more likely to be mothers than teenagers from non-slum areas (21% in the slums vs. 13% in non-slums). The proportion of teenage childbearing in other urban areas was 20%, quite similar to the slums. Figure 6.4 shows that there has been no change in the incidence of teenage pregnancy over the period of seven years between 2006 and 2013 in the slum and non-slum areas.

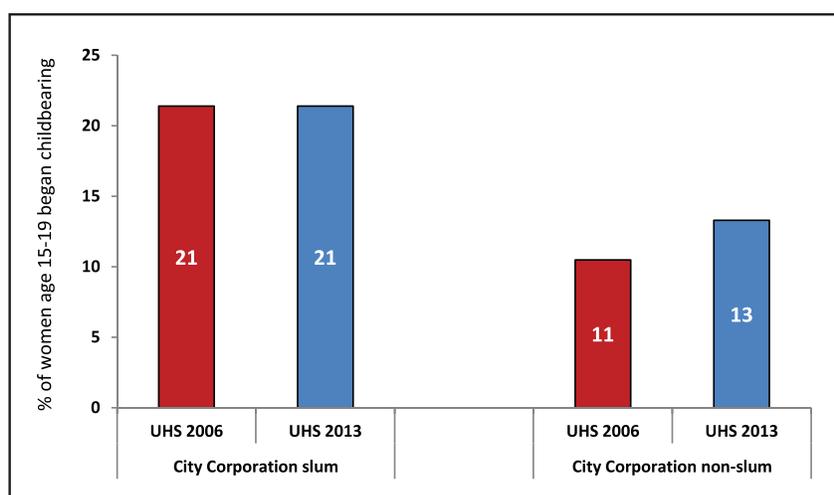
Further tabulations of teenage childbearing are shown in Annex B (Tables 6.6.A-C). Teenage childbearing rapidly increased with age in all areas and slightly decreased with education only in the slum areas. Contrary to the expectation, there was no difference in early childbearing by household economic status in all the domains.

In the slums, 17% of teenagers (age 15-19) were already mothers and another 5% were pregnant with their first child (Table 6.6.). Just one-quarter of women age 18 and 44% of women age 19 had already begun childbearing. Similar patterns were observed in the non-slums and other urban areas. In the slums and other urban areas, there was a tendency for early childbearing to decrease with education.

Table 6.6: Teenage pregnancy and motherhood

Percentage of women age 15-19 who are mothers or pregnant with their first child, in City Corporation slum, City Corporation non-slum, and other urban areas, UHS 2013.

Survey domains	Percentage who are:		Percentage who have begun childbearing	Number of women
	Mothers	Pregnant with first child		
City Corporation slum	16.6	4.8	21.4	3,159
City Corporation non-slum	10.1	3.2	13.3	1,685
Other urban	14.0	5.5	19.5	2,233

Figure 6.4: Trends in teenage pregnancy, UHS 2006 and UHS 2013.

6.8 FERTILITY PLANNING

The incidence of an unplanned birth was quite common among women in the three domains, though it was relatively more common in the slums than other urban and non-slum areas (Table 6.7). In the slums, 80% of women wanted to have the last birth in the three years preceding the survey. About 10% wanted the birth later, and another 10% did not want to have any children at all. In other urban areas, about 88% of women wanted the birth then, about 6% wanted it later, and another 6% did not want any children. In non-slum areas, 86% wanted the birth then, 9% wanted it later, and 5% of women did not want to have any children.

Table 6.7: Fertility planning status

Percent distribution of most recent births to women age 15-49 in the three years preceding the survey, by planning status of birth, UHS 2013.

Birth order and mother's age at birth	Planning status of birth				Total	Number of births
	Wanted then	Wanted later	Wanted no more	Missing		
City Corporation slum	79.6	10.5	10.0	0	100.0	3,406
City Corporation non-slum	85.8	8.8	5.4	0	100.0	1,716
Other urban	88.4	6.1	5.5	0	100.0	2,388

It appears that the TFR of 2.0 that was observed in the slums could have been lower if women could have fulfilled their fertility planning. Twenty percent of women wanted to avoid the pregnancy but could not do so. This partly indicates the unmet need for contraceptives in the slum areas.

6.9 FERTILITY PREFERENCES AMONG WOMEN AND MEN

Desire for children is shown in Table 6.8, where the desire is divided into several categories of spacing and limiting of birth, based on the information obtained from women and men. The desire pattern was quite similar in the three areas for both women and men. However, there was a dissimilarity of desire for children between women and men in the sense that desire for children was relatively higher among men than women. For example, 55-57% of women wanted to have no more children, compared to 51-52% of men.

Over 55% of women and 50% of men wanted no more children, and such desire was similar across the domains. Over 10% of women and men wanted to have a child soon and about 25% wanted to have another child later.

Desire for children was tabulated by the number of living children (Annex B, Tables 6.8.A-C). The data in the tables can be used to identify women's tendency of having an additional number of children. There were some women who did not have any children (Number of children = 0) and did not want to have any children at all. That percent was between 2-3% in the three domains. Additionally, 13-16% of women who had one living child did not want to have any more children. Combining these two percentages, it seems that one in five women wanted to have only one child or no child. This pattern of desire in fact was reflected in the total fertility rate. We observed that TFR was 2.0, 1.9, and 1.7 in urban domains. Therefore, a considerable proportion of women were having only one child, a commonly observed phenomenon among urban women worldwide.

Table 6.8: Fertility preferences among women and men

Percent distribution of currently married women age 15-49 and married men age 15-54 according to desire for children, in City Corporation slum, non-slum, and other urban areas, UHS 2013.

Survey area	Desire for children							Total	Number of women/men
	Have another soon ¹	Have another later ²	Have another, undecided when	Un-decided	Want no more ³	Sterilized ⁴	Missing		
Women									
City Corporation slum	11.3	23.0	2.3	1.9	55.7	5.0	0.7	100.0	12,859
City Corporation non-slum	12.9	21.1	2.9	2.0	56.6	4.1	0.4	100.0	7,503
Other urban	11.9	24.1	2.3	1.3	54.9	5.0	0.4	100.0	10,193
Men									
City Corporation slum	10.9	25.3	0.0	1.7	50.8	4.5	6.9	100.0	4,364
City Corporation non-slum	12.5	23.3	0.0	1.5	51.9	4.4	6.5	100.0	2,845
Other urban	12.0	24.9	0.0	1.4	51.8	4.5	5.4	100.0	3,091

¹ Want next birth within two years.

² Want to delay next birth for two or more years.

³ Includes those pregnant women who did not want the child.

⁴ Includes both female and male sterilization.



Photograph: Courtesy of EngenderHealth

Key Findings:

- Contraceptive prevalence rate (CPR) was highest (70%) in the urban slums and lowest in non-slums (65%) in 2013. The couples in slum areas have almost achieved the HPNSDP's goal of reaching CPR of 72%, by 2016.
- Pill was the most widely used contraceptive method (27-33%) in all three urban domains. The next most common method was injectables (18%) in the slums, condom (16%) in the non-slums, and both injectables and condoms (9% each) in other urban areas.
- The long-acting reversible contraceptive (LARC) and permanent method (PM) use was low, between five and seven percent, in the slums, non-slums, and other urban areas. The demand for these methods was also low.
- Between 2006 and 2013, CPR increased by 12 percentage points in the slums (58-70%), while in non-slums the increase was by two percentage points (63-65%).
- The private sector was the major source of contraceptive methods in each of the three urban domains. Eight out of ten couples in the non-slums and seven out of ten couples in the slums or other urban areas obtained contraceptive methods from the private sector.
- Awareness of permanent methods (PM) among women and men was almost universal (over 90% of men or women had heard about PM) in urban areas. However, among men and women who did not want any more children, the intention to use a permanent method in the next one year was very low (less than 3%).

Fertility regulation is an important proximate determinant of fertility which is covered in this chapter. Currently married women were asked whether they were currently using a family planning (FP) or contraceptive method. The data are used to indicate overall and method specific prevalence of contraceptive use by these women or their husbands.

This chapter also discusses the sources of supply of modern contraceptive methods, which has practical relevance for analyzing the market share of different sectors and formulating strategies to address customer choice. In Bangladesh, family planning services and products are available through the public, NGO, and private sectors. The sources of FP services are distinctly different, however, for the rural and urban areas.

In rural areas, the public sector has a large and strong infrastructure comprising the Family Welfare Assistants (FWA) who provides services at the doorstep, Family Welfare Visitors (FWV) who provide injectables and IUD from the Family Welfare Centers (FWC), and Medical Officers (MO-MCH) who provide implants, female sterilization, and NSV from the Upazilla Health Complexes (UHC). At the doorstep, FWAs provide FP information and counseling and deliver pills and condoms and repeat doses of injectables. Pills and condoms are abundantly available from pharmacies and shops and injectables are available only through SMC's Blue Star pharmacies around the country. NGOs also deliver pills, condoms, and injectables through their outreach delivery system. IUD, implants, and female and male sterilizations are delivered by NGOs in partnership with the public sector.

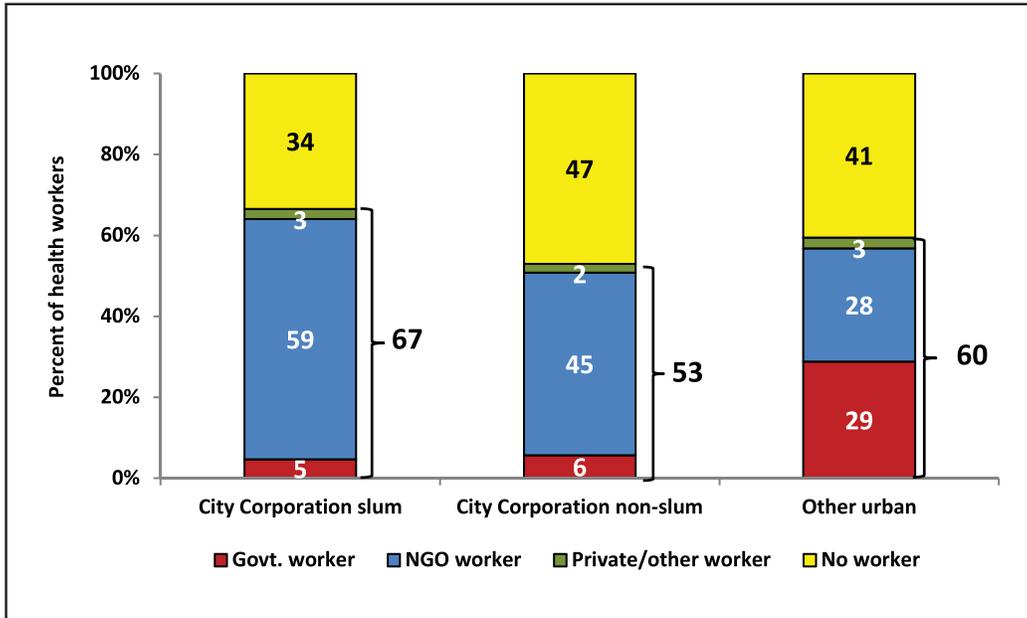
FP service delivery channels are different in urban areas, and within urban areas they are different for City Corporation (slum and non-slum) and other urban areas (district municipalities and lower-level municipalities). The public-sector district hospitals, UHCs, and some NGO static clinics that deliver implants and female and male sterilizations are located in other urban areas. Therefore, residents in other urban areas obtain their FP services from public, NGO, and private-sectors.

There were no particular public sector infrastructures for FP service delivery in the City Corporations. NGO and private sectors provided IUD, implants, and female and male sterilizations. These methods were also available from public sector medical college hospitals and district hospitals that were located in City Corporations. Pills and condoms are available in shops and pharmacies and injectables are available from Blue Star pharmacies.

The primary workers who provided information and counseling on FP methods were the FWAs for rural areas and outreach workers of NGOs in the urban areas, the former also delivered pills and condoms but the latter did not. NGO services were delivered at fixed sites (static and satellite clinics) and public sector services were delivered at the doorstep and at fixed sites. Pill, condom, and injectables users who received their supplies from pharmacies and shops did not receive a sufficient amount of information on the possible side effects and their management. SMC, the major private-sector agency supplying pills, condoms, and injectables, trained pharmacy providers on counseling and side effects management but counseling practices of the providers was on the low side. However, it is possible that clients who received their methods from the private sector could receive information and counseling from the public and NGO sector workers.

Figure 7.1 shows the availability of health and FP workers in the three urban domains. The availability of health and FP workers was higher in the slums than non-slums and other urban areas. Two in three survey clusters were found to have some health and FP workers in the slums, compared to about half in the other domains. Most of the workers were from NGOs in the City Corporations (slum and non-slum) while about half of the workers were from the public sectors; with the other half from NGOs.

Figure 7.1: Availability of health and FP worker in urban areas, UHS 2013.



7.1 CURRENT USE OF CONTRACEPTION

Table 7.1 presents data on the proportion of currently married women who reported that they were using a contraceptive method. Contraceptive prevalence rate (CPR) was high in all urban areas. It was highest (70%) in the slums and lowest (65%) in the non-slums. CPR was 67% in the other urban areas.

The vast majority of women were ‘modern’ method users—62%, 58%, and 56%—in the slum, other urban, and non-slum areas, respectively. The use of traditional methods was 7%, 9%, and 9%, respectively, in the above-mentioned areas.

The oral pill was the most widely used method (27-33%) in all three urban domains. Approximately one in three currently married women from slum and other urban areas, and one in four women from non-slum areas, were using pills. Injectables were the second most popular method among women in the slums (18%), while condoms were the second most popular method in the non-slums (16%). Injectables and condoms (9% each) were the second most popular methods in other urban areas.

Long-acting (IUD, implant) and permanent (female sterilization and NSV) method (LAPM) use was low, between 5% and 7%, in the slums, non-slums, and other urban areas.

Table 7.1: Current use of contraception

Percent distribution of currently married women by contraceptive method currently used, City Corporation slum, City Corporation non-slum, and other urban areas, UHS 2013.

Survey area	Any method	Any modern method	Family planning methods										Number of women		
			Female sterilization	Male sterilization	Pill	IUD	Injectables	Implants	Condom	Periodic abstinence	Withdrawal	Other method		Total	
City Corporation slum	69.6	62.3	4.0	1.0	31.7	0.5	17.8	1.7	5.5	6.2	0.7	0.4	30.4	100.0	12,859
City Corporation non-slum	65.0	56.4	3.6	0.4	26.8	0.4	8.4	0.6	16.0	7.4	0.8	0.4	35.0	100.0	7,503
Other urban	66.7	58.1	4.4	0.6	33.1	0.5	9.1	1.0	9.3	7.1	0.6	0.9	33.3	100.0	10,193

Note: If more than one method was used, only the most effective method was considered in the tabulation.

7.2 CURRENT USE OF CONTRACEPTION BY BACKGROUND CHARACTERISTICS

Contraceptive use by background characteristics such as age, number of living children, education, household asset quintile, women's work, and length of migration to urban residence is shown in Tables 7.1.A-C in Annex B. In the slums contraceptive use increased with age, reaching a high of 80% in ages 30-34, then declining. Similarly, it increased with the number of living children, being highest at 79% among women who had three to four children, then declining. These relationships between contraceptive use with age and number of living children also held true for the other two domains.

There were no definite relationships between overall contraceptive use with education, household asset quintile, women's work, and duration of residence (Figure 7.3). This was true for all domains. However, specific method use was associated with some background characteristics. For example, permanent method use (female sterilization and NSV) was higher among older women compared to younger women, and it was higher among women with large numbers of children compared to women with fewer children. It was lower among educated women than women with no education or less education. Similarly, the use of permanent methods was higher among poorer than richer women. The education and quintile differentials of injectables use were similar to those of permanent methods. Condom use was higher among younger women than older women. It was also higher among educated or richer couples than less educated or poorer couples. Traditional method use was higher among older than younger women. These relationships held true for all survey domains.

7.3 TRENDS IN CURRENT USE OF FAMILY PLANNING

CPR among married women in Bangladesh has increased by 12 percentage points, from 58% in 2006 to 70% in 2013 in the slums (Figure 7.2), while it increased by only two percentage points in the non-slum areas.

Figure 7.2: Trends in contraception use among currently married women age 15-49, UHS 2006 and UHS 2013.

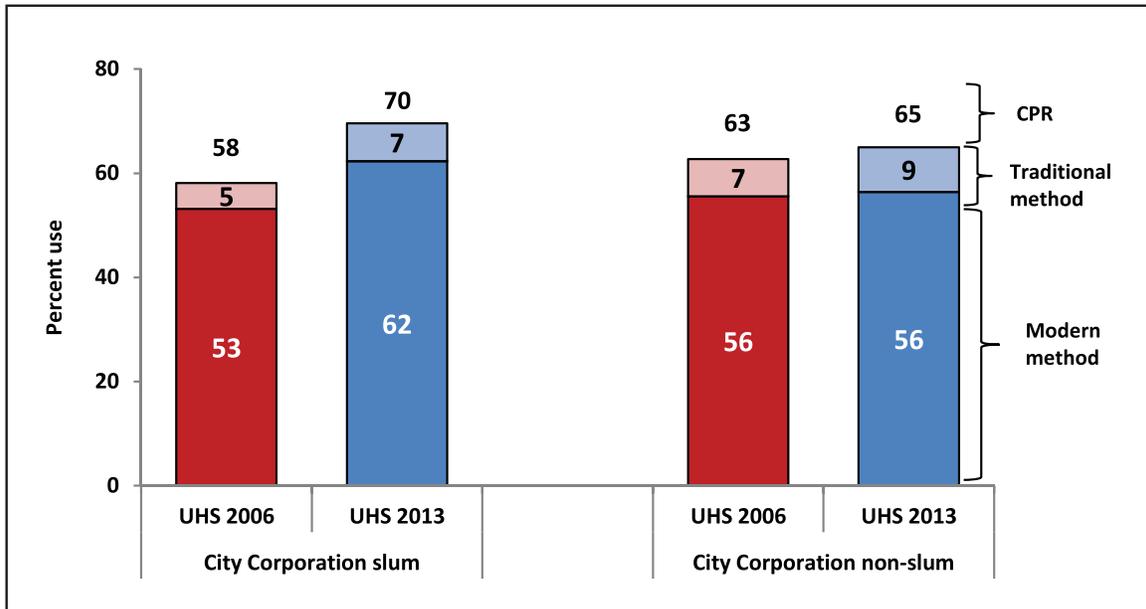
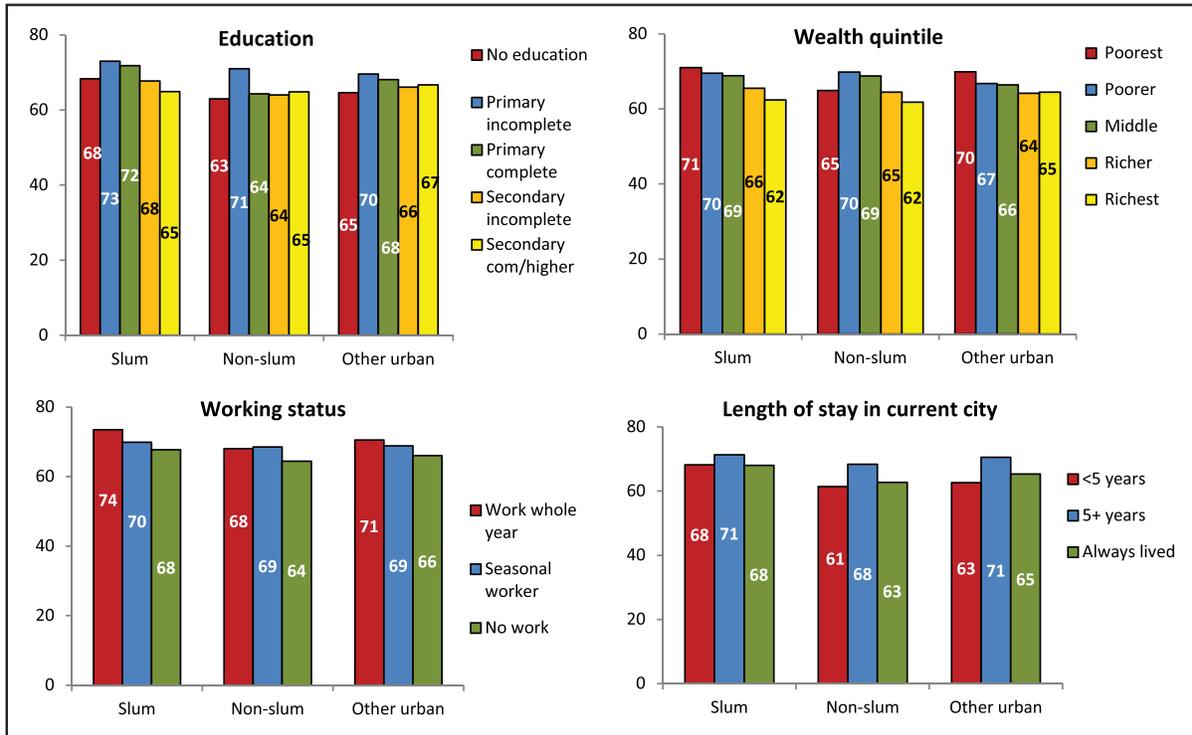


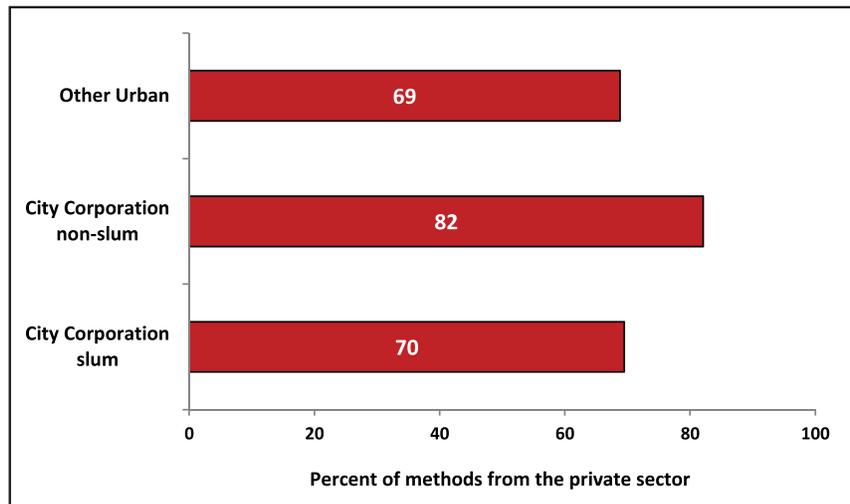
Figure 7.3: Contraception use by background characteristics.



7.4 SOURCES OF MODERN CONTRACEPTIVE METHODS

All current users of modern contraceptive methods were asked to report the most recent source of supply of their methods. Since women often did not know the exact category of the source they used, interviewers were instructed to write the name of the source. Team supervisors were directed to verify that the name and the type of source were consistent and properly coded. The results are presented in Figure 7.4 and Table 7.2.

Figure 7.4: Percent of modern contraceptive methods obtained from the private sector, UHS 2013.



Overall, the private sector was the major source of contraceptive methods in the slum, non-slum, and other urban areas in 2013. Eight of ten couples in the non-slums and seven of ten in the slum and other urban areas obtained contraceptive methods from the private sector (Figure 7.4 and Table 7.2).

It is important to examine the sources of supplies of specific methods. As seen below, pills were the dominant method, followed by injectables and condoms. These three short-acting methods constituted about 90% of all modern methods used by couples in the slum, non-slum, and other urban areas. Pills were obtained largely from the private sector; about 90% of pill users in the slum and non-slum areas procured pills from the private sector. Over 90% of condoms were obtained from the private sector. About half of injectables in the slum and non-slum areas, and about one-third of injectables in the urban areas, were obtained from the private sector. Therefore, high use of short-acting methods by the couples, and their obtainment of these methods from the private sector, made the private sector the predominant source of contraceptive methods.

The long-acting reversible contraceptive (LARC) methods (IUD and implants) and permanent methods (female sterilization and NSV) were largely obtained from the public sector. However, these four methods constituted only 10% (or less) of the modern methods used; 72-77% of NSV clients, 53-66% of female sterilization clients, 57-80% of IUD clients, and 58-72% of implant clients obtained their methods from the public sector. Since the share of these methods in method mix was small, the role of the public sector appears to have been minimal.

Table 7.2: Source of modern contraceptive methods

Percent distribution of users of modern contraceptive methods age 15-49 by most recent source of supply, according to specific method, by survey domain, UHS 2013.

Source	Family planning methods							Total
	Female sterilization	Male sterilization	Pill	IUD	Injectables	Implants	Condom	
City Corporation slum								
Public sector	66.4	76.5	5.9	69.6	19.4	57.9	1.8	16.4
NGO	12.7	13.6	5.0	28.2	35.0	29.9	3.3	14.9
Private sector	20.9	9.9*	89.1	2.2	45.6	12.2	94.9	68.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of users	519	129	4,077	71	2,283	221	712	8,012
City Corporation non-slum								
Public sector	52.7	72.2	5.0	56.5	18.2	64.5	1.5	10.6
NGO	3.6	14.0	3.6	20.9	30.1	19.8	1.2	7.3
Private sector	43.7	13.8	91.4	22.6	51.7	15.7	97.3	82.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of users	272	34	2,010	31	631	47	1,203	4,229
Other urban								
Public sector	53.9	74.5	15.2	80.0	44.4	72.1	6.9	23.6
NGO	3.8	4.8	4.2	10.9	26.7	16.4	1.2	7.5
Private sector	42.3	20.7	80.6	9.1	28.9	11.5	91.9	68.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of users	448	63	3,369	55	931	104	951	5,921

* Includes missing values of 3.7%.

The share of NGOs in contraceptive method mix seems also to have been small, between 7% and 15%, in the slum, non-slum, and other urban areas. However, NGO share was relatively higher in the slum (15%) than non-slum (7%) and other urban areas (7%). NGOs played a noteworthy role in supplying injectables, IUDs, and implants. NGO facilities delivered 27-35% of injectables, 11-28% of IUDs, and 16-30% of implants in the three areas.

In terms of specific sources for short-acting methods, 70-83% of pills were procured from pharmacies and 8-11% were procured from shops (Annex B, Tables 7.2.A-C). Similarly, 77-88% of condoms were bought from pharmacies and 8-14% were bought from shops. Injectables were also obtained from pharmacies—37% in the slums, 41% in non-slums, and 20% in other urban areas.

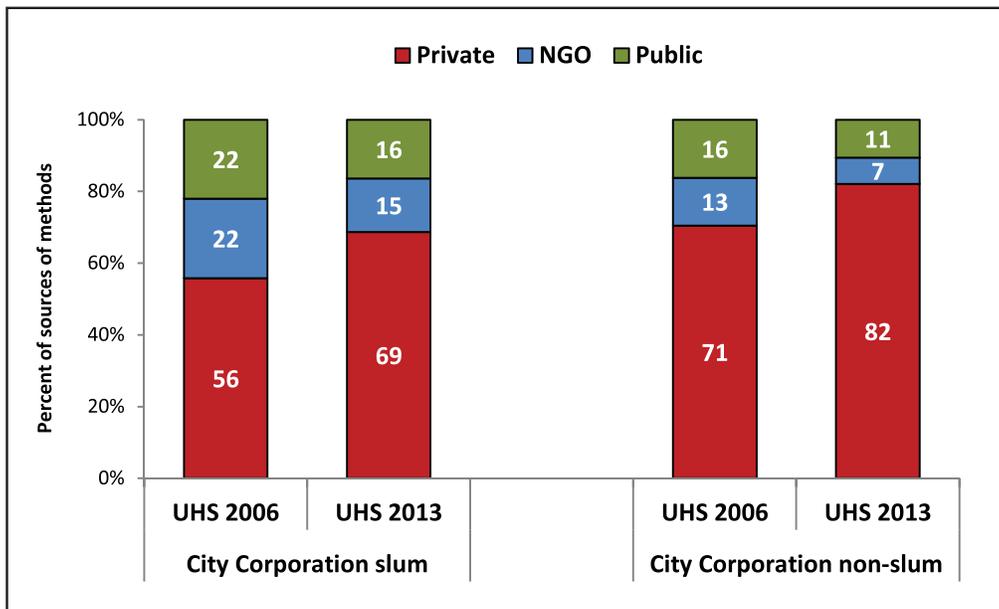
A detailed breakdown of sources for female sterilization showed some interesting results (Annex B, Tables 7.2.A-C). (Detailed tabulation results for NSV are not discussed due to small sample size.) Most women from the slums sought female sterilization services from the public medical colleges and district hospitals. The next sources for the slum dwellers were private clinics, UHCs, and MCWCs. In non-slums, most women adopting female sterilization went to private hospitals/clinics, followed by public medical colleges, district hospitals, and MCWC. Similarly, in other urban areas private hospitals/clinics were the largest sources, followed by district hospitals and MCWCs/UHCs.

NGO static clinics appear to have been a large source of IUD and Implants, followed by MCWCs/UHCs in the slum and non-slum areas. For other urban areas, MCWCs and UHCs were large sources, followed by NGO static clinics.

7.5 TRENDS IN SOURCE OF MODERN CONTRACEPTIVE METHODS

The share of private sector has substantially increased between 2006 and 2013, resulting in a diminishing role for both the public sector and NGOs in contraceptive supply (Figure 7.5), for both slum and non-slum areas. The increase of sources of modern contraceptive methods among current users in the private sector rose 13 percentage points in slum areas and 11 percentage points in non-slum areas. The market share of both NGOs and the public sector declined in both slum and non-slum areas. One reason for the substantial increase of private-sector share was associated with the greater rate of increase in pills and condoms, which were procured mainly from the private sector.

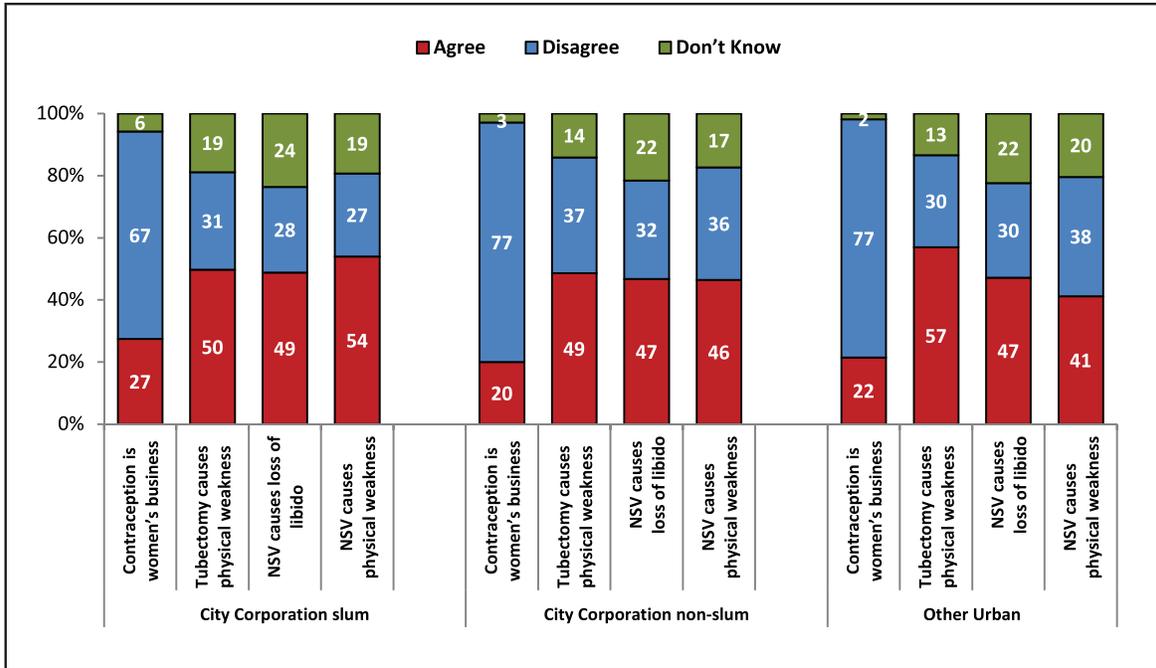
Figure 7.5: Trends in sources of modern contraceptive methods among current users, UHS 2006 and UHS 2013.



7.6 MALE PERCEPTION ON FAMILY PLANNING

Men were asked about their perceptions on various family planning issues concerning the use of permanent methods. This information may help us to understand why the use of sterilization was so low. Almost one in five men thought that the use of contraception was only the women's responsibility, this was similar in all three domains. About half of men believed that tubectomy caused physical weakness for women and that NSV caused loss of libido among men. A similar proportion of men also thought that NSV caused physical weakness. These perceptions held true in all the areas, slum, non-slum, and other urban.

Figure 7.6: Men's perceptions on family planning issues, UHS 2013.



7.7 WOMEN'S AND MEN'S INTENTION OF ADOPTING PERMANENT METHODS

Awareness of permanent methods (PM) among women and men was almost universal (Table 7.3); over 90% of men or women had heard about PM in the non-slums and other urban areas. Awareness was slightly lower in the slum than non-slum and other urban areas, both for women and men. However, for men the awareness was considerably lower in the slum than non-slum and other urban areas.

The intention of adopting a permanent method was found to be extremely low. When asked whether or not they intended to adopt PM, to those who were aware of it and did not want to have any more children, less than 3% of women or men expressed their intention of adopting PM within the next one year.

Table 7.3: Awareness of permanent methods and intention of adopting permanent methods, by survey areas

Percentage of currently married non-pregnant women age 15-49 and men age 15-54, who do not want any more children and are not sterilized who have heard about permanent method. Among those who have heard, the percentage who intend to use permanent method in the next one year, City Corporation slum, City Corporation non-slum, and other urban area, UHS 2013.

Survey area	Percent heard of permanent method*	Number	Intention of adopting permanent methods in next one year				Number who heard of permanent method
			Yes	No	Don't Know	Total	
Women							
City Corporation slum	88.1	6,764	2.0	97.4	0.6	100.0	5,961
City Corporation non-slum	91.6	4,056	1.5	98.2	0.3	100.0	3,715
Other urban	92.7	5,377	0.8	99.0	0.2	100.0	4,958
Men							
City Corporation slum	80.8	2,290	2.8	95.2	2.0	100.0	1,615
City Corporation non-slum	93.2	1,520	2.3	95.3	2.4	100.0	1,281
Other urban	91.4	1,646	1.9	95.6	2.5	100.0	1,381

* Includes male and female sterilization.

The intention of adopting a permanent method did not vary appreciably over the age of women, as seen in Table 7.4.

Table 7.4: Awareness of permanent methods and intention of adopting permanent methods, by current age of women

Percentage of currently married non-pregnant women age 15-49, who do not want any more children and are not sterilized who have heard about permanent method. Among those who have heard, the percentage who intend to use permanent method in the next one year, City Corporation slum, City Corporation non-slum, and other urban area, UHS 2013.

Current age of women	City Corporation slum			City Corporation non-slum			Other urban		
	Percent heard of permanent method*	Intention of adopting permanent methods in next one year	Total number of women	Percent heard of permanent method*	Intention of adopting permanent methods in next one year	Total number of women	Percent heard of permanent method*	Intention of adopting permanent methods in next one year	Total number of women
<20	73.5	2.0	68	68.2	2.2	22	88.2	1.3	17
20-34	87.8	2.4	3,634	91.1	2.2	1,688	92.4	1.3	2,319
35+	88.8	1.5	3,062	92.2	1.0	2,346	93.0	0.5	3,040
Total	88.1	2.0	6,764	91.6	1.5	4,056	92.7	0.8	5,377

* Includes female sterilization.

7.8 HUSBANDS LIVING ELSEWHERE AND THEIR VISITS TO HOME

Husbands living elsewhere for the purpose of earning income is common in Bangladesh. In 2011, one woman in eight reported that her husband lived outside the home for work (NIPORT 2013). This living arrangement had implications for fertility. One important proximate determinant of fertility, contraceptive use, was directly related to the living arrangement. The 2013 UHS gathered some data on husbands living elsewhere and the frequency of their visits home. The effect of spousal separation because of husbands living outside the home in reducing fertility varied with the length of separation as well as the frequency of the husband's visit at home.

Table 7.5 shows the percentage of currently married women aged 15-49 whose husbands lived elsewhere, and the frequency of their husbands' visits in the last 12 months.

In the slum areas, almost 3% of currently married women reported that their husbands lived elsewhere; this proportion was 5% in non-slums and 6% in other urban areas. Among those whose husbands lived outside the home, 40-50% reported that their husbands had visited home in less than 12 months before the survey.

Table 7.5: Husband's visit

Percentage of currently married women age 15-49 whose husband lives elsewhere, and among currently married women whose husband lives elsewhere, percent distribution by husband's visit in the last 12 months, according to background characteristics, by survey domain, 2013 UHS.

Background characteristics	Percentage of women whose husband lives elsewhere	Number of currently married women	Percent			Total	Number of women
			Lives elsewhere less than 12 months	Lives elsewhere 12 months or more but last visit within 12 months	Lives elsewhere 12 months or more but last visit 12 months or more		
City Corporation slum	2.9	12,859	51.1	22.8	26.1	100	376
City Corporation non-slum	4.9	23,044	42.4	18.2	39.3	100	1,139
Other urban	6.4	10,193	41.5	20.2	38.3	100	656

CHAPTER 8: MATERNAL AND NEWBORN HEALTH

8



Photograph: Courtesy of Eminence

Key Findings:

Antenatal Care

- The majority of women living in non-slum and other urban areas received antenatal care (ANC) from medically trained providers (83% and 76% respectively). However, only half of the women living in slums received ANC from medically trained providers.
- Among women who did not deliver in health facilities, 90% stated that they did not choose facility delivery because they felt it was not necessary or it was not customary for them to deliver in facilities. Cost was mentioned as a constraint by 17% of women in slums, 12% of women in non-slums, and 19% of women in other urban areas.
- The percentage of women receiving ANC from any provider increased between 2006 and 2013. However, the use of medically trained providers for ANC has declined in both slum and non-slum domains, with a greater decline in slums (from 62% to 54%).
- Women living in non-slums were most likely to have received at least four ANC compared to women living in the other two domains (58% in non-slums, 29% in slums, and 36% in other urban areas). Thus, the HPNSDP target of achieving coverage of 4+ ANC of 50% has only been achieved in the non-slum domain.
- Nine out of ten women receiving antenatal care had their blood pressure checked and weight measured, irrespective of where they lived.
- Women receiving ANC from medically trained providers were much more likely to have blood and urine tests and ultra-sonograms done compared to those who sought ANC from non-medically trained providers.
- The NGO sector was the prime source for ANC among women living in slums, whereas the private sector was the main source of ANC for women living in non-slum and other urban areas.

Delivery Care

- Facility delivery was highest among women living in non-slums (65%) and lowest in slums (37%).
- There was large variation in the use of medically trained providers for delivery by place of residence of women within urban areas (68% in non-slums, 56% in other urban, and 37% in slums). Slums are lagging behind in this indicator considering that the HPNSDP target is to achieve a skilled birth attendance rate of 50% by 2016.
- Very few home deliveries were attended by medically trained providers in all three urban domains (4-11%).
- Percent of women using medically trained providers for delivery has increased between 2006 and 2013 (18% to 37% for slums, and 56% to 68% for non-slums).
- C-section was very high among women in non-slums (42%) and other urban areas (33%).
- Over 60% of facility deliveries among women in non-slums and other urban areas were done through C-section, compared with 44% of facility deliveries in slums.

Postnatal Care

- Less than one-third of women in slums received postnatal care (PNC) from a medically trained provider. Women in non-slums were twice as likely to have received PNC compared to slum women.
- In all three urban domains, newborns were less likely than their mothers to have received postnatal check-ups from a medically trained provider.
- For both mothers and newborns, the likelihood of getting PNC from a trained provider has increased in both slums and non-slums. However, slums are lagging behind in approaching the HPNSDP target of providing PNC to 50% of newborns by 2016.

Cost of Delivery

- For women living in slums and non-slums, the median cost of delivering at NGO facilities was substantially lower compared to the cost associated with delivery in public or private facilities, both for normal and C-section deliveries.
- Deliveries at NGO facilities were more likely to be free of cost compared to deliveries at public facilities for women living in slums and non-slums. Among women living in slums who delivered in NGO facilities, 17% reported no payment for the delivery; while for those who delivered in public facilities only 2% reported so. For women in non-slums, 11% of deliveries in NGO facilities reported no payment; while for those who delivered in public facilities 6% incurred no financial cost.

Essential Newborn Care

- Around half of the home deliveries in all three urban domains adhered to recommended practices regarding umbilical cord care and drying of newborns. Adherence to recommended practices regarding the wrapping and bathing of newborns remained much lower in all the domains.
- Only 2-4% of newborns in all urban domains received all the essential newborn care practices.

This chapter presents findings from the UHS 2013 on the use of maternal and newborn care. In particular, it provides information on antenatal care (ANC), place of delivery, assistance to delivery, cost of delivery, postnatal care (PNC) for mothers and their newborns, and essential newborn care. Information in this chapter was collected from women aged 15-49 years who had given birth in the three years preceding the survey. The findings are presented by three urban domains. Before presenting the findings, it would be useful to present information on the structure of maternal health service provision in the urban areas of Bangladesh.

In the rural areas, health services are provided by the Ministry of Health and Family Welfare (MOHFW), whereas provision of health care in urban areas has been the responsibility of the Ministry of Local Government, Rural Development and Cooperatives (MOLGRDC) implemented through City Corporations and Municipalities. The major projects implemented through the MOLGRDC are the Urban Primary Health Care Project (UPHCP) phase I (1998-2005) and phase II (2005-2011). The current phase of the program—the Urban Primary Health Care Services Delivery Project (2012 to 2017)—provides packages of high-impact primary health care services for the urban population, particularly for poor women and children, through partnership with Non-Government Organizations (NGOs). At present, the project covers more than 10 million urban populations and has a PHC network of 25 Comprehensive Reproductive Health Care Centers, 112 Primary Health Care Centers, and 224 Satellite Clinics at the community level.

The MOHFW operates a number of medical college hospitals and other specialized tertiary care facilities, some of which are for maternity services. However, the urban areas lack the mid-level public facilities seen in rural areas. This gap is filled by private clinics and hospitals and NGO health facilities. Some major programs that provide MNCH-FP services in urban areas that are implemented by NGOs include the NGO Health Service Delivery Project (NHSDP), Marie Stopes International (MSI), and the BRAC Manoshi program.

The USAID funded NHSDP program provides an essential package of health services that includes family planning, maternal, newborn, and child health services through a network of local NGOs. Services are provided through 'Smiling Sun' static clinics, satellite clinics, and community health workers. The program's emphasis is to serve the poor and the under-served population. Services are provided free or at a subsidized cost for those who are unable to pay. NHSDP has 207 static clinics in the urban areas, out of which 44 clinics provide comprehensive EMOG services. An additional six clinics offer only basic EMOG.

MS Bangladesh is affiliated with MSI and provides a wide range of sexual and reproductive health (SRH) services including maternal health and family planning services. In urban and peri-urban areas it operates 141 clinics, out of which 15 are maternities that conduct deliveries, including C-section.

Manoshi is a community-based health program implemented by BRAC to provide maternal, neonatal, and child health services to urban slum dwellers in 10 cities in Bangladesh. Using two levels of Community Health Workers (CHWs), Manoshi provides ANC and PNC through home visits and delivery care through BRAC Delivery Centers located in slums (also called Birth Huts) and BRAC Maternity Centers. Manoshi operates through a referral chain where CHWs refer women for normal delivery to BRAC Delivery Centers which are operated by Urban Birth Attendants (most of whom are former traditional birth attendants). On the other hand, BRAC Maternity Centers, which are an upgraded version of the BRAC delivery centers, are operated by Manoshi Midwives, who have paramedic training with a specialty in midwifery, and a once a week visit by a medical doctor. They provide advanced care closer to patients' homes within the slums while decreasing the number of referrals needed. Emergency obstetric and neonatal complications are referred to Nari Moitree, a national NGO, and Dhaka Medical College hospital through an established referral and linkage system. As of the end of 2013, under Manoshi, there were 16 Maternity Centers and 359 Delivery Centers.

8.1 ANTENATAL CARE

Antenatal care (ANC) from a medically trained provider is important to reduce risks for both mother and child during pregnancy and delivery. To be effective, antenatal care visits should be regular and a minimum of four visits needs to be made. In this section information is presented for women who had given a live birth in the three years preceding the survey.

8.1.1 Antenatal Care Coverage

Table 8.1 presents the distribution of antenatal care utilization by source of care in each of the three main survey domains—slums, non-slums, and other urban areas. Interviewers were instructed to record all persons with whom a woman had consulted for ANC for the most recent birth. Only the provider with the highest qualifications (among those that a woman may have reported visiting) was included.

The overall use of ANC was higher among urban women in all three domains (72 to 92%) than the use of ANC by women who lived in rural areas as shown in the 2011 BDHS (63%). For all domains, the majority of women received ANC from a medically trained provider, that is, a qualified doctor, nurse, midwife, paramedic, family welfare visitor (FWV), community skilled birth attendant (CSBA), medical assistant (MA), or sub-assistant community medical officer (SACMO). However, visits to a medically trained provider among women living in the slums was considerably lower (54%) than for women living in non-slum and other urban areas (83% and 76%, respectively).

A substantial difference was noted in the type of ANC provider used by the three domains. Women in the non-slum areas were almost twice as likely as women in the slums (76% versus 41%) to go to a qualified doctor. About one in every five women living in slums received ANC from a non-medically trained provider (18%), compared to women in non-slums and other urban areas (7% and 6%, respectively). A sizeable proportion of slum women received ANC from non-medically trained NGO workers (16%), while only 6% of women living in non-slums and 5% of those living in other urban areas received ANC from this category of provider.

Table 8.1: Antenatal care coverage

Percent distribution of women age 15-49 who had a live birth in the three years preceding the survey by antenatal care (ANC) provider during pregnancy for the most recent birth, City Corporation slum, City Corporation non-slum, and other urban areas, UHS 2013.

Domain	Medically trained			Non-medically trained					Total	Any ANC	ANC from medically trained provider ¹	Number of women
	Qual-ified doctor	Nurse/ midwife/ para-medics/ FWV	CSBA/ MA/ SACMO	HA/ FWA	NGO worker	Trained TBA/ untrained TBA unqualified doctor/ other	No one	Miss- ing				
City Corporation slum	41.3	12.3	0.2	1.6	15.8	0.9	27.9	0.1	100.0	72.1	53.8	3,406
City Corporation non-slum	75.7	7.5	0.0	0.7	5.9	0.2	10.0	0.0	100.0	90.0	83.2	1,716
Other urban	66.4	9.4	0.0	0.7	4.9	0.0	18.5	0.0	100.0	81.5	75.8	2,388

Note: If more than one source of ANC was mentioned, only the provider with the highest qualifications was considered in the tabulation.

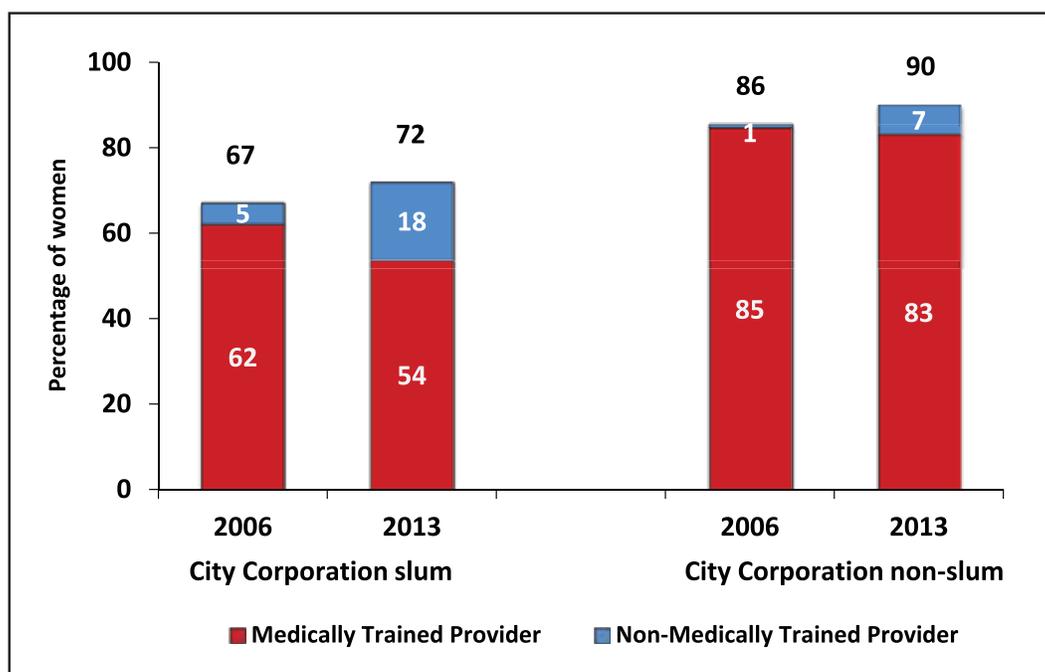
¹ Medically trained provider includes qualified doctor, nurse/midwife, paramedics, FWV, CSBA, and MA/SACMO.

There were sharp differences in ANC coverage by background characteristics. Across all domains, a similar pattern exists where medically trained providers were more likely to be used for ANC for lower-order births, more educated women, and economically advantaged women (Annex B, Tables 8.1.A-C). Age played a relatively minor role, with younger women more likely to use ANC.

While there has been an overall increase in the use of ANC from 2006 to 2013, the increase was small—from 66 to 72% in the slums and 86 to 90% in the non-slums (Figure 8.1). More importantly, this increase has been entirely from non-medically trained providers and at the expense of medically trained providers, which has actually decreased in both slums and non-slums (from 62 to 54% in slums, and from 85 to 83% in non-slums, respectively).

Differences in use of medically trained providers for ANC existed between slums and non-slums. The disparity has widened in 2013 compared to 2006. In 2006, the use of medically trained providers for ANC was 1.4 times higher in non-slums compared to women in slums. This ratio has increased to 1.5 in 2013.

Figure 8.1: Trend in utilization of antenatal care by type of provider, UHS 2006 and 2013.



8.1.2 Place of Antenatal Care

The place from where a woman receives ANC influences the frequency and quality of care received. Information on the ANC source also assists policy-makers with decisions on how to allocate resources. Information was collected on multiple sources that women used for receiving care during the last live birth in the three years preceding the survey.

The primary sector from where women received ANC varied by the area of residence of women. While the NGO sector was the primary source for ANC in slums, the private sector was the major source of ANC in the other two domains—non-slums and other urban areas. As shown in Table 8.2, about four out of ten slum women reported seeking ANC from the NGO sector. On the other hand, about six out of ten women living in non-slum areas and five out of ten women living in other urban areas sought ANC from the private sector. A noticeable proportion of women living in slums received ANC at their homes (14%), and this was much lower in the other two domains (5% in non-slums and 6% in other urban areas). The place of ANC by women's background characteristics, by domains, is presented in Annex B (Tables 8.2.A-C).

Table 8.2: Place of antenatal care

Among women age 15-49 who had a live birth in the three years preceding the survey, the percentage who received antenatal care (ANC) during the pregnancy of the most recent birth by place of ANC care, City Corporation slums, City Corporation non-slums, and other urban areas, UHS 2013.

Domain	Home	Public sector	Private sector	NGO sector	Other	Number of women
City Corporation slum	14.2	23.9	29.5	41.5	0.2	2,456
City Corporation non-slum	4.5	21.9	58.1	21.3	0.1	1,545
Other urban	6.1	38.9	51.7	11.8	0.0	1,945

Note: Multiple responses possible.

8.1.3 Number of Antenatal Visits

The Bangladesh Maternal Health Strategy recommends at least four ANC visits during pregnancy. The coverage of the recommended four or more ANC visits varied between the three domains. As shown in Table 8.3, women living in non-slums were most likely to have received four or more ANC visits compared to women living in the other two domains. Fifty-eight percent of those women living in non-slums received at least four ANC visits, compared to 29% in slums and 36% in other urban areas.

Table 8.3: Number of antenatal care visits

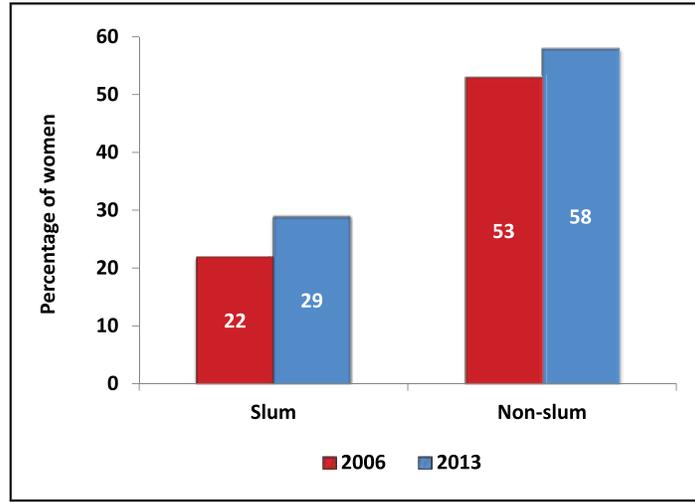
Percent distribution of women aged 13-49 who had a live birth in the three years preceding the survey by number of antenatal care (ANC) visits for the most recent live birth, according to domain, UHS 2013.

Number of ANC visits	City Corporation slum	City Corporation non-slum	Other urban
None	27.9	10.0	18.5
1	7.2	4.6	9.4
2	14.8	11.3	16.3
3	21.6	16.2	20.0
4+	28.5	58.0	35.8
DK/missing	0.0	0.1	0.1
Total	100.0	100.0	100.0
Median number of visits for those with ANC	3.19	4.16	3.28
Number of women	3,406	1,716	2,388

The Health, Population, and Nutrition Sector Development Program (HPNSDP) aims to achieve a coverage of four or more ANC visits of 50% by 2016. While the percentage of women receiving the recommended 4+ ANC check-ups has increased for all domains between the 2006 and 2013 surveys, the increase was minimal for all survey domains. Only women in non-slums reached the HPNSDP's target of 50%, whereas women in slums lagged behind the target (Figure 8.2).

Although intra-urban differentials in coverage of four or more ANC visits between slums and non-slums have declined slightly between 2006 and 2013, there was still large inequity between slums and non-slums. In 2006, ANC 4+ was 2.4 times higher in non-slums compared to women in slums. This ratio has declined to 2.0 in 2013. The absolute difference in seeking ANC 4+ between slums and non-slums has also declined from 31 percentage points to 29 percentage points in the last seven years.

Figure 8.2: Number of ANC 4+ visits, UHS 2006 and 2013.



8.1.4 Health Services Received during Pregnancy

Contents of ANC provided some indication of the quality of the service received (Table 8.4). In the UHS 2013, over 90% of women receiving ANC had their blood pressure checked and weight measured. This was true for women in all three urban domains. A substantially lower proportion of women got urine tests, blood tests and ultra-sonograms done, with the women living in slums getting the lowest level compared to women in non-slums and other urban areas.

Table 8.4: Health services received by source of antenatal care

Percent distribution of women age 15-49 who received antenatal care for their most recent birth during the three years before the survey, by specific health services received during pregnancy, according to source of antenatal care (ANC), City Corporation slum, City Corporation non-slum, and other urban areas, UHS 2013.

Source of ANC	Components of ANC					Number of women
	Blood pressure	Urine test	Blood test	Weight taken	Ultra-sonogram done	
City Corporation slum						
Medically trained provider ¹	94.6	81.2	70.0	93.7	74.1	1,831
Non-medically trained provider	89.4	50.4	36.3	83.0	37.1	539
Total	93.4	74.2	62.3	91.3	65.7	2370
City Corporation non-slum						
Medically trained provider ¹	96.2	92.7	87.0	97.1	90.0	1,428
Non-medically trained providers	87.5	65.6	57.2	84.2	47.8	102
Total	95.6	90.9	85.0	96.3	87.2	1529
Other urban						
Medically trained provider ¹	93.4	83.3	76.1	94.8	82.7	1,810
Non-medically trained provider	77.7	58.8	29.9	83.7	28.1	117
NGO worker: Other						
Total	92.4	81.9	73.3	94.1	79.4	1927

Note: If more than one source of ANC was mentioned, only the provider with the highest qualifications was considered in the tabulation.

¹ Medically trained provider includes qualified doctor, nurse/midwife, paramedics, FWV, CSBA, and MA/SACMO.

Note: Women who got ANC from HA/FWA or TTBA, UTBA, and others were excluded from the analysis.

The range of health services received during pregnancy varied substantially by type of ANC provider. Women who received ANC from medically trained providers were more likely to have the five specific health check-ups done compared to those who sought ANC from non-medically trained providers. Women living in slums were least likely to have urine tests, blood tests, or ultra-sonograms done. For women in slums, the likelihood of getting urine tests, blood tests, and ultra-sonograms was 1.6-2.0 times higher when ANC was received from a medically trained provider compared to a non-medically trained provider (Figure 8.3.1). The same pattern was observed among non-slum women (1.4 to 1.9 times) (Figure 8.3.2). For other urban areas, the likelihood of getting blood tests and ultra-sonograms was 1.4 to 3.0 times higher when ANC was sought from a medically trained provider compared to a non-medically trained provider (Figure 8.3.3).

Figure 8.3.1: Health services received during pregnancy, by type of ANC provider, City Corporation slums, UHS 2013.

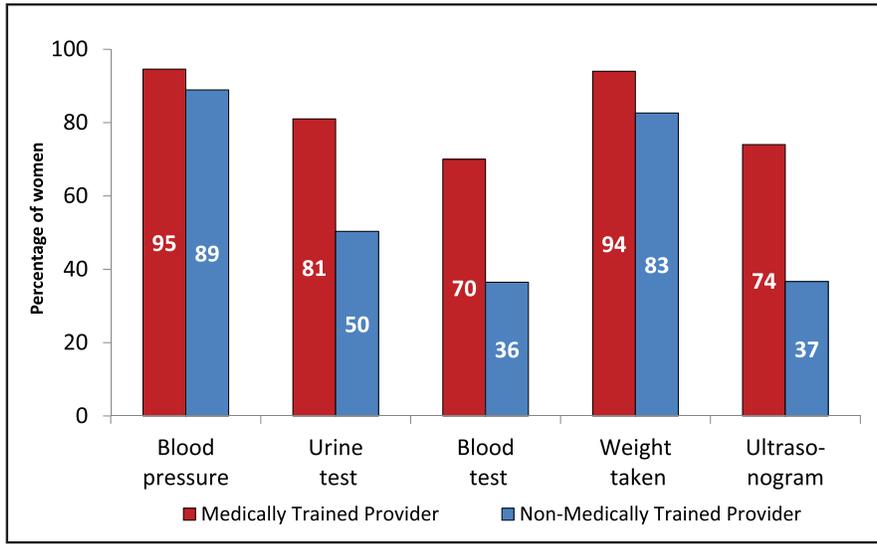


Figure 8.3.2: Health services received during pregnancy, by type of ANC provider, City Corporation non-slums, UHS 2013.

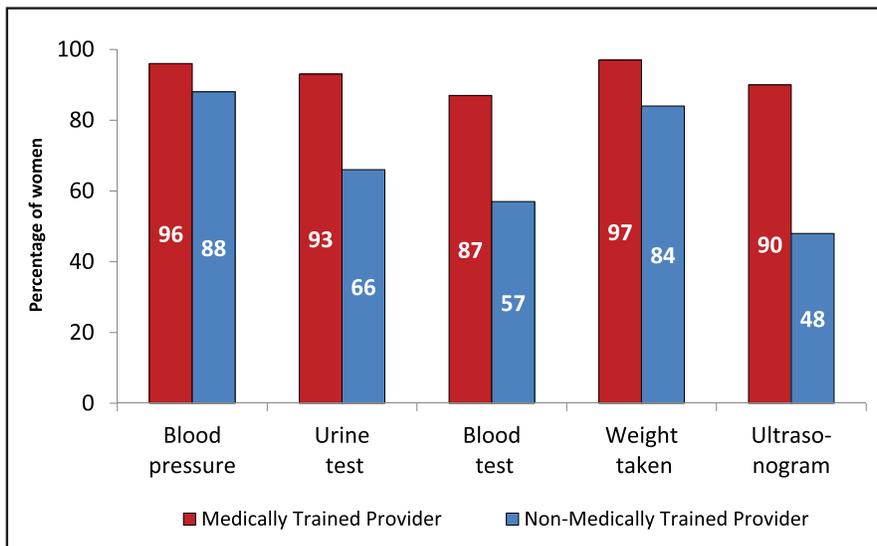
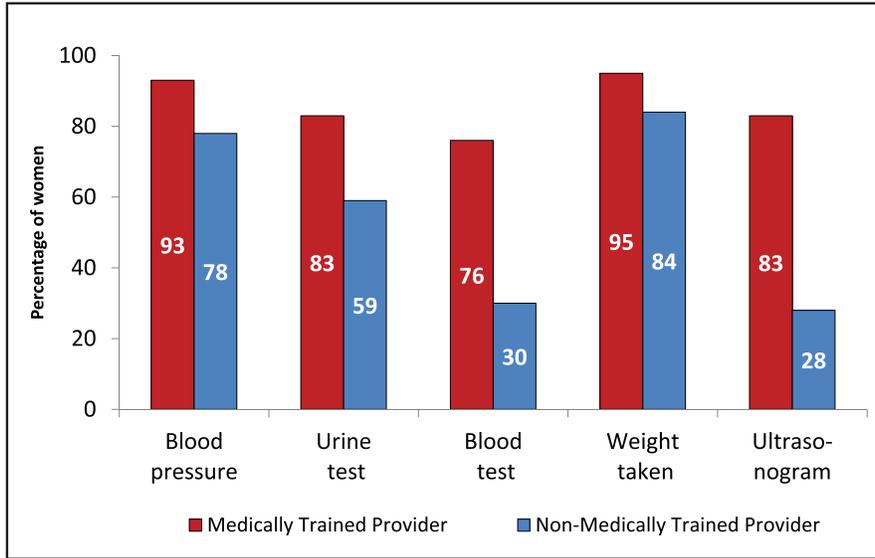


Figure 8.3.3: Health services received during pregnancy, by type of ANC provider, other urban areas, UHS 2013.



8.2 DELIVERY CARE

In Bangladesh, 14% of deaths among women in reproductive ages is due to maternal causes. Delivery care under the supervision of skilled health professionals in a hygienic and well equipped environment reduces the risk of complications and infections that can cause death or serious illness for the mother and the newborn. The following sub-sections provide information on delivery care among all births in the three years before the survey in the three urban domains.

8.2.1 Assistance during Delivery

Bangladesh's Health, Nutrition and Population Sector Development Program (HNPSDP) 2011-2016 aims to achieve 50% of delivery by skilled birth attendants by 2016. Women who had a live birth in the five years preceding the survey were asked about assistance they may have received with the delivery. Interviewers recorded multiple responses if more than one person assisted during delivery; however, for the purpose of the tables in this section, only the most qualified among them was considered.

Table 8.5 presents the percent distribution of births in the three years before the survey by type of assistance at delivery in the three urban domains—slums, non-slums, and other urban areas. There was large variation in the use of medically trained provider by place of residence for urban women. Almost seven out of ten deliveries (68%) among women in non-slums were assisted by medically trained providers, while less than four out of ten deliveries (37%) among women in slums were attended by a medically trained provider. In other urban areas 56% of deliveries were assisted by a medically trained provider. Thus, the HNPSDP's aim of reaching 50% skilled birth delivery attendance by 2016 has been achieved by the population living in non-slums and other urban areas. In non-slums and other urban areas, the most prominently used providers to assist in delivery were qualified doctors (58% in non-slums and 44% in other urban areas), while in slums untrained birth attendant was the most commonly used birth assistant (35%).

For all three urban domains the differentials in use of medically trained providers to assist in delivery varied largely by economic status. Deliveries among women from the highest economic quintile were 2.5-2.8 times more likely to use a medically trained provider compared to those from the lowest economic quintile (Annex B, Tables 8.5.A-C). The HNPSDP's goal is to reduce inequity in the use of medically trained provider for delivery to a ratio of less than 1:4 among the populations in the lowest economic and highest economic quintiles by 2016. In each of the three urban areas this goal has been reached.

Table 8.5: Assistance during delivery

Percent distribution of live births in the three years preceding the survey by person providing assistance during delivery and percentage of births assisted by a medically trained provider for the most recent birth, City Corporation slum, City Corporation non-slum, and other urban areas, UHS 2013.

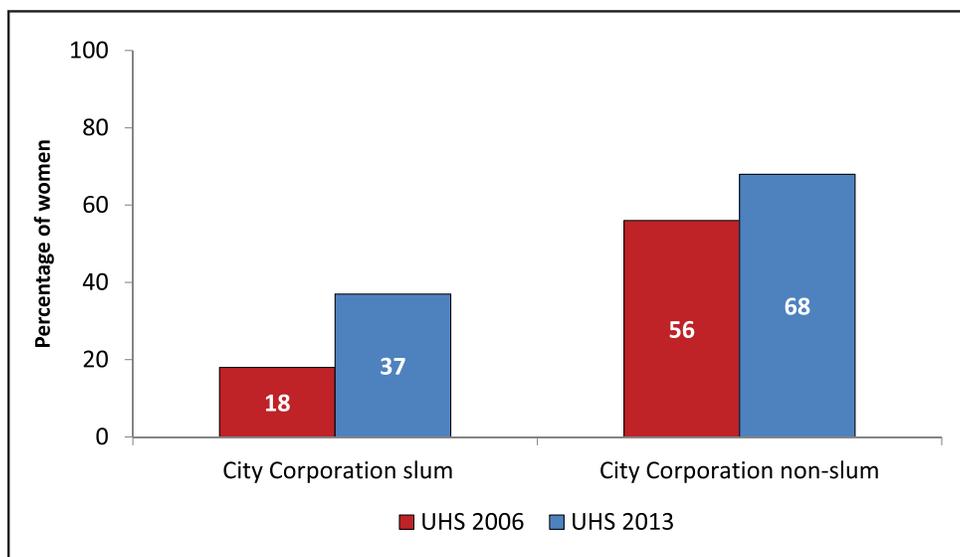
Domain	Assistance during delivery											Percentage delivered by a medically trained provider ¹	Number of women	
	Qualified doctor	Nurse/mid-wife/paramedics	FWW	CSBA	HA/FWA	NGO worker	Traditional birth attendant	Untrained birth attendant	Unqualified provider	Relatives/friends	No one			Total
City Corporation slum	25.1	12.0	0.1	0.0	0.2	5.5	15.1	35.2	0.2	6.4	0.1	100.0	37.3	3,406
City Corporation non-slum	58.2	9.3	0.1	0.0	0.3	1.7	9.7	17.2	0.2	3.1	0.1	100.0	67.7	1,716
Other urban areas	44.3	11.2	0.1	0.0	0.2	0.4	11.5	26.6	0.3	5.3	0.3	100.0	55.6	2,388

Note: If there was more than one person attending during delivery, only the most qualified person was considered in this tabulation.

¹ Medically trained provider includes qualified doctor, nurse/midwife, paramedics, FW CSBA, and MA/SACMO.

Figure 8.4 shows the change in the use of medically trained provider for deliveries between the 2006 UHS and 2013 UHS. The percent of deliveries assisted by medically trained provider increased both in slums and non-slums. In slums delivery by medically trained providers doubled in seven years, while among the non-slum population it increased by about 20%.

Figure 8.4: Trend in use of medically trained provider for delivery, UHS 2006 and 2013.



The difference in the use of medically trained providers for deliveries among women in slums and non-slums has decreased. In the 2006 UHS, births among non-slum women were 3.1 times more likely to be assisted by a medically trained provider compared to births among women in slums. This ratio has declined to 1.8 in 2013. In terms of absolute difference in the use of medically trained providers for deliveries among women living in City Corporation non-slums and slums, the difference has declined from 38 percentage points to 31 percentage points between the UHS 2006 and UHS 2013.

It is also encouraging to see that inequity in the use of medically trained providers for delivery by economic status has declined in all three urban areas. In the UHS 2006, deliveries by medically trained providers among women in the highest economic quintile in slums, non-slums, and other urban areas were 11.7 times, 3.2 times, and 4.9 times higher, respectively, compared to women in the lowest economic quintiles in their respective urban areas (UHS 2006). In the UHS 2013, this ratio has declined to less than three in each of the urban areas.

8.2.2 Location of Delivery

Since a significant proportion of urban residents are migrants who maintain linkage with their village/city of origin, and some custom is in practice to deliver at women's natal homes, it has been anticipated that some proportion of women may not be delivering at their city of residence. No survey in Bangladesh has examined the extent to which this happens. In this survey, questions were asked on whether the most recent birth occurred in any other place outside the city of residence of the women. Recent migrants whose delivery in the three years before the survey occurred before migration to the current city of residence are excluded from this analysis. Overall, 16% of deliveries among women from slums occurred outside their city of residence, mainly in villages. Among the non-slum and other urban women, around one in ten women delivered outside their current city of residence. Almost all deliveries outside the city of residence occurred among migrant women. In slums, one in four migrant women delivered outside their city of residence. In non-slums and other urban areas this number was less than one in five.

Table 8.6: Location of delivery

Percent of ever married women 15-49 years of age who delivered in the three years before the survey* by location of delivery and migration status, City Corporation slum, City Corporation non-slum, and other urban areas, UHS 2013.

Domain	Place of delivery									
	Migrated to current place before the delivery of recent birth					Always lived at current place				
	Current city	Other city	Village	Total	Number of women	Current city	Other city	Village	Total	Number of women
City Corporation slum	75.9	4.9	19.2	100.0	2,075	99.1	0.4	0.6	100.0	1,087
City Corporation non-slum	81.4	7.3	11.3	100.0	964	98.5	1.3	0.1	100.0	677
Other urban	81.9	6.4	11.7	100.0	1,070	98.6	1.0	0.4	100.0	1,246

* Excludes women who delivered in the three years before the survey and migrated after the delivery.

8.2.3 Place of Delivery

Table 8.7 presents the distribution of all live births in the three years preceding the survey by place of delivery for the three urban domains: City Corporation slums, City Corporations non-slums, and other urban areas. Facility delivery was highest among women living in non-slums (65%) and lowest among those living in slums (37%). In comparison, facility delivery in rural areas was 26% (UESD 2013)—much lower than in any of the three urban areas.

Women in non-slums were most likely to choose private health facilities (41%) for delivery, while home was the chosen delivery place for women in slums (60%) and other urban areas (47%). As use of facility delivery in Bangladesh is always strongly linked to economic status, the proportion of facility births varied considerably by economic status (measured by wealth quintiles) within each of the three urban areas (Annex B, Tables 8.7.A-C). For example, women in the richest quintile were 3.0-2.7 times more likely to deliver in a health facility compared to women in the poorest quintile in each of the three urban areas.

Interestingly, women living in slums used public, private, or NGO facilities for delivery almost equally (public, NGO, and private facility use were 13%, 13% and 11%, respectively), while those from non-slums and other urban areas were more likely to use private facilities compared to public or NGO facilities. NGO facility use for delivery was most

common among women in slums compared to the other two urban areas. Less than 4% of births among women in slums occurred in BRAC Delivery/Maternity centers (previously known as birthing huts) located in the slum or close by. Use of these BRAC centers by non-slum residents was only 1%.

Table 8.7: Place of delivery

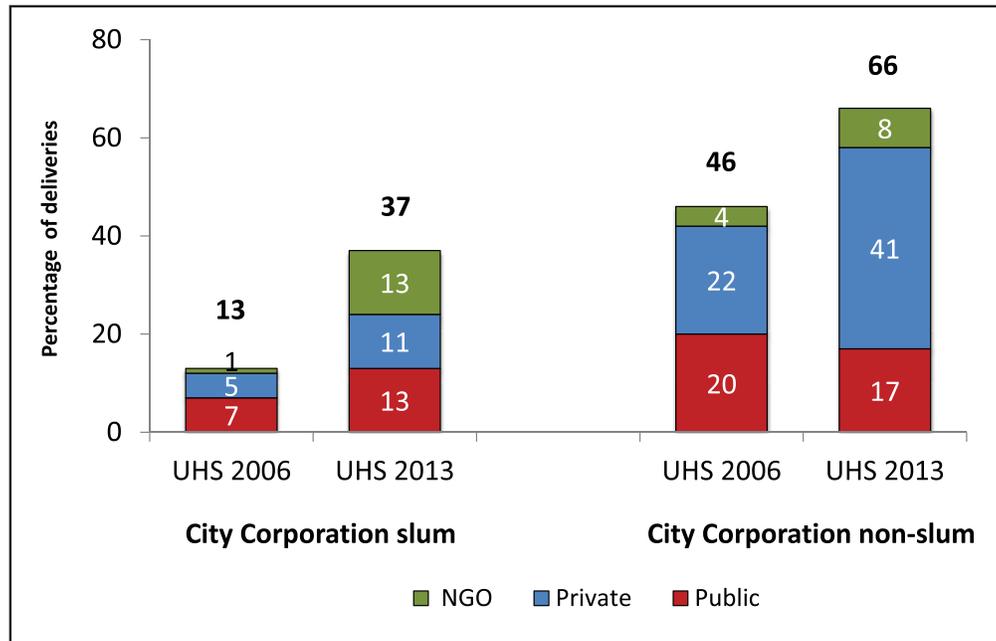
Percent distribution of live births in the three years preceding the survey by place of delivery, percentage delivered in health facility, and percentage delivered by C-section, for the most recent birth, City Corporation slum, City Corporation non-slum, and other urban areas, UHS 2013.

Domain	Place of delivery						Total	Percentage delivered in a health facility ¹	Percentage delivered by C-section	Number of women
	Public facility	Private facility	NGO facility	BRAC delivery/Maternity centers	Other	Home				
City Corporation slum	12.8	11.4	12.6	3.5	0.1	59.7	100.0	36.7	16.3	3,406
City Corporation non-slum	16.8	40.9	7.5	1.0	0.1	33.7	100.0	65.1	42.0	1,716
Other urban	18.8	31.6	2.2	0.2	0.0	47.2	100.0	52.6	33.0	2,388

¹ Health facility includes public, private, and NGO facilities but excludes BRAC Delivery/Maternity centers.

Figure 8.5 shows the change in use of facilities for deliveries between the UHS 2006 and UHS 2013 by women living in slums and non-slums. Use of health facilities for delivery increased by almost three times (from 13 to 37%) among women living in slums. Use of all types of facilities increased, but the most notable change was in the use of NGO facilities which increased from 1% in the UHS 2006 to 13% in UHS 2013. Among women living in non-slums, facility delivery increased by 19 percentage points in seven years (from 46 to 65%) and this change was almost entirely due to the increase in use of private health facilities. Use of public facilities declined slightly and the use of NGO facilities doubled, but remained much lower (8%) compared to the use in private or public facilities.

Figure 8.5: Trend in use of health facility for delivery, UHS 2006 and 2013.



Data from the survey shows that not all facility deliveries were conducted by medically trained providers. Table 8.8 and Figure 8.6 show the percentage of births delivered by medically trained providers by place of delivery in the three urban areas. Births delivered at NGO facilities were not always attended by medically trained providers. Only 75% of births to women from slums who delivered in NGO facilities were attended by medically trained providers. In non-slums and other urban areas this percent was slightly higher. Less than half of the deliveries that occurred in BRAC Delivery/Maternity centers among women living in slums received assistance from medically trained providers. A very small proportion of home deliveries were assisted by medically trained providers in all three urban areas.

Table 8.8: Delivery by medically trained provider by place of delivery

Percentage of live births in the three years preceding the survey delivered by medically trained provider¹ for the most recent birth according to place of delivery, City Corporation slum, City Corporation non-slum, and other urban areas, UHS 2013.

Domain	Place of delivery				
	Public facility	Private facility	NGO facility	BRAC delivery/ Maternity centers	Home
City Corporation slum	97.2	100.0	75.3	42.4	4.1
City Corporation non-slum	98.3	99.9	80.3	(68.6)	10.6
Other urban	98.9	99.7	87.1	*2	7.0

Note: Figure in parentheses is based on less than 50 weighted cases.

¹ Medically trained provider includes qualified doctor, nurse/midwife, paramedics, FW CSBA, and MA/SACMO.

² Not enough sample.

Figure 8.6: Percentage of births delivered by medically trained providers by place of delivery, UHS 2013.

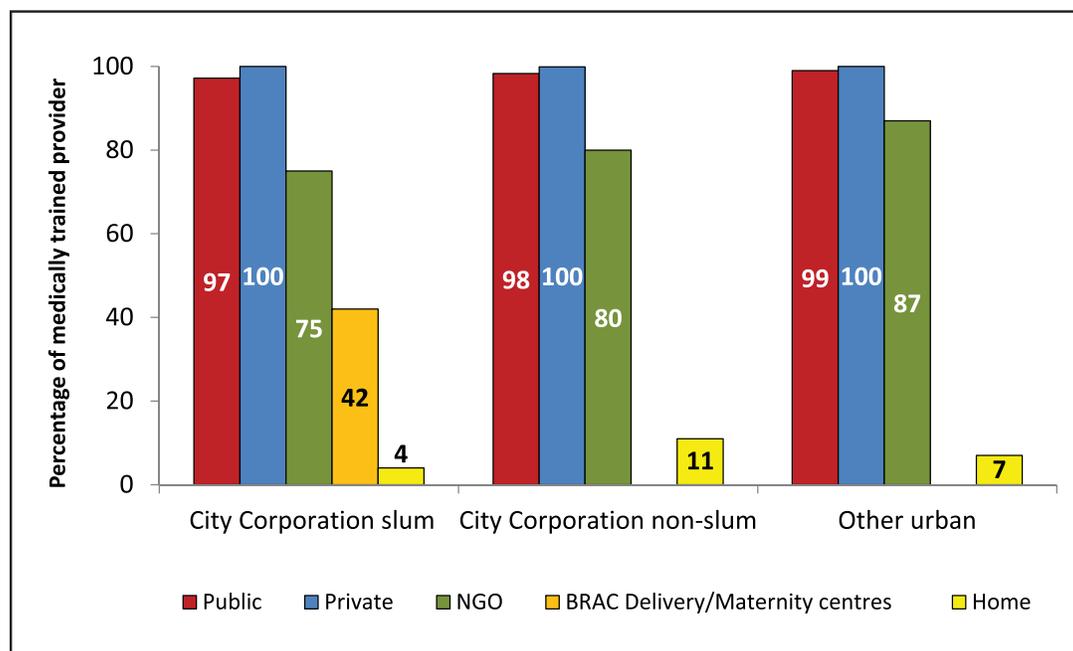


Table 8.9 presents the primary reason for choosing to deliver in a facility among women who had their last birth in the three years before the survey in a facility. Almost half of the women from the three urban areas who delivered in a facility stated that they chose to deliver at a facility because they had complications during pregnancy/delivery. Facility delivery was considered safe by 29% of women from slums and non-slums and 24% of women from other urban areas. Management of complications (which included: complications may be easily managed, blood transfusion can be given, and cesarean section can be performed) was the primary reason for choosing facility delivery by 11%, 13%, and 18% of women from slums, non-slums, and other urban areas, respectively.

Table 8.9: Reasons for choosing health facility for delivery

Percentage of women 15-49 years of age who delivered in a facility for the most recent birth in the three years preceding the survey by reasons for choosing to deliver at a facility: City Corporation slums, non-slums, and other urban areas, UHS 2013.

Reasons for choosing health facility for delivery	Domain		
	City Corporation slum	City Corporation non-slum	Other urban
Complications during pregnancy	17.2	18.8	17.1
Complication during delivery	30.7	27.2	32.9
Referred by doctor/service provider	9.3	9.0	5.9
It is safe	28.8	28.8	23.8
Complications may be easily managed	8.5	8.5	11.9
Blood transfusion can be given	-	0.2	-
Cesarean section can be performed	2.3	4.4	6.1
Baby's health can be checked	0.6	0.4	0.2
Infusion can be given	0.1	-	-
Doctor/trained person available	2.0	2.4	1.6
Other	0.6	0.5	0.6
Total	100	100	100
Number of women	1,250	1,117	1,256

Women who delivered in a facility were asked whether they were referred by anyone to the facility where they delivered their most recent birth in the three years preceding the survey. If they were referred, a question was asked on who provided the referral (multiple responses were accepted). One in four women from slums and over one in three women from non-slums and other urban areas were referred to the facility where they delivered (Table 8.10). In slums, doctors/nurses, relatives/neighbors, and NGO community workers were the prominent sources of referral—over 30% reported being referred by each of these three categories of people. In non-slums, 63% were referred by doctors/nurses and 33% by relatives/friends; while in other urban areas 53% were referred to the facility by relatives/neighbors and 50% by doctors/nurses.

Table 8.10: Referral for facility birth

Percentage of women delivering in a facility for the most recent birth in the three years preceding the survey by whether she was referred to the facility; among those who were referred by persons who provided the referral, City Corporation slums, City Corporation non-slums, and other urban areas.

Characteristics	Domain		
	City Corporation slum	City Corporation non-slum	Other urban
Was referred to facility for delivery	26.8	37.1	35.5
Number of women	3,406	1,716	2,388
Persons providing referral to the delivery facility			
Doctor/Nurse	32.8	62.6	50.4
FWV/SACMO	0.1	0.0	0.0
CSBA/HA/FWA	0.5	0.6	0.8
NGO worker	31.2	9.8	1.1
TTBA/UTBA	2.5	1.2	1.4
Relatives/neighbor	37.5	32.8	52.9
Other	0.9	0.2	0.8
Number of women who were referred	912	637	848

Table 8.11 shows the reasons stated by women who had given birth in the three years preceding the survey at home, or birthing huts, for not delivering at a facility in the three urban areas. Multiple reasons were accepted. Over 90% of women in all three urban areas who did not deliver at a facility stated that they either did not feel the need or were not accustomed to delivery at facilities. Cost associated with facility delivery was a factor for one out of five women in slums and other urban areas, while it was a constraint for about one out of ten women in non-slums.

Table 8.11: Reasons for not delivering at a health facility

Percent distribution of women 15-49 years of age whose last birth in the three years preceding the survey was not delivered at a health facility, by reasons for not choosing to deliver at a health facility, City Corporation slums, City Corporation non-slums, and other urban areas.

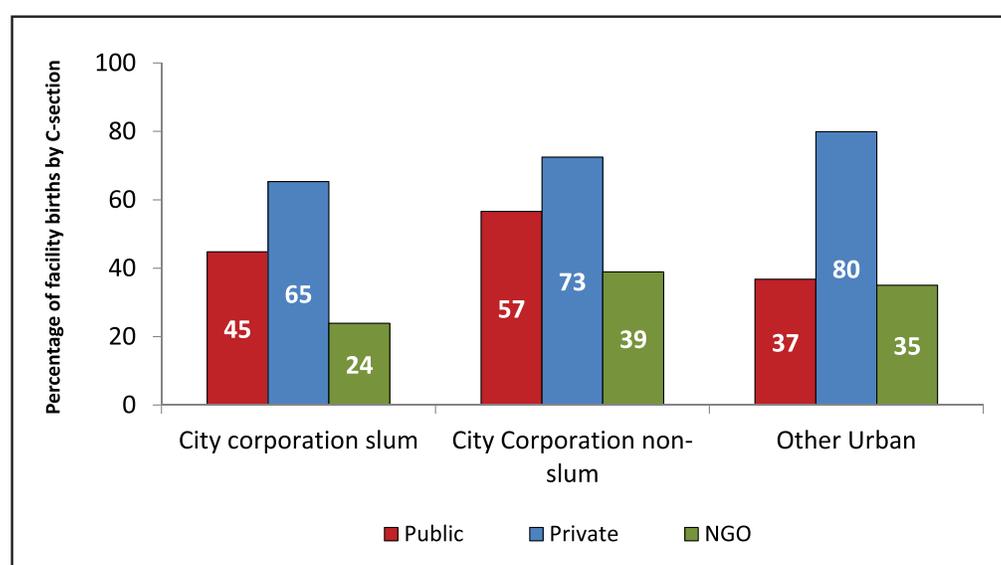
Reasons for not choosing health facility for delivery	Domain		
	City Corporation slum	City Corporation non-slum	Other urban
Not necessary/customary	89.7	92.1	91.0
Did not feel the need	2.4	2.5	4.8
Cost related	17.0	11.6	19.0
Access related	2.2	2.6	2.0
Quality issues	6.8	8.4	13.8
Other	7.1	9.5	11.2
Number of women	2,036	580	1,128

8.2.4 C-section

WHO guidelines indicate that about 15% of deliveries may need C-sections. Tables 8.7.A-C in Annex B present information on the percentage of all live births that were delivered through C-sections in the three urban populations. The expected C-section rate of 15% is now exceeded in all three urban populations, and it is excessively high in the non-slums at 42% and in other urban areas at 33%. It is to be noted that in non-slums and other urban areas over 60% of deliveries were performed by C-section among women in the richest quintile (Annex B, Tables 8.7.B and 8.7.C).

Figure 8.7 presents the proportion of facility births that were delivered by C-sections in the slums, non-slums, and other urban areas. Almost two-thirds of facility births among women in non-slums and other urban areas were delivered by C-section—the proportion was lower (44%) for slum women delivering in facilities. Women delivering in NGO facilities were least likely to have C-sections and those delivering in private facilities were most likely to have C-sections.

Figure 8.7: Percentage of facility deliveries by C-section by type of facility, 2013 UHS.



In the survey, a question was asked to respondents who had their most recent birth delivered by C-section on who first suggested delivery to be done through C-section. Four out of ten women in slums and non-slums stated that the woman herself or a member of her family first proposed C-section delivery. In other urban areas, a higher proportion (48%) reported that the respondent or a family member first suggested a C-section delivery (Table 8.12)

Table 8.12: Suggestion for C-section delivery

Percent distribution of women 15-49 years of age whose most recent birth in the three years preceding the survey was delivered by C-section by person who suggested child delivery by C-section: City Corporation slums, non-slums, and other urban areas.

Person suggesting C-section delivery	CC slum	CC non-slum	Other urban
Respondent	6.8	10.5	12.0
Family member	31.4	31.6	36.6
Doctor	61.8	58.0	51.4
Number of women	554	721	788

Convenience or avoiding labor pain appear to have been major reasons for the family to suggest for C-section delivery (Table 8.13).

Table 8.13: Reasons for suggesting delivery by C-section

Percent distribution of women 15-49 years of age whose most recent birth in the three years preceding the survey was delivered by C-section by reasons for suggesting C-section delivery: City Corporation slums, non-slums, and other urban areas.

Reason for C-section	CC slum		CC non-slum		Other urban	
	C-section proposed by doctor	C-section proposed by family	C-section proposed by doctor	C-section proposed by family	C-section proposed by doctor	C-section proposed by family
Convenience	7.2	22.4	7.0	28.8	12.2	32.9
Don't want to go through labor pain	1.7	6.7	4.9	7.8	3.0	15.6
Mal-presentation	3.1	4.9	3.5	2.0	4.0	2.1
Premature baby	2.6	2.9	2.6	3.0	2.2	2.3
Cord prolapsed	2.7	4.3	3.1	0.9	1.0	1.3
Multiple births	0.2	0.4	0.7	0.6	0.5	0.8
Failure to progress in labor	21.4	9.8	15.0	8.6	12.6	9.5
Pre-eclampsia	3.9	0.3	0.6	1.2	2.0	0.5
Diabetes	0.9	0.0	1.2	1.2	0.3	0.5
Previous C/S	12.8	19.6	23.0	34.0	19.4	23.0
Less pressure on baby's brain	2.9	3.7	4.9	4.0	4.7	5.3
Other complications during delivery	45.9	33.9	36.4	24.1	42.9	30.4
Doctor did not provide any reason	7.0	-	7.4	-	6.6	-
Number of women	342	211	418	303	405	383

8.3 POSTNATAL CARE (PNC)

Postnatal care (PNC) is an important component of safe motherhood. PNC provides an opportunity to assess and treat delivery complications and to counsel mothers on how to care for themselves and their babies. To assess the extent of PNC utilization, every woman who had a birth in the last three years preceding the survey was asked whether she or her child received any health check up after the delivery, the timing of the first check-up, and the type of health care provider who provided the care. Information is presented separately for the mother and the child.

8.3.1 Postnatal Care for Mothers

Overall, the coverage of PNC for mothers was low, although there were differences between the three urban domains. As shown in Table 8.14, 34% of women in slums received PNC checkup from a medically trained provider within the crucial first two days of delivery. Women in non-slums were almost twice more likely to have received PNC from a medically trained provider compared to slum women (60% and 34%, respectively). However, one in every other woman in other urban areas received PNC from a medically trained provider within the first two days of delivery.

The skill of the provider who provides the first PNC has important implications for the health of the mother and the newborn. Table 8.14 shows that among women who gave birth in the last three years preceding the survey, the majority received PNC from a qualified doctor. About one in every 10 women also received PNC from a nurse, midwife, paramedic, or family welfare visitor (FWV) within the first two days after birth.

Table 8.14: Type of provider of first postnatal checkup for mother

Percent distribution of last births in the three years preceding the survey for which the mothers received postnatal care within two days of the last live birth from a medically trained provider, City Corporation slum, City Corporation non-slum, and other urban areas, UHS 2013.

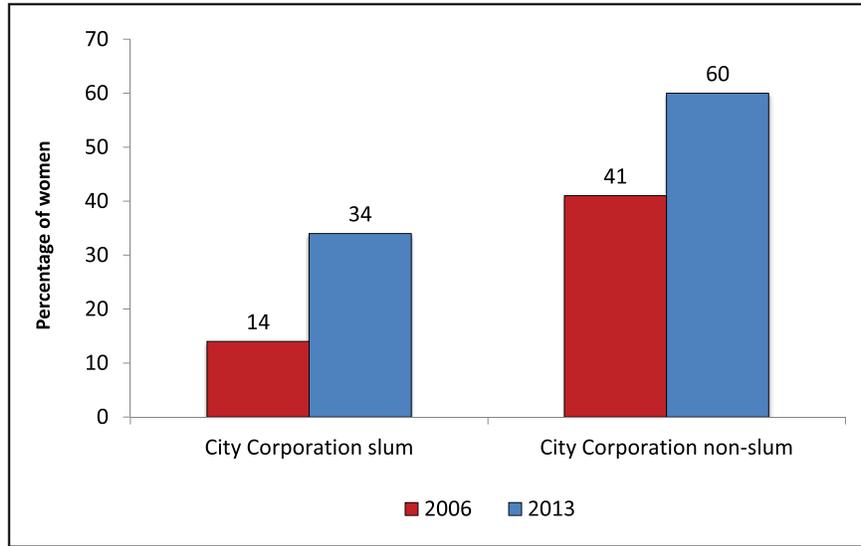
Domain	Qualified doctor	Nurse/ midwife/ para- medics/ FWV	CSBA/ MA/ SACMO	Non- medically trained provider	No post- natal checkup	Total	Percentage receiving checkup within 2 days of delivery from a medically trained provider	Number of women
City Corporation non-slum	50.3	10.1	0.0	3.0	36.6	100.0	60.4	1,716
Other urban	39.4	10.6	0.0	3.0	46.9	100.0	50.0	2,388

Note: Medically trained provider included qualified doctor, nurse/midwife, paramedics, FWV, CSBA, and MA/SACMO.

Differences in receiving PNC from a medically trained provider within two days of delivery by birth order, place of delivery, education, and wealth quintile were noticeable (Annex B, Tables 8.14.A-C). Overall, women having their first child, women who had completed a secondary education or higher, women in the highest wealth quintile, and women delivering at private facility were much more likely than other women to have received their first PNC from a medically trained provider in the first two days after delivery. The patterns were mostly similar across all urban domains. Women's ages did not have any pattern in non-slum and other urban areas; however, in slums women who were younger than age 35 were more likely to have received PNC from a medically trained provider in the first two days after delivery.

The percentage of mothers receiving PNC checkup from medically trained providers within two days of delivery has increased in all three domains between 2006 and 2013 (Figure 8.8). The difference in the likelihood of receiving PNC among women in slums and non-slums has reduced. In 2006, non-slum women were 2.9 times more likely to have received PNC from a medically trained provider compared to slum women. This ratio has reduced to 1.8 in 2013.

Figure 8.8: Trend in postnatal care for women from a medically trained provider within two days of delivery, UHS 2006 and 2013.



8.3.2 Postnatal Care for the Newborn

In all three urban domains, newborns were less likely to have received postnatal check-ups from a medically trained provider than their mothers. As shown in Table 8.15, slightly over one-fourth of newborns in slums received PNC from a medically trained provider within two days of delivery. While the proportion of newborns who received PNC from medically trained providers in non-slums and other urban areas were much higher than slums, only newborns in non-slums were about to reach the HPNSDSP’s target of 50% to be achieved by 2016. In other urban areas, 45% of newborns received PNC from a medically trained provider within two days of delivery.

Table 8.15: Type of provider of first postnatal checkup for newborn

Percent distribution of last births in the three years preceding the survey for which children received postnatal care in the two days after the last live birth from a medically trained provider, City Corporation slum, City Corporation non-slum, and other urban areas, UHS 2013.

Domain	Qualified doctor	Nurse/ midwife/ paramedics/ FWV	CSBA/ MA/ SACMO	Non-medically trained provider	No postnatal checkup	Total	Percentage receiving checkup within 2 days of delivery from a medically trained provider	Number of women
City Corporation non-slum	40.1	9.1	0.0	3.0	47.8	100.0	49.2	1,716
Other urban	35.6	9.4	0.0	2.6	52.3	100.0	45.0	2,388

Note: Medically trained provider included qualified doctor, nurse/midwife, paramedics, FWV, CSBA, and MA/SACMO.

Differences in receiving PNC within two days of delivery by newborn by birth order, place of birth, education, and wealth quintile were pronounced and were similar to the patterns shown for mothers’ PNC use for the three urban domains (Annex B, Tables 8.15.A-C). Women’s age showed a different pattern for slums, non-slums, and other urban areas. For slums and other urban areas, newborns of women aged below 35 years were more likely to have received PNC, whereas for non-slum areas newborns of women aged 20 years or older were more likely to have received PNC from a medically trained provider within two days of delivery.

PNC from a medically trained provider for newborns increased between 2006 and 2013 (Figure 8.9). In 2006, children born in non-slums were 3.2 times more likely to have received PNC from a medically trained provider compared to children born in slums. This ratio has declined to 1.8 in 2013.

Figure 8.9: Trend in postnatal care for newborns from a medically trained provider within two days of delivery, UHS 2006 and 2013.



8.4 COST OF DELIVERY

The survey collected information on cost incurred by the household related to the delivery of the most recent birth in the three years preceding the survey. For women living in slums the median cost of delivering at NGO facilities was much lower than delivering in public or private facilities (Table 8.16.1). Median cost of delivering at a public facility was (Taka 4,652), 4.5 times more compared to the cost of delivering at NGO facilities (Taka 1,065); private facilities were 10 times more (Taka 10,516). Around 17% of deliveries at NGO facilities reported no payment, compared to less than 2% in public facilities. Also, a higher proportion of C-sections were conducted in private and public facilities relative to NGO facilities, thus impacting the relative median expenditure by types of facilities. Table 8.16.1 also segregates cost related to births for normal and C-section deliveries by place of delivery. Among slum women, 81% and 60% of C-section deliveries in private and public facilities, respectively, reported expenditure of Taka 10,000 or more related to the delivery. Comparatively, only 28% of C-sections in NGO facilities incurred a cost of Taka 10,000 or more. Both for normal and C-section deliveries, the cost of delivering at NGO facilities was substantially lower compared to public and private facilities for women living in slums.

For women living in non-slums, the cost of facility delivery was also lowest when the birth occurred at NGO facilities (Table 8.16.2). Expenditures related to births at public and private facilities were 2.7 times and 6.6 times higher relative to births at NGO facilities, respectively. However, median expenditure of delivering in any type of facility was higher among women in non-slums compared to slums.

For women living in other urban areas, median expenditure incurred for deliveries in NGO facilities and public facilities did not vary as much (Taka 2,468 and Taka 3,136 for deliveries in NGO and public facilities, respectively) (Table 8.16.3).

As expected, expenditures for home deliveries was the lowest; it ranged between Taka 448 and Taka 580 across the three urban areas.

Table 8.16.1: Cost of delivery: City Corporation slum

Percent distribution of women who had a birth in the three years preceding the survey by amount spent, median and mean amount spent for the most recent birth, by place of delivery and whether C-section was performed, UHS 2013.

Type and place of Delivery	Percent of women paying (in Taka)							Total	Number	Payment in Taka Mean	Payment in Taka Median
	Nothing	<500	500-999	1,000-4,999	5,000-9,999	10,000 or more	DK/missing				
Normal delivery											
Public facility	1.8	4.7	8.8	61.5	20.9	1.8	0.6	100.0	240	2,998	2,545
Private facility	0.0	0.4	1.5	49.8	38.6	9.7	0.0	100.0	136	4,904	4,143
NGO Facility	20.4	11.9	20.5	41.6	4.1	1.5	0.0	100.0	326	2,053	777
BRAC birthing hut	23.6	15.3	31.7	26.3	3.1	0.0	0.0	100.0	116	787	518
Home	18.9	24.2	29.1	26.1	1.2	0.4	0.1	100.0	2,034	805	490
Delivery with C-section											
Public facility	1.6	0.7	0.0	11.7	25.9	60.2	-	100.0	195	12,988	10,290
Private Facility	0.5	0.0	0.0	5.2	13.3	80.9	-	100.0	253	18,632	18,460
NGO facility	5.0	0.0	1.3	31.5	34.2	28.1	-	100.0	103	7,411	5,754
All delivery											
Public facility	1.7	2.9	4.8	39.2	23.1	27.9	0.3	100.0	435	7,486	4,652
Private facility	0.3	0.1	0.5	20.8	22.2	56.0	0.0	100.0	389	13,822	10,516
NGO facility	16.7	9.1	15.9	39.2	11.3	7.9	0.0	100.0	429	3,336	1,065
BRAC birthing hut	22.8	14.8	30.7	25.5	3.0	3.2	0.0	100.0	120	1,141	531
Home	18.9	24.2	29.1	26.1	1.2	0.4	0.1	100.0	2,034	805	490

Table 8.16.2: Cost of delivery: City Corporation non-slum

Percent distribution of women who had a birth in the three years preceding the survey by amount spent, median and mean amount spent for the most recent birth, by place of delivery and whether C-section was performed, UHS 2013.

Type and Place of Delivery	Percent of women paying (in Taka)							Total	Number	Payment in Taka Mean	Payment in Taka Median
	Nothing	<500	500-999	1,000-4,999	5,000-9,999	10,000 or more	DK/missing				
Normal delivery											
Public facility	4.9	1.8	5.9	56.8	19.6	9.5	1.6	100.0	125	3,951	2,927
Private facility	0.1	0.7	1.2	34.0	41.6	21.9	0.6	100.0	194	7,109	5,135
NGO facility	15.7	5.6	24.0	46.8	8.0	0.0	0.0	100.0	78	1,462	990
BRAC birthing hut	1.7	9.8	36.2	45.0	0.0	7.2	0.0	100.0	18	3,170	810
Home	15.4	21.8	23.9	35.3	3.0	0.6	0.0	100.0	579	937	580
Delivery with C-section											
Public facility	6.2	0.0	0.0	8.7	22.1	63.1	0.0	100.0	163	13,366	11,305
Private facility	0.0	0.0	0.0	2.2	4.8	92.9	0.2	100.0	509	23,235	20,114
NGO facility	2.3	0.0	0.0	16.4	27.8	53.5	0.0	100.0	50	12,247	9,757
All delivery											
Public facility	5.6	0.8	2.6	29.6	21.0	39.8	0.7	100.0	288	9,315	6,251
Private facility	0.0	0.2	0.3	11.0	14.9	73.2	0.3	100.0	703	18,793	15,553
NGO facility	10.5	3.4	14.6	35.0	15.7	20.8	0.0	100.0	128	5,656	2,343
BRAC birthing hut	1.7	9.8	36.2	45.0	0.0	7.2	0.0	100.0	18	3,170	810
Home	15.4	21.8	23.9	35.3	3.0	0.6	0.0	100.0	579	937	580

Table 8.16.3: Cost of delivery: Other urban areas

Percent distribution of women who had a birth in the three years preceding the survey by amount spent, median and mean amount spent for the most recent birth, by place of delivery and whether C-section was performed, UHS 2013.

Type and place of delivery	Percent of women paying (in Taka)							Total	Number	Payment in Taka Mean	Payment in Taka Median
	Nothing	<500	500-999	1,000-4,999	5,000-9,999	10,000 or more	DK/missing				
Normal delivery											
Public facility	3.2	3.4	11.7	62.7	14.2	4.5	0.4	100.0	284	2,714	1,922
Private facility	0.7	0.7	2.0	39.7	37.8	19.2	0.0	100.0	152	7,042	4,968
NGO facility	0.0	11.0	8.8	74.3	2.9	2.9	0.0	100.0	34	2,573	1,593
BRAC delivery center	0.0	25.0	0.0	75.0	0.0	0.0	0.0	100.0	4	18,250	1,500
Home	23.2	23.9	26.6	24.0	2.0	0.4	0.0	100.0	1,127	765	448
Delivery with C-section											
Public facility	2.5	0.6	0.0	16.4	31.4	49.2	0.0	100.0	166	11,166	9,132
Private facility	0.3	0.0	0.0	2.3	8.6	88.7	0.0	100.0	604	17,048	15,018
NGO facility	5.5	0.0	0.0	5.5	16.6	72.3	0.0	100.0	18	10,837	11,614
All delivery											
Public facility	2.9	2.4	7.4	45.6	20.5	21.0	0.2	100.0	449	5,835	3,136
Private facility	0.4	0.1	0.4	9.8	14.5	74.8	0.0	100.0	756	15,038	13,476
NGO facility	1.9	7.2	5.8	50.4	7.7	27.0	0.0	100.0	52	5,441	2,468
BRAC birthing hut	0.0	25.0	0.0	75.0	0.0	0.0	0.0	100.0	4	1,825	1,500
Home	23.2	23.9	26.6	24.0	2.0	0.4	0.0	100.0	1,127	765	448

8.5 ESSENTIAL NEWBORN CARE

The National Neonatal Health Strategy and Guidelines for Bangladesh recommend a set of essential newborn care practices: the use of a boiled instrument to cut the cord; applying nothing to the cord; immediate (within five minutes) drying and wrapping of the newborn; delaying bathing to 72 hours after birth; and initiating breastfeeding within one hour of delivery (MOHFW, 2009). Table 8.17 presents the percentage of non-institutional last live births in the three years preceding the survey by each of the essential newborn care practices and the percentage that received all essential newborn care practices. Additional information is provided on the use of clean delivery kit/bag during the delivery for the same births.

As shown in the table, use of a clean delivery kit/bag was low (less than one-third) during home deliveries both in slums and non-slums. This practice was even lower in the other urban areas (27%). The use of a boiled instrument to cut the cord was around 90% in all the urban domains. However, the practice of other components of essential newborn care was low irrespective of the domains where women lived. For instance, only half of the home deliveries in all three urban domains adhered to recommended practices regarding umbilical cord care and drying of newborns. Adherence to recommended practices regarding wrapping and bathing of newborns also remained much lower in all three domains. When all the indicators are combined, only 2-4% of newborns in all urban domains received all essential newborn care practices.

Table 8.17: Essential newborn care

Percentage of non-institutional births which were their mother's most recent live birth in the three years preceding the survey by essential newborn care practices, City Corporation slum, City Corporation non-slum, and other urban areas, UHS 2013.

Domain	Clean delivery kit/bag used during the delivery	Instrument boiled before the cord was cut	Nothing applied to the umbilical cord after it was cut and tied	Dried within 0-4 minutes of birth	Wrapped within 0-4 minutes of birth	Delayed bathing (72+ hours after delivery)	Immediate breast-feeding (within 1 hour after birth)	All the essential newborn care practices	Number of non-institutional births
City Corporation slum	30.0	87.0	48.4	50.6	33.3	21.7	68.3	2.4	2,034
City Corporation non-slum	32.6	91.6	50.7	51.2	32.9	26.6	69.1	2.6	579
Other urban	27.2	91.1	53.4	46.3	29.0	28.5	69.1	3.6	1,127

NOTE: All essential newborn care excludes the use of clean delivery kit/bag used during delivery.

CHAPTER 9: CHILD HEALTH, FEEDING PRACTICES, AND NUTRITIONAL STATUS

9



Photograph: Courtesy of Eminence

Key Findings:

Child Mortality

- During 2009-2013, one in eighteen children in slums died before reaching their fifth birthday.
- In slums, under-five mortality rate (U5MR) declined by 30% during the last seven years whereas infant mortality rate (IMR) declined by 22%. While child mortality (CM) and neonatal mortality (NN) declined substantially during this period, post-neonatal mortality (PNN) remained largely unchanged.

Child Health

- More than half of under-five children with symptoms of ARI in slums were taken to a health facility or a medically trained provider for treatment, compared to two-thirds in non-slums. However, skilled care seeking for childhood ARI improved only in slums during 2006-2013.
- A higher proportion of under-five children with ARI received antibiotics in slums than non-slums in 2013 (47% vs. 40%).

Child Feeding and Nutrition

- Exclusive breastfeeding of children under six months approached 60% both in slums and non-slums, and was slightly higher in other urban areas (66%).
- In both slums and non-slums, there has been a substantial increase in exclusive breastfeeding from the 2006 level.
- Only one in four children aged 6-23 months in slums were fed with proper IYCF practices, compared to 40% for non-slum children..
- Half of under-five children in slums were stunted (height-for-age below -2SD), and one-third were stunted in non-slums and other urban areas. Underweight among under-five children in slums (43%) was considerably higher than in non-slums (26%) and other urban areas (30%).
- In the last seven years, there has only been a slight improvement in nutritional status in both slums and non-slums.
- In all urban domains, overall wasting rate surpassed the WHO specified emergency level (15%). In both slum and non-slum areas, wasting has increased in the last seven years.

The levels of infant and child mortality are quite often considered as indicators of a nation's development. Bangladesh has made laudable progress in reducing infant and child mortality during the last two decades, keeping the country on track to achieve the Millennium Development Goal (MDG) 4 target to reduce the under-five mortality rate (U5MR, under-five deaths per 1,000 live births) by two-thirds between 1990 and 2015 (UN 2000). The country has also been undergoing rapid social changes, especially the rapid increase in the urban population living in slums, and in particular, in the City Corporations. Although national and divisional level estimates for infant and childhood mortality are available, as are overall urban estimates, data on the current levels of infant and child mortality in the slums are nonexistent.

This chapter presents findings on the overall health and associated care seeking patterns, feeding practices, and nutritional status of under-five children in three urban domains in Bangladesh: slums, non-slums, and other urban areas. The indicators of infant and child health include mortality rates (with time trends) for City Corporation slums and comparisons with the 2006 rates. The data for mortality estimates come from the birth history section of the Women's Questionnaire, which collected the month and year of birth for each live birth and age at the time of survey or age at death. Age at death was recorded in days if less than one month, months if less than two years, and years otherwise.

Acute respiratory infection (ARI) is still one of the most important causes of death among the under-five children in the country. Thus, it is important to know the healthcare seeking behavior in relation to ARI in urban areas for designing and adapting interventions to reduce childhood mortality. The prevalence of ARI during the two weeks preceding the survey and health seeking behavior for their management was examined for slums, non-slums, and other urban areas of Bangladesh. Inequalities in the ARI prevalence rates and health seeking behavior by age and sex of children, education of the mothers, and household wealth quintiles for the three urban domains are also presented in this chapter. It is worth noting that the analysis of morbidity and health seeking behavior for ARI and diarrhea is based on a small number of observations, and thus susceptible to instability. Despite this limitation, the data are presented to portray indicative patterns of inequities in morbidity and health seeking behavior because of the critical need to improve the coverage of appropriate management of ARI.

Persistently high rates of malnutrition remain a very important health problem for Bangladesh. Inadequate or inappropriate feeding is the most obvious contributing factor for malnutrition, but is in turn influenced by various socioeconomic and cultural factors. Infant and young child feeding (IYCF) guidelines recommend that infants should be exclusively breastfed for the first six months of life (with no other liquid or solid food or even plain water) and that the infants be initiated on solid (semisolid) complementary food in addition to breast milk after the sixth month of life (PAHO & WHO 2003; WHO 2005). Feeding guidelines for complementary food are based on the amount and variety of foods and frequency of feeding. The 2013 Urban Health Survey collected data on breastfeeding, exclusive breastfeeding, and complementary feeding. Heights and weights of all children born in the five years preceding the survey were recorded to determine child nutritional status. This chapter presents the findings on infant feeding practices and the nutritional status of children in the form of the following three standard indices:

- Height-for-age (stunting);
- Weight-for-height (wasting); and
- Weight-for-age (underweight).

These nutritional status measurements were evaluated against the WHO standard growth curves (WHO 2006). Specifically, these nutritional indicators are expressed in standard deviations (Z-scores) from the mean of the standard population. Children with measurements between less than -2 and -3 Z-scores were considered to have moderate stunting, wasting or underweight, while those below -3 Z-score have exhibited severe stunting, wasting or underweight.

Stunting or inadequate length/height for age is a reflection of the failure to receive adequate nutrition over a long period of time and/or recurrent illness. Height-for-age indicates the long-term effects of nutrition and does not vary appreciably according to the season of data collection.

Weight-for-height is a measure of body mass in relation to body length or height and indicates current nutritional status. Wasting or inadequate weight-for-height usually reflects inadequate nutrition during the period immediately before the survey and may be the result of inadequate food intake or recent episodes of illness causing loss of weight. Prevalence of wasting tends to vary substantially with season.

Weight-for-age is a composite indicator reflecting both height-for-age and weight-for-height. It does not distinguish between acute malnutrition (wasting) and chronic malnutrition (stunting). A child can be underweight for his/her age because of stunting, wasting, or both, rendering this indicator difficult to interpret.

9.1 LEVELS AND TRENDS IN INFANT AND CHILD MORTALITY IN CITY CORPORATION SLUMS

The mortality rates for children under age five are presented in Table 9.1 for the three five-year periods preceding the survey. Data from the UHS 2013 show that under-five mortality rate (U5MR) was 57 per 1,000 live births in the five years preceding the survey (2009-2013), meaning one in eighteen children in slums died before reaching their fifth birthday. The infant mortality rate (IMR) was 49 deaths per 1,000 live births, and the child mortality (CM) rate was 9 deaths per 1,000 children surviving to 12 months of age, but not their fifth birthday. Deaths in the neonatal period (31 deaths per 1,000 live births) accounted for 54% of all under-5 deaths, which was a slightly higher compared with the preceding five-year period, corresponding to 10 to 14 years prior to the survey (51%). Even if compared to earlier national mortality estimates from the 2011 BDHS, infant and under-five mortality rates in slums were higher (43 vs. 49 deaths per 1,000 live births for infant mortality rate and 53 vs. 57 deaths per 1,000 live births for under-five mortality rate), indicating that slum populations experienced a greater burden of child mortality risk in Bangladesh. If compared to mortality estimates for the urban areas from the 2011 BDHS, the disparity was more pronounced (42 vs. 49 deaths per 1,000 live births for infant mortality rate, and 50 vs. 57 deaths per 1,000 live births for under-five mortality rate).

Table 9.1: Early childhood mortality rates

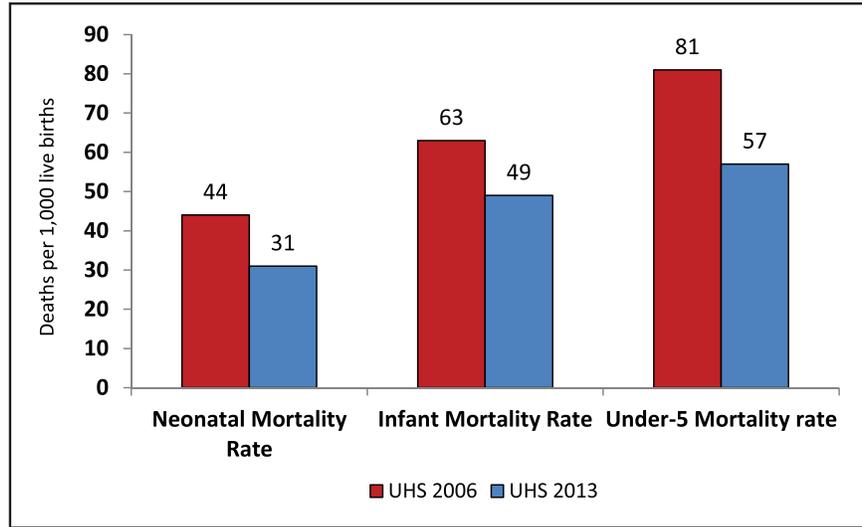
Neonatal, post-neonatal, infant, and under-5 mortality rates for five-year periods preceding the survey in the City Corporation slums, Bangladesh UHS 2013.

Years preceding the survey	Neonatal mortality (NN)	Post-natal mortality (PNN) ¹	Infant mortality (₁ q ₀)	Child mortality (₄ q ₁)	Under 5 mortality (₅ q ₀)
0-4	31	18	49	9	57
5-9	36	19	55	13	67
10-14	42	23	65	18	82

¹ Computed as the difference between the infant and neonatal mortality rates.

Compared to the earlier round of the UHS, decline in mortality from 2002-2006 to 2009-2013 has been 30% for neonatal and under-5 mortality rates and 22% for infant mortality rate (Figure 9.1).

Figure 9.1: Trend in childhood mortality in City Corporation slums, 2006 and 2013.



9.2 PREVALENCE OF ACUTE RESPIRATORY INFECTION (ARI), AND CARE SEEKING AND TREATMENT

Acute respiratory infection (ARI) is defined as having a cough with either rapid or difficult breathing or chest in-drawing which was chest related. The prevalence of ARI among children under five years of age in the two weeks preceding the survey in slums, non-slums, and other urban areas was 2.6%, 2.3%, and 3.3%, respectively (Table 9.2). Around 56%, 66%, and 57% of the children with ARI in the slums, non-slums, and other urban areas, respectively, were taken to a healthcare facility or to a healthcare provider. Pharmacies were the next most common type of provider from whom care was sought for ARI, ranging from 23 to 31%. Care-seeking from a healthcare facility or a healthcare provider in slums was higher in 2013 than in 2006 (when it was 41%), but slightly lower in non-slums (now 66%, compared to 73% in the 2006 UHS). In slums, pharmacies/drug stores were the first point of care (29%) followed by private hospital/clinics (22%) and medical college/specialized hospitals (17%). In non-slums, private hospital/clinics were the first point of care (30%) followed by medical colleges/specialized hospitals (26%) and pharmacies/drug stores (22%). In other urban areas, the pattern was similar to that in slums with pharmacies/drug stores being the first point of care (30%) followed by private hospital/clinics (19%), medical colleges/specialized hospitals (14%), and district hospitals (14%). NGO static clinics were the first point of contact for 6% of slum children with ARI, 0% of non-slum children with ARI, and less than 1% of other urban children with ARI.

Table 9.2: Prevalence and treatment of acute respiratory infection

Among children under five, the percentage who had symptoms of acute respiratory infection (ARI) in the two weeks preceding the survey, and among children who had symptoms of ARI, the percentage for whom advice or treatment was sought from a health facility or provider, according to background characteristics, UHS 2013.

Domains	Percentage with symptoms of ARI ¹	Number of women	Percentage for whom advice or treatment was sought from a facility or provider ²	Pharmacy			Traditional doctor			Number of children with ARI
				Pharmacy	Traditional doctor	Other	No one	Percentage who received antibiotics for treatment of ARI		
City Corporation slums	2.6	5,916	56.2	29.3	7.1	0.0	7.9	46.7	155	
City Corporation non-slums	2.3	2,990	66.1	23.3	7.7	0.0	4.7	39.7	70	
Other urban	3.3	4,102	57.1	30.8	5.3	2.3	6.0	52.6	134	

¹ Symptoms of ARI (cough accompanied by short, rapid, or difficult breathing which was chest related is considered as proxy pneumonia).

² Excludes pharmacy, traditional doctor, and others.

Treatment of ARI with antibiotics was highest in the other urban areas (53%) and, interestingly, the lowest in non-slums (40%) (Table 9.2). Qualified doctors were the usual providers prescribing antibiotics in all three domains (Figure 9.2). In slums among the 47% receiving antibiotics, 10% did not receive a prescription, 29% were prescribed the antibiotics by qualified doctors, and 8% by other providers. In non-slums among the 40% receiving antibiotics, 7% did not receive a prescription, 23% were prescribed the antibiotics by qualified doctors, and 11% by other providers. In other urban areas among the 53% receiving antibiotics, 8% did not receive a prescription, 33% were prescribed the antibiotics by qualified doctors, and 11% by other providers. Among the 37% of children with ARI in the slums who were prescribed the antibiotics, almost all (29% of all children with ARI) were obtained from pharmacies/drug stores (Figure 9.3). Pharmacies/drug stores were the dominant source of antibiotics in non-slums (23%) and other urban areas (29%). The public sector was an important source of antibiotics in the slums (6%), and other private sources were important in the non-slums (9%) and other urban populations (10%).

Figure 9.2: Percentage receiving antibiotics by source of prescription, UHS 2013.

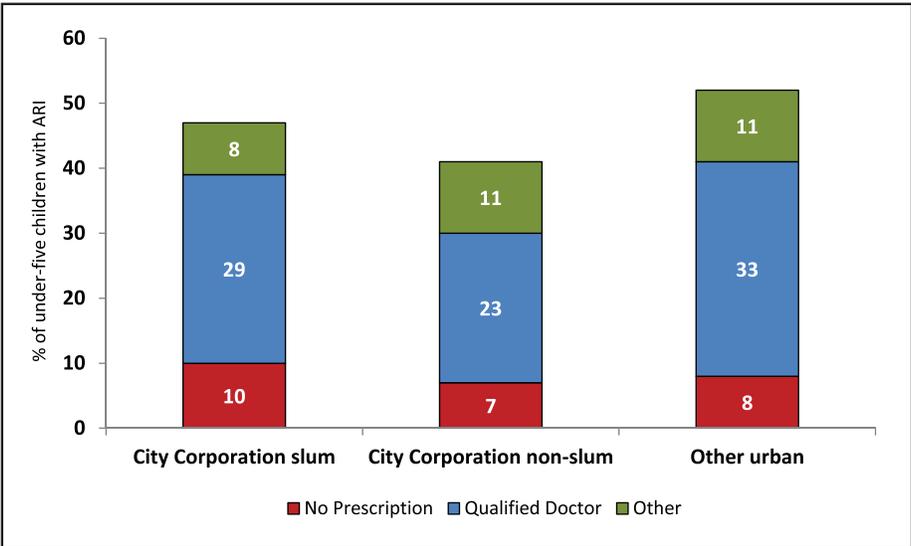
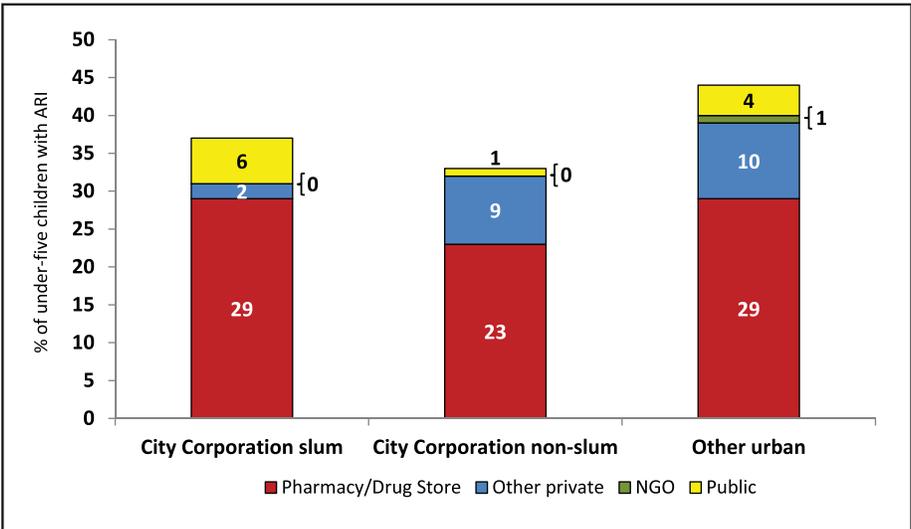


Figure 9.3: Percentage receiving antibiotics by source, UHS 2013.



Unlike most other sections in this report, because of denominators less than 50 for most categories, we have not included in Annex B the detailed domain-specific tables showing disaggregation by background characteristics. In the slums, treatment seeking from a facility or provider was higher for boys than girls (63% vs. 46%) (Figure 9.4.1). In non-slums, the boy-girl difference was small (67% vs. 65%), while in other urban areas, the difference was larger (67% vs. 46%). The sex-differentials in antibiotic use for ARI were similar (Figure 9.4.2), except in other urban areas where girls with ARI were more likely to receive antibiotics (57%) than boys (49%).

Figure 9.4.1: Percentage seeking care for acute respiratory infection from health facilities or providers by sex, 2013 UHS.

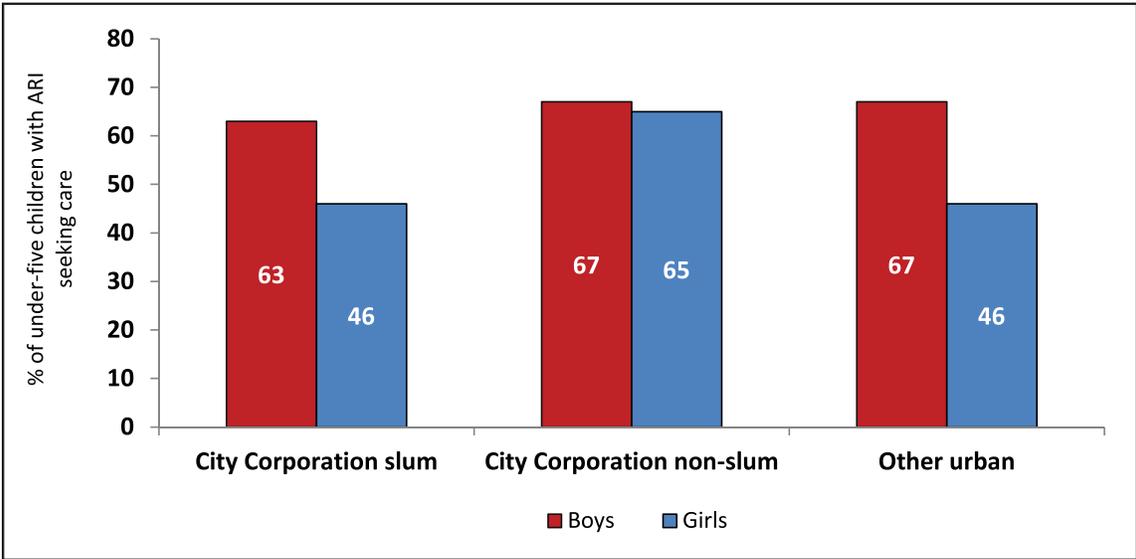
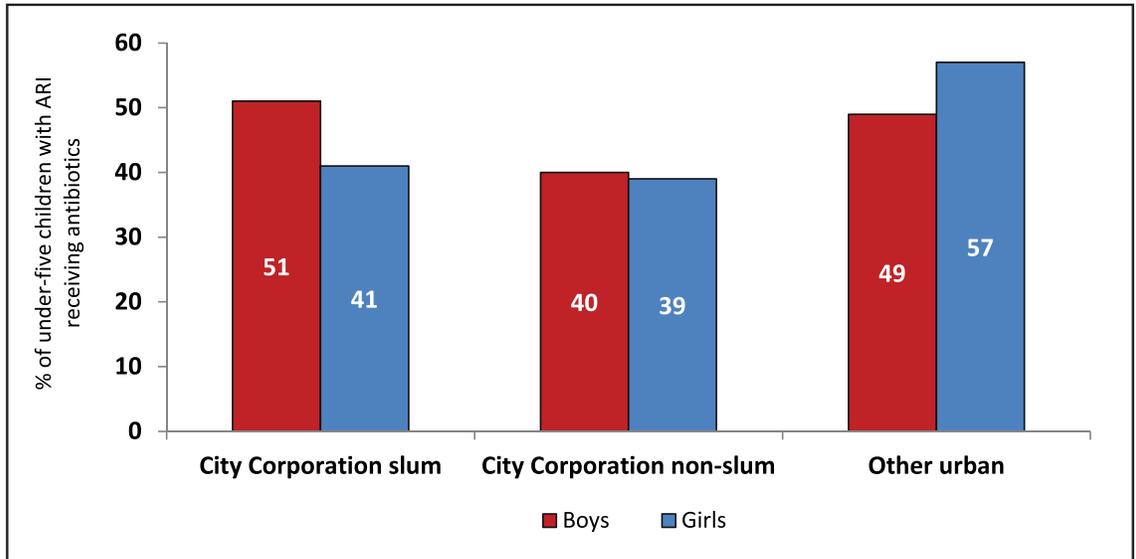


Figure 9.4.2: Percentage receiving antibiotics for acute respiratory infection from health facilities or providers by sex, 2013 UHS.



9.3 USE OF CELL PHONE FOR CHILD CARE

Contrary to expectations, there was very low use of cell phones for seeking advice and assistance for the care of a child with ARI. Only 4% of mothers of children with ARI in slums and non-slums used a cell phone to seek advice or assistance for their sick child. This was slightly higher in the other urban population (6%).

9.4 CARE FOR THE CHILD

Care of children of working mothers was of increasing importance as more women joined the work force. In the slums 22% of mothers with a child of age under five worked outside the home; the number was 11% in non-slums and only 9% in other urban areas. Interestingly, 20-27% of mothers who worked outside the home took their young children with them. Grandmothers cared for 29-38% of these children, followed by friend/neighbors/relatives (12-21%) and the child's elder sister (13-19%).

Table 9.3: Persons caring for the under-5 child of a working woman

Among women age 15-49 with at least one child of age under five and who work outside home, the percentage who cared for the child by sample domains, UHS 2013.

Domains	Mothers currently working			Persons caring for the child of a women currently working outside home						
	Work outside home	Work at home	Number of women	Accompany mother to work	Father	Grand-mother	Elder sister	Friend/Neighbor/Relative	Servant/Other	Number of women who work outside home
City Corporation slums	22.1	5.0	5,391	22.5	6.2	28.5	18.9	21.3	2.5	1,153 (1,190)
City Corporation non-slums	10.6	3.2	7,903	19.9	3.1	34.8	15.3	21.3	5.6	287 (293)
Other urban areas	7.8	3.6	3,787	26.6	5.6	37.8	12.6	12.2	5.2	286 (294)

More than half of the children (56% in slums, 59% in non-slums, and 60% in other urban areas) reported having an illness in the previous three months (Table 9.4). Among these, treatment seeking outside the home was high (84-88%). When treatment was sought outside the home, the father accompanied the child in 57% of cases in slums, 63% of cases in non-slums, and 74% of cases in other urban areas.

Table 9.4: Fathers' participation in children's healthcare

Percentage of fathers accompanying sick children of age under five for treatment outside home in the last three months, UHS 2013.

Domains	Children sick		Treatment sought outside home (among children who were sick)		Father accompanied child for treatment (among children who sought treatment outside home)	
	Percentage	Number of men	Percentage	Number of men	Percentage	Number of men
City Corporation slums	56.2	1,394	83.6	784	56.8	655
City Corporation non-slums	58.8	792	85.8	466	62.6	400
Other urban areas	60.4	938	88.0	567	74.1	499

9.5 BREASTFEEDING PRACTICES

9.5.1 Initiation of Breastfeeding

The percentage of children breastfed within one hour of birth ranged from 54 to 62% across the three urban domains. The percentage breastfed within one day of delivery was 94% in slums, compared with 94 and 95%, respectively, in non-slums and other urban areas. Table 9.5 indicates that nearly 99% of children in all urban domains were breastfed at some time.

Table 9.5: Initial breastfeeding

Among last-born children who were born in the three years preceding the survey, the percentage who were ever breastfed and the percentages who started breastfeeding within one hour and within one day of birth in City Corporation slums, City Corporation non-slums, and other urban areas, UHS 2013.

Domain	Percentage ever breastfed	Percentage started breast-feeding within 1 hour of birth	Percentage started breast-feeding within 1 day of birth ¹	Number of children
City Corporation slum	98.7	61.9	94.1	3,406
City Corporation non-slum	98.7	54.2	93.8	1,716
Other urban	98.8	58.3	95.1	2,388

¹ Includes children who started breastfeeding within one hour of birth.

There was little variation in the percentage ever breastfed and the percentage initiating breastfeeding within one hour and one day by the sex of the child, maternal education, place of or attendance at delivery, or household wealth quintile across all urban domains. There was a slight tendency towards earlier (within one hour) initiation by less educated women, women who did not receive assistance at birth from a medically trained provider, and those with lower household wealth (see Annex B, Tables 9.5.A-C).

9.5.2 Age Pattern of Breastfeeding

Almost all children received breast milk as of their first birthday in the urban areas of Bangladesh. Exclusive breastfeeding of children under six months approached 60% both in slums and non-slums, and was slightly higher (66%) in other urban areas (Table 9.6). The most recent 2011 BDHS and 2013 UESD Survey (Sultana, Bhadra & Alam 2014) also showed similar levels of exclusive breastfeeding among children under six months nationally. Compared with the earlier round of the UHS, exclusive breastfeeding among children under six months increased substantially in slums and non-slums during 2006-2013 (Figure 9.5).

Table 9.6: Breastfeeding status

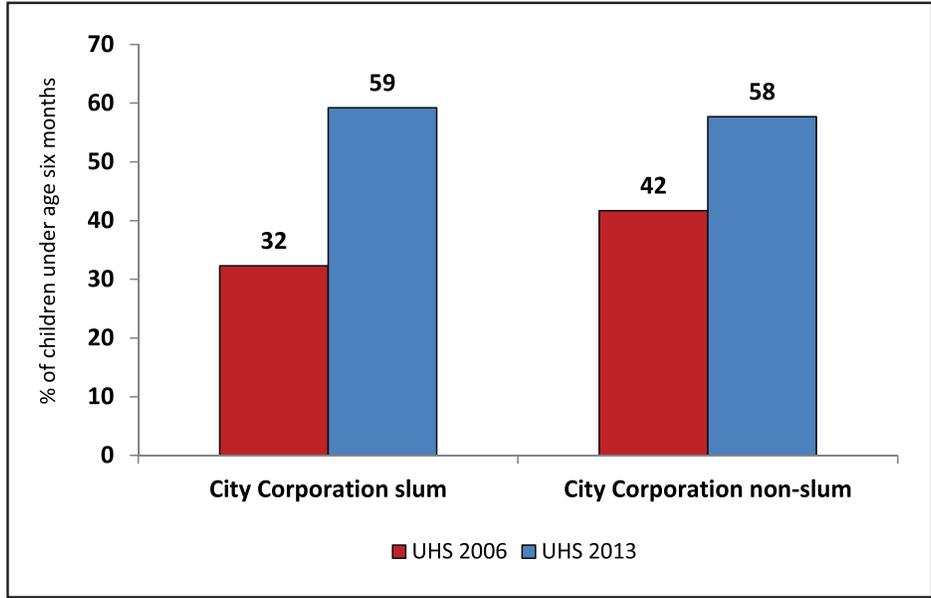
Percent distribution of youngest children under age six months who are living with their mother, by breastfeeding status, City Corporation slum, City Corporation non-slum, and other urban areas, UHS 2013.

Domain	Breastfeeding status						Number of children under 6 months
	Not breast-feeding	Exclusively breast-fed	Breastfeeding and consuming plain water only	Breastfeeding and consuming non-milk liquids ¹	Breastfeeding and consuming other milk	Breastfeeding and consuming complementary foods	
City Corporation slum	0.3	59.2	15.8	4.0	13.8	6.9	470
City Corporation non-slum	0.1	57.7	13.2	2.9	18.8	7.3	253
Other urban	0.6	66.1	10.0	2.6	12.5	8.2	343

Note: Breastfeeding status refers to a "24-hour" period (yesterday and last night). Children who are classified as "breastfeeding and consuming plain water only" and "consumed no liquid or solid supplements." The categories of not breastfeeding, exclusively breastfed, and breastfeeding and consuming plain water, non-milk liquids, other milk, and complimentary foods (solid or non-solid) are hierarchical and mutually exclusive, and their percentages add to 100 percent. Thus, children who receive breast milk and non-milk liquids and who do not receive other milk and who do not receive complimentary foods are classified in the non-milk category even though they may also get plain water. Any children who get complimentary foods are classified in that category as long as they are breastfeeding as well.

¹ Non-milk liquids include: juice, juice drinks, and other liquids.

Figure 9.5: Trends in exclusive breastfeeding among children under age six months in City Corporation slums and non-slums, 2006 and 2013.



Ninety-five percent of children aged 20-23 months in slums were still being breastfed, which was higher than non-slums (88%) and other urban areas (90%) (data not presented). All children beyond six months of age should receive complementary food along with breast milk. However, among children aged six to nine months only 74% and 76%, in non-slums and other urban areas, respectively, received breast milk and complementary food—for the slums this proportion was even lower, at 64%. In the UESD 2013 survey, 76% of children aged six to nine months received complementary food along with breast milk nationally (Sultana, Bhadra & Alam 2014).

The detailed breastfeeding status of children under age two who were living with their mother is presented in Annex B, Tables 9.6.A-C.

9.5.3 Duration of Breastfeeding

The median duration of any breastfeeding was 26 months in non-slums, against 28 months in slums and 29 months in other urban areas (Table 9.7). This compares with 29 months for urban Bangladesh in the BDHS 2011. The median duration of exclusive breastfeeding was 3.1 months in slums, 2.8 months in non-slum areas, and 3.1 months in other urban areas. The median duration of predominant breastfeeding was 3.4 months in slums, 2.8 months in non-slum areas, and 3.2 months in other urban areas. The corresponding duration in urban Bangladesh in the BDHS 2011 was 3.5 months for exclusive breastfeeding and 4.9 months for predominant breastfeeding. In all urban domains, breastfeeding duration tended to decline with increasing education of mothers and household wealth, except in slums where the duration was similar at the poorest and richest quintiles (see Annex B, Tables 9.7.A-C).

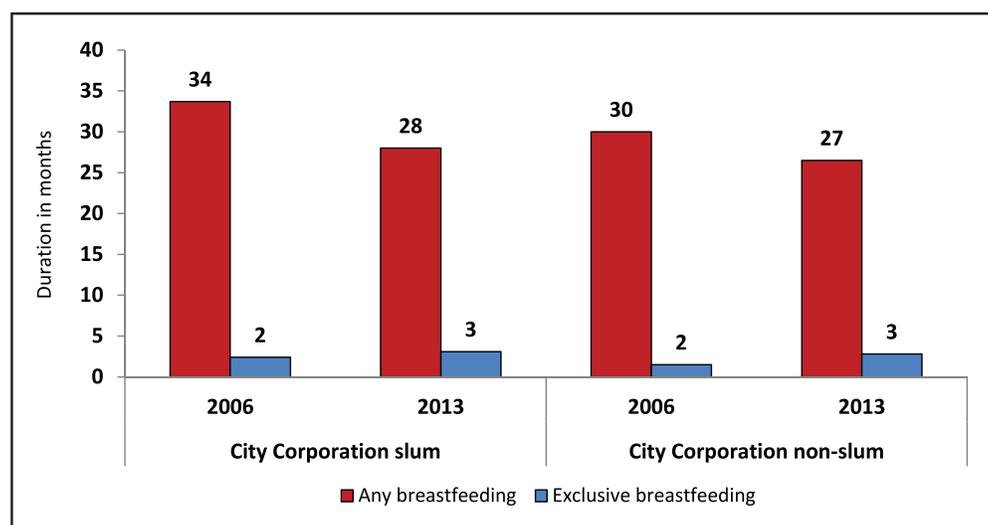
Table 9.7: Median duration of breastfeeding

Median duration (in months) of any breastfeeding, exclusive breastfeeding, and predominant breastfeeding among children born last in the five years preceding the survey, UHS 2013.

Domain	Any breastfeeding	Exclusive breastfeeding	Predominant breastfeeding ¹	Number of children
City Corporation slum	28.0	3.1	3.4	5,107
City Corporation non-slum	26.5	2.8	2.8	2,688
Other urban	29.0	3.2	3.1	3,694

¹ Predominant breastfeeding includes either exclusively breastfed or received breast milk and plain water and/or non-milk liquids only.

Compared with the median duration of breastfeeding from the earlier round of the UHS, duration of any breastfeeding declined and exclusive breastfeeding increased in slums and non-slums (Figure 9.6), resulting in a substantial increase in exclusive breastfeeding rate among children under six months of age.

Figure 9.6: Median duration of breastfeeding in City Corporation slums and non-slums, 2006 and 2013.

9.6 INFANT AND YOUNG CHILD FEEDING (IYCF) PRACTICES

It is recommended that complementary feeding (giving solid or semi-solid foods to infants in addition to breast milk) start at age six months, because at this age breast milk is no longer sufficient to maintain the child's growth (WHO, 2008). Proper IYCF practices include initiating timely feeding of solid or semisolid foods at age six months and increasing the amount and variety of foods and frequency of feeding as the child gets older, while maintaining frequent breastfeeding.

As per the guidelines established for IYCF practices for children age 0-23 months (PAHO/WHO, 2003; WHO, 2005; WHO, 2008), minimum dietary diversity means feeding the child food from at least four food groups out of seven food groups: grains, roots, and tubers; legumes and nuts; dairy products (milk yogurt, cheese); flesh foods (meat, fish, poultry, and liver/organ meat); eggs; vitamin A-rich fruits and vegetables; and other fruits and vegetables. The recommended number of feedings (separately for breastfed and non-breastfed children) is as follows: Breastfed infants six to eight months should be fed meals of complementary foods two to three times per day, with one to two snacks as desired; breastfed children aged 9-23 months should be fed meals three to four times per day, with one to two snacks.

Non-breastfed children aged 6-23 months should receive milk products at least twice a day to ensure their calcium needs are met. In addition, they need animal-source foods and vitamin A-rich fruits and vegetables. Therefore, four food groups are considered a minimum acceptable number of food groups for non-breastfed young children. Non-breastfed children should be fed meals four to five times per day, with one to two snacks as desired (WHO, 2005). Meal frequency is considered a proxy for energy intake from foods other than breast milk, therefore, the feeding frequency indicator for non-breastfed children includes both milk feeds and solid/semi-solid feeds (WHO, 2008).

The UHS 2013 collected information on the types of liquids and foods the child had consumed during the day or night preceding the interview. The results presented in Table 9.8 show that adherence to IYCF practices were substantially lower for non-breastfed children compared to breastfed children, and overall, only 26% of children of age 6-23 months in slums were fed with proper IYCF practices. This proportion was much higher for children in non-slums and other urban areas (40% and 37%, respectively). In comparison with the 2013 UESD Survey (Sultana, Bhadra & Alam 2014), the proportion of children of age 6-23 months in non-slums and other urban areas fed with proper IYCF practices was similar with the proportion for the urban areas of Bangladesh (37%).

Following proper IYCF practices to feed infants and young children was similar for boys and girls in all urban domains, and it improved substantially with maternal education status (see Annex B, Tables 9.8.A-C).

Table 9.8: Infant and young child feeding practice

Percent distribution of youngest children age 6-23 months living with their mother who are fed according to three IYCF feeding practices based on breastfeeding status, number of food groups, and times they are fed during the day or night preceding the survey, City Corporation slum, City Corporation non-slum, and other urban areas, UHS 2013.

Domain	Among breastfed children 6-23 months, percentage fed:			Among non-breastfed children 6-23 months, percentage fed:			Among all children 6-23 months, percentage fed:							
	4+ food groups ¹	Minimum times or more ²	Both 4+ food groups and minimum times or more	Number of breastfed children 6-23 months	Milk or milk products ⁴	4+ times or more	With 3 IYCF practices	Number of non- breastfed children 6-23 months	Breast milk, milk, or milk products ³	4+ food groups	Minimum times or more ⁵	With 3 IYCF practices	Number of all children 6-23 months	
City Corporation slum	31.2	72.0	28.3	1,653	32.9	42.7	76.8	15.6	58	97.5	31.6	67.7	25.9	1,718
City Corporation non-slum	49.1	81.2	44.4	785	41.8	60.4	76.5	23.6	63	95.7	50.0	75.9	40.4	850
Other urban	40.9	82.1	39.1	1,143	50.3	51.1	82.7	25.6	58	97.3	41.4	77.4	37.3	1,206

¹ Food groups: (a) infant formula, milk other than breast milk, cheese or yogurt or other milk products; (b) foods made from grains, roots, and tubers, including porridge and fortified baby food from grains; (c) vitamin A-rich fruits and vegetables (and red palm oil); (d) other fruits and vegetables, eggs; (e) meat, poultry, fish, and shellfish (and organ meats); and (f) legumes and nuts.

² At least twice a day for breastfed infants 6-8 months and at least three times a day for breastfed children 9-23 months.

³ Includes two or more feedings of commercial infant formula, fresh, tinned, and powdered animal milk, and yogurt.

⁴ Non-breastfed children ages 6-23 months are considered to be fed with a minimum standard of three infant and young child feeding practices if they receive other milk or milk products and are fed at least the minimum number of times per day, with at least the minimum number of food groups.

⁵ Fed solid or semi-solid food at least twice a day for infants 6-8 months, 3+ times for other breastfed children, and 4+ times for non-breastfed children.

9.7 NUTRITIONAL STATUS OF UNDER-FIVE CHILDREN

The 2013 UHS collected data on the nutritional status of children by measuring the height and weight of all children under age five in the selected households. The nutritional status assessment helps to identify subgroups of the child population that face increased risk of faltered growth and contributes data for comparison with previous surveys for trend analyses. Table 9.9 provides the distribution of nutritional status for under-5 children in the slums, non-slums, and other urban areas as measured by stunting (height-for-age), wasting (weight-for-height), and underweight (weight-for-age).

In the slums, half of all under-5 children were stunted (50%). The rate of stunting in non-slums and other urban areas was also high (33 and 37%, respectively). Nearly one in every four children in slums was severely stunted, which was one in seven children for non-slums and other urban areas.

In slums, stunting sharply increased right after infancy, and also increased with birth order. As expected, maternal education and household wealth had strong inverse relationships with stunting levels in slums (Annex B, Tables 9.9.A-C). In non-slums and other urban areas, there were no obvious patterns to stunting by age and sex of the children. As in slums, stunting had a strong inverse relationship with maternal education and household wealth.

The wasting level among under-5 children in urban areas is concerning—in all three urban domains, the overall wasting rate surpassed the WHO specified emergency level of 15% (WHO, 2003). Overall, 19% of children in slums were wasted, compared with 16% in non-slums and other urban areas (Figure 9.7). No obvious patterns were evident by age and sex of the child, birth order, or maternal age and education in either slums or non-slums, or other urban areas. Household wealth was inversely associated with wasting in non-slums and other urban areas. Distribution of wasting levels by background characteristics can be seen in Annex B, Tables 9.10.A-C.

As shown in Table 9.9, 43% of under-5 children in slums were underweight, against 26% in non-slum areas and 30% in other urban areas. Fifteen percent of under-5 children in slums were severely underweight, which was nearly double that of the non-slums and other urban areas (7 and 8%, respectively). In general, the trends in underweight by background characteristics were very similar to those seen with stunting—in all urban domains, the likelihood of children being underweight decreased with maternal education and household wealth.

Table 9.9: Nutritional status of children

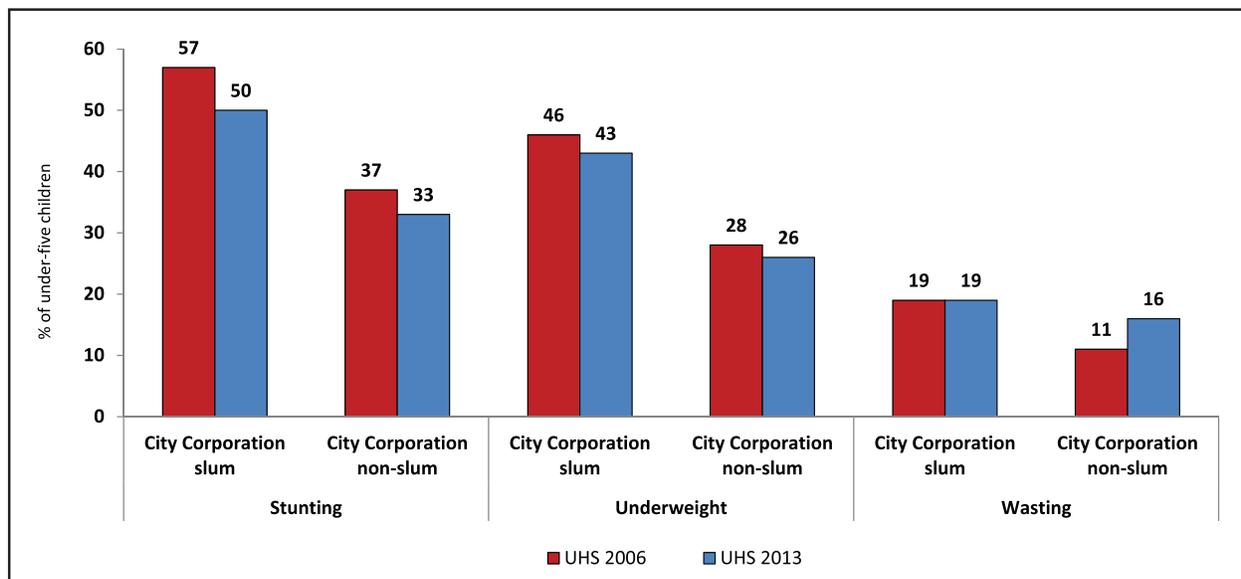
Percent distribution of children under five years classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, City Corporation slum, City Corporation non-slum, and other urban areas, UHS 2013.

Domain	Height-for-age		Weight-for-height		Weight-for-age		Number of children
	Percentage below -3SD	Percentage below -2SD	Percentage below -3SD	Percentage below -2SD	Percentage below -3SD	Percentage below -2SD	
City Corporation slum	24.5	49.6	5.7	18.5	14.6	42.5	5,235
City Corporation non-slum	14.3	33.4	5.4	16.4	7.2	26.4	2,656
Other urban	14.8	36.8	4.7	15.9	8.5	30.3	3,851

Note: Table is based on children who stayed in the household the night before the interview and who had a valid date of birth and valid height, weight measurement.

Compared with the previous round of the UHS, there has been a modest decline in stunting and underweight levels among under-5 children in slums and non-slums, whereas wasting level slightly deteriorated in non-slums (Figure 9.7).

Figure 9.7: Trends in nutritional status of under-five children, 2006 and 2013.



CHAPTER 10: HAVE INTRA-URBAN DIFFERENTIALS IN HEALTH SERVICE UTILIZATION NARROWED?

10



Photograph: Courtesy of Peter Kim Streatfield

Key Finding:

- The intra-urban inequalities between slums and non-slums have declined between 2006 and 2013 in total fertility rate (TFR), contraceptive prevalence rate (CPR), antenatal care (ANC) 4+ visits, skilled birth attendants (SBA), postnatal care (PNC) for newborns, and nutritional status of children .

It is well recognized that slum dwellers experience worse health outcomes (e.g., childhood malnutrition and childhood mortality) than their counterparts residing in non-slums. The important factors associated with the differentials are environmental (e.g., crowding and disease burden), health consciousness, food consumption patterns, and use of healthcare. These are, in turn, determined by education and income of the urban residents. Making affordable health services accessible to the residents can play a key intervening role in reducing the inequity between slum and non-slum populations. The purpose of this chapter is to assess whether intra-urban differentials in healthcare use between slums and non-slums have narrowed between the 2006 and 2013 Urban Health Surveys.

10.1 AVAILABILITY OF BASIC AMENITIES

As seen in previous chapters, availability of most of the basic amenities is now universal in both slums and non-slums. Between 2006 and 2013, access to electricity increased from 92 to 98% in slums and from 95 to 99% in non-slums. Thus, the intra-urban differential in access to electricity between slums and non-slums has narrowed from three percentage points to one between the two surveys. One of the three basic indicators of water safety is availability of drinking water connection to the home. With regard to access to safe drinking water, the intra-urban differential between slums and non-slums has declined from 33 percentage points to 23—in 2006, only 27% of slum dwellers had access to safe drinking water, compared with 60% of those in non-slums. In 2013, these percentages were 51 and 74%, respectively. The proportion of slum households with improved roof material increased from 72 to 92% in slums, and from 91 to 98% in non-slums, translating into a narrowing of intra-urban differential from 19 to six percentage points. Therefore, slum dwellers now enjoy the basic minimal amenities that are important determinants of health.

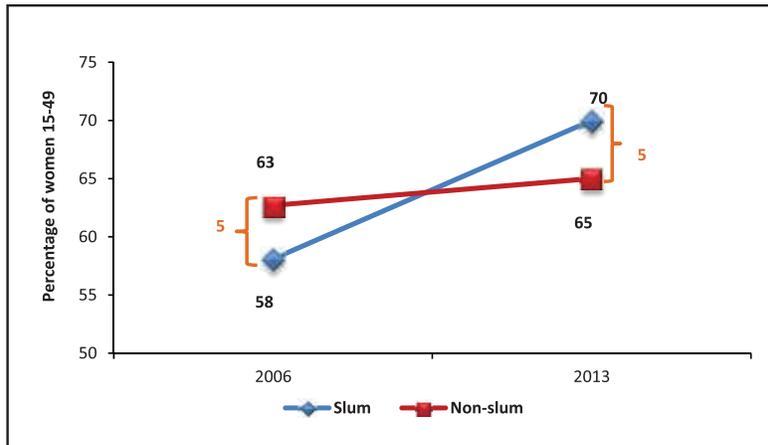
However, one major qualitative difference of access to water and sanitation between slums and non-slums was the sharing of water and sanitation sources, the practice of which was much higher in the former than in the latter. About two-thirds of slum households shared water sources with ten or more other households, compared to only one in five in non-slums. Similarly, two in five households in the slums shared sanitation facilities with ten or more households, compared to less than one in ten in non-slums.

10.2 HEALTHCARE UTILIZATION AND OUTCOMES

10.2.1 Family Planning

Not only did the intra-urban differential narrow, but family planning performance in slums surpassed that in non-slums between the two UHS surveys. As seen in Figure 10.1, contraceptive use (modern and traditional methods) was 70% in slums and 65% in non-slums. In the last seven years, the contraceptive prevalence rate (CPR) increased by 12 percentage points in slums compared with two percentage points in non-slums. This change has resulted in a higher CPR in slums than in non-slums in 2013. It should be noted that the Health, Population, and Nutrition Sector Development Program (HPNSDP) aims to reach a CPR of 72% by 2016. Couples in slums are closest to this level, with a CPR of 70% in 2013.

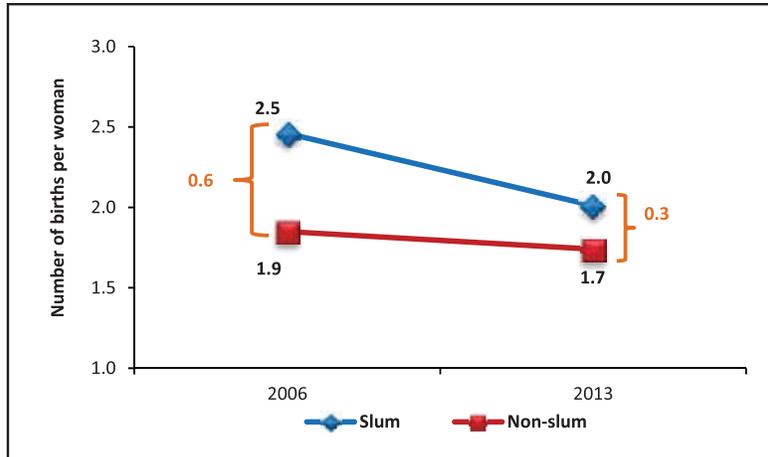
Figure 10.1: Trends in contraceptive prevalence rate in slums and non-slums.



10.2.2 Fertility

Intra-urban difference in total fertility rate (TFR) between slums and non-slums has narrowed from 0.6 births in 2006 to 0.3 births in 2013 (Figure 10.2). The TFR was 2.5 in slums and 1.9 in non-slums in 2006, which has declined to 2.0 and 1.7, respectively, a clear indication of reduction in inequity. HPNSDP aims to reach a TFR of 2.0 by 2016. Slum and non-slum populations have achieved this level or below during the period from 2010-2013.

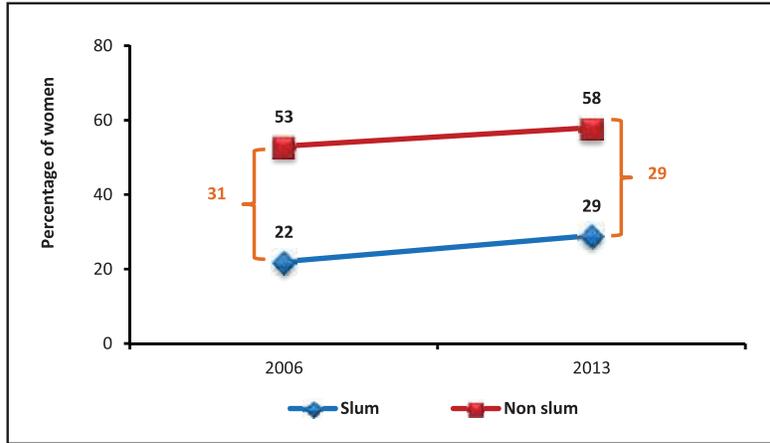
Figure 10.2: Trends in total fertility rate in slums and non-slums.



10.2.3 Antenatal Care (4+ Visits)

Between 2006 and 2013 the intra-urban differential in coverage of four or more antenatal care visits (ANC 4+) between slums and non-slums has declined slightly (Figure 10.3). In 2006, ANC 4+ was 2.4 times higher in non-slums compared to women in slums. This ratio has declined to 2.0 in 2013. Also, the absolute difference in seeking ANC 4+ between slums and non-slums has declined from 31 percentage points to 29 percentage points in the last seven years. HPNSDP aims to achieve coverage of four or more antenatal care (ANC 4+) visits of 50% by 2016. This target has been surpassed in non-slums only (58%). There is still large inequity between slums and non-slums in coverage of ANC 4+.

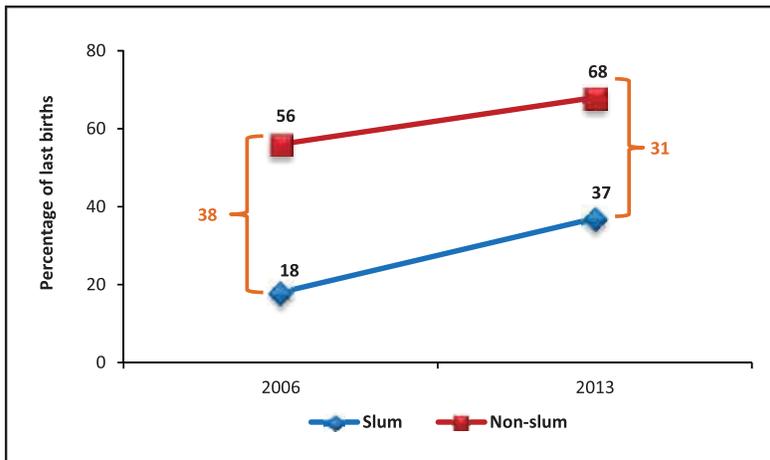
Figure 10.3: Trends in antenatal care (4+ visits) in slums and non-slums.



10.2.4 Skilled Birth Attendants

Between 2006 and 2013 intra-urban differential in use of skilled birth attendants (SBA) declined (Figure 10.4). In 2006, births among non-slum women were 3.1 times more likely to be assisted by a medically trained provider compared to births among slum women. This ratio has declined to 1.8 in 2013. Also, the absolute difference in use of skilled birth attendants between slums and non-slums has declined from 38 percentage points in the last seven years. HPNSDP aims to achieve a skilled birth attendance rate of 50% by 2016. This target has been surpassed in non-slums but not in slums.

Figure 10.4: Trends in deliveries assisted by skilled birth attendants in slums and non-slums.

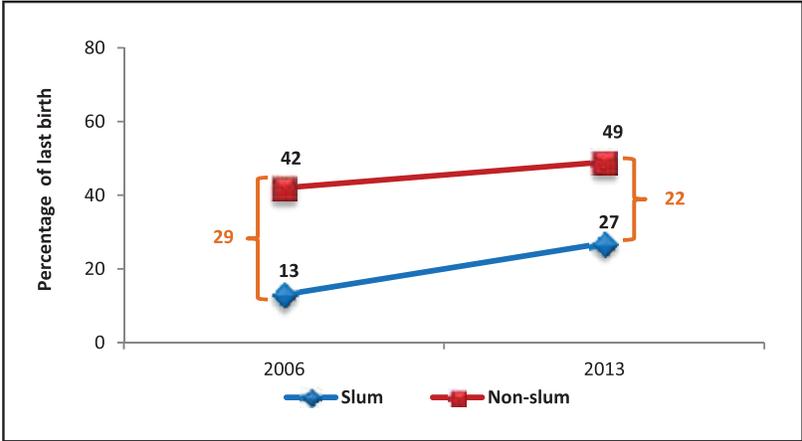


10.2.5 Postnatal Care for Newborns

Although there was stark inequity in seeking postnatal care (PNC) for newborns between slums and non-slums, the gap has narrowed substantially in the last seven years (Figure 10.5). In 2006, PNC for newborns in non-slums was 3.2 times higher compared to newborns in slums. This ratio has declined to 1.8 in 2013. Also, the absolute difference in PNC for newborns between slums and non-slums has declined from 29 percentage points to 22 percentage points

in the last seven years. HPNSDP aims to achieve 50% PNC for newborns by 2016 from a medically trained provider. In 2013, non-slums (49%) are close to reaching this target. Slums are lagging behind in approaching this PNC level, with a rate of 27% in 2013.

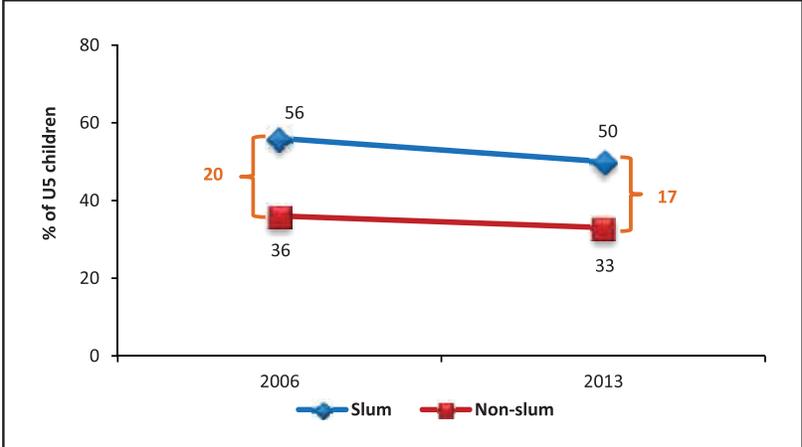
Figure 10.5: Trends in postnatal care for newborns in slums and non-slums.



10.2.6 Child Nutrition and Stunting

The intra-urban differential in nutritional status between slum and non-slum children has improved marginally between 2006 and 2013 (Figure 10.6). There are still high levels of malnutrition measured by stunting and wasting, as well as a large inequity between slum and non-slum children. One in two children in slums and one in three in non-slums was stunted in 2013, indicating that the prevalence of stunting was 1.52 times higher in slum than in non-slum populations. HPNSDP aims to reduce prevalence of stunting among young children to 38% by 2016. This target has been achieved in non-slums (33%). In slums, stunting was still as high as 50% in 2013.

Figure 10.6: Trends in stunting among children in slums and non-slums.



10.3 CONCLUSION

There has been an appreciable improvement in the living conditions of slum dwellers in terms of housing structures and household possessions. Access to electricity is universal now, while access to improved water sources and sanitation facilities has improved considerably since 2006. However, challenges remain as the level of sharing of water sources and sanitation facilities was high. This remains an issue for urban planning.

The slum dwellers have excelled in the utilization of family planning services and products. They have higher use of contraceptives than their non-slum counterparts. Most users obtained their methods from the easily available private sector outlets or NGO facilities. One reason for frequent use of the private sector was the high use of short-acting methods, which are available in the private sector at affordable prices.

Maternal healthcare utilization has markedly increased in the slums, and NGOs probably played a major role through their community mobilization activities. However, the maternal healthcare indicators still remain poorer in the slums than in non-slums, and ANC and PNC rates are about half in the slums compared to non-slums.

Healthcare utilization of the slum population was similar to that in the non-slum population when cost of care was low, but utilization was substantially lower when cost of care was high. Examples are the higher use of family planning in slums than in non-slums, or an almost similar level of care seeking for ARI in slums and non-slums. And, as mentioned earlier, there was a markedly lower level of deliveries assisted by skilled birth attendants in the slums than in non-slums. It is very encouraging that NGOs' innovative approaches have helped to increase maternal healthcare at affordable costs.

In terms of health outcomes, slum dwellers still had over 50% higher levels of child malnutrition than non-slum dwellers, and the slum versus non-slum gap has declined only marginally. Malnutrition is determined by a complex interplay of household food security and diversity, disease burden, maternal characteristics, and other factors. But household economic resources play a primary role and thus affordability is an important consideration. Therefore, a high rate of malnutrition among slum children living in poverty is expected. However, there is an important food-practice element associated with child nutrition which can be modified through information and health education. The NGO infrastructure and their community mobilization approaches can be used as a way of improving malnutrition both in slums and non-slums. Mass media can also be an effective vehicle of nutrition education. Carefully designed nutrition education interventions can yield promising results.

The magnitude of inequities in the slums might have been somewhat underestimated in the current data because the 2013 survey did not include the smaller slums in the peripheries of the City Corporations. It is likely that slum dwellers in the peripheries are economically worse off than those in the City Corporations, thus having worse health outcomes.

As economic conditions are improving, it appears that people are less dependent on free government services and are, to a certain degree, willing to pay for mother and child health services, in particular family planning services. The range of providers is expanding as the government is increasingly utilizing NGOs to outsource health services. Recent decades have seen a boom in the private health sector in the form of growing numbers of clinics, diagnostics centers, and hospitals. While equity has been achieved in the use of contraception, differentials persist in maternal and child healthcare. Quality of care and affordability are among the factors hindering the use of maternal services among the urban poor, but recent efforts by the NGO sector have brought about encouraging changes.

Future growth in slums is likely to be in urban peripheries outside of the City Corporations. Health, housing, and other services need to be made available in these newly emerging slums in urban peripheries.

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