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Endline Survey:
Urban Component of SHEWA-B (GOB-UNICEF) Project





Prepared for

Department of Public Heath Engineering (DPHE)
&
Water & Environmental Sanitation Section
United Nations Children's Fund (UNICEF), Bangladesh



Prepared by

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Prof. Abul Barkat, *Ph.D.* Dhaka: December 2012
Team Leader for the Endline Survey
&
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Abbreviations

CAP	Community Action Plan
CBN	Cost of Basic Need
CHP	Community Health Promoter
CPP	Community Planning Process
DCI	Direct Calorie Intake
DFID	Department for International Development
DPHE	Department of Public Health Engineering
EMA	External Monitoring Agency
FA	Facilitating Agency
FGD	Focus Group Discussion
GOB	Government of Bangladesh
HDRC	Human Development Research Centre
HH	Household
JMP	Joint Monitoring Programme
MDG	Millennium Development Goal
NGO	Non-Government Organization
PRA	Participatory Research Appraisal
PSU	Primary Sampling Unit
QCO	Quality Control Officer
SHEWA-B	Sanitation, Hygiene Education and Water Supply in Bangladesh
SSU	Secondary Sampling Unit
UNICEF	United Nations Children's Fund
VIP	Ventilated Improved Pit
WATSAN	Water and Sanitation
WHO	World Health Organization

EXECUTIVE SUMMARY

Background, Methodology and Implementation

The Government Bangladesh, UNICEF and DFID have jointly implemented the project titled, "Sanitation, Hygiene Education and Water Supply in Bangladesh" in both rural and urban areas. End-line, Midline and Baseline Surveys have been conducted by HDRC in the urban Project and Control Pourashava respectively in 2012, 1011 and 2009. Both quantitative and qualitative surveys conducted to collect quantitative and qualitative data. Data collected from 18 projects and 12 control Pourashavas.

Economic Characteristics

The study has made an inquest about some major economic characteristics of households in intervention and control pourashavas during base line and end line survey.

The descriptive results demonstrates that in intervention 69% and in control 75% households during the present survey have own house. In base line intervention and control 67% and 75% households respectively are found to have own house.

During the end and base line 53% and 62% households in intervention groups have only "one" room. For the respective survey 59% and 66% households own only "one" room.

In intervention pourashavas during end line 83% households have been electrified as compared to 64% households in baseline. However, in control pourashavas 66% and 39% households respectively during end and base line is reported to have access to electricity.

Reportedly, during end line both in intervention and control pourashavas the average total amount of land possessed by per household is 16 decimals.

Irrespective of the types of pourashavas, the assets owned by the majority of households are: poultry, gold ornament, utensils, furniture, axe, shovel, sickle, spade, and tube well.

Among the assets a large majority of households during both the surveys prominently mentioned about utensils (96% -98% households) and furniture (90%-98% households) as their most important domestic belongings followed by gold ornament in intervention.

Estimate shows that during the end and base line intervention households have average monthly net income Tk.9,507 and Tk.4,777 respectively. On the contrary, in control households this was Tk. 8,636 and Tk. 4,329 respectively for the period mentioned.

The estimate reflects that in intervention pourashavas the total amount of food consumed per capita per day is 777grams and 755 grams respectively in the end and base line. In intervention of the total intake rice shared 48% in end and 55% in base line situation. In control pourashavas the daily food intake is 761 grams and 737 grams in end and base line. Of the total intake rice is 51% and 58%.

During the base line in intervention groups the calorie intake is 1905 kilo calorie per person per day to that of 1878 kilo calorie in control groups. The present survey estimates it as1910 kilo calorie and 1893 kilo calorie in the respective groups. This estimated calorie intakes are lower than the national average 2318.8 K.cal in intervention and control groups during both the survey.

Reportedly, during the present survey 82% intervention and 80% control households have expressed the affordability for 3meals/day round the year.

By DCI method, in intervention 74% and in control 76% households in the end line are absolute poor. The incidence of hardcore poverty is 45% and 47% respectively in intervention and control pourashavas. This level has surpassed the corresponding national poverty incidences of 40% absolute and 20% hardcore.

By CBN method, in intervention groups 46% and 73% households respectively during the end and base line live below upper poverty line whereas in control groups the figure is 56% and 77% households.

Reportedly, in end line intervention 19% and in control 25% households live below lower poverty line. During base line 55% and 60% households respectively in intervention and control groups fall below lower poverty line. The upper poverty lines in intervention and control areas during the present survey are higher than national average by 14 and 24 percentage points respectively. The lower poverty line also exceeds national average.

Water availability and access to safe water

A substantial change in the pattern of main source of drinking water has taken place in intervention area since the baseline in 2009. Among intervention households about 66% collect drinking water from improved source and 42% among the control do so. During baseline the respective figures were 52% and 37%. Proportion of households who reportedly fetch drinking water from arsenic contaminated shallow tube wells has declined in intervention and control areas with almost similar pace. During baseline about 4% intervention households had reportedly collected water from arsenic contaminated shallow tube wells (7% control households) which during end-line have reduced to about 1% (2% control households). Sources of cooking water in intervention and control areas are similar to that of drinking water during two points of time (baseline 2009 and end-line 2012).Most of the intervention households (97%) get adequate drinking water round the year during the end-line survey while 96% control households get adequate drinking water. The scenario of getting adequate water during the baseline survey was almost similar among both intervention and control households. Self-ownership of water sources among intervention households has increased from 32% to 37% during the project period. Among control households, the ownership of water sources has increased from 38% to 50% during the same period. About 84% of end-line survey respondents have mentioned that the water quality is good while about 74% has reported so during the baseline. In control areas about 81% reported the same during end-line survey against 66% during baseline. Over nine out of ten adult female members collect water irrespective of intervention and control households (more than nine-tenth of the cases) at the time of baseline and end-line surveys.

Sanitation and defecation practice of households and environmental cleanliness of community

At end-line, improved latrine users are 32.7%, Shared by two households latrine users are 22.3%, and Community latrine users are 37.6% in intervention areas. Open defecation is as low as 1.1% in the intervention areas. Of the improved and shared latrines at end-line, 86.4 percent in intervention and 97.7 percent in the control households are pit latrines. Current use of unimproved latrines in the intervention areas is 6.3% compared to 15.1 at baseline. Regarding project impact, there is improvement in use of shared latrine (9 percentage-points) and deterioration in use of improved latrine (2.3 percentage-points). Latrine is user-friendly

to around 77% females and 55% to old aged persons in intervention HHs. Maintenance of privacy is the major problem in females. The most common cause of not using latrine in physically disabled people is 'design – not friendly for them'. Around 93% of the intervention HHs can use latrine during rainy season or flood. Around 94% latrines in the intervention HHs appeared to be 'good/very good/clean' and latrine are cleaned by adult female member of the households in 96.6% cases. Around 93% of women, 29% of physically disabled persons, and 69% of older members in the intervention HHs were consulted on type and site of latrines before its installation.

Water –sanitation hygiene related morbidity and mortality

As compared to the baseline, the occurrence of any sort of disease during the last three months in both the intervention and control households have shown a declining trend during the end-line. As net impact of project intervention the decrease of prevalence of disease among households is 6.7 percentage points. Prevalence of water borne disease also show some decline in both the intervention and control households. As net impact of project intervention the decrease of prevalence of water borne disease among households is 5.3 percentage points. Diarrheal diseases, typhoid and dysentery show much decline than other diseases.

Both average days of sufferings and workdays lost due to waterborne has reduced as compared to baseline situation. In explicit term, the net suffering days and workdays lost during the last 3 months reduced due to the same is 1.8 days and 0.9 day respectively per household due to project intervention. Total cost of treatment of water borne disease after adjusting the baseline value with inflation rate shows an increase of Tk. 4 per household during the baseline and end-line time span in terms of net impact. However, cost of treatment during the last 3 years has increased much more.

Rate of death due to water borne diseases has reduced by 0.31 per thousand found as net impact of project intervention.

Hygiene Issues: Knowledge status Source of Knowledge and Observation

In project areas, 97.5 percent respondents have acquired adequate knowledge on 11 core messages as well as 8 revised hygiene, sanitation, and water storage messages at end-line. The corresponding figures at baseline were 61.2 percent on 11 messages and 57.0 percent on 8 revised messages. The reported main source of knowledge at end-line is field agency, which was TV at baseline. Thus, the current high level of knowledge status may be related to the interventions imparted by the field agencies. Despite of high knowledge level, majority of the mothers/caregivers do not wash their hand at all at several critical times such as before eating, feeding, preparing or serving food. Currently at end-line, not more than 6.0 percent mothers/caregivers in the project areas wash their both hands with soap before the critical times of interest in relation to eating, feeding, serving and preparing food. On the other hand, more than 60 percent mothers/caregivers do not wash both hands with soap/ash after the defaecation, cleaning baby's bottom or disposing child faeces. On top of this, in the project areas, soap has been found at convenient place for hand washing after defaecation in 44.0 percent households and proper way to wash hands has been demonstrated by 47.0 percent mothers/caregivers at end-line. Compare to 53.5 percent at baseline, 65.6 percent households in the project areas store their drinking water in covered containers at end-line. Currently at

end-line, 55.6 percent of mothers/caregivers in the project areas dispose child faeces hygienically as compared to 40.7 percent at baseline.

As regard to hygiene practice among the children, reportedly, 88-89 percent of the children in the project areas are wearing footwear while using latrine, cutting nails regularly and brushing teeth daily at end-line. The corresponding figures at baseline were 76-83 percent in the project areas. In contrast, currently at end-line, barely 38 percent children in the project areas wash both hands with soap before eating and 53 percent do so after defaecation. Comparable baseline practice were 26 percent and 42 percent before eating and after defecation respectively

Menstrual Hygiene: Knowledge , Source of Knowledge and Practice (KM)

Regarding menstrual protection, old rag is known to 98 percent of the adolescent girls in the project areas, sanitary pad to 83 percent, and new rag to 69 percent. However, most widely used material as a menstrual protection is old rag (84%), followed by sanitary pad (20%) and new rag (17%). More than 38 percent adolescent girls in the project areas change the rag/pad thrice a day, 32 percent twice a day, and one-fifth do so more than thrice a day. While to dispose used rag/pad, 64 percent of adolescent girls dispose it in a hole and 32 percent at random to ditches. In the project areas, the current main sources of knowledge on menstruation and menstrual hygiene are NGO workers (74.4%), mothers (45.7%), sister/sister-in-law (44.0%) and friends (23.0%).

WATSAN scenarios of primary schools

About 7.1 percentage points more water points were found functional during end-line survey ;compared to 7.7% in the midline. This may be explained in the way that during the ending year there has been no impact but the impact accrued during the beginning couple of years is sustained. And the types of water source that determine the change are the deep tube well and shallow tube well; because use of deep tube well and shallow tube well increased respectively by 24 percentage points and 8 percentage points in the schools during the project period. Majority (over 70%) of the tube wells are arsenic tested. Pourashava authorities conducted arsenic test for all the tube wells in the Pourashava. Majority schools (88%) in Project and Control Pourashavas use improved sanitation facilities and the type of sanitation are Flash/Pour-flash latrine to piped water system or to septic tank and pit latrine with slab and water sea. Functional status of latrine of the schools improved by 12.8 percentage points in the end-line. Privacy concern is well maintained by over 80% schools and waste disposal system improved in the end-line (over 45%) ; compared to baseline(37%).