



# Livelihood of Slum-dwellers

Findings from Baseline Survey of  
Ultra Poor Programme



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Poor Programme

July 2016

BRAC Research and Evaluation Division

Livelihood of Slum-dwellers

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## ACRONYMS

BBS	Bangladesh Bureau of Statistics
BDHS	Bangladesh Demographic and Health Survey
BMI	Body Mass Index
CBN	Cost of Basic Needs
CFPR-TUP	Challenging the Frontiers of Poverty Reduction-Targeting the Ultra Poor
DDS	Dietary Diversity Score
GPCS	Grant Plus Credit Support
HAZ	Height-for-age Z score
HCP	Health Care Provider
HH	Household
HIES	Household Income and Expenditure Survey
NGO	Non-Government Organisation
OTUP	Other Targeted Ultra Poor
PSM	Propensity Score Matching
RCT	Randomised Control Trial
SIP	Special Investment Programme
STUP	Specially Targeted Ultra Poor
TB	Tuberculosis
UNICEF	United Nations International Children's Emergency Fund
USAID	United States Agency for International Development
VGD	Vulnerable Group Development
VGf	Vulnerable Group Feeding
WAZ	Weight-for-Age Z score
WHO	World Health Organization
WHZ	Weight-for-Height Z score



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## CHAPTER 1

# INTRODUCTION

NUSRAT ABEDIN JIMI, ATIYA RAHMAN

The groundbreaking programme of BRAC titled “Challenging the Frontiers of Poverty Reduction-Targeting the Ultra Poor (CFPR-TUP)” commenced in 2002 with the intention to meet the challenge to reach and help the ultra poor. The ultra-poor are deprived of various economic and social needs but do not fit into the realms of traditional microfinance programme and thus demand extra attention to pull them out of this abject poverty. With the aim of improving the livelihood conditions of the ultrapoor, the CFPR programme initially (throughout the period of 2002-2006) started to work in the 15 poorest districts of Bangladesh covering 100,000 specially targeted ultra poor households, known as phase I of the programme. Since then, with incorporation of new strategies and components and constant modification of activities as per requirement, the CFPR-TUP programme successfully launched its subsequent phases II and III. Evaluation of the CFPR-TUP programme, both phase I and II, showed that the programme was remarkably successful in sustainably lifting the participants out of ultra poverty (Bandiera *et al* 2013; Krishna *et al*. 2012; Raza *et al*. 2012; Das and Shams 2012). Bandiera *et al* (2013) using a randomised control trial (RCT) methodology showed that targeted ultra poor women after four years of programme support were able to increase their income by 36% and increase self-employment while lowering irregular wage labour; the participant households reduced their gaps with other poor households in the community. Using a non-experimental evaluation design, Raza *et al*. (2012) and Krishna *et al*. (2012) assessed the impact of the programme six years after intervention and found results almost similar to that of Bandiera *et al*. (2013).

## BACKGROUND OF URBAN CFPR

It may be mentioned here that since its inception, the CFPR programme has been working with the rural ultra poor households. It is evident that although extreme poverty in rural areas is one of the main factors in accelerating mass migration to urban areas, poverty is also a harsh reality in urban areas. A growing urban population is placing

further strains on the already limited infrastructure and services and millions of urban slum dwellers are living stressful lives. Their living conditions in some cases are more appalling and much worse than those in most rural areas. As revealed by BBS estimates of poverty, 7.7% of the urban population still lives below the lower poverty line in 2010 which was 14.6% in 2005 (Table 1.1), a remarkable success in reducing ultra poverty. But still a large number of urban households are ultra poor considering the fact that urban population is increasing over time.

**Table 1.1 Poverty trends (%)**

Variables	HIES 2010			HIES 2005			HIES 2000		
	National	Rural	Urban	National	Rural	Urban	National	Rural	Urban
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Upper poverty line head count (CBN method)	31.5	35.2	21.3	40.0	43.8	28.4	48.9	52.3	35.2
Lower poverty line head count (CBN method)	17.6	21.1	7.7	25.1	28.6	14.6	34.3	37.9	20.0
Less than 2122 kcal/ person/day	N/A	N/A	N/A	40.4	39.5	43.2	44.3	42.3	52.5
Less than 1805 kcal/ person/day	N/A	N/A	N/A	19.5	17.9	24.4	20.0	18.7	25.0

Note. Source: BBS (2011), and (2007)

Realising the existing poverty scenario, BRAC decided to work for the urban ultra poor through diversified development interventions. The objective was to contribute to the Millennium Development Goal (MDG) of halving poverty by 2015. One such intervention is implementation of the CFPR-TUP programme in the slums of different towns and metropolitan areas of three (3) districts in Bangladesh - Dhaka, Chittagong and Khulna. The project intends to reduce urban ultra-poverty by expanding the opportunities for the more vulnerable and deprived group, especially women through linking them with mainstream development process.

The objective of this report is to provide detailed profiles of the targeted ultra poor households in the baseline (data collected in 2013) compared to other households in the community. The subsequent sections of this introductory chapter provide an overview of the Urban CFPR programme, the evaluation design, a summary of the main findings presented in this report and the structure of the report.

## FEATURES AND STRATEGIC APPROACHES OF THE URBAN CFPR

Attracted by urban development and expectation of job opportunities or pushed by rural vulnerability, rural poor often migrate to urban areas with the hope of achieving better living standards. Urban centric development approach in developing countries is one of the major causes of rural to urban internal migration. This internal migration typically transfers rural poverty to urban areas. Significant portion of the poor migrants who directly come from rural to urban areas settle in slums and squatter and experience extremely low living standards, low productivity and unemployment (Hossain 2008). Historically, Dhaka, Chittagong and Khulna have been the top three urban centres of Bangladesh (Hossain 2008). This is possibly due to the fact that Dhaka is the capital city and the other two are port cities, and therefore, offer greater opportunities than many other urban areas. In these cities, high density is found in the poor concentrated informal settlements such as slums and squatters (BBS 2015).

The Urban CFPR-TUP programme has been planned to be implemented at 15 BRAC branch offices in these three urban areas, i.e. Dhaka, Chittagong and Khulna (covering 5 branches from each area) for a period of four years. The programme has applied two different approaches: SIP (Special Investment Programme) model and the GPCS (Grant Plus Credit Support) model for two different groups of households- ‘Specially Targeted Ultra Poor’ or STUP and ‘Other Targeted Ultra Poor’ or OTUP, respectively. The support packages provided under these two different models are commonly referred to as the STUP and OTUP support packages; and this is followed in this report as well. Two separate sets of criteria are used by the programme to identify and select eligible STUP and OTUP households. These eligibility criteria are mentioned below.

### STUP Targeting Criteria

- ▶ Female headed households (widow, divorced and abandoned);
- ▶ Households with at least two children;
- ▶ Households with no productive assets;
- ▶ Dependent on irregular and insufficient income sources (begging, domestic aid or day labourer);
- ▶ Living in slums for at least two consecutive years.

### OTUP Targeting Criteria

- ▶ Households with a maximum monthly income of BDT 6,000;
- ▶ Households unable to bear education expenses of the children beyond primary level;
- ▶ Households dependent on irregular labour income;
- ▶ Households failing to successfully utilise NGO support in the past;
- ▶ Households unable to include fish, meat or egg in their diet for the last three consecutive days.

In order to be considered eligible for STUP or OTUP support, a household must satisfy three out of the five corresponding eligibility criteria. These criteria are also known as the 'Inclusion criteria'. The programme also uses two 'Exclusion criteria'. Participants of microfinance and recipients of GO/NGO development project support are usually excluded from CFPR programme supports, basically to avoid duplication.

The STUP support package includes the following:

- ▶ Enterprise development training
- ▶ Assets transfer
- ▶ Subsistence allowance
- ▶ Tailor made health services
- ▶ Community mobilisation and social development

Given the differences between the STUP and OTUP target population, the OTUP package has been designed differently than the STUP package. The OTUP support package currently includes the following features.

- ▶ Enterprise development training
- ▶ Soft loans from BRAC's microfinance
- ▶ Subsistence allowance
- ▶ Input supplies
- ▶ Tailor made health services
- ▶ Community mobilization and social development

Under this four-year long Urban CFPR programme, a total of 3,050 households will receive STUP support package and 12,000 households will receive OTUP support package. For the base year 2013, programme target is 800 STUP households (400 from Dhaka and 200 from each of the other two areas) and 3,000 OTUP households (200 from each branch, hence 1,000 from each urban area).

## EVALUATION DESIGN OF URBAN CFPR

For conducting programme evaluation, it requires controlling for the counterfactuals i.e. what would have happened to the status of the intervened households if the intervention was not actually provided. For this purpose we have to survey comparison/control households, i.e. households which will not receive programme support, but are likely to be comparable to the treatment households. Experimental evaluation design is often considered as an ideal methodology for controlling the counterfactuals although there is concern related to ethical considerations. However, it is difficult and even not always desirable to conduct randomized control trial (RCT). On the other hand, a non-experimental evaluation design can be used when it is not possible to randomly select a control group, identify a suitable comparison group through matching methods or use reflexive comparisons. In such situations, programme participants can be compared to

non-participants using statistical methods to account for differences between the two groups.

As mentioned earlier, the Urban CFPR programme has been launched in 15 branches of three districts- Dhaka, Chittagong and Khulna. STUP package has been offered at two (2) branches of Dhaka, one (1) branch of Chittagong and one (1) branch of Khulna, while OTUP package has been offered at all the 15 branches. For the purpose of ultimately evaluating the Urban CFPR programme, we have collected detailed baseline information from 243 STUP households, 769 OTUP households and 1,038 comparison households from the same community (randomly selected households from 'paras' nearby the 'para' where STUP and OTUP packages are offered have been randomly selected as comparison group) in early 2013.

## ANALYTICAL TECHNIQUE IN THE BASELINE REPORT

As urban CFPR/TUP support packages are not randomly assigned to households, for the purpose of impact assessment (which will be conducted at a later time), we need to identify a suitable comparison group of nonparticipants whose outcomes, on average, provide an unbiased estimate of the outcomes that programme participants would have had in the absence of the programme. To find out the comparison groups, we have considered those slum dwelling households who were identified as poor and potential programme participants but failed to pass the final selection process (households who were primarily selected but not finally selected; households who were in programme census but not included in primary selection and households who were even not in the census).

Then we have used Propensity Score Matching (PSM)<sup>1</sup> to identify two comparison groups (through matching based on some observable characteristics) for STUP and OTUP households. The households from the treatment branches of the STUP and OTUP intervention areas are thus categorised into four groups: (i) STUP treatment (ii) STUP comparison (iii) OTUP treatment and (iv) OTUP comparison.

For this baseline report, descriptive analysis has been conducted for the above four groups, along with comparisons (made mostly through t-tests) between the baseline status of the respective treatment and comparison groups. Also, the descriptive statistics for these groups have been presented side by side with available statistics on national urban population when available.

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<sup>1</sup>PSM is often used to estimate programme impact in quasi-experimental settings. It identifies a group of individuals or households or firms with the same observable characteristics as those participating in the project by estimating a statistical model of the probability of participating (propensity to participate). For the purpose of impact assessment, based on the predicted probability of participation, the outcome variable of the individual participants is compared with that of non-participants who have similar level of predicted probability of participation. The difference in the mean outcome from the two groups-treatment and control is taken as project impact.

## SUMMARY OF MAIN FINDINGS OF THE REPORT

The main purpose of this report is to have a thorough documentation and understanding of the profiles of the ultra poor population covered by the Urban CFPR-TUP programme. For the purpose of comparison of the targeted ultra poor households with other households and also for assessing spillover effects, information was also collected on non-participant households from the same community. Information on the livelihood indicators of national urban population have been collected from Household Income and Expenditure Survey, 2010 and other relevant national data sources. Details of the survey sample have been discussed in the preceding sub-section. While, the following chapters of this baseline report present detailed discussion on findings related to various themes and sub-themes, main findings related to a few key issues have been summarised and presented in Table 1.2. Data for each of the indicators mentioned above is presented separately for the following four groups: STUP, STUP comparison, OTUP and OTUP comparison. In addition to the findings on the four poverty groups, Table 1.2 also includes national urban averages for the indicators for which information was available in the Household Income and Expenditure Survey, 2010.

The average household size for the four groups has been found to range between 3.54 and 4.31. As can be seen from Table 1.2, the average household sizes for all the four groups are smaller than Bangladesh's average urban household size of 4.41. The reason behind small household size for STUP is the presence of a significant number of single-member households. As can be seen, compared to the other groups, a substantially larger proportion of the STUP households (about 9%) have been found to be consisting of a single member. The proportion of female headed households is also the largest among the STUP group. Following a similar trend, the proportion of respondent women who are widow/separated/divorced is also considerably higher among the STUP group in comparison with the other three poverty groups. All of these factors are usually strongly linked with the households' socioeconomic status, and this might explain their identification as ultra poor households. Considering literacy of the household head, it has been found that about 9% of the STUP households have a literate household head, while this proportion is about 30% among the OTUP households. As for gender disaggregated adult literacy rates, both male and female literacy rates have been found to be the lowest among the STUP group. These rates for both STUP and OTUP are also way below the urban averages for both males and females. As expected, per capita income is also the lowest for the STUP group (about BDT 10,954, which is much lower than the urban average). Per capita income of the OTUP, on the other hand, was higher than the STUP but lower than the national average. This is expected because the ultra-poor targeted by the OTUP package are (as per the targeting methodology) slightly better off compared to the STUP households. These numbers further indicate that the financial/socio economic status of the STUP/OTUP households is substantially worse than that of the other poor households within the same communities.

In terms of employment opportunities, working as day labourer or as housemaids is often considered highly unstable and an unreliable source of income. The proportions of

households with members involved in these employment opportunities are found to be very high among the STUP and the OTUP groups. More than two-third of the STUP and OTUP households have at least one member working as day labour, implying that the ultra poor households targeted by the programme do heavily depend on irregular earning activities.

Limitation of poor households' financial market participation is well documented in development literature all over the world. This is mostly caused by limited access to credit facilities and associated limited savings habit. Evidences of limited financial market participation is also found from our findings showing rather low proportion of poor households (across the different groups) with access to loans from any sources as well as the lower proportion of them having cash savings.

Moving on to issues of food consumption and expenditure, we see that there are no significant differences between STUP and OTUP households regarding food expenditure, food consumption, and calorie and protein intake. All these households consume lower calorie and protein than the desirable daily consumption for an average Bangladeshi individual in urban area. However, in terms of quality of food, STUP households consume less diversified food and face more food deficiency compared to OTUP.

From Table 1.2 we can also see the surveyed households' status in terms of some major health related issues. As for contraceptive use, we find that about 69%-72% of married and reproductive aged women from all the four groups use some form of contraceptives. On the other hand, the nutritional status of children under 5 years is quite unsatisfactory across all the groups, with high prevalence of stunting, wasting and underweight among the children of the community.

## STRUCTURE OF THE REPORT

Following this introductory first chapter, chapter two discusses the demographic profile, educational status and housing condition of the survey samples. Chapter three summarises employment and income status and child labour issues. Natural, physical and financial assets of these households are discussed in chapter four. Chapter five and six depict water, sanitation and health related issues and the food consumption pattern, food security, nutrition issues of child and mother, respectively. Chapter seven summarises the surveyed households' vulnerability to different shocks and the coping mechanism adopted by them. Lastly, migration to urban area and related factors are discussed in chapter eight.



Table 1.2 Major findings from Urban CFPR baseline survey, 2013

Variable	STUP Treatment	OTUP Treatment	National Urban	STUP Comparison	OTUP Comparison	STUP Difference	OTUP Difference
	(1)	(2)	(3)	(4)	(5)	(6=1-4)	(7=2-5)
Average household size	3.58	4.31	4.47	3.54	4.10	0.04	0.20***
Single member households (%)	8.75	1.56	1.61	8.00	1.56	0.75	0.00
Female headed households (%)	50.00	18.86	12.64	48.17	17.79	1.83	1.07
Respondent women who are widows (%)	31.25	11.57	-	20.75	9.15	10.50***	2.42
Respondent women who are separated/divorced (%)	16.25	6.63	-	15.92	5.54	0.33	1.09
Literate household head (%)	9.27	30.40	-	13.87	25.54	-4.60	4.86**
Adult male literacy rate (%)	14.56	39.47	73.10	26.12	36.69	-11.55***	2.79
Adult female literacy rate (%)	12.24	34.66	67.67	21.07	32.41	-8.84***	2.25
Per capita annual income (BDT)	10954.96	17721.87	44880.0	14003.51	18816.25	-3048.54***	-1094.38
% of HHs having working aged male members	59.40	88.73	-	69.83	87.63	-10.43***	1.10*
% of HHs having working aged female members	98.72	99.61	-	98.72	98.98	0.00	0.63
HHs with no productive assets	85.83	71.39	-	88.00	72.15	-0.02	-0.01
Households with outstanding loans from any sources (%)	27.08	30.85	23.70	31.83	32.78	-4.75	-1.93
Respondent women have cash savings (%)	19.58	33.46	-	21.25	31.16	-1.67	2.30
Per capita monthly food expenditure (BDT)	31.00	32.15	1647	29.37	32.81	1.63	-0.66

Variable	STUP Treatment	OTUP Treatment	National Urban	STUP Comparison	OTUP Comparison	STUP Difference	OTUP Difference
	(1)	(2)	(3)	(4)	(5)	(6=1-4)	(7=2-5)
Daily per capita food consumption (gram)	784.64	727.90	985.50	725.08	727.26	59.56**	0.64
Daily per capita calorie intake (whereas desirable daily calorie for BD individual is 2310 per day)	2182.61	2107.09	2244.5	2048.58	2081.54	134.03***	25.55
Calorie intake from cereal (%)	77.27	75.41	62.8	77.39	76.00	-0.12	-0.55
Daily per capita protein intake (whereas desirable daily protein for BD individual is 58 gram per day)	51.48	50.70	69.11	47.13	50.13	4.35**	0.57
% of households with very low diversified food basket (Dietary Diversity Score≤5)	70.00	50.98	-	73.58	61.64	-3.58	-10.66***
% of household having only rice with spices for ≥ 3-4 times a week in the previous one month	22.92	14.56	N/A	26.67	15.47	-3.75	-0.91
Reproductive aged women currently practicing contraception (%)	69.23	71.26	64.0	69.40	72.23	-0.17	-0.96
6-59 months old children, underweight (%)	41.30	40.86	28.0	49.78	46.46	-8.48	-5.60
6-59 months old children, wasted (%)	19.57	17.71	14.0	18.91	16.69	0.65	1.03
6-59 months old children, stunted (%)	54.35	48.86	36.2	57.17	53.66	-2.83	-4.80
Households using sanitary latrine	67.92	68.01	76.12 <sup>1</sup>	66.17	69.10	1.75	-1.09

Note. \*\*\*, \*\* and \* denote statistical significance at 1%, 5% and 10%, respectively.

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## CHAPTER 2

# SOCIO-DEMOGRAPHIC STATUS

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This chapter depicts the demographic profile (household size, characteristics of the household heads, age and marital status of the members), educational status (enrollment rate of the children, stipends, adult literacy rates, etc.) and housing condition (wall and roof materials, kitchen, electricity, etc.) of the surveyed community in comparison with the urban national statistics (where available). As mentioned in the introductory section, we have categorised all the surveyed households into four groups: Specially Targeted Ultra Poor (STUP), Other Targeted Ultra Poor (OTUP) and a separate comparison group for each of them.

## HOUSEHOLD CHARACTERISTICS

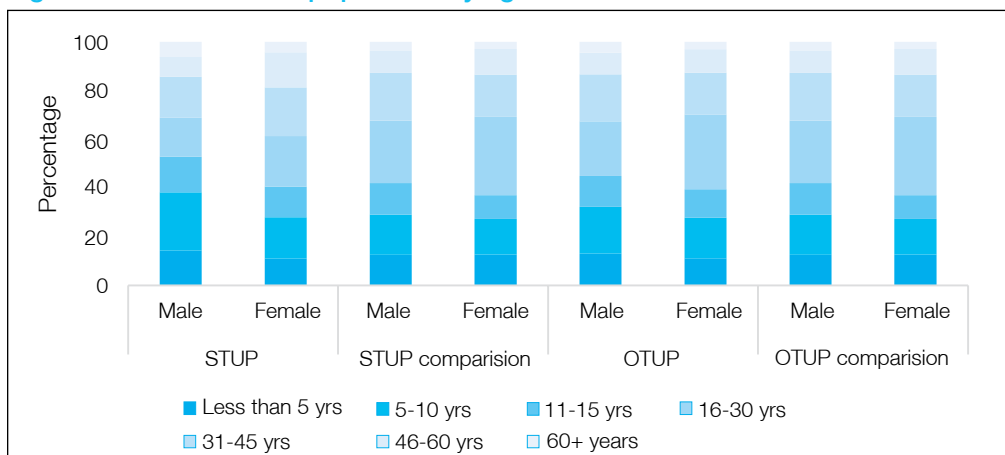
In this study, a household is defined as a person or a group of people who share food from the same kitchen (cook stove). Table 2.1 provides characteristics of the surveyed households. The average household size of STUP treatment and comparison is 3.58 and 3.54 respectively, much lower than the national average urban household size of 4.41 (BBS 2011), mainly because a significant proportion (around 9%) of these households are single-member households. OTUP household size (4.31), on average, is large compared to their comparison group but lower than the national urban average and there is a slight difference between the single member household proportions of OTUP (1.56%) and national urban (1.61%). STUP households are found to have smaller proportion of working aged members compared to their comparison group, suggesting that these poor not only face capital constraints, but also have high dependency ratio (the ratio of those who are not in the working age group and those who are in the working age group) in their families and thus are more vulnerable. STUP households have a higher dependency ratio compared to the national urban households; OTUP households also have a higher dependency ratio than the national urban households, but lower than the STUP households.

**Table 2.1 Demographic characteristics of households**

Indicators	STUP Treatment	OTUP Treatment	National Urban	STUP Comparison	OTUP Comparison	STUP Difference	OTUP Difference
	(1)	(2)	(3)	(4)	(5)	(6=1-4)	(7=2-5)
HH size	3.58	4.31	4.41	3.54	4.10	0.04	0.20
Single member households (%)	8.75	1.56	1.61	8.00	1.56	0.75	0.00
Male/female ratio	0.83	1.21	1.00	0.96	1.25	-0.13	-0.04
Dependent to working member ratio	1.04	0.89	0.60	0.89	0.80	0.15	0.10

If we take a glance at the distribution pattern of population by age groups (presented in Fig 2.1), it reveals some interesting nuances; among the STUP and OTUP, a large proportion of the population is either children or old-aged members compared to their respective comparison groups. Consequently, the ratio of working age members to total household members is lower among the households. A large proportion of the members among the STUP and OTUP households are children indicating that addressing vulnerability of these households would not only improve short-term household welfare but also help augment children’s sound mental and physical development. Further, an effective support programme to the STUP households may ensure that poverty does not transmit from generation to generation. We also find that among the STUP households a large proportion of female members fall in the working age groups (15-60 years) compared to the male members. This is mostly evident as one of the cardinal targeting criteria of STUP is that there should not be any active male members in the family but there should be at least an active female member.

**Fig 2.1 Distribution of population by age**



Among the STUP and OTUP households, the respondents are women selected for the CFPR-TUP programme support. Hence, it would be interesting to see the marital status of the respondent women, because marital dissolution is a noteworthy determinant of poverty. The findings reveal that almost half of the respondent women among the STUP are either separated, divorced or widowed indicating that STUP represents a significant proportion of the vulnerable segment of the society (Table 2.2). The largest portion constitutes of widow (31.25%). Disaggregated data on widow, separated and divorced women is not available in HIES 2010 but 10.8% women lies in any of the three categories at national level (BBS 2011). Since the programme selects economically active women, it is evidently seen here that even though this large proportion of women are separated from their husbands or are widowed, they are economically capable and able, but are probably poor due to capital and skill constraints. However, divorced/separated/widow among the ultra-poor women targeted by the OTUP package is comparatively lower (16%), particularly due to the fact that the households with widowed or separated women are mostly targeted by the STUP package, and hence OTUP represents a smaller proportion of this group. It should be noted here that STUP and OTUP households surveyed for this study are from the same community.

**Table 2.2 Marital status of respondents**

Marital status (% of respondent women)	STUP Treatment	OTUP Treatment	National Urban	STUP Comparison	OTUP Comparison	STUP Difference	OTUP Difference
	(1)	(2)	(3)	(4)	(5)	(6=1-4)	(7=2-5)
Unmarried	0.00	0.26	0.14	0.25	0.26	-0.25	0.00
Married and living with husband	50.83	81.01	62.60	59.42	84.37	-8.58**	-3.36*
Separated	16.25	6.63	-	15.92	5.54	0.33	1.09
Divorced	1.67	0.52	-	3.67	0.68	-2.00	-0.16
Widow	31.25	11.57	-	20.75	9.15	10.50***	2.42

Note. \*\*\*, \*\* and \* denote statistical significance at 1%, 5% and 10%, respectively.

Household head is normally the key earner, decision maker and protector of the household. Hence, demographic characteristics of the household heads are important determinants of poverty (Kotikula *et al.* 2007, Chaudhury *et al.* 2009). Our findings show that the proportion of the female headed household among the STUP households is higher than the OTUP households (Table 2.3). This finding is not surprising, as one of the selection criteria for the STUP is female headed household. Proportion of female headed households among STUP households (50%) is substantially higher compared to the national urban households (12.64%). With regard to the educational attainment of household heads, the literacy rate is only 9% among the STUP, much lower than all the other poverty groups, indicating low levels of human capital. Years of education of the heads of STUP households are significantly lower than that of their comparison group. However, no such significant difference in educational status of OTUP and their comparison group has been observed.

**Table 2.3 Characteristics of household head and respondent female**

Indicators	STUP Treat- ment	OTUP Treat- ment	National Urban	STUP Compa- -rison	OTUP Compa- -rison	STUP Difference	OTUP Difference
	(1)	(2)	(3)	(4)	(5)	(6=1-4)	(7=2-5)
Female Headed household (%)	50.00	18.86	12.64	48.17	17.79	1.83	1.07
Age of HH Head (years) (Mean)	43.82	42.04	-	42.96	41.99	0.86	0.05
Literacy of HH Head (%)	9.27	30.40	-	13.87	25.54	-4.60	4.86**
Years of education of HH Head (Mean)	2.12	3.88	-	2.87	4.19	-0.75*	-0.32
Literacy of the respondent woman (%)	8.82	29.93	-	15.22	31.11	-6.40**	-1.18
Years of education of respondent woman (Mean)	1.95	3.81	-	3.70	4.05	-1.75***	-0.24

Note: \*\*\*, \*\* and \* denote statistical significance at 1%, 5% and 10%, respectively.

## EDUCATION

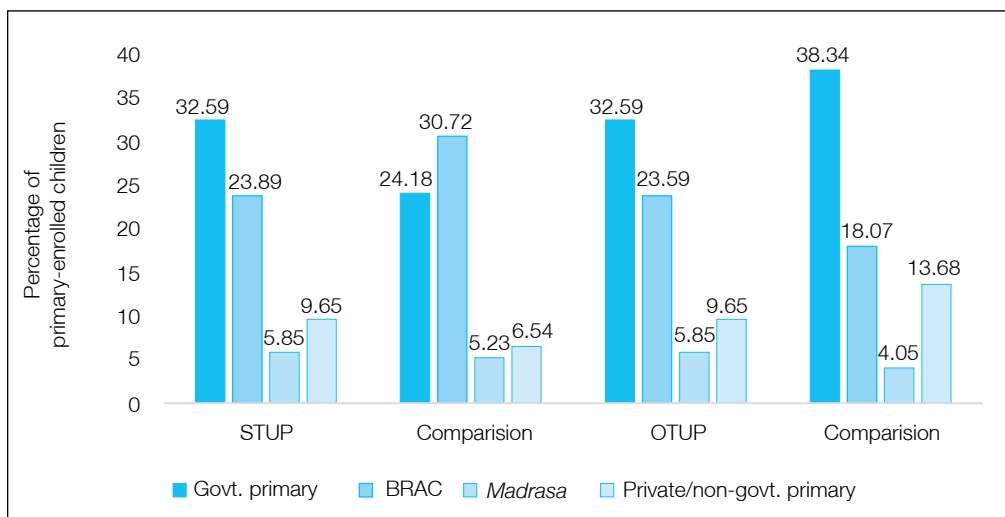
Investing in human capital (i.e. education) is an important tool for households to fight against intergenerational poverty (Kotikula *et al.* 2007). We have analysed school enrollment of children dividing them into two age groups: 6-10 years and 11-15 years, as these are the usual ages of children enrolled in primary and secondary schools respectively. Table 2.4 shows that 68% of 6-10 years old children of STUP households are currently continuing their education whereas enrollment is about 87% in case of children of the same age group in the national urban households. In contrast, almost 80% of children of the same age group from OTUP households are attending school. In both cases, school participation rate of comparison groups are lower, though the difference is not statistically significant. On the other hand, a significantly lower percentage of 11-15 years old children of STUP households (only 22%) are attending school compared to their counterparts (42% in the comparison group). The data reflects higher participation rate of girls in school, which may be the result of favourable support programmes for female education adopted by the government and other non-government institutions. One disappointing fact about the current education scenario that is reflected in the data is that the proportion of 11-15 years old children attending school is drastically lower than the proportion of 6-10 years old children of STUP households attending school and the same scenario is observed for OTUP households. A similar situation is observed in case of the proportion of 11-15 years old children in the national urban households attending school, which is lower than that of 6-10 years old children, but it is not substantially lower compared to the proportions among STUP and OTUP groups.

**Table 2.4** Current enrollment rate of boys and girls (%)

Indicators	STUP Treat-ment	OTUP Treat-ment	National Urban	STUP Compa-ri-son	OTUP Compa-ri-son	STUP Difference	OTUP Difference
	(1)	(2)	(3)	(4)	(5)	(6=1-4)	(7=2-5)
Boys aged 6-10 years currently attending school	67.65	80.00	86.95	60.98	76.68	6.67	3.32
Girls aged 6-10 years currently attending school	75.68	81.43	88.89	69.01	80.34	6.67	1.09
Boys aged 11-15 years currently attending school	21.67	54.38	72.17	39.00	50.05	-17.33**	4.33
Girls aged 11-15 years currently attending school	38.57	63.35	83.37	44.00	65.25	-5.43	-1.90

Note. \*\* denotes statistical significance at 5%.

An analysis of the type of schools shows that on an average, around 35% of the students who are enrolled in primary schools are attending government primary schools and around 20% of the students are going to BRAC primary schools (Fig 2.2). Percentage of children attending madrasa is similar across all groups.

**Fig 2.2** Types of school for primary-enrolled children

Literacy rate of adult (percentage of individuals of age 15 years and over who can read and write) male and female members of STUP households are significantly lower than their counterparts from the STUP comparison group. This finding reiterates the lack of human capital among the ultra poor households targeted by the Urban CFPR-TUP



programme. Contrary to child enrollment status, adult females are less literate than adult males across all the groups. Adult literacy rate is intensely lower for urban ultra poor households compared to that of the national urban households.

**Table 2.5 Gender disaggregated adult literacy rate**

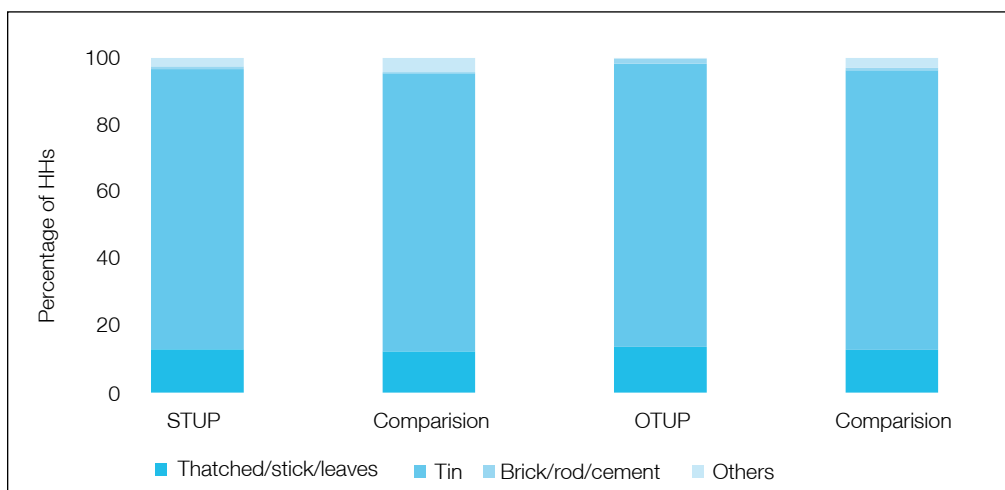
Indicators	STUP Treatment	OTUP Treatment	National Urban	STUP Comparison	OTUP Comparison	STUP Difference	OTUP Difference
	(1)	(2)	(3)	(4)	(5)	(6=1-4)	(7=2-5)
Male literacy rate (%)	14.56	39.47	73.10	26.12	36.69	-11.55***	2.79
Female literacy rate (%)	12.24	34.66	67.67	21.07	32.41	-8.84***	2.25

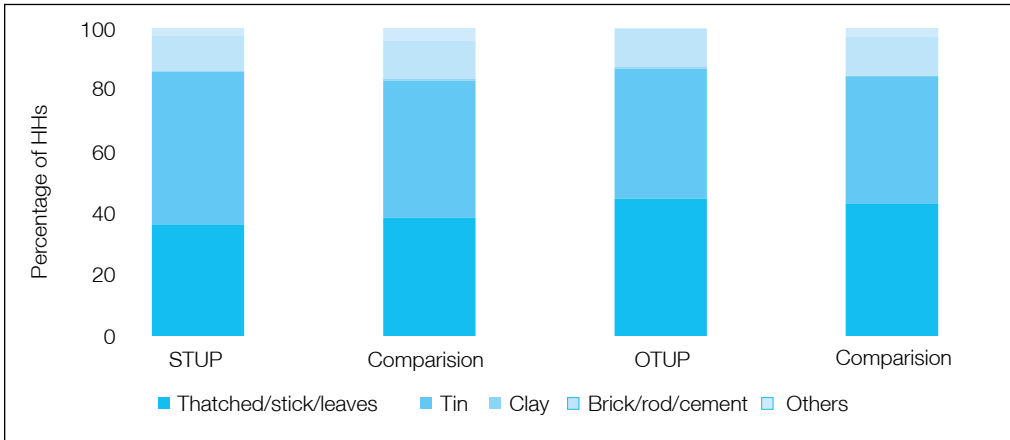
Note: \*\*\*denotes statistical significance at 1%.

## HOUSING STATUS

Housing is an important aspect of healthy living. Figures 2.3 and 2.4 show the distribution of households in STUP and OTUP groups according to their use of materials for building roofs and walls of their houses. Our analysis shows that materials used for building roofs and walls of the main living rooms are similar across all the groups. While about 90% of the ultra poor households have roofs made of tin/cement, only 64% of the STUP households have tin/cement made walls for their main living room and this proportion is even lower among the OTUP households. The rest of the houses of all the poverty groups have walls made of materials like clay, stone, leaves, hay.

**Fig 2.3 Materials used by households for building roofs**



**Fig 2.4 Materials used by households for building walls**

Most of the ultra poor households in the urban slums, on average, have single room residence (Table 2.6), and the average household size is around 4 (Table 2.1). Renting a house in slum areas appears to be an intricate task, as around 20 to 27 per cent households from different groups of STUP and OTUP reported of paying bribe for renting a house. Average amount of payment as bribes varied between BDT 605 to BDT 865, with the absolute maximum amount being around BDT 6000 in a few cases. Around 57% of STUP and its comparison households have a separate kitchen for cooking and it is lower than OTUP and their comparison group. About 68% of STUP and 85% of OTUP households have access to electricity, while this proportion is 90% in the case of national urban households.

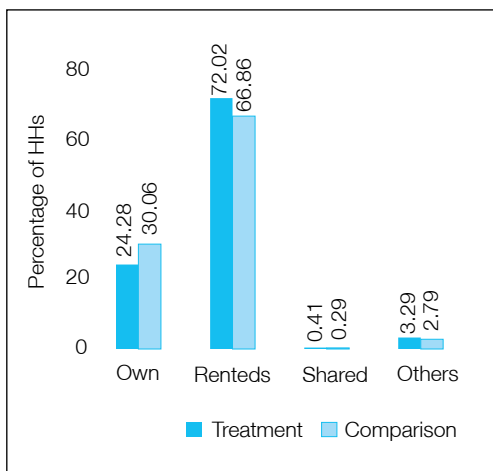
**Table 2.6 Basic housing attributes**

Indicators	STUP Treatment	OTUP Treatment	National Urban	STUP Comparison	OTUP Comparison	STUP Difference	OTUP Difference
	(1)	(2)	(3)	(4)	(5)	(6=1-4)	(7=2-5)
No. of rooms per household	1.08	1.20	-	1.22	1.22	-0.14***	-0.02
Percentage of HHs paying bribe for renting houses	19.67	22.29	-	26.83	26.83	-7.16**	-4.55*
Average amount of bribe (in BDT)	605.56	771.74	-	864.70	864.70	-259.15**	-92.96
Households having separate kitchen (%)	57.50	60.34	-	55.42	63.20	2.08	-2.86
Households with access to electricity (%)	68.33	85.57	90.10	70.33	82.99	-2.00	2.57

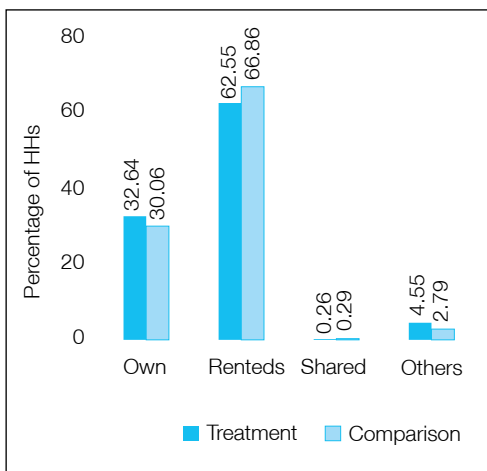
Note: \*\*\*, \*\* and \* denote statistical significance at 1%, 5% and 10%, respectively.

Figures 2.5 and 2.6 show the ownership status of houses (in various categories like own, rented, shared and others). Most of the urban poor irrespective of STUP or OTUP cohorts are living in a rented house and others in their own house. However, the OTUP households are in a slightly better condition as 33% of them possess own house compared to 24% of their STUP counterparts.

**Fig 2.5 Ownership status of houses of STUP**



**Fig 2.6 Ownership status of houses of OTUP**



## CONCLUSION

This chapter analysed the demographic profile, educational status and housing condition of the surveyed households. We found that the average household size of the STUP and OTUP households is smaller than the national urban average because of the presence of many single member households. The targeted households for STUP package comprise a significant proportion of widowed/separated and illiterate women- an impoverished section of the society. STUP households are found to have a smaller proportion of working aged members compared to their comparison group, which shows that these poor not only face capital constraints, but also have high dependency ratio in their families. Vulnerability status of this section of the community presupposes the necessity of programme interventions. These interventions would ensure inter-generational poverty reduction in addition to short term well-being of the associated households. In terms of adult education level, literacy rate and years of schooling of the household heads, STUP households fall behind in comparison to the OTUP households. Although more than half of the children are going to school at the primary level, secondary school participation is significantly lower among the STUP children aged 11-15 years. This may be due to the

inability of these households to bear the education expenses of their children beyond the primary level. No significant difference has been observed in the case of housing status of STUP and OTUP households. Regarding payment of bribe to rent a house, our findings show that the difference between treatment and comparison groups of STUP households is statistically significant, where the treatment group of STUP households has to pay a lower amount of bribe to rent a house (Table 2.6).

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## CHAPTER 3

# EMPLOYMENT AND INCOME

JINNAT ARA

Even though Bangladesh has experienced a reduction in poverty overtime, inequality among rich and poor people is widening (Rahman 2005). CFPR-TUP programme transfers productive assets to the ultra poor with the aim of increasing self-employment followed by training. This section analyses the employment status of the surveyed households. In particular, analysis has been carried out on employment status of the working age members along with the child labour situation among these urban ultra poor households. This section also sheds light on their per capita income, which is considered to be a good measure of poverty. Due to inadequate information on employment available in the national data sources for urban households, comparison with national urban data could not be made in this section.

## OCCUPATION OF THE WORKING AGED MEMBERS

### Primary Occupation of Working Age (15-65 years) Females

The employment and income information is analysed separately for working age (15-60 years) females and males. The primary occupation for the working age females is presented in Table 3.1. In the context of Bangladesh, it is obvious that household chores are indeed the most common primary occupational choice among working age females. Results show that 51% working age females of treatment and 64% of comparison groups from STUP households reported household chores as their primary occupation and the difference between these groups is statistically significant at 1% level. Distressed occupations like wage employment, housemaid and begging are highly prevalent among STUP households. Proportions of households engaged in self-employment (around 3%), service (2%) and business (6%) are very low among STUP households. Around 17%

working age females of treatment households of STUP are engaged in wage employment against 9% of the respective households in the comparison group and the difference is highly significant at 1% level. Around 16% working age females (15-65 years) of treatment group of STUP and 12% working age females (15-65 years) of comparison group of STUP work as housemaids while 4% females of both groups of STUP are engaged in begging. Similar trend could also be observed for the working age females of OTUP households in case of their involvement in household chores. However, if we compare the households of STUP and OTUP, we see that females of OTUP households are comparatively more involved in self-employment, service and business, while less involved in distressed occupations (wage employment, housemaid, begging).

Analysis was also carried out to see the annual working hours of working age females (Annex Table 3A1). Results show that working age females of both STUP and OTUP households spend more time on household chores while the second major category of employment is housemaid. The third major category is wage employment for which the females of STUP households spend higher amount of time annual. Hence, from the results of both the proportion of STUP households as well as their time spent (yearly) on different occupation, it is clear that most of them are highly involved in distressed occupations.

**Table 3.1 Primary occupation of working age (15-65 years) females**

Employment category (% of working-age females)	STUP Treatment (1)	OTUP Treatment (2)	STUP Comparison (3)	OTUP Comparison (4)	STUP Difference (5=1-3)	OTUP Difference (6=2-4)
Household chores	50.63	65.18	63.71	71.28	-13.08***	-6.10**
Self-employment	2.53	9.69	3.54	6.31	-1.01	3.38**
Wage employment	16.88	6.15	8.52	6.60	8.35***	-0.45
Salaried employment	2.11	2.36	2.11	2.64	0.00	-0.29
Business	6.33	7.33	5.23	4.55	1.10	2.77**
Housemaid	15.61	8.90	11.56	7.04	4.05	1.86
Begging	4.22	0.13	3.97	0.97	0.25	-0.84*
Others	1.69	0.26	1.35	0.60	0.34	-0.34

Note. \*\*\*, \*\* and \* denote statistical significance at 1%, 5% and 10%, respectively.

### Primary Occupation of Working Age (15-65 years) Males

Information on primary occupation of the working age males can be seen from Table 3.2. Most of the employment/occupation categories are similar to those presented in Table

3.1. The category 'household chores' has been excluded, as there was no male from any of the groups engaged with household chores (not at least as their primary occupation), and the category of 'student' has been included as a small proportion mentioned this as their primary occupation. Similar to the working age females, we see the same scenario in case of the working males regarding their involvement in income earning activities. Results show that most of the treatment (43%) and comparison (46%) groups of STUP are involved in wage employment. Around 35% working age males of treatment and 32% of comparison groups of STUP households are involved in self-employment. Very small proportions of STUP households are involved in occupations like salaried employment, business, servant and begging. Around 9% working age males of STUP households are unemployed due to disability or sickness. One of the selection criteria of CFPR programme is to select the most vulnerable households not having any active working age male member. Similar trend is observed for the working age males of OTUP households in case of their involvement in self-employment. Again, if we compare the STUP and OTUP households, we see that comparatively more males of OTUP households are involved in self-employment, service and business while fewer are involved in distressed occupations (wage employment, begging). It is worth mentioning that among the OTUP households more than 16% of the treatment group are engaged in business while the corresponding proportion is 9% for the comparison counterpart; the difference is highly significant at 1% level.

Working age males of STUP households spend higher amount of time on wage employment (treatment group 1002 hours/yearly and comparison group 1082 hours/yearly) while males of OTUP households spend higher amount of time on self-employment (treatment group 864 hours/yearly and comparison group 942 hours/yearly).

**Table 3.2 Primary occupation of working age (15-65 years) males**

Employment category (% of working-age males)	STUP Treatment	OTUP Treatment	STUP Comparison	OTUP Comparison	STUP Difference	OTUP Difference
	(1)	(2)	(3)	(4)	(5=1-3)	(6=2-4)
Self-employment	34.97	41.09	32.31	45.60	2.66	-4.51
Wage employment	42.66	29.31	46.29	28.19	-3.64	1.12
Salaried employment	2.80	8.25	5.73	10.57	-2.94	-2.33
Business	6.99	16.49	5.87	9.01	1.12	7.48***
Student	0.70	0.44	0.28	0.65	0.42	-0.21
Servant	0.00	0.00	0.14	0.24	-0.14	-0.24*
Begging	2.80	0.74	0.98	0.27	1.82	0.47
Others (disable, unemployed)	9.09	3.68	8.39	5.48	0.70	-1.80

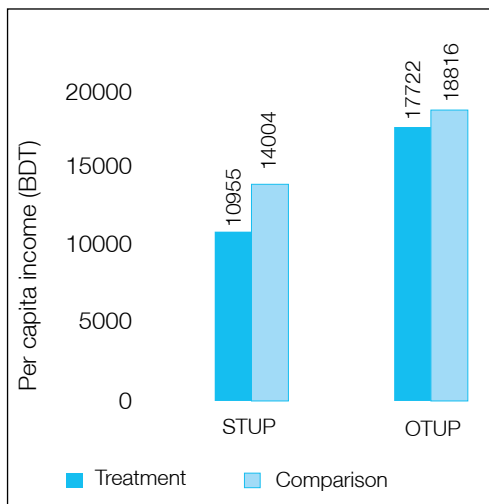
Note. \*\*\* and \* denote statistical significance at 1% and 10%, respectively.



## PER CAPITA INCOME

Figure 3.1 illustrates the annual per capita income of different groups of STUP and OTUP households. The annual per capita income of treatment group of STUP households is BDT 10,955 while the corresponding figure for STUP comparison households is approximately BDT 14,004. The comparison group's per capita income is comparatively higher than the treatment group and the difference is statistically significant at 1% level. The STUP households are comparatively poorer than the OTUP households in terms of per capita income. Results show that per capita income of treatment and comparison groups of OTUP households are BDT 17,722 and BDT 18,816, respectively.

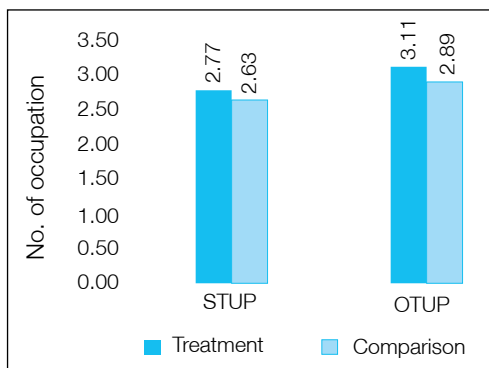
Fig 3.1 Per capita income level of STUP and OTUP households



## NUMBER OF OCCUPATIONS THE WORKING AGE MEMBERS ARE INVOLVED IN

Figure 3.2 shows the number of occupations the working age members are involved in. Treatment group of STUP households have about 2.8 income sources against 2.6 income sources of STUP comparison group. The difference (only 0.14) between these two groups in case of number of occupations is statistically significant at 10% level. For OTUP households, the treatment group has higher number of income sources (3.1) than the comparison counterparts (2.9) and the difference between the two is statistically highly significant.

Fig 3.2 No. of occupations working age members are involved in



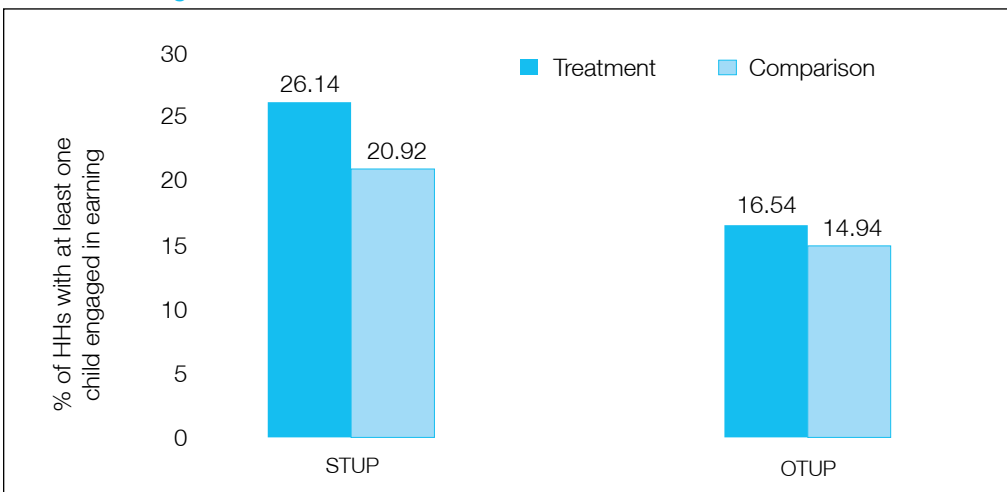
## CHILD LABOUR

Child labour is defined as work that deprives children aged 5-14 years who are paid and forced to work for one or more hours in different physical activities. According to the International Labor Organization (ILO), 3.2 million children are labourers in Bangladesh (UNICEF 2010).

### Percentage of Households with Children Engaged in Income Earning Activities

In this section analysis has been carried out to see the proportions of households with at least one child (aged 6-14 years<sup>2</sup>) engaged in income earning activities. Figure 3.3 shows that more than 26% of STUP treatment households have a child engaged in income earning activities, against 21% of STUP comparison group. In contrast, for OTUP households, we see that 17% of treatment households have at least one child engaged in income earning activities whereas, the corresponding proportion is 15% among the comparison households. Though the difference between treatment and comparison groups among both the STUP and OTUP households are statistically insignificant, the practice of child labour (defined by children aged 6-14 years engaged in income earning activities) is more prevalent among the treatment group for both types of households. The finding is in line with the empirical literature; for example, Amin *et al.* (2004) showed that child labour is more prominent among the poorer households.

Fig 3.3 Percentage of households with at least one child engaged in income earning activities



<sup>2</sup> Due to unavailability of employment data on individuals below 6 years of age, all child labour related information has been analysed and presented for 6-14 year old children in this chapter.

## Employment Activities of Children who are Engaged in Income Earning (6-14 years)

This section aims to investigate the number of hours of work per day and the occupations children are engaged in to make a living. It is found that children of STUP households work for two hours or more per day, while children of OTUP households work for less than two hours per day. This indicates that children of poorer households tend to work for longer hours. Data on income earning activities of working children indicates that smaller proportions of children from both treatment (8%) and comparison (11%) groups of STUP households are involved in self-employment while comparatively higher proportions of children from treatment (20%) and comparison (18%) groups of OTUP are involved in the same category. As, by definition, the OTUP households are slightly better off in comparison to STUP households, the children of these households often work mainly as helping hands with the other family members who are engaged in self-employment. Among the STUP households, a higher percentage of children of the comparison group (63%) are involved in wage employment while the corresponding proportion is only 35% for the treatment group; the difference is statistically significant at 10% level. Notably, 34% children of treatment group are engaged in salaried employment against 15% in the comparison group. Though the difference among this group is high, it is statistically insignificant. More than one-fifth of the treatment group's children of STUP households are employed as housemaids. This implies that the ultra poor households earned their income through child labouring in distressed occupations like wage employment or housemaid. The proportion of children who work as housemaid is also higher among the children of STUP households than the children of OTUP households.

**Table 3.3** Employment activities of the children who are engaged in earning (6-14 years)

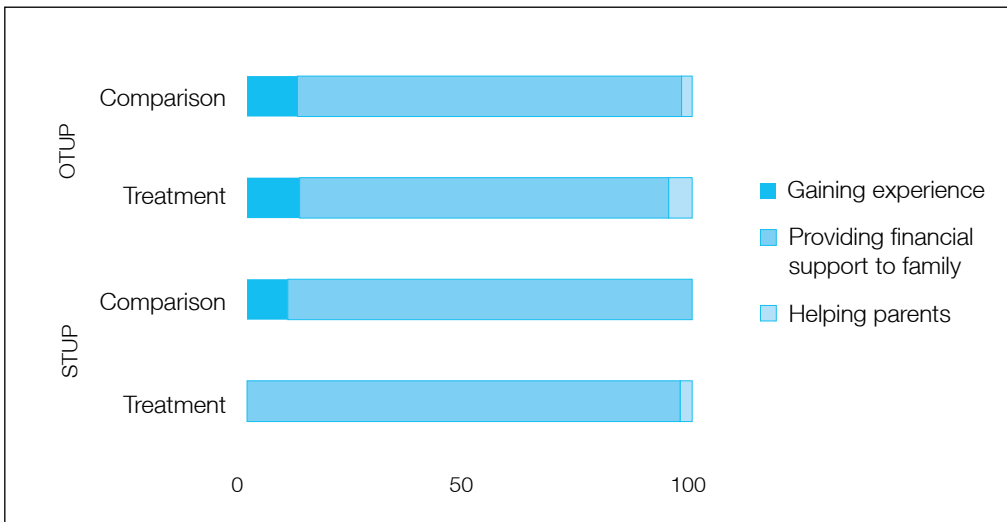
Indicators	STUP Treatment	OTUP Treatment	STUP Comparison	OTUP Comparison	STUP Difference	OTUP Difference
	(1)	(2)	(3)	(4)	(5=1-3)	(6=2-4)
Hours worked per day (mean)	2.35	1.44	1.99	1.51	0.36	-0.08
Type of work (% of children aged 6-14 years engaged in earning)						
Self-employment	8.11	20.05	11.35	17.63	-3.24	3.42
Wage employment	35.00	32.61	62.50	50.53	-27.57*	-17.63**
Salaried employment	34.00	34.53	14.59	29.20	20.54	6.05
Business	2.50	9.11	0.54	2.15	2.16	6.84*
Housemaid/servant	21.52	5.16	11.50	1.05	9.73	4.21

Note. \*\* and \* denote statistical significance at 5% and 10%, respectively.

## Reasons for Engagement in Income Earning

As can be seen from Fig 3.4, around 9% in the comparison group in the STUP households reported that gaining some sort of experience is the reason for the children's engagement in income earning activities while the proportion is nil for the treatment group. As the treatment groups are comparatively poorer than the comparison counterparts (given the way the sample has been selected), it is obvious that the children of ultra poor households engage in income earning activities to fulfill their basic needs. However, providing financial support to the family is the dominant reason for involvement in income earning activities of children of treatment and comparison groups among STUP and OTUP (especially in the STUP) households. Comparatively, a very negligible proportion of children from all the different groups of households reported that they engaged in income earning activities to help their parents in their work.

Fig 3.4 Children's self-reported reasons for engaging in income earning



## Payment System and Control over Income

Table 3.4 reveals the methods in which working children are paid. The table also shows by whom the payments for these children are received i.e., whether by their parents or by the children themselves. The results across all the groups are found to be more or less similar. About 76% children from both STUP and OTUP treatment groups are paid in cash against 83% of comparison group in both the STUP and OTUP households. A very small portion of them reported that they are paid in kind or both in kind and cash. Regarding the wage payment method, more than half of the children reported that they receive it by themselves. Again for both STUP and OTUP households, about one-third of the children engaged in earning activities reported that their parents receive their wage on their behalf.

Table 3.4 Payment system and control over income

	STUP Treatment	OTUP Treatment	STUP Comparison	OTUP Comparison	STUP Difference	OTUP Difference
	(1)	(2)	(3)	(4)	(5=1-3)	(6=2-4)
Wage payment method						
In cash	75.68	76.32	83.24	82.63	-7.57	-6.32
In kind	5.41	2.63	1.62	3.16	3.78	-0.53
Both cash and kind	2.70	2.63	0.00	0.00	2.70	2.63
Not applicable	16.22	22.37	15.14	14.21	1.08	8.16
Wages for children received by						
Children themselves	54.05	59.21	54.05	66.58	0.00	-7.37
Parents/guardian	29.73	22.37	30.81	19.21	-1.08	3.16
Not applicable	16.22	22.37	15.14	14.21	1.08	8.16

## CONCLUSION

The employment and income section provides us a snapshot of the STUP and OTUP households' occupational choices and their primary involvement in different types of earning activities. In case of occupational choices we do not find any significant difference among the treatment and comparison households of each group, variations have been observed in other cases among the STUP and OTUP groups. The males and females of OTUP households are comparatively more involved in self-employment, service and business while less involved in distressed occupations. This may be due to their better economic condition compared to STUP households. Similarly, per capita income of the OTUP households are comparatively higher. Participation of children in earning activities and their working hours both are higher in case of STUP treatment group. Providing financial support to the family is the dominant reason for engaging in earning activities of the children and in most of the cases their parents receive their wage/remuneration. Overall, there is huge scope for CFPR programme to improve the livelihoods of the ultra-poor through its support packages.

## ANNEXES

**Table 3A1 Annual working hours of male aged 15-65 years**

	STUP			OTUP		
	Treatment	Comparison	Difference	Treatment	Comparison	Difference
Self-employment	677.67	683.73	-6.06	863.56	941.84	-78.28
Wage employment	1002.19	1081.79	-79.61	712.11	690.61	21.50
Salaried employment	93.38	155.42	-62.04	305.45	341.10	-35.65
Business	133.47	208.45	-74.98	399.17	272.36	126.81**
Housemaid	0.00	3.68	-3.68	2.13	3.62	-1.49
Begging	42.88	11.51	31.37	11.92	6.08	5.84

Note. \*\* denotes statistical significance at 5%.

**Table 3A2 Annual working hours of female aged 15-65 years**

	STUP			OTUP		
	Treatment	Comparison	Difference	Treatment	Comparison	Difference
Household chores	1191.15	1246.27	-55.12	1235.81	1302.98	-67.17**
Self-employment	74.66	81.49	-6.83	155.63	96.15	59.47***
Wage employment	427.17	293.26	133.91**	199.53	223.26	-23.73
Salaried employment	112.28	94.39	17.90	174.40	120.72	53.68**
Business	265.92	115.30	150.63***	247.00	130.05	116.95***
Housemaid	566.03	336.40	229.63***	253.76	235.12	18.65
Begging	108.69	162.23	-53.54	4.87	29.27	-24.40**

Note. \*\*\* and \*\* denote statistical significance at 1% and 5%, respectively.

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## CHAPTER 4

# NATURAL, PHYSICAL AND FINANCIAL ASSETS

JINNAT ARA, ANINDITA BHATTACHARJEE

This chapter deals with details of the ownership of various natural, physical, and financial assets of the households included in the baseline survey of the Urban CFPR programme. One point worth keeping in mind while going through these analytical results and the discussion that follows is that information has been collected on the ownership of various assets irrespective of the physical location of the assets. In other words, assets owned by the surveyed households located in both rural (i.e. their village home) and urban (i.e. their current residence) areas were taken into consideration here.

## NATURAL AND PHYSICAL ASSETS

### Land ownership

Given that land ownership is a rather important indicator of households' socio economic status in the socio-cultural context of Bangladesh, detailed information on the treatment and comparison households' land ownership was collected during the baseline survey. As can be seen from the summarised main findings presented in Table 4.1, about 86%-87% of the STUP treatment and comparison households own land, even though the average amount of land owned by households from both these groups is below 4 decimals. The differences between the two groups in both these cases are statistically insignificant. As mentioned previously, the households targeted under the OTUP package are, by definition, slightly better off than those targeted under the STUP package. Focusing on the results for the OTUP treatment and comparison groups, we see that among the OTUP treatment households, about 99% own land while this proportion is about 97% among the OTUP comparison group (with the difference between the two groups being statistically highly significant). The average amount of land owned by households from both these groups is about 8 decimals. On average, the STUP treatment households own



land worth about BDT 4,300 more than that of the STUP comparison group. But for the OTUP treatment and comparison households, this difference is even larger (just below BDT 7,000) with the direction of the difference being opposite.

**Table 4.1 Land ownership of surveyed households**

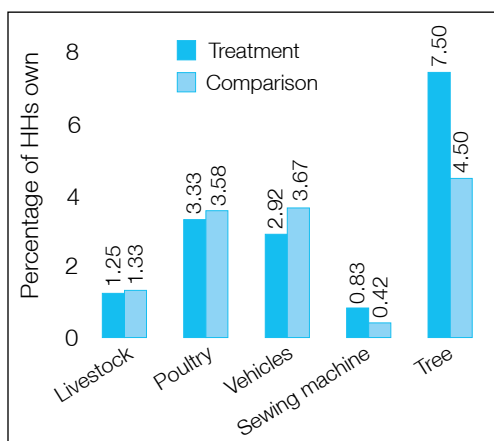
Details of land ownership	STUP Treatment	OTUP Treatment	STUP Comparison	OTUP Comparison	STUP Difference	OTUP Difference
	(1)	(2)	(3)	(4)	(5=1-3)	(6=2-4)
Owns land (% of HHs)	86.25	98.83	87.33	96.62	-0.01	0.02***
Average amount of land owned (in decimal)	3.83	8.48	3.30	7.79	0.54	0.69
Average value of total land owned (in BDT)	28253.38	63073.32	23908.28	69883.66	4345.10	-6810.34

Note: \*\*\* denotes statistical significance at 1%

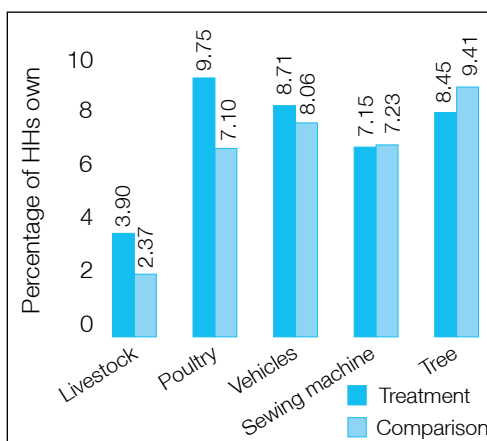
### Business and non-business assets ownership

The surveyed households' ownership of major business and non-business assets are discussed separately in this sub-section. We begin by looking at the business asset ownership of all the four groups of concern. The assets considered here are the following- livestock, poultry, different types of vehicles (that are usually used for commercial purposes), sewing machine and trees (worth at least BDT 500). From Figs 4.1 and 4.2 we

**Fig 4.1 Business asset ownership of STUP and comparison households**



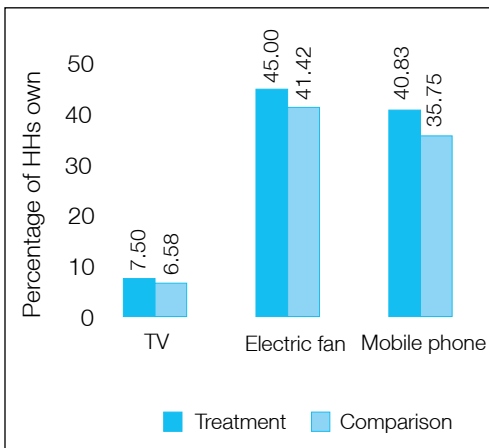
**Fig 4.2 Business asset ownership of OTUP and comparison households**



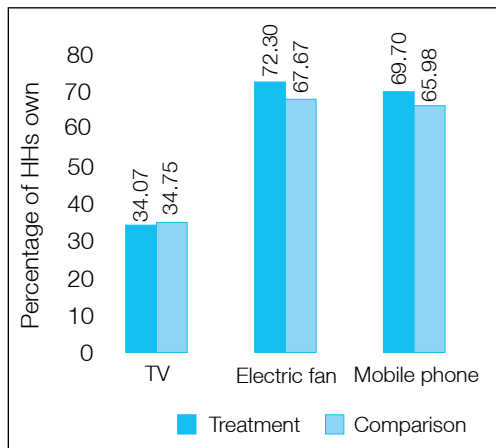
can see that the ownership of all these major assets is very low among all the four groups. The most common business asset owned by the STUP treatment and comparison households is found to be trees. For the OTUP treatment and comparison households, percentage of households owning these different assets is slightly higher, with poultry and trees being, respectively, the most common ones for the OTUP treatment (about 10%) and the comparison (about 9%) households. With regard to ownership of poultry, the difference between the OTUP treatment and the comparison groups is found to be statistically significant.

As for non-business assets, the following assets have been considered as the major (and also more common) ones- television, electric fan and mobile phone (see Figs 4.3 and 4.4). Looking into the surveyed households' status in terms of ownership of these non-business assets, we see that ownership of television is quite low among both treatment and comparison households of STUP (about 7%-8%). However, a substantially larger proportion of households from both these groups reported owning electric fans and mobile phones, with the proportions ranging between 35%-45% for the groups. Statistically significant differences are not observed between the two groups for any of these assets. The comparatively better-off socio economic status of the OTUP treatment and comparison households (than their STUP counterparts) is reflected through ownership of these non-business assets by rather large proportions of them.

**Fig 4.3 Non-business asset ownership of STUP and comparison households**



**Fig 4.4 Non-business asset ownership of OTUP and comparison households**



As can be seen from Table 4.2, for both STUP and OTUP, the average value of all assets owned is higher for the comparison group than that of the treatment group; however, none of the differences are statistically significant indicating that the treatment and comparison households (separately for STUP and OTUP) are quite alike in terms of their conditions/status at the baseline.

**Table 4.2 Total value of assets owned by treatment and comparison households**

Asset value	STUP Treatment	OTUP Treatment	STUP Comparison	OTUP Comparison	STUP Difference	OTUP Difference
	(1)	(2)	(3)	(4)	(5=1-3)	(6=2-4)
Average value of all assets owned (in BDT)	3770.04	9331.19	4115.78	9857.13	-345.73	-525.94

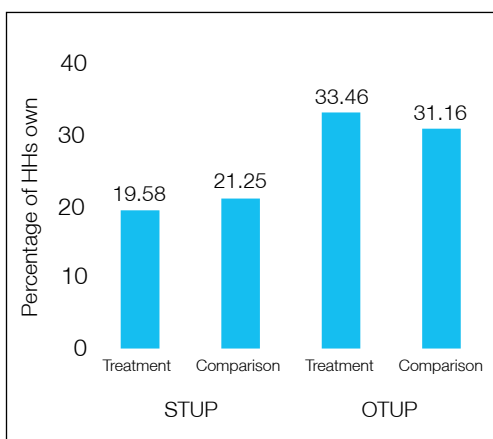
## FINANCIAL ASSETS

After getting an initial understanding about the households’ natural and physical asset holdings, now it is worthwhile to have a look at their financial assets that include savings, outstanding lending and outstanding loan. These are analysed and discussed below.

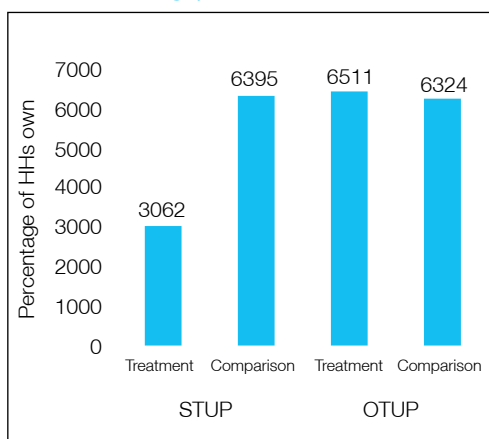
### Savings

Savings is an important indicator that helps people in many ways either to face emergencies or even to implement future plans. This is because saving money is the least expensive way to obtain cash to cover family emergencies or uncertainties or unexpected income shortfalls and the surest path to increase financial security for most people, regardless of income (USAID 2007). Formal savings help the poor save and invest in their future as well as withstand emergency needs for cash without depleting their other assets (Kendall 2010). Therefore, saving is even more important for the poor than for others as it helps to cope with their needs. Realising the importance of savings, households’ savings behaviour has also been analysed.

**Fig 4.5 Percentage of households having savings**



**Fig 4.6 Average amount of savings (in BDT) (conditional on having savings)**



Result shows that (Fig 4.5) almost equal proportions of both treatment and comparison groups of STUP households have savings (20%). While in case of OTUP households, we see that around 33% of treatment group have saving against 31% of comparison group and the difference is statistically insignificant. Comparing STUP and OTUP households, we see that more than 31% households of OTUP have saving when only 20% of STUP households have it. However, average savings of the STUP comparison households was significantly different than that of the STUP treatment households, while this difference between the OTUP treatment and comparisons households was almost negligible (Fig 4.6).

## Outstanding Loan

In case of having outstanding loan, around 27% of the STUP treatment households have outstanding loan against 32% of comparison households (Table 4.3). There is a slight difference (2%) among the groups of OTUP households having outstanding loan, but the difference is not statistically significant. The proportions of STUP and OTUP households with outstanding loan are higher than that of national urban households, while their average amount of outstanding loan is much lower than the average amount the national urban households have. STUP households, not surprisingly, have the lowest amount of outstanding loans. STUP households have to take loans from their relatives or people from their community or other informal institutions at higher interest rate as they often cannot meet the requirements to take loan from various formal financial institutions. Thus, even though higher proportion of STUP households takes loan but the amount of loan is lower on average. In contrast, national urban households have access to loans from different financial organisations, so the amount of loan they have is quite higher. Amount of outstanding loan is found to be almost equal among the STUP treatment and comparison households, while it is higher among the comparison group of OTUP than treatment group. Moreover, in comparison to STUP, amount of outstanding loan is significantly higher among the OTUP households. This is due to the fact that OTUP group is comparatively better off and have the capability to take higher amount of loan from any sources. It is obvious, as accessibility to credit from both formal and informal sources is quite low for poor households (Marinangeli and Presbitero 2011).

**Table 4.3 Percentage of households have outstanding loan**

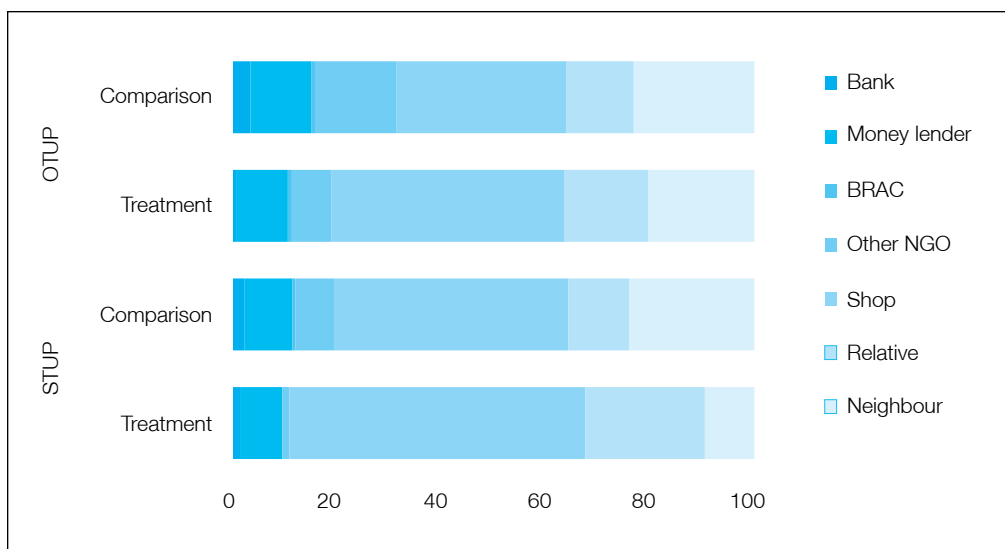
Indicators	STUP Treatment	OTUP Treatment	National Urban	STUP Comparison	OTUP Comparison	STUP Difference	OTUP Difference
	(1)	(2)	(3)	(4)	(5)	(6=1-4)	(7=2-5)
% of HHs have outstanding loan	27.08	30.85	23.70	31.83	32.78	-4.75	1.93
Amount of outstanding loan (in BDT)	1226	9775	54122	1299	12177	-73	-2402

## Source of Loan

Looking at the breakdown of choosing different credit sources (Fig 4.7), we see that a higher proportion of both STUP treatment (66%) and comparison (50%) households have taken outstanding loan from shops while the corresponding proportions for OTUP households are 52% and 38% for treatment and comparison group respectively. Moreover, a higher proportion of both OTUP treatment (42%) and comparison (43%) households takes outstanding loan from relatives or friends/neighbours.

Proportion of households taking loan from formal institutions like bank, NGO is very low among the poorer households while their tendency to take loan from informal sources like money lender, shop, relatives, and neighbours is very high. It might be because the informal sources require less/no collateral and take less time in processing though the interest rate in some cases (like from money lender) is very high. And may be for these reasons, these sources of credit becomes preferred compared to the other common/formal sources. It is worth mentioning that a very negligible proportion of households have taken loan from bank. This is not surprising as in one side formal credit institutions often do not consider poor as eligible to be their loan clients (Seraj and Misha 2009) and in another side, due to rigorous paper works and complex rules and regulations, poor people also tend not to apply for loans from these sources (Atieno 2001).

Fig 4.7 Sources of loan



Notably, the proportion of STUP households taking loans from BRAC and other NGOs is very low, while these proportions are a bit higher for both groups of OTUP. This is due to the fact that one of the exclusion criteria of CFPR programme is to exclude households

with any NGO membership. Our baseline data indicate that about 2% and 9% of STUP and OTUP treatment households respectively reported having taken loans from other NGOs. Nevertheless, it is important to keep in mind that households sometimes hide their NGO membership during targeting and selection of CFPR programme participants. For comparison groups, we see that 8% and 18% respectively from STUP and OTUP households have taken loan from other NGOs. Though we used propensity score matching (PSM) technique to select our comparison groups, the indicator of NGO membership does not match with the other indicators. Hence, we omit this variable from the probit regression. Besides this, in other cases like asset ownership, we see that treatment and comparison groups of STUP and OTUP are almost equal though we could not use the NGO membership variable in the matching.

### Main Purpose of Taking Loan

Like savings, before taking loan individuals/households must have a plan about what to do with the money. Table 4.4 shows the main purpose of taking loan. Though we do not find any significant difference among the treatment and comparison groups of STUP and OTUP households regarding the purpose of taking loan, difference has been observed across the households (STUP and OTUP). Result indicates that the main purpose of taking loan for the households of STUP is to use the money for consumption while to use the money for treatment is the second major reason. The poorer households basically take loan to fulfill their basic needs like food, treatment and education. In case of OTUP households, we see one third households use the money for investment though a higher proportion of households use the money for consumption.

**Table 4.4** Main purpose of taking loan

Main purpose	STUP Treatment	OTUP Treatment	STUP Comparison	OTUP Comparison	STUP Difference	OTUP Difference
	(1)	(2)	(3)	(4)	(5=1-3)	(6=2-4)
Consumption	65.63	51.69	59.38	48.90	6.25	2.80
Medical	15.63	21.19	23.13	21.27	-7.50	-0.08
Education	3.13	0.85	3.13	2.46	0.00	-1.61
Investment	14.06	28.81	19.38	30.42	-5.31	-1.61
Loan repayment	6.25	5.08	1.56	5.17	4.69	-0.08
Dowry	3.13	3.81	1.56	5.00	1.56	-1.19

## CONCLUSION

Overall this section indicates that the treatment and comparison households of both the STUP and OTUP groups possess almost equal proportions of natural, physical and financial assets. The asset profile of national urban households could not be used because of unavailability of information on assets in detail for urban households at national level. As the households targeted under the OTUP package are comparatively better off than those targeted under the STUP package, both treatment and comparison households of OTUP possess higher amount of assets than STUP households. Specifically, in case of savings, loan and lending behaviour, same trend has been observed. Alarming, the poorer households' tendency to take loan from informal institutions is higher than from formal sources and for that reason, they have much lower loan compared to the amount of loan the national urban households have. As for purpose of taking loans, meeting household consumption needs is the most common across all the different groups of households, followed by medical treatment and investment.

## CHAPTER 5

# WATER, SANITATION AND HEALTH

NUSRAT ABEDIN JIMI, ANINDITA BHATTACHARJEE

This section describes the access to safe water, sanitary latrine, drainage facilities and other sanitary related issues and health status, health practices and health seeking behaviour of the surveyed community in slum. The chapter is organised into three sections. The first section describes water and sanitation conditions of the sampled households. Circumstances and state of facilities that promote good health such as access to clean water, sanitation and housing condition is described in this section as well. The second section highlights some basic health related practices prevailing among the different poverty groups like use of contraception, infant breast feeding practices and vaccination. Health status of the households measured in terms of morbidity prevalence in the last 15 days, types of treatment sought by the poor households and the amount of treatment costs incurred are described in this section. The third section describes the long-term and short term nutritional status of all children and mothers in the sampled households.

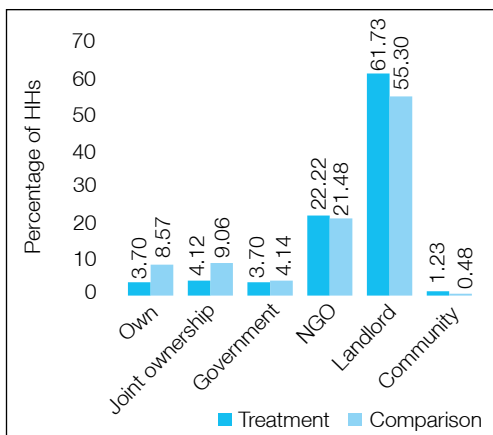
## WATER AND SANITATION

Facilities like clean water, appropriate drainage system, safe hygiene practices and sanitation are important for having sound physical health. Table 5.1 shows on average, 43% of the STUP and STUP comparison households do not have access to safe drinking water. This situation is worse for OTUP treatment households who have significantly less access to safe drinking water compared to its comparison group. Around 66%-67% households of all groups use sanitary latrine and there is no significant differences in this respect, while 72% of national urban households use sanitary latrine. Figure 5.1 and 5.2 illustrate that around 50%-60% of the surveyed households use latrines owned by the landlords. The proportion of households using self-owned latrines is very low (around 10%) among both the groups; although OTUP groups are slightly better off than their STUP counterparts. Appropriate drainage system is very limited in the surveyed community. We find that only 13% of STUP households and 20% of OTUP households

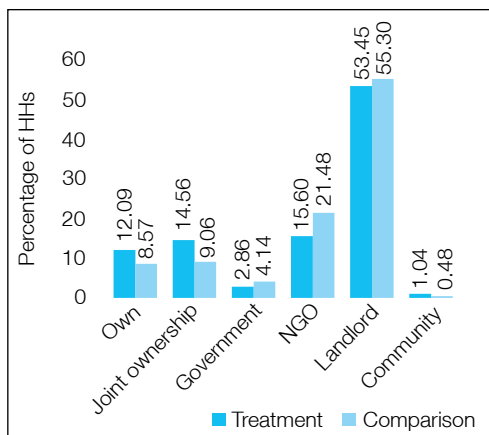


have proper drainage facility. STUP household members waste disposal practice is more unhygienic than their comparison group whereas OTUP households waste disposal practice is significantly better than their comparison households.

**Fig 5.1 Ownership of latrine of STUP and comparison households**



**Fig 5.2 Ownership of latrine of OTUP and comparison households**



**Table 5.1 Water, sanitation and drainage facilities**

Indicators	STUP Treatment	OTUP Treatment	National Urban	STUP Comparison	OTUP Comparison	STUP Difference	OTUP Difference
	(1)	(2)		(3)	(4)	(5)	(6=1-4)
Safe drinking water (%)	57.08	49.41	-	59.83	54.17	-2.75	-4.76*
Sanitary latrine (%)	67.92	68.01	76.12	66.17	69.10	1.75	-1.09
Drainage system (cemented with cover)	13.75	19.51	-	12.25	14.80	1.50	4.71**
Disposal of domestic waste at proper place (%)	46.67	69.05	-	53.17	59.58	-6.50	9.47***
Appropriate disposal of child excretion (%)	15.00	28.22	-	16.42	26.22	-1.42	2.00

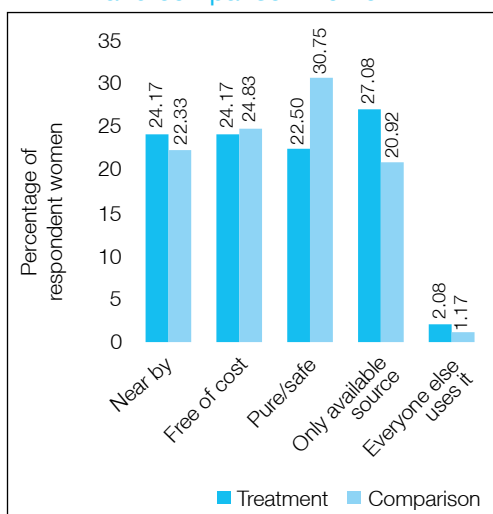
Note. \*\*\*, \*\* and \* denote statistical significance at 1%, 5% and 10%, respectively.

### Drinking Water Related Issues

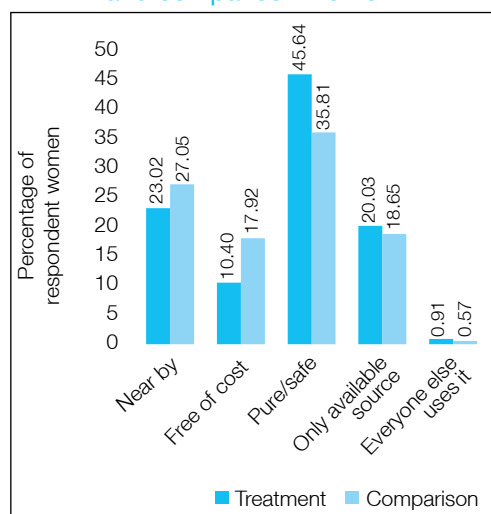
Substantial amount of information has been collected from the surveyed households regarding various issues related to drinking water. Findings related to these issues are

discussed in this part of the report. We begin with analyzing the reasons for the surveyed women's/households' choosing their particular source of drinking water. The findings are illustrated in Figure 5.3 and 5.4 separately for both STUP and OTUP groups. The most common reason mentioned by respondent-women from the STUP treatment households is found to be the particular water source being the only one available; while for the STUP comparison households, the most common reason stated is found to be the source being considered as pure/safe. In case of both these reasons just mentioned, the differences between the treatment and the comparison groups are found to be statistically significant. The water source's being nearby and free of cost are among the other common reasons. Considering the OTUP treatment and comparison groups, the particular water source being perceived as pure/safe is found to be the most common reason for both groups. The other common reasons are same as the ones found for the STUP treatment and comparison groups. It is worth mentioning that in case of the OTUP treatment and comparison households, statistically highly significant differences are found between the two groups in case of the following three reasons mentioned- the water source's being nearby, being free of cost and being pure/safe.

**Fig 5.3 Reason for choosing drinking water source by STUP treatment and comparison women**

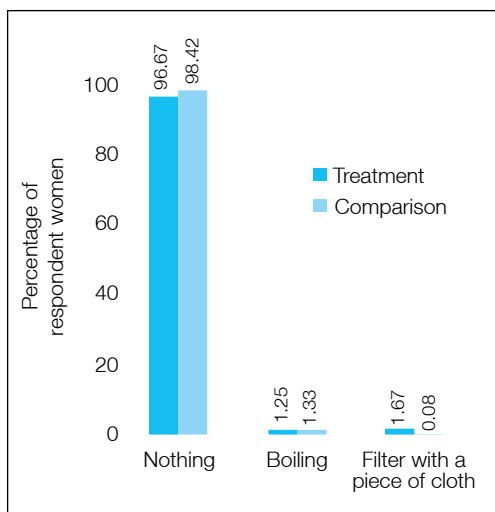


**Fig 5.4 Reason for choosing drinking water source by OTUP treatment and comparison women**

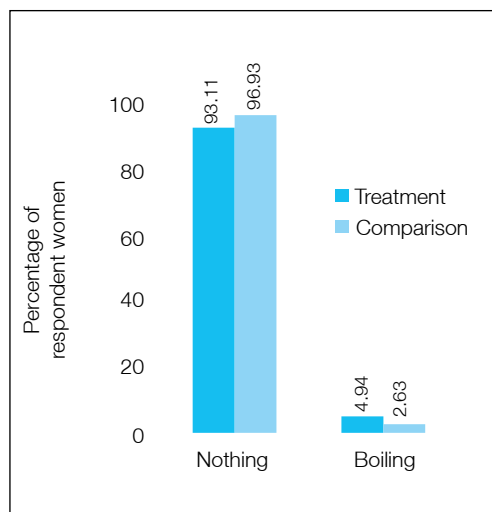


When asked about the water purifying strategies used by them, almost all the respondent-women from both STUP treatment and control and OTUP treatment and control households are found to be using no such strategy what so ever. Only a very small proportion of the women from the STUP treatment and comparison groups reported boiling or filtering it using a piece of cloth to purify the water. As for the OTUP treatment and comparison group, a very small proportion of the women mentioned boiling the water to make it germ free.

**Fig 5.5** Water purifying strategy used by STUP treatment and comparison women



**Fig 5.6** Water purifying strategy used by OTUP treatment and comparison women



Lastly, the surveyed women were asked to reflect on their level of satisfaction with their drinking water source (Table 5.2). Majority from the STUP treatment and comparison groups (about 53%-57%) are found to be satisfied, while about 33%-37% are found to be moderately satisfied. As can be understood as well as seen from the findings presented in Table 5.2, the proportion being unsatisfied is around 10% in both groups. Similarly for the OTUP treatment and comparison groups, majority of the respondent women (about 57%-62%) expressed their satisfaction with the water source they use, with no significant difference between the two groups. However, statistically significant differences are observed between the two groups in case of those being ‘moderately satisfied’ and being ‘completely unsatisfied’.

**Table 5.2** Level of satisfaction with water source

Satisfaction with water source (% of respondent women)	STUP Treatment (1)	OTUP Treatment (2)	STUP Comparison (3)	OTUP Comparison (4)	STUP Difference (5=1-3)	OTUP Difference (6=2-4)
Satisfied	56.67	61.64	53.00	57.45	0.04	0.04
Moderately satisfied	32.92	24.06	37.33	31.86	-0.04	-0.08***
Slight unsatisfied	8.33	10.66	7.67	9.13	0.01	0.02
Completely unsatisfied	2.08	3.64	2.00	1.56	0.00	0.02**

Note. \*\*\* and \*\* denote statistical significance at 1% and 5% respectively

## HEALTH STATUS, HEALTH PRACTICES AND HEALTH SEEKING BEHAVIOUR

As the living conditions of STUP and OTUP households are not that much satisfactory, it increases the vulnerability of the household members to risks of morbidity and mortality. Upon asking the female respondents of all the households about their self-perceived health status (Table 5.3), it is seen that only 44% of the STUP respondents feel that their health status is in overall good condition. This is significantly lower compared to 51% of their comparison households reporting good health condition. On the other hand, almost 60% of the OTUP and its comparison group respondents feel that their health status is good. Significantly more STUP respondents perceive that their overall health status is either moderate or poor compared to the perception of own health status of their comparison household respondents.

Table 5.3 Self-perceived health status of respondents

Indicators	STUP Treatment	OTUP Treatment	STUP Comparison	OTUP Comparison	STUP Difference	OTUP Difference
	(1)	(2)	(3)	(4)	(5=1-3)	(6=2-4)
Good (% of respondents)	43.75	60.08	50.75	60.13	-7.00*	-0.05
Moderate (% of respondents)	46.67	33.16	37.92	32.80	8.75**	0.36
Bad (% of respondents)	9.58	6.76	11.33	7.07	-1.75	-0.31

Note. \*\* and \* denote statistical significance at 5% and 10%, respectively.

### Contraceptive use and Family Planning

Given the phenomenal growth of population in the country in the past, statistics on use of contraception is now always of major interest. Fertility rate has declined considerably and use of contraception among married women in Bangladesh has increased gradually from 8% in 1975 to 61% in 2011 which has been more than a sevenfold increase over the last 4 decades (BDHS 2011). In Table 5.4, the contraceptive prevalence rate for all respondents aged between 15 and 49 years is shown. It is observed that contraceptive prevalence rate (at the time of the survey) is 69.2% among STUP women whereas, the rate is 69.4% among the comparison group. In case of OTUP and its comparison group, the rate is around 71 on average. In all cases it is higher than the national average of 61%. Although there is not much difference between different poverty groups when considering the overall female population below 50 (but reproductive aged), there are significant differences between the respondents of different age groups. For both STUP and OTUP household respondents below 25 years, contraceptive prevalence rate is significantly lower than their respective comparison groups. During the survey, about 9%-14% of the younger female respondents (below 25 years) from STUP and OTUP households reported using contraceptives. However, this rate increases with the age of 25-40 years.

**Table 5.4 Contraceptive prevalence rate (%)**

Indicators	STUP Treatment	OTUP Treatment	STUP Comparison	OTUP Comparison	STUP Difference	OTUP Difference
	(1)	(2)	(3)	(4)	(5=1-3)	(6=2-4)
Currently practices contraception (All eligible women)	69.23	71.26	69.40	72.23	-0.17	-0.96
Women below 25 years	9.40	14.29	11.97	15.48	-2.56*	-1.20*
Women between 25-40 years	50.43	50.33	50.60	48.94	-0.17	1.40
Women between 41-49 years	7.69	5.65	5.13	6.81	2.56	-1.16

Note. \* denotes statistical significance at 10%.

Looking for the prime reasons behind lower contraceptive prevalence among young married women (below 25 years), we find that the main reasons are that either they were ill or wanted child, were pregnant or just delivered a baby. (Table 5.5). Around 17% of STUP respondents not using contraceptive do not feel the necessity of using contraceptive whereas, it is 27% for OTUP group and the percentages are not significantly different across their respective comparison groups.

**Table 5.5 Reasons of not using family planning (for married women below 25 years)**

Indicators	STUP Treatment	OTUP Treatment	STUP Comparison	OTUP Comparison	STUP Difference	OTUP Difference
	(1)	(2)	(3)	(4)	(5=1-3)	(6=2-4)
Physical Illness	47.06	25.62	21.18	16.86	25.88*	8.76*
Feel not important	17.65	26.45	12.94	18.51	4.71	7.93
Natural reasons (pregnancy/want child, etc.)	35.29	47.93	63.53	63.80	-28.24*	-15.87**

Note. \*\* and \* denote statistical significance at 5% and 10%, respectively.

## Vaccination and Breastfeeding Practices

Table 5.6 depicts the present vaccination status of children aged up to 36 months. As completing the doses (1 BCG, 3 Penta, 4 Polio and 1 Measles) requires at least nine months, we considered children aged 9-36 months and found that on average, 57% of the STUP children have completed the full vaccination course. For OTUP and its comparison group the percentage of child with fully completed dose is found to be around 65%.

Table 5.6 Present vaccination status (% of all children up to 36 month)

Indicators	STUP Treatment	OTUP Treatment	STUP Comparison	OTUP Comparison	STUP Difference	OTUP Difference
	(1)	(2)	(3)	(4)	(5=1-3)	(6=2-4)
Dose fully completed	57.41	67.03	64.07	65.38	-6.67	1.65
Partially completed	38.89	24.18	30.37	27.58	8.52	-3.41
Not done at all	1.85	4.40	2.59	2.97	-0.74	1.43

The breastfeeding practices for children aged up to three years is shown in Table 5.7. Almost 90% of the children are given colostrum and the percentage is similar for both STUP and its comparison group and OTUP and its comparison group. However, on average, only 51% of the STUP children are exclusively breast-fed up to six months which is lower than their comparison group. Similar results are found for the OTUP and its comparison group. This suggests that awareness about the importance of exclusive breast feeding among the ultra poor urban community is very important.

Table 5.7 Breastfeeding practices (% of children up to 3 years old)

Indicators	STUP Treatment	OTUP Treatment	STUP Comparison	OTUP Comparison	STUP Difference	OTUP Difference
	(1)	(2)	(3)	(4)	(5=1-3)	(6=2-4)
Colostrum given	89.06	92.50	95.63	96.08	-6.56	-3.58
Exclusive breastfeeding (no water) of child until 6months old	51.79	54.67	64.29	60.65	-12.50	-5.98

Examining the type of foods given besides breast feeding across all households, it is found that porridge rice (54% cases), semolina (25% cases), milk (21% cases), hotchpotch (20% cases) and banana (13% cases) are mainly given to the child as supplementary food in early ages (Table 5.8)<sup>3</sup>.

<sup>3</sup> Food types have also been analysed across poverty groups, but not presented here as not much difference was found among the different groups in terms of supplementary foods given to children.

**Table 5.8** Foods given as supplement to breastfeeding after 6 months (all households)

Indicators	Per cent of responses	Per cent of cases
Cow milk	5.57	10.21
Powdered rice	6.09	11.18
Porridge rice	29.41	53.95
Banana	7.04	12.91
Egg	3.47	6.36
Hotchpotch	10.82	19.85
Semolina	13.97	25.63
Powder Milk	5.99	10.98
Biscuit	6.3	11.56
Others	11.37	20.8

## MORBIDITY PREVALENCE, TYPES OF ILLNESS, TREATMENTS SOUGHT AND COST OCCURED

Morbidity prevalence in the last 15 days prior to the survey has been reported in Table 5.9. It is seen that around 50%-60% of all surveyed households had at least one sick member in the last 15 days. Living in unhealthy environment and lack of proper health and sanitation practices, facilities and cares may possibly cause higher level of morbidity among the people of these poor communities.

In the survey, the type of illness or the type of symptoms reported by the respondent women were recorded. Based on this information, similar types of illnesses or disease symptoms have been grouped together under a few broad categories. These are fever, bodily pains, cold/cough, respiratory illnesses such as asthma, pneumonia or other pulmonary diseases, gastro-intestinal illnesses such as ulcer, diarrhoea and dysentery, general weakness symptoms, major infectious diseases such as jaundice, measles, pox and TB, chronic illnesses such as cancer, blood pressure, heart diseases, diabetes, liver, kidney and gall bladder related illnesses. Also, the respondents reported a wide range of other symptoms and injuries like burns, cuts, animal bites, temporary infections and swollen limbs which have been included here in the 'others' category.

The three most common illnesses that prevailed among the study population were fever followed by bodily pains (of various sort and degree) and then gastro-intestinal problems. These three illnesses accounted for more than 60% of the illnesses of the sick members while the rest were accounted mainly by general weaknesses and cold/cough symptoms and others as shown in Table 5.9. There are in general no significant differences between the STUP and its comparison group and also between the OTUP and its comparison households in terms of the type of illnesses that were reported.

Table 5.9 Morbidity prevalence in last 15 days

Indicators	STUP Treatment	OTUP Treatment	STUP Comparison	OTUP Comparison	STUP Difference	OTUP Difference
	(1)	(2)	(3)	(4)	(5=1-3)	(6=2-4)
Percentage of households with at least one sick member	53.75	54.49	60.00	50.30	-6.25	4.19
Type of illness						
Fever	40.12	38.78	37.25	34.40	2.87	4.38
Pain	16.77	18.37	16.17	17.03	0.60	1.34
Cold/cough	8.38	8.91	8.26	10.17	0.12	-1.26
Diarrhoeal/gastro intestinal illnesses	11.38	9.65	9.10	10.06	2.28	-0.41
General Weakness	5.39	5.19	7.66	6.75	-2.28	-1.56
Jaundice/Measles/Pox/TB	2.99	3.53	1.20	2.78	1.80	0.74
Chronic diseases	4.79	3.34	2.75	4.97	2.04	-1.63
Others	10.78	12.43	17.60	13.84	-6.83	-1.41

The female respondents were asked about the type of treatment sought as the first line care after the concerned household member fell ill. These treatments have been grouped into six different categories (Table 5.10). The category 'no treatment' refers to not seeking any treatment or remedial action in the forms like taking medicine, food or seeking other's counsel. The 'self-treatment' category refers to where common home remedies were prepared to treat the illness for instance ORS (oral rehydration solution) and for which no health care provider (HCP) was consulted. Para-professionals include village doctors or '*Polli Chikitshok*' who are probably trained formally in diagnosing and treating some common ailments. Para-professionals also include paramedics like community health workers, health assistants, medical assistants, family welfare assistants or volunteers—all of whom have some form of preventive or basic curative health training. Qualified practitioners represent those who have attained a professional medical education as well as training from a recognised institution. The paraprofessionals together with the qualified practitioners represent the formal providers of health care in rural Bangladesh. Alongside these HCPs, there are also some informal providers such as untrained pharmacy salesman or itinerant drug sellers who represent the category of 'unqualified practitioners'. Finally, the sixth category is the 'traditional practitioners' who provide treatment based on traditional methods and medicines such as faith healing, homeopathy and '*kobiraji*' medicines.

Proportion of sick members not seeking any treatment lies in the range of 13%-15% but there is no significant difference between the groups. About 35%-40% of the sick members from all the categories sought first line treatment from unqualified practitioners as shown in Table 5.10. About 18% of the STUP members and 19% of the OTUP members sought treatment from qualified practitioners. Compared to others, a larger number of STUP



members sought treatment from Para-professionals. This could be either because Para-professionals consist of NGO or government based healthcare workers who actually reach out to the poorest in the community more or because the poorest are able to access these 'Para-professionals' more easily than the other practitioners. Traditional practices like faith healing, homeopathy and '*kobiraji*' medicines were significantly higher among the STUP households than its comparison group.

Table 5.10 Types of healthcare sought (% of sick members)

Indicators	STUP Treatment	OTUP Treatment	STUP Comparison	OTUP Comparison	STUP Difference	OTUP Difference
	(1)	(2)	(3)	(4)	(5=1-3)	(6=2-4)
No treatment	13.17	15.03	15.45	12.54	-2.28	2.49
Self-treatment	6.59	6.86	4.31	4.38	2.28	2.49*
paraprofessional	22.16	13.91	19.88	15.40	2.28	-1.48
Unqualified practitioner	34.13	39.70	40.12	41.82	-5.99	-2.12
Qualified practitioner	17.37	18.92	18.68	21.04	-1.32	-2.12
Traditional	6.59	5.57	1.56	4.82	5.03**	0.74

Note. \*\* and \* denote statistical significance at 5% and 10%, respectively.

Poor families in developing countries usually suffer a great deal in trying to cope with the medical/treatment costs and economic costs in terms of lost income associated with any major illness because there is almost no existence of any form of formal health insurances. Table 5.11 shows the breakdown of medical costs incurred for the illnesses reported for the last 15 days before the survey. It is observed that a large share of the medical costs is the costs of diagnosis and medicines. In terms of average number of workdays lost, there is no significant difference between the STUP and their comparison group which is also the case for OTUP and its comparison group.

Table 5.11 Medical cost (during last 15 days)

Indicators	STUP Treatment	OTUP Treatment	STUP Comparison	OTUP Comparison	STUP Difference	OTUP Difference
	(1)	(2)	(3)	(4)	(5=1-3)	(6=2-4)
Visiting fee (mean) (in BDT)	9.33	18.38	8.99	13.44	0.35	4.95
Diagnosis and medicine cost (mean) (in BDT)	133.10	265.56	211.87	251.15	-78.77	14.41
Transport cost (mean) (in BDT)	3.42	10.14	6.34	6.57	-2.93	3.56
Average number of workdays lost due to illness	0.88	1.12	1.21	0.90	-0.34	0.22

## CONCLUSION

In this chapter we analysed the water, sanitation, health and nutritional status of the surveyed households. About water use behaviour, the STUP treatment and comparison groups very often stated that the reason for using the water source they use was that it was the only source available or because it was free of cost. A rather small proportion of women from these two groups mentioned considering the water source to be safe as the main reason, while it is the most common reason among the OTUP treatment and comparison groups. It is because OTUP households have significantly less access to safe drinking water than their comparison group. Irrespective of their poverty status, most families use no water purifying strategies whatsoever. In case of domestic waste disposal practice, OTUP households were found to be significantly better than their counterparts although the proportion of appropriate disposal was not much satisfactory for all groups (around 55%-63%). Moreover, the presence of proper drainage system was really very low for these poor households and the appropriate disposal of child excretion was also very poorly practiced by them (around 15%-25% only). This practice led them to suffer from diarrhoeal, gastro intestinal and other infectious illnesses. The status of vaccination and breast feeding practices was not much satisfactory, especially for STUP households. Exclusive breast feeding practice was much lower for both STUP and OTUP households than their respective comparison groups. However, the health seeking behaviour was more or less similar for all groups. A large proportion of households go to unqualified practitioners and as expected traditional methods were more practiced by the poorest STUP households. In terms of cost and sectors of cost due to illness, treatment and comparison households were found to be quite similar.

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## CHAPTER 6

# FOOD SECURITY AND NUTRITIONAL STATUS

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Food security is the central issue to any discussion on poverty. Food security is defined as the access of people at all times to sufficient food for an active and healthy life (Bickel *et al.* 2000). According to the declaration of the World Food Summit, “Food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life” (FAO 1996). Food security and poverty reduction are inseparable. Although food security alone does not eradicate poverty, any strategy to fight poverty must be integrated with policies to ensure food security and to offer the best chance of reducing mass poverty and hunger (ADB 2012).

Food consumption and its pattern are the most important indicators in apprehending the vulnerability of a household in terms of food insecurity. Per capita daily food consumption expressed in kilocalories (kcal) is a widely used indicator for measuring poverty. The Government of Bangladesh (GoB) also provides calorie based measure of poverty, along with CBN<sup>4</sup>method (BBS 2011). Households’ access to food refers to the ability to acquire sufficient quantity and quality of food to meet all household members’ nutritional requirements for productive lives (Swindale and Bilinsky 2006). Household food consumption is defined as the total amount of food available for consumption in the household, generally excluding the food taken outside unless prepared at home (Klaver *et al.* 1982). Although food access and food security may not encapsulate all dimensions of poverty, the inability of households to access enough food for an active and healthy life is surely an important component of poverty (Hoddinott and Yohannes 2002).

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<sup>4</sup> Cost of basic needs method estimates the cost of acquiring a fixed consumption basket that ensures adequate nutrition and then adds the cost of other essential non-food items like clothing, shelter, etc.

This chapter discusses food consumption and its pattern among the surveyed households, categorised into two groups, STUP and OTUP and their respective comparison groups. Food consumption is analysed based on amount of consumption in the last day prior to the survey and their energy equivalent. However, calorie availability does not guarantee nutrient adequacy and a healthy physical maintenance. Hence, we have addressed the food sufficiency and quality issues using Dietary Diversity Index and some other indicators like primary sources of protein, percentage of energy from cereal, etc. After examining these, we have analysed households' food insecurity perception and then tried to combine the results of several food quality and security indicators with their perceptions. In the last section of this chapter, the long-term and short term nutritional status of all children and mothers in the sampled households are discussed.

## FOOD CONSUMPTION

Table 6.1 shows average per capita daily food consumption (in gram) of different major food categories of the surveyed households. Households targeted by the programme were found to consume less fruits, animal products, edible oil, etc. compared to the national level. But amount of cereal consumption was higher for STUP and OTUP compared to the national average. Comparison of STUP and OTUP treatment households shows that consumption of animal products was lower for STUP, as is consistent with their more intense poverty situation.

**Table 6.1 Daily average per capita consumption level (grams)**

Food categories	STUP Treatment	OTUP Treatment	National Urban	STUP Comparison	OTUP Comparison	STUP Difference	OTUP Difference
	(1)	(2)	(3)	(4)	(5)	(6=1-4)	(7=2-5)
Cereal	482.54	450.98	402.90	454.88	450.22	27.66**	0.76
Pulse & legumes	20.55	19.87	17.20 <sup>1</sup>	21.00	20.44	-0.44	-0.57
Vegetables	190.00	154.99	155.00	162.22	153.54	27.78*	1.45
Fruits	5.40	4.82	50.40	9.70	8.03	-4.30	-3.21
Animal products	62.58	72.27	102.1 <sup>2</sup>	54.51	71.34	8.07	0.93
Edible oil & oil seeds	23.56	24.96	26.60	22.77	23.69	0.79	1.27
Total	784.64	727.90	985.50	725.08	727.26	59.56**	0.64
Percentage from Cereal	61.50	61.96	40.88	62.74	61.91	-1.24	0.05

Note i) \*\*\*, \*\* and \* denote statistical significance at 1%, 5% and 10%, respectively.

ii) <sup>1</sup>denotes that the figure is from "Pulse" category of HIES 2010 report and <sup>2</sup>denotes that the figure is sum of the calorie intake in gram for "meat, poultry and eggs" and "fish" categories from HIES 2010.

## FOOD EXPENDITURE

Similar to the analysis of daily average per capita consumption level, in case of daily average per capita food expenditure we find that STUP households have lower level of expenditure in most types of food than OTUP households, except for cereal and vegetables consumption (Table 6.2). STUP households spent significantly higher amount of their expenditure in cereal than the amount their comparison group spent (difference of 0.88; significant at 10% level). STUP households spent around 49 per cent of their total expenditure on cereal. That is, the STUP households consumed more of the cheaper sources of calorie.

**Table 6.2 Daily average per capita food expenditure for various food categories (in BDT)**

Food categories	STUP Treatment	OTUP Treatment	STUP Comparison	OTUP Comparison	STUP Difference	OTUP Difference
	(1)	(2)	(3)	(4)	(5=1-3)	(6=2-4)
Cereal	15.28	15.01	14.40	14.65	0.88*	0.36
Pulse & legumes	1.73	1.85	1.79	1.80	-0.06	0.05
Vegetables	2.75	2.45	2.46	2.32	0.29	0.13
Fruits	0.10	0.27	0.16	0.17	-0.06	0.09
Animal products	8.16	9.48	7.69	10.86	0.47	-1.38
Edible oil & oil seeds	2.97	3.10	2.86	3.01	0.11	0.08
Total	31.00	32.15	29.37	32.81	1.63	-0.66
Percentage from Cereal	49.31	46.69	49.04	44.65	0.27	2.04

Note.\* denotes statistical significance at 10%.

## CALORIE AND PROTEIN INTAKE

When it comes to daily average per capita energy consumption measured in kilocalories, STUP households consumed 2182 kcal while OTUP households consumed 2107 kcal on average (Table 6.3). STUP households consumed higher energy compared to its comparison group (2182 vs. 2048 kcal) on average which is seen to be derived from consumption of cereal mostly while an urban household consumes lower calorie per day from cereal (1408 kcal) compared to urban ultra poor households. Calorie intake from cereal as a percentage of total energy consumption of STUP households was almost 77 per cent while it was almost 75 per cent for OTUP households; corresponding national statistics show that more than 50% of total calorie consumption of urban household comes from cereal (63%) as well. National urban households are less dependent on pulse and vegetables for calorie intake. On the other hand, calorie intake from fruits and animal products are quite lower for urban ultra poor in comparison to urban households at national level. OTUP households consumed less in terms of total kcal compared to

STUP households, but their dependency on cereal was less. Again, OTUP households got higher access to consumption of fruits, animal products and edible oil.

**Table 6.3 Daily average per capita energy consumption (kcal)**

Food categories	STUP Treatment	OTUP Treatment	National Urban	STUP Comparison	OTUP Comparison	STUP Difference	OTUP Difference
	(1)	(2)	(3)	(4)	(5)	(6=1-4)	(7=2-5)
Cereal	1686.51	1588.90	1408.40	1585.38	1582.05	101.13***	6.85
Pulse & legumes	68.78	67.89	60.00 <sup>1</sup>	71.25	69.34	-2.47	-1.44
Vegetables	138.24	125.68	83.20	123.38	122.41	14.86	3.26
Fruits	1.24	2.24	37.10	1.75	1.60	-0.51	0.65
Animal products	80.37	98.97	139.00 <sup>2</sup>	67.66	95.59	12.70	3.38
Edible oil & oil seeds	207.48	223.41	239.70	199.16	210.56	8.32	12.85*
Total	2182.61	2107.09	2244.50	2048.58	2081.54	134.03***	25.55
Percentage from Cereal	77.27	75.41	62.80	77.39	76.00	-0.12	-0.55

Note. i) \*\*\* and \* denote statistical significance at 1% and 10%, respectively.

ii) <sup>1</sup>denotes that the figure is from “Pulse” category of HIES 2010 report and <sup>2</sup>denotes that the figure is sum of the calorie intake in gram for “meat, poultry and eggs” and “fish” categories from HIES 2010.

**Table 6.4 Daily average per capita protein intake (grams)**

Food categories	STUP Treatment	OTUP Treatment	National Urban	STUP Comparison	OTUP Comparison	STUP Difference	OTUP Difference
	(1)	(2)	(3)	(4)	(5)	(6=1-4)	(7=2-5)
Cereal	30.78	29.64	31.04	28.83	29.24	1.95***	0.40
Pulse & legumes	5.01	4.97	4.24 <sup>1</sup>	5.21	5.08	-0.20	-0.11
Vegetables	4.01	3.07	4.73	3.21	2.95	0.79	0.12
Fruits	0.01	0.03	1.15	0.02	0.03	-0.01	0.00
Animal products	11.67	12.99	20.55 <sup>2</sup>	9.85	12.98	1.81	0.02
Total	51.48	50.70	69.11	47.13	50.13	4.35**	0.57
Percentage from Cereal	59.80	58.46	44.9	61.18	58.32	-1.38	0.14

Note. i) \*\*\* and \*\* denote statistical significance at 1% and 5%, respectively.

ii) <sup>1</sup>denotes that the figure is from “Pulse” category of HIES 2010 report and <sup>2</sup>denotes that the figure is sum of the calorie intake in gram for “meat, poultry and eggs” and “fish” categories from HIES 2010.

Table 6.4 shows the daily average protein consumption of STUP, OTUP and their respective comparison group. Similar to energy consumption, STUP households were in better position in terms of total protein which comes mostly from cereal consumption. Per capita protein intake of urban households per day is higher than that of urban ultra poor households. STUP treatment households consumed significantly higher protein from cereal than their comparison group.

## ISSUES OF FOOD QUALITY AND FOOD SECURITY

### Quantitative Information

Calorie availability does not guarantee a balanced or quality diet (containing sufficient amount of protein, vitamins and minerals) and food security. For example, in recent years, Bangladesh has come up as largely self-sufficient in terms of production of rice. But this improvement in calorie availability has not translated into positive effects on maternal health and child nutrition (WHO Global Database on Child Growth and Malnutrition)<sup>5</sup>. Thus, examining the quality of the food consumed by studied households besides the quantity and calorie intake will give us a better idea about households' food access and food security.

**Table 6.5 Food quality and Food security (Quantitative)**

Aspects of food quality and food security (quantitative)	Indicator/s used	Categories
Diet quantity	Per day per capita food energy consumption	High calorie consumption (>2122 kcal) <sup>^^</sup>
		Medium calorie (1805-2122 kcal)
		Low calorie (1600-1805 kcal)
		Very low calorie (<1600 kcal)
Diet Quality	Dietary diversity (13 food groups)*	Low diversified (Dietary Diversity Score <=5 )
		Medium diversified (Dietary Diversity Score 6-8)
		High diversified (Dietary Diversity Score>8)
	Percentage of food energy from staples (energy from staples/ total daily energy)**	Very poor diet quality (>75% of kcal from staples)
		Poor diet quality (60%-75% of kcal from staples)
		Moderate diet quality (40-60% of kcal from staples)
		Better diet quality (<40% of kcal from staples)

<sup>^^</sup> following the categories done as per HIES 2010

\*Dietary diversity is measured as the sum of the number of different food groups consumed over a given reference period (Hoddinott and Yohannes 2002).

\*\* Higher the percentage less energy is derived from other food items that may not provide adequate nutrition

5 [http://www.who.int/nutgrowthdb/database/countries/who\\_standards/bgd\\_dat.pdf?ua=1](http://www.who.int/nutgrowthdb/database/countries/who_standards/bgd_dat.pdf?ua=1)



We will focus here on two aspects of food security of households-calorie intake and diversity in the diet quality (Table 6.5). Then proportion of households of various groups who fall under different categories of each of the food security and quality indicators has been compared.

In Table 6.6, a comparison of percentage of households with different levels of calorie intake is presented. OTUP households showed meager differences when we compare the treatment and comparison groups based on the level of calorie intake. Moreover, we find here that a higher percentage of STUP households consumed high calorie (>2122 kcal) compared to the OTUP households. However, within the medium (1805-2122 kcal) and low (1600-1805 kcal) calorie consumption groups, there were more OTUP households than STUP ones. Additionally, there was higher percentage of STUP households than OTUP households on very low calorie (<1600 kcal) level. However, the striking feature is around 16 per cent households of STUP and OTUP were remaining in bottom line (less than 1600 kcal) which is considered an extremely poor amount to survive on.

**Table 6.6 Calorie consumption levels (% of households)**

Level of calorie consumption	STUP Treatment	OTUP Treatment	STUP Comparison	OTUP Comparison	STUP Difference	OTUP Difference
	(1)	(2)	(3)	(4)	(5=1-3)	(6=2-4)
High calorie consumption (>2122 kcal)	50.83	42.39	45.17	42.52	5.67	-0.13
Medium calorie consumption (1805-2122 kcal)	20.42	27.96	20.75	25.07	-0.33	2.89
Low calorie consumption (1600-1805 kcal)	12.50	14.17	14.42	14.33	-1.92	-0.16
Very low calorie consumption(<1600 kcal)	16.25	15.47	19.67	18.08	-3.42	-2.60

A relatively good dietary mix should have 55–70 per cent of the energy coming from staples (Bouis and Hunt 1999). In low-income developing countries, the percentage of food energy derived from staples averages around 65 per cent; while in industrialised developed countries, it averages around 30 per cent (FAO 1996). The findings presented in Table 6.7 indicate that dietary quality was very poor among 66% of the STUP households. On the other hand, only 0.42% of the STUP households enjoyed a ‘good’ diet quality. Condition of OTUP households was also very poor in terms of the quality of their diets. Rice is the prime consumption item of the poor households and it has been observed that a marginally better economic condition does not change the pattern of dietary intake.

**Table 6.7** Perceived quality of consumed diet (Percentage of households)

Quality of diet	STUP Treatment	OTUP Treatment	STUP Comparison	OTUP Comparison	STUP Difference	OTUP Difference
	(1)	(2)	(3)	(4)	(5=1-3)	(6=2-4)
Good	0.42	0.26	0.08	0.21	0.33	0.05
Moderate	2.92	4.42	1.75	4.32	1.17	0.10
Poor	30.42	38.75	33.50	38.18	-3.08	0.57
Very poor	66.25	56.57	64.67	57.30	1.58	-0.73

Dietary diversity is also used as a good proxy for achieving nutritional adequacy and household food security. A more diversified diet is associated with a number of improved outcomes in some areas such as birth weight, child anthropometric status and improved hemoglobin concentrations (Swindale and Bilinsky 2006). The greater the diversity in consumption, the more food security is perceived and enjoyed.

Table 6.8 shows the percentage of households of different groups falling under various categories with different levels of dietary diversity. Only 0.42% of the STUP households enjoyed high diversification in food consumption compared to 1.30% among the OTUP households. Around 70% of the STUP households had low levels of diversity compared to 51% among the OTUP households. Higher dependency on rice items for calorie was probably the main cause of low level of diversification in the household food basket.

**Table 6.8** Levels of food diversity (% of households)

Level of food diversity	STUP Treatment	OTUP Treatment	STUP Comparison	OTUP Comparison	STUP Difference	OTUP Difference
	(1)	(2)	(3)	(4)	(5=1-3)	(6=2-4)
Highly diversified (DDS>8)	0.42	1.30	0.08	0.73	0.33	0.57
Medium diversified (DDS 6-8)	29.58	47.72	26.33	37.63	3.25	10.09***
Low diversified (DDS≤5)	70.00	50.98	73.58	61.64	-3.58	-10.66***

Note. \*\*\* denotes statistical significance at 1%.

## Subjective Analysis

Different issues related to food security perceived by respondents are discussed in this section. Here, the issue of food security has been analysed in this section based on the information provided by respondents as per their perception on the food intake levels and quality. Households have been categorised on the basis of the level of sufficiency/deficiency and quality of food (Table 6.9).

**Table 6.9. Food quality and Food security (Subjective)**

Aspects of food security and food quality (subjective)	Perception about	Categories
Yearlong food security status	Food security condition in last one year	Highdeficit (Always in deficit)
		Occasional deficit (sometimes in deficit)
		Optimum (neither in deficit nor surplus)
		Surplus
Recent food security status	Insufficiency in food quantity in last month	Very high insufficiency (5 times a week or more)
		High insufficiency (3-4 times a week)
		Moderate insufficiency (1-2 times a week or 1-3 times a month)
		No insufficiency (did not occur)
	Lack in food quality in last month (only rice with spices)	Very high lacking (5 times a week or more)
		High lacking (3-4 times a week)
		Moderate lacking (1-2 times a week or 1-3 times a month)
		No lacking (did not occur)

Table 6.10 shows households' perception of their food security status in the last year (% of household). About 15 per cent of STUP households faced a high food deficit in comparison to 4 per cent of OTUP households. In case of occasional food deficit, more STUP households suffered than OTUP households. Only 3 per cent STUP households enjoyed food surplus whilst the rate is about 10 per cent for OTUP households. However, there is no significant difference with their respective comparison households.

**Table 6.10 Households' perception about their food security status in last year (% of households)**

Food security status (self-perceived)	STUP Treatment	OTUP Treatment	STUP Comparison	OTUP Comparison	STUP Difference	OTUP Difference
	(1)	(2)	(3)	(4)	(5=1-3)	(6=2-4)
High deficit	14.58	4.03	16.08	5.90	-1.50	-1.87
Occasional deficit	44.17	37.97	45.33	34.38	-1.17	3.59
Optimum	37.92	48.24	35.58	50.74	2.33	-2.50
Surplus	3.33	9.75	3.00	8.97	0.33	0.78

Table 6.11 shows the food sufficiency/insufficiency of households during last month of survey based on their subjective perception. Moderate insufficiency refers to household members being compelled to eat lower amount of food than usual for 1-3 times during

the last month prior to the survey due to scarcity of sufficient food or money. High food insufficiency refers to the severe food shortage faced 1-4 times a week. Eating low amount of food than usual 5 times or more in a week is defined as very high food insufficiency. More STUP households faced very high food insufficiency in the last month compared to OTUP households. Only 44% of STUP households observed no food insufficiency in the last month prior to the survey, while around 62% of OTUP were found to have reported the same. Around 20% of STUP households faced high/very high food insufficiency compared to around 14% of OTUP households.

**Table 6.11 Food security status (in terms of quantity) in the last month (% of households)**

Food security status (in terms of quantity)	STUP Treatment	OTUP Treatment	STUP Comparison	OTUP Comparison	STUP Difference	OTUP Difference
	(1)	(2)	(3)	(4)	(5=1-3)	(6=2-4)
No insufficiency	44.17	61.90	44.33	62.81	-0.17	-0.91
Moderate insufficiency	35.83	24.45	34.58	24.76	1.25	-0.31
High insufficiency	16.25	13.13	19.08	11.37	-2.83	1.77
Very high insufficiency	3.75	0.52	2.00	1.07	1.75	-0.55

Table 6.12 shows the vulnerability of the households in terms of consuming lower quality food (defined as having rice with onion, chili or salt). Here, moderate insufficiency means household members were compelled to eat rice with onion, chili or salt 1-3 times during the last month prior to the survey while high food insufficiency refers to consuming only rice as a meal for 1-4 times in a week. Eating such kind of meal 5 times or more in a week is defined as very high food insufficiency. STUP households suffered more in each level of insufficiency (very high, high or moderate). Around 45% of STUP households had faced no food insufficiency during last month of survey in terms of quality of food while 59% OTUP households enjoyed the same situation. About 4% of STUP households faced very high insufficiency in terms of quality food while less than one per cent of OTUP households were faced with similar level of insufficiency.

**Table 6.12 Food security status (in terms of quality) in the last month (% of households)**

Food security status (in terms of quality)	STUP Treatment	OTUP Treatment	STUP Comparison	OTUP Comparison	STUP Difference	OTUP Difference
	(1)	(2)	(3)	(4)	(5=1-3)	(6=2-4)
No insufficiency	44.58	58.78	41.58	59.04	3.00	-0.26
Moderate insufficiency	32.50	26.66	31.75	25.49	0.75	1.17
High food insufficiency	18.75	13.91	23.92	14.04	-5.17	-0.13
Very high insufficiency	4.17	0.65	2.75	1.43	1.42	-0.78

## PERSISTING DISCREPANCY IN ACCESS TO FOOD WITHIN HOUSEHOLDS

This section aims to reveal the scenario of households related to prevailing discriminatory practices in providing food for its members. Such practices are often found to be persistent across gender and age groups during periods of food shortages. The focus of analysis was to explore the extent to which individuals from different gender and age groups are faced with food insufficiency in at least one of their meals in a day during the food shortage period. Table 6.13 shows that younger individuals (0-9, 10-19) had to bear lesser burden of food shortage. It was observed that in STUP and OTUP treatment households, significantly more males of age 0-9 years had to take less than sufficient amount of food, compared to their counterparts from the respective comparison groups. The burden of food shortage seems to increase with age. But across all age groups (0-9, 10-19, >19) and both in STUP and OTUP households female members were more disadvantaged. More females, irrespective of age consumed less food than required during the period of food shortage, compared to their male counterparts from the same age groups.

**Table 6.13** Average number of HH members who ate less than required portion of food during a day of food insufficiency, based on gender and age

Age and gender groups	STUP Treatment	OTUP Treatment	STUP Comparison	OTUP Comparison	STUP Difference	OTUP Difference
	(1)	(2)	(3)	(4)	(5=1-3)	(6=2-4)
0-9 year old male	0.07	0.02	0.00	0.00	0.07***	0.02*
0-9 year old female	0.05	0.01	0.02	0.02	0.03	-0.01
10-19 year old male	0.11	0.07	0.13	0.09	-0.02	-0.02
10-19 year old female	0.22	0.11	0.09	0.05	0.13**	0.06*
>19 year old male	0.45	0.65	0.38	0.62	0.07	0.02
>19 year old female	1.15	1.20	1.18	1.20	-0.03	0.00

Note. i) \*\*\*, \*\* and \* denote statistical significance at 1%, 5% and 10%, respectively.

Table 6.14 presents the percentage of households from STUP and OTUP households that sought different ways for mitigating their food insufficiency. Most of the households irrespective of the category they fall into, sought help of credit from relatives and neighbours to meet their food insufficiency. There are also some households that took help from nearby shops. Small number of STUP households sent their children to work, while no such initiative was observed in case of OTUP households.

**Table 6.14 Sources of support for meeting food insufficiency**

Ways of mitigating food insufficiency	STUP Treatment	OTUP Treatment	STUP Comparison	OTUP Comparison	STUP Difference	OTUP Difference
	(1)	(2)	(3)	(4)	(5=1-3)	(6=2-4)
Help of neighbour	22.50	13.39	15.50	8.17	7.00**	5.23***
Debt from neighbour	14.58	10.40	16.67	12.56	-2.08	-2.16
Credit	2.92	1.17	1.50	1.38	1.42	-0.21
Using savings	0.42	0.26	0.00	0.03	0.42	0.23
Child labour	0.42	0.00	0.00	0.00	0.42	0.00
Shop	3.75	3.64	7.25	5.20	-3.50**	-1.56

Note. \*\*\* and \*\* denote statistical significance at 1% and 5%, respectively.

## NUTRITIONAL STATUS OF CHILDREN AND MOTHER

Anthropometry measurement is non-invasive, simple, safe, and easy method of assessing the status of nutrition. Height-for-age (stunting), Weight-for-height (wasting) and Weight-for-age (under-weight) are the three commonly used indices for assessing the nutritional status of under-five children. Weight for age indicates the status of both short term and long term malnutrition. If the WAZ score is below -2 standard deviations of the median according to the WHO growth standard, then the child is considered to be underweight. Weight-for-height is used to identify the status of current or acute malnutrition or wasting. If the WHZ score is below -2 standard deviations of the median according to the WHO growth standard, then a child is considered to be wasted which may be the impact of short-term food scarcity resulting from seasonal changes in food supply and short-term nutritional lacking. Height-for-age indicates the status of linear growth. If the HAZ score of a child is below -2 standard deviations of the median according to the WHO growth standard, then he/she is considered as stunted. It measures both the effect of previously being in a situation of under nutrition, and chronic malnutrition. For adults, nutritional status is usually measured by the body mass index (BMI), calculated based on a weight height ratio.

In our study, anthropometry measurement has been taken for all children aged under five years (i.e. 6-59 months) and women of child bearing age (15-49 years) present in the households at the time of survey. Anthropometric (weight and height) indices of the children have been calculated using WHO Anthrop software. Mothers' BMI has been calculated using the standard formula of weight (in kilograms) divided by the height (in meters) squared. The cut-off points for the anthropometric indices used in this analysis have been shown in Table 6.15.

**Table 6.15 The cut-off points for Stunting, Wasting and Underweight Indicators**

Cut off points	Stunting (HAZ)	Wasting (WHZ)	Underweight (WAZ)
<-3SD	Severe	Severe	Severe
<-2SD	Moderate and severe	Moderate and severe	Moderate and severe
≥-2SD	Normal	Normal	Normal
Cutoff points for BMI	Categories		
<16	Severe Thin/Undernourished		
<18.5	Moderate to severe thin/Undernourished		
18.5 to 24.99	Normal		
≥25	Obese		

Our analyses show that on average, nutritional characteristics of children under 5 years of all the surveyed communities were more or less similar, except for the WAZ scores for STUP and its comparison group (Table 6.16). The average age was 32 months for all children. Average height of the children of the surveyed households was around 84cm and their weight was around 11kg. The average weight for age (WAZ), weight for height (WHZ) and height for age (HAZ) z scores of STUP and OTUP were lower than their respective comparison groups, though most of the differences are not statistically significant.

**Table 6.16 Nutritional characteristics of under-5 children (6-59 months) (mean)**

	STUP Treatment	OTUP Treatment	STUP Comparison	OTUP Comparison	STUP Difference	OTUP Difference
	(1)	(2)	(3)	(4)	(5=1-3)	(6=2-4)
Age (month)	32.94	32.53	32.66	31.56	0.28	0.97
Weight (kg)	10.76	10.70	10.39	10.45	0.37	0.24
Height (cm)	84.49	84.60	83.88	83.50	0.60	1.11
WAZ score	-1.80	-1.80	-2.09	-1.87	0.29*	0.06
WHZ score	-0.88	-1.00	-1.17	-1.00	0.29	0.00
HAZ score	-2.06	-1.98	-2.30	-2.09	0.24	0.11

Note. i) \* denotes statistical significance at 10%.

Table 6.17 indicates that the nutritional status of less than 5 years children of study area is not satisfactory at all. The percentage of moderate to severely underweight children in our surveyed area was around 41%-48% and the differences among the STUP, OTUP and their respective comparison groups were not significant. Difference among STUP, OTUP and urban households was also quite small. Around 17%-19% children were wasted across the groups. Stunting in the study area was about 50%-55% of which about 22-

28 per cent was severely affected but across poverty groups, the differences were not significant. Recent survey (BDHS 2011) indicates that the rate of moderate to severe underweight, wasting, and stunting are 36%, 16% and 41%, respectively. Comparison with national data shows that nutritional status of children of the study area was worse in terms of current or short term (wasting) and chronic or long run malnutrition (stunting and underweight was lower than national level). We also examined the nutritional status of children by sex and found that on average nutritional status of boys were worse than that of girls in all respect across all the groups, although the differences were not significant. Therefore, we can say that child nutrition is a potential and very demanding area where programme can intervene or increase its coverage of health and nutritional services.

**Table 6.17 Prevalence of underweight, wasting and stunting (% of children)**

Indicators of Nutrition Status	STUP Treatment	OTUP Treatment	National Urban <sup>1</sup>	STUP Comparison	OTUP Comparison	STUP Difference	OTUP Difference
	(1)	(2)	(3)	(4)	(5)	(6=1-4)	(7=2-5)
<b>Underweight (weight for age)</b>							
Normal $\geq$ -2SD	58.70	59.14	57.50	50.22	53.54	8.48	5.60
Moderate to severe <-2SD	41.30	40.86	42.50	49.78	46.46	-8.48	-5.60
Severe <-3SD	15.22	12.86	26.40	17.61	13.60	-2.39	-0.74
Boys <-2SD	22.83	22.57	-	30.00	26.57	-7.17	-4.00
Girls <-2SD	18.48	18.29	-	19.78	19.89	-1.30	-1.60
<b>Wasting (weight for height)</b>							
Normal $\geq$ -2SD	80.43	82.29	81.50	81.09	83.31	-0.65	-1.03
Moderate to severe <-2SD	19.57	17.71	18.50	18.91	16.69	0.65	1.03
Severe <-3SD	6.52	5.71	5.70	6.52	5.77	0.00	-0.06
Boys <-2SD	9.78	10.57	-	11.74	10.46	-1.96	0.11
Girls <-2SD	9.78	7.14	-	7.17	6.23	2.61	0.91
<b>Stunting (height for age)</b>							
Normal $\geq$ -2SD	45.65	51.14	50.40	42.83	46.34	2.83	4.80
Moderate to severe <-2SD	54.35	48.86	49.60	57.17	53.66	-2.83	-4.80
Severe <-3SD	27.17	21.71	24.50	29.35	24.97	-2.17	-3.26
Boys <-2SD	25.00	24.57	-	35.00	28.80	-10.00	-4.23
Girls <-2SD	29.35	24.29	-	22.17	24.86	7.17	-0.57

<sup>1</sup>denotes data from "Urban Health Survey" (UHS) 2013 report



Table 6.18 shows the nutritional characteristics and health status of women of reproductive age. Average age, weight, height and BMI of women were about 30-32 years, 45-49 kg, 149-150 cm and 20-22, respectively. The average BMI of STUP women was significantly lower than their comparison group. About 19%-24% of the women in the surveyed area were chronically energy deficient (BMI<18.5) or malnourished and STUP women are more malnourished than women of its comparison group. However, all the poverty groups except non-poor had lower malnourished women compared to the prevalence of malnourishment at national level (24%, BDHS 2011) except STUP women (24.10%). Percentage of women suffering from obesity was around 17% in all groups except STUP women (around 9%).

**Table 6.18 Nutritional characteristics of women by age, weight, height and BMI (15-49 years) (mean)**

Indicators	STUP Treatment	OTUP Treatment	STUP Comparison	OTUP Comparison	STUP Difference	OTUP Difference
	(1)	(2)	(3)	(4)	(5=1-3)	(6=2-4)
Age (years)	31.45	29.83	30.99	29.62	0.46	0.22
Weight (kg)	45.41	48.72	47.86	47.86	-2.45	0.86
Height (cm)	149.14	149.59	148.78	148.96	0.36	0.63**
BMI (Average)	20.45	21.73	21.35	21.68	-0.90***	0.05
Severe malnourished (<16)	3.59	3.53	3.28	1.99	0.31	1.54*
Moderate to Severe malnourished (<18.5)	24.10	18.95	21.74	18.82	2.36	0.13
Normal (18.5-24.9)	66.67	63.01	59.49	63.29	7.18	-0.29
Obese (≥25)	8.72	17.65	17.74	17.28	-9.03***	0.37

Note. \*\*\*, \*\* and \* denote statistical significance at 1%, 5% and 10%, respectively.

## CONCLUSION

After discussing the various issues related to food consumption, food security and nutrition it can be concluded that there are slight differences between STUP and OTUP households of urban areas regarding the quantitative information such as food consumption, calorie intake, protein intake and food expenditure. The share of cereal consumption is conspicuously high. The daily per capita calorie and protein intake of the surveyed STUP and OTUP households of urban areas were lower compared to national rural households (as per HIES 2010 data). In terms of share of cereal consumption in total food intake, these urban poor were more dependent on cereal consumption compared to national rural households, and STUP households were in the worst condition. Although the amount of food consumption of both STUP and OTUP households were almost the same, STUP households consumed significantly less diversified food than OTUP households. Thus,

the knowledge of balanced and proper nutritious food was needed to be disseminated among the ultra poor households of urban areas to ensure a healthy diet. Subjective analysis based on perceptions of respondents show that STUP households faced more food insufficiency in terms of both quantity and quality compared to OTUP households. They addressed their food deficiency with support from their neighbours, local shops or survive on less than required amount of food. Females were the most vulnerable family members who had to take the larger share of the burden of food deficiency by often consuming smaller meals than necessary compared to their male counterparts; however this gender gap was not seen in case of children. Food discrepancy within households like this often led to more vulnerability of the women in the long run.

In terms of nutritional status of children under 5 years old, our findings were not much satisfactory. Comparison with national data shows that nutritional status of children of the study area was mostly worse than national urban level considering prevalence of severe and moderate to severe stunting and wasting. Similar depressing picture was found for surveyed STUP women. The BMI of STUP women was significantly lower than their comparison group. About 19%-24% of the women in the surveyed area were chronically energy deficient (BMI<18.5) or malnourished and STUP women were on average more malnourished than women of the comparison group. Thus, child and mother nutrition is a potential and very demanding area where programme can intervene or increase its coverage of health and nutritional services.

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## CHAPTER 7

# VULNERABILITY AND SOCIAL SECURITY

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Poverty does not necessarily mean economic vulnerability alone (i.e. lower level of income or asset), rather it has multi-dimensional aspects including social, cultural, political and other factors. There is no guarantee that a household which is once non-poor will always remain in the same level. Any kind of adverse shocks either natural or man-made can lead a household to vulnerable situation if the household does not have sufficient insurance to cope up with this. Natural disaster, health hazard, death of earning member, excessive cost of litigation or wedding purpose may create pressure on a household and push it below the poverty line despite its current non-poor position. On the other hand, some households currently below the poverty line might build up an asset base, strong enough to ensure sufficient consumption during shocks and gradually climb out of poverty. According to Chambers (1989), vulnerability does not mean lack or want but defenselessness, insecurity and exposure to risk, shocks and stress. Thus, at any point in time, people living below the poverty line would consist of a highly heterogeneous group. Some are 'transient' poor, while some may be consistently below the poverty line and have little means of climbing out of the 'poverty trap'. These people are considered chronically poor. CFPR programme deals with this chronically poor and highly vulnerable group. Since the poorest possess very low levels (in terms of both quantity and quality) of all types of assets i.e. physical, natural, social, human, they consequently possess fewer savings and insurance to cope up with any shock. As emergency situations force them to consume a larger portion of their limited resources, the impact of these shocks on their overall well-being is enormous. The first section of this chapter presents the current vulnerability situation of the STUP and OTUP households who have been selected by the Urban CFPR/TUP programme as well as of the national urban households. The second and third sections describe coping mechanisms and access of urban poor to social safety nets respectively.

## INCIDENCE OF CRISIS AND EVENTS

Table 7.1 shows the frequency of any disasters that the sampled households were confronted with, the incidence of some common emergency events/shocks in the last one year before the survey as well as the mean of coping costs incurred by the households to deal with these events. Proportion of STUP households (33%) and the proportion of OTUP households (36%) who faced at least one crisis event during the last year is more or less similar to their respective comparison groups and the differences are not significant. On an average, the urban poor groups faced a similar number of disasters (approximately 0.39). There is no significant difference between STUP households and their comparison group in terms of incidence of some particular crisis events like death of earning member, death of non-earning members of the household and loss of livestock animals due to natural disasters or other reasons. The only exception can be found in the incidence of household severely getting affected by natural disaster (3.75% for STUP households vs. 1.08% for their comparison groups). Higher proportion of STUP households had to deal with illness of earning members as well as of other members compared to the other poverty groups and national urban households as well. It reflects their unhealthy lifestyle. Higher proportions of STUP households are afflicted by death of earning members than their comparison group as well as all other households and national urban households. This probably makes the STUP households more economically vulnerable than the others. There are also significant differences in some incidences of these disasters like loss of livestock due to natural disaster between the OTUP households and their comparison group. Damaged house due to fire or other reasons was experienced by higher proportion of STUP treatment households (2.50%) than the proportion of OTUP treatment households (0.91%) and the national urban households (0.16). There is no significant difference between treatment and comparison groups for both STUP and OTUP households in this regard. The difference between proportion of urban ultra poor households and national urban households, who were hit by theft/burglary is quite higher possibly due to the fact that the place where STUP and OTUP households reside, had worse security system.

Table 7.1 Incidence of specific disaster in the last 1 year before the survey

Indicators	STUP Treatment (1)	OTUP Treatment (2)	National Urban (3)	STUP Comparison (4)	OTUP Comparison (5)	STUP Difference (6=1-4)	OTUP Difference (7=2-5)
Faced at least one crisis in the last one year prior to the survey (% of HHs)	32.50	36.28	-	33.33	33.39	-0.83	2.89
Mean number of crisis faced in the last one year prior to the survey	0.38	0.41	-	0.38	0.38	0.00	0.03
House severely damaged in natural disaster (% of HHs)	3.75	1.04	-	1.08	0.44	2.67**	0.60
Severe illness of earning member (% of HHs)	13.33	14.04	0.78	13.42	12.90	-0.08	1.14
Severe illness of other non-earning member (% of HHs)	8.33	12.87	1.09	12.50	11.96	-4.17	0.91
Crop loss due to natural disaster (% of HHs)	-	0.26	-	-	0.00	-	0.26
Death of earning member (% of HHs)	0.83	0.26	0.15	0.58	0.65	0.25	-0.39
Death of other HHI member (% of HHs)	1.67	0.65	0.26	0.33	0.62	1.33	0.03
Marriage in the household (% of HHs)	1.25	3.51	-	1.92	2.57	-0.67	0.94
Household severely damaged due to fire and other reasons	2.50	0.91	0.16	2.75	1.17	-0.25	-0.26
Loss of livestock in natural disaster (% of HHs)	0.42	3.64	-	1.33	2.21	-0.92	1.43*
Legal dispute (% of HHs)	1.25	0.65	-	0.08	0.36	1.17	0.29
Theft/burglary in the household (% of HHs)	2.92	2.99	0.65	1.67	4.71	1.25	-1.72
Other incidence (% of HHs)	0.42	0.39	0.35	0.58	0.62	-0.17	-0.23*
Mean Coping cost (in BDT)	2079.58	4079.99	-	3702.06	5131.25	-1622.47	-1051.26

Note. \*\* and \* denote statistical significance at 5% and 10%, respectively.

## MECHANISM USED BY THE POOR HOUSEHOLDS TO COPE WITH VARIOUS CRISIS

Table 7.2 shows the different coping mechanisms resorted to face crisis events by different households during the last year of survey. It is expected that in case of certain events such as loss of livestock animal or crops and theft/burglary, there is not much households could do unless they replace the lost asset by purchasing a new one. It can be seen that about 15% to 25% households of all groups did not do anything to compensate for the loss in the calamities. The percentage of households doing nothing was significantly higher in STUP and OTUP households compared to their respective comparison groups. It is most probably because STUP and OTUP households did not have any such asset and so they were not confronted with any such situation. Similar outcomes could be seen for savings used for coping up with crisis which is expected as the poorer households were usually unable to accumulate sufficient savings for long periods. On the other hand, fewer STUP households cope by reducing household consumption. This would be the case as these households were already consuming the bare minimum required for survival and therefore they did not have much scope of further reducing household consumption.

**Table 7.2 Mechanisms for coping with disasters by difference household groups**

Coping Mechanism^ (adopted by % of HHs)	STUP Treat- ment	OTUP Treat- ment	National Urban	STUP Comparison	OTUP Comparison	STUP Difference	OTUP Difference
	(1)	(2)	(3)	(4)	(5)	(6=1-4)	(7=2-5)
Did nothing	24.36	24.37	-	14.62	14.62	9.74*	9.75***
Reduced household consumption	14.10	10.39	-	16.67	11.76	-2.56	-1.36
Used Savings	20.51	36.20	-	40.00	47.60	-19.49***	-11.40***
Sold Assets	1.28	1.43	-	2.05	1.72	-0.77	-0.29
Sent child/children to other households	-	0.72	1.43	-	0.00	-	0.72
Begging	6.41	1.79	-	4.36	1.15	2.05	0.65
Borrowing	28.21	25.09	13.69	24.10	28.96	4.10	-3.87
Sold labour in advance	2.56	1.43	-	1.79	0.36	0.77	1.08
Relief/Aid	0.00	0.00	0.00	0.26	1.08	-0.26	-1.08*
Received assistance from relative/friends	32.05	29.03	21.49	41.28	36.70	-9.23	-7.67*

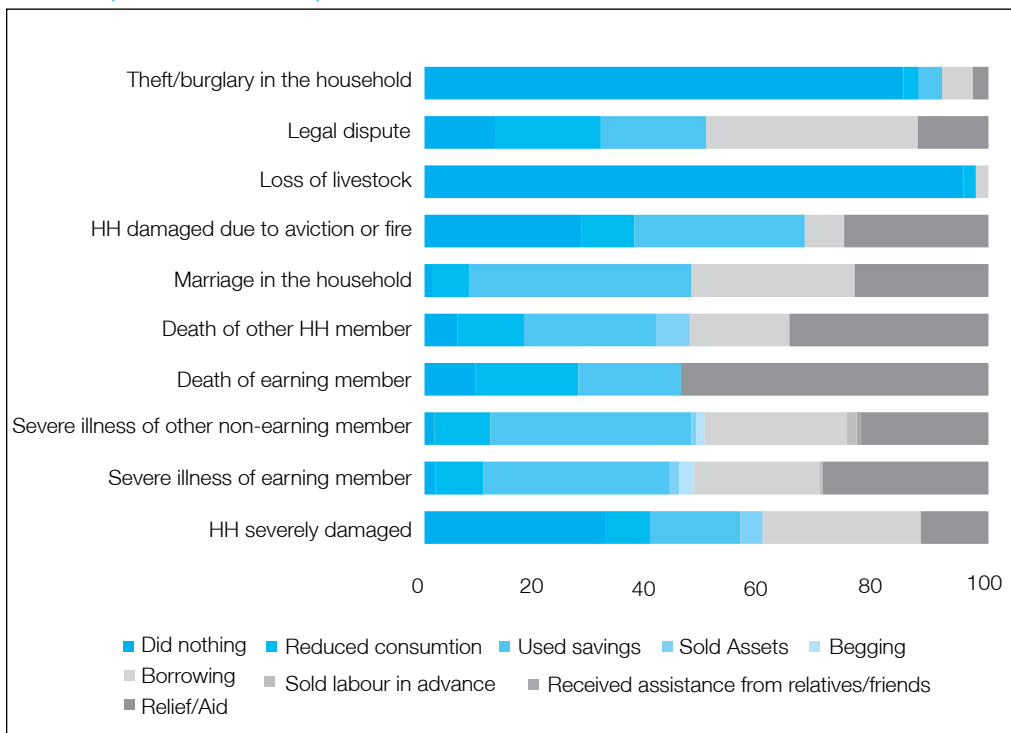
Note. \*\*\* and \* denote statistical significance at 1% and 10%, respectively.

Figure 7.1 shows the percentage of households resorting to certain type of coping mechanism during disasters. As predicted, majority of the households did nothing in the case of shocks related to asset loss such as loss of livestock or crops or theft/burglary in

the household. In case of coping with damage of housing caused by natural disasters and illnesses of earning members or non-earning members, households normally resorted to borrowing, using savings, taking assistance from relatives/friends and reducing household consumption.

Other common mechanisms of coping were borrowing and taking the assistance from relatives and friends. In general, more STUP households preferred to take the assistance of relatives/friends than borrowing. Also, more STUP households resorted to desperate measures such as begging, selling labour in advance, etc. However, very few of the households in all groups sent their children to work. The practice seen among the urban households was to send their child/children to other households to cope with the sudden crisis. This practice is missing in STUP households. In contrast, STUP and OTUP households were more dependent on assistance from relatives/friends to cope with the crisis and the difference between OTUP treatment and its comparison households in this regard was statistically significant. National urban households also count on relatives/friends but the proportion was lower compared to urban ultra poor households. Both STUP and OTUP treatment groups have lower savings to cope with sudden crisis compared to their comparison groups and the differences between treatment and comparison groups were statistically significant.

**Fig 7.1 Coping mechanisms adopted by households during disasters**  
(% of households)





## SOCIAL SAFETY NETS IN URBAN AREAS

Social safety net is one of the key strategies through which Bangladesh fights against durable intergenerational poverty. The concept has significantly evolved both in scale and scope in recent times. However, the focus of social safety nets is still towards rural poverty. Only 8 per cent of surveyed urban STUP and OTUP households were under the coverage of social safety nets (Table 7.3) while 30 per cent of rural households received benefits from SSNPs in 2010 (BBS 2011). In contrast, the percentage of urban households receiving benefits from SSNPs (9.42%) was not quite high. OTUP households received significantly higher level of social protection compared to their comparison group. The types of social protection in urban areas were predominantly Vulnerable Group Development (VGD), Vulnerable Group Feeding (VGF) and Old Aged Allowance.

**Table 7.3 Benefit received from government**

Indicators	STUP Treat- ment	OTUP Treat- ment	National Urban	STUP Comparison	OTUP Comparison	STUP Difference	OTUP Difference
	(1)	(2)	(3)	(4)	(5)	(6=1-4)	(7=2-5)
Percentage of household getting benefit from government	8.29	8.71	9.42	6.84	4.28	1.45	4.44***
Type of benefit							
VGD	1.67	1.04	-	1.67	0.81	0.00	0.23
VGF	1.67	1.95	-	0.83	1.27	0.83	0.68
Old aged allowance	2.50	1.30	-	3.75	1.40	-1.25	-0.10
Widow allowance	0.00	0.39	-	0.58	0.00	-0.58**	0.39*

Note. \*\*\*, \*\* and \* denote statistical significance at 1%, 5% and 10%, respectively.

## CONCLUSION

This section summarises the vulnerability of the surveyed household in terms of natural, physical and family crisis and the mechanism they use for coping up with the crisis, as well as their access to social safety nets in urban areas. The information on the varieties of shocks these poor people face and their attitudes towards those shocks might help the Urban CFPR programme to deliver its intervention in a more effective manner. Our findings show that the proportion of STUP and OTUP households who were confronted with at least one crisis or life-cycle event within the last year before the survey were

more or less similar to their respective comparison groups and the differences were not significant. However, higher proportions of STUP households were afflicted by death of earning members than its comparison group as well as all other households which probably made them economically more vulnerable than the others. In terms of coping mechanism, about 15% to 25% households across all the groups did not do anything to compensate for the loss during the crises events. The percentage of doing nothing was significantly higher in STUP and OTUP households compared to their respective comparison groups. We also found that savings used for coping up with crisis is lower for both of the treatment groups, which is expected, as the poorer households were usually unable to accumulate sufficient savings for long periods. As expected, more STUP households resorted to desperate measures such as begging, selling labour in advance. A positive aspect in this context is that very few of these households resorted to sending their children for work. Thus, transferring productive assets to these asset-poor households, encouraging them and creating scope for saving more money will help them to maintain a stable economic and social life. The proportion of OTUP treatment households receiving benefits from government was higher compared to other urban ultra poor household groups and the difference between OTUP household groups was statistically significant. Among the different social safety net benefits, in case of widow allowance the differences between urban ultra poor groups were statistically significant. None of STUP treatment households and OTUP comparison households received widow allowance. Coverage of social safety net programme was lower for urban ultra poor households and national urban households as well.

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## CHAPTER 8

# MIGRATION

SIBBIR AHMAD

Rural to urban migration is a common phenomenon in developing countries (Dapeng 2002). There are lots of reasons behind migration from rural to urban area. There are some pull factors like possibility of job availability, better earnings and better standard of living that attract people. On the other hand, some other push factors like lack of employment opportunity in rural areas, occurrence of natural or man made disasters, etc. compel rural poor to migrate to cities. Like other developing countries, the number of migrant dwellers is increasing very rapidly in urban societies of Bangladesh. Most of the migrants are rural poor who take shelter in slums, squatters, footpaths, rail stations and other scattered places (Farhana *et al.* 2012). National statistics on migration shows that within the country, migration from rural to urban areas (4.84%) is higher than that from urban to other urban areas (1.62%) (BBS 2011). This statement justifies that higher number of rural people are moving towards urban areas and due to lack of adequate and affordable decent accommodation facilities, slums are often their fated destination in urban areas.

## MIGRATION AND MOVEMENT OF MIGRANT DWELLERS

We find that around 70% of the ultra poor households covered by the baseline survey are migrant dwellers, and the rest are the native urban ultra poor. Table 8.1 shows that surveyed STUP households have been living in current city for about 18 years and OTUP households for about 20 years on an average. As they are living in city for a prolonged period, they are likely to manage any livelihood strategy to survive in city. Initial endowment carried by them at the time of migration was found to be BDT 429 and BDT 678 for STUP and OTUP households, respectively. It seems that OTUP households were in better position before migrating to urban areas which indicates a significant insight that households with low initial endowment remain poorest over the time.

As poor slum-dwellers have no fixed accommodation in cities and they are mostly employed in informal sector, they shift from one place to another frequently. During the course of city life, around 72% of treatment households (and 91% of comparison households) shifted their residence at least once. The average number of shifting was about 3 times for both STUP and OTUP households. There was no significant difference with corresponding comparison groups. From average living days of both STUP and OTUP households in current and previous residence, it seems that OTUP households were comparatively more stable than STUP households.

**Table 8.1** Characteristic features of migrant dwellers

Indicators	STUP Treatment	OTUP Treatment	STUP Comparison	OTUP Comparison	STUP Difference	OTUP Difference
	(1)	(2)	(3)	(4)	(5=1-3)	(6=2-4)
Duration of living in this city (mean year)	18.45	22.41	20.10	20.10	-1.65	2.32***
Initial endowment (in BDT)	429.24	725.80	677.79	677.79	-248.55*	48.01
Household shifting residence after migrating to city (%)	71.79	71.85	90.97	90.97	-19.18	-19.12
Average number of shifting residence after migration	3.15	2.91	3.05	2.84	0.11	0.07
Living days in previous residence (mean)	67.60	86.78	81.26	76.64	-13.66	10.14
Living days in current residence (mean)	63.45	93.34	73.37	95.24	-9.92	-1.89

Note. \*\*\*and \* denote statistical significance at 1% and 10%, respectively.

## Motivating Factors for Migration

The main reasons behind rural to urban migration can be divided into two groups- pull factors and push factors. As many disguised, hidden and seasonal unemployment exist in rural areas and people want to secure a smooth livelihood, there is a tendency of searching for a secured job anywhere especially for poor rural households with small agricultural resources. Instigated by the observation of higher wages as well as job availability, rural people often migrate to urban areas to secure smooth livelihoods. Some push factors like losing cultivable or homestead land due to natural disaster, any kind of physical disability because of accident and loss in business force poor people to migrate to urban areas. Some familial problem related to dispute within family like quarrels of family members, divorce, separation and demise of earning member of family also play important role along with other push factors for migrating. There are some other pull factors like accompanying one's spouse/family members, better education facilities for children, etc. which also attract people to migrate. While collecting data, respondents were allowed to answer multiple reasons. Table 8.2 shows the percentage of cases for each individual factors. From the table we can see that in around 147% of the cases,

respondents mentioned pull factors as reasons for migration. For around 45% of STUP and 38% of OTUP cases, push factors were considered as reasons of migration. Small numbers of cases of migration occurred due to familial problem or others reasons.

**Table 8.2 Factors behind migration**

Migration factors	STUP Treatment	STUP Comparison	OTUP Treatment	OTUP Comparison
	Per cent of cases	Per cent of cases	Per cent of cases	Per cent of cases
Pull factors (total)	146.66	138.72	135.04	138.72
Pull factors (breakdown)				
To start a new job	23.08	12.72	12.99	12.72
To search a job	36.92	33.79	30.51	33.79
Possibility of getting a job in city	64.1	68.13	69.49	68.13
To accompany husband/other family member	22.56	23.94	22.05	23.94
For children's education	-	0.14	-	0.14
Push factors (total)	45.65	40.78	38.19	40.78
Push factors (breakdown):				
Lost agricultural land due to natural disaster	1.03	0.14	1.77	0.14
Lost homestead land	1.54	0.82	3.15	0.82
Disability caused by accident in workplace	1.03	-	0.2	-
Having no regular job	31.28	34.34	27.56	34.34
To help family living in village	3.08	3.28	2.76	3.28
Due to poverty	-	0.14	0.59	0.14
Faced loss in business	-	0.14	-	0.14
Death/departure of earning male member	7.69	1.92	1.57	1.92
Family disputes	-	-	0.59	-
For children's education	146.66	138.72	135.04	138.72

Note. Multiple responses allowed.

### Sources of Migration Related Information

Different types of connections or social network play a key role in getting access to opportunities like migration, settlement in city and managing jobs. Those who do not have strong networking with urban people may be less likely to migrate to urban areas. There are multiple sources through which households get necessary information about

migration. As can be seen from Table 8.3, relatives, neighbours, and friends are the main sources of necessary information about migration to city or getting a job after migration. Relatives already working in town mostly assist in migrating.

**Table 8.3 Sources of information**

Source of migration related information	STUP Treatment	STUP Comparison	OTUP Treatment	OTUP Comparison
	Per cent of cases	Per cent of cases	Per cent of cases	Per cent of cases
None	35.9	29.27	31.89	29.27
Relatives (living within village)	21.03	18.6	22.83	18.6
Relatives (working at town)	23.08	27.5	32.09	27.5
Neighbour/friends	18.46	20.11	11.42	20.11
Friends working at town	1.03	0.82	0.98	0.82

Note. Multiple responses allowed.

## FREQUENCY OF MOVEMENT AFTER THE INITIAL MIGRATION

### Motivating Factors for Further Shifting

As mentioned in Table 8.1, the migrated people also tend to shift their residence within city after migration because they have no fixed accommodation in city. Similar to the reasons of rural urban migration, there are also some pull and push factors that instigate further shifting of residence. Table 8.4 shows the reasons of shifting for STUP and OTUP households as well as their counterfactuals. Push factors like evicted by landlord, increasing house rent, problem of transport/water/gas/sanitation, gentrification of slum or grabbing slum by real estate company, threat of bullies are some of the salient reasons of shifting residence from one urban area to another. Some other pull factors like better housing after improving economic condition, nearby workplace/children's school, free housing opportunity, living with relatives and consorting husband were also responsible for shifting residence. It is seen that pull factors are the main reasons of migration from rural to urban areas where push factors are mainly responsible for shifting residence within city areas. Shifting took place due to push factors for 110% cases of STUP households and 80% cases of OTUP households, while in 30% and 50% cases the shifting was caused by pull factors.

Table 8.4 Reasons for shifting residence after migration

Motivating factors for further shifting	STUP Treatment	STUP Comparison	OTUP Treatment	OTUP Comparison
	Per cent of cases	Per cent of cases	Per cent of cases	Per cent of cases
Pull factors (total)	29	42.42	50.32	42.42
Pull factors (breakdown):				
Building own house	10.69	12.56	11.25	12.56
Proximity to workplace	7.63	15.64	10.94	15.64
Proximity to kids' school	4.58	3.55	7.81	3.55
Shifted to better house	4.58	1.9	8.13	1.9
Opportunity to live without rent	0.76	7.35	10.94	7.35
To be near to relatives	-	0.71	0.31	0.71
For marriage	0.76	0.47	0.94	0.47
Proximity to husband's workplace	-	0.24	-	0.24
Push factors (total)	109.92	89.34	80.94	89.34
Push factors (breakdown):				
Evicted by landlord	14.5	20.14	22.81	20.14
Increasing house rent	44.27	39.1	30.31	39.1
Evicted by real estate company	20.61	6.64	7.5	6.64
Water/sanitation problem	19.85	14.22	10	14.22
Transport problem	2.29	0.47	0.63	0.47
Drainage problem	-	1.18	1.25	1.18
Waterlogging	6.11	4.98	5.94	4.98
Threatening by bully	1.53	1.66	2.19	1.66
Quarrel with others	-	-	0.31	-
House burnt by fire	0.76	0.71	-	0.71
Having no electricity	-	0.24	-	0.24

Note. Multiple responses allowed.

### Intention of Further Shifting

Among the surveyed STUP and OTUP households, around 7% and 5% households respectively reported that they would shift their residence further, while this proportion was 10% among the comparison households (Table 8.5). Households with intention of



further shifting, tend to shift mostly to village or to any other places in Dhaka. Only a small number of households intend to move to any other city or abroad.

**Table 8.5 Household with intention of further shifting**

Indicators	STUP Treatment	OTUP Treatment	STUP Comparison	OTUP Comparison	STUP Difference	OTUP Difference
	(1)	(2)	(3)	(4)	(5=1-3)	(6=2-4)
Household has intention of further shifting (%)	6.74	4.95	9.64	10.30	-2.90	-5.35***
Places where they want to move (% of households)						
Another place within Dhaka	30.77	22.22	55.22	55.22	-14.45	-30
Village	69.23	70.37	38.81	38.81	30.42	31.56
Any other city	0	7.41	4.48	4.48	-4.48	2.93
Abroad	0	0	1.49	1.49	-1.49	-1.49

Note. \*\*\* denotes statistical significance at 1%.

## IMPACT OF MIGRATION ON HOUSEHOLDS' ECONOMIC CONDITION

This is a subjective analysis of changing households' economic condition after migrating into urban areas. About 48 and 53 per cent of STUP and OTUP households respectively reported that their households' economic condition improved after migration (Table 8.6). However, there was no significant difference with their respective comparison groups. The condition of only 5 per cent of STUP households and around 1 per cent of OTUP households worsened.

**Table 8.6 Household economic condition after migrating in town (percentage of households)**

Household economic condition	STUP Treatment	OTUP Treatment	STUP Comparison	OTUP Comparison	STUP Difference	OTUP Difference
	(1)	(2)	(3)	(4)	(5=1-3)	(6=2-4)
Improved	47.92	52.67	43.67	53.24	4.25	-0.57
Similar	27.08	12.35	26.50	14.98	0.58	-2.63
Worsened	5.00	1.04	6.17	1.85	-1.17	-0.81

## Benefits of Migration

Households migrating to urban areas can improve their standard of living as different types of opportunities are available there. About 74 per cent of STUP and 84 per cent of OTUP households experienced improved standard of living after migrating to cities (Table 8.7). Availability of good school for children, access to hospitals, utilities (e.g. gas, electricity) and employment opportunities are some of the different benefits usually received after migrating to city areas. Majority of our survey respondents pointed out the benefits of school, hospital, electricity and gas (Table 8.8).

**Table 8.7 Migration leading to improved living standard**

	STUP Treatment	OTUP Treatment	STUP Comparison	OTUP Comparison	STUP Difference	OTUP Difference
	(1)	(2)	(3)	(4)	(5=1-3)	(6=2-4)
Improved living standard after migration (% of households)	73.85	84.45	78.66	78.66	77.65	5.79***

Note. \*\*\* denotes statistical significance at 1%.

**Table 8.8 Different benefits received from urban migration**

Benefits from migration	STUP Treatment	STUP Comparison	OTUP Treatment	OTUP Comparison
	Per cent of cases	Per cent of cases	Per cent of cases	Per cent of cases
Access to school/hospital	41.67	49.04	48.02	49.04
Access to electricity/gas	40.28	48	44.29	48
Revered by village people	37.5	36.17	41.49	36.17
Employment opportunities	1.39	2.09	1.63	2.09
Availability of earning	1.39	0.35	0.47	0.35
Better living standard	-	0.17	-	0.17
Total	122.22	135.83	135.9	135.83

Note. Multiple responses allowed.

## CONCLUSION

This section provides an overview of the status of urban ultra poor households. Most of them migrated from rural to urban areas due to various pull factors like job availability, higher wages and better opportunities. Some push factors and familial factors were also responsible for rural urban migration. Different sources like neighbour, relatives, and friends helped them to migrate by providing information about job, accommodation and ways of migration. Due to not having any fixed accommodation, they shifted from one place to another frequently. Around 48% of STUP households and 53% of OTUP households experienced improvement in households' economic condition after migrating from rural areas while only a few reported deterioration. They enjoyed better standard of living compared to rural life through getting access to facilities like school, hospital, electricity, gas, employment and higher social status. Moreover, some households also got benefits from government social safety net programmes like VGD and VGF. Migration from rural to urban area is a challenging task with huge uncertainty of accommodation, employment and income, but those who can overcome the challenges can improve their livelihood pattern. Those who have better social network and initial endowment are more likely to get access to migration and succeed.

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