

Endline Evaluation
Project title: Improving Maternal and Infant Health in Bangladesh (IMIHB)



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June 2017



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Abbreviations

ANC	Antenatal Care
BDT	Bangladeshi Taka
CG	Community Group
CBHC	Community Based Health Care
CC	Community Clinic
CHCP	Community Health Care Provider
CSG	Community Support Group
DD-FP	Deputy Director-Family Planning
ENC	Essential Newborn Care
EPI	Expanded Program on Immunisation
FGD	Focus Group Discussion
FP	Family Planning
FWA	Family Welfare Assistant
FWV	Family Welfare Visitor
GoB	Government of Bangladesh
HA	Health Assistant
HH	Household
IMIHB	Improving Maternal and Infant Health in Bangladesh
IUD	Intrauterine Device
MCH	Maternal and Child Health
MO	Medical Officer
MOH&FW	Ministry of Health and Family Welfare
NGO	Nongovernment Organisation
PNC	Postnatal Care
PW	Pregnant Women
RCHCIB	Revitalisation of Community Health Care Initiatives in Bangladesh
RMG	Ready Made Garment
SACMO	Sub-Assistant Community Medical Officer
SRMH	Sexual, Reproductive and Material Health
TT	Tetanus Toxoid
UFPO	Upazila Family Planning Officer
UH&FPO	Upazila Health and Family Planning Officer
UH&FWC	Union Health and Family Welfare Centre

Section 1: Executive Summary and Background

1.1 Executive Summary

CARE Bangladesh designed and implemented a project titled "Improving Maternal and Infant Health in Bangladesh (IMIHB)" to improve maternal, newborn and child health status of urban and peri-urban areas in Gazipur district of Bangladesh. The project was funded with financial support from Target Australia from the Australian Government through the Australia-NGO Cooperation Program (ANCP). The project's major approaches were capacity building of the community health provision and support system; awareness generation in the community; and establishing referral and linkages between health facilities. An endline assessment of the project was conducted to evaluate the impact of the IMIHB project by measuring the status of the health system and service coverage in the population. The endline assessment included a population-based survey, a health facility assessment, and key informant interviews with service providers and their supervisors and managers.

The endline assessment clearly revealed that the project has been successful in achieving its purpose and almost all of the project objectives that included increased knowledge, service uptake, women's decision-making ability, community preparedness, and improved coordination and referral mechanism.

The survey data shows the role of women in making decisions about their own and children's healthcare has increased considerably from baseline data. Utilisation of antenatal care (ANC) from community clinics has increased significantly in the endline survey compared to baseline findings (21% in endline compared to 6% in baseline). Participation of pregnant women and their families in birth planning sessions during pregnancy has increased dramatically (45% in the endline survey as opposed to 7% in baseline survey). A significantly higher proportion of endline respondents adopted different components of birth planning compared to baseline respondents. Women reported the availability of and access to community support system mechanism (referred as Community Support Group) at their villages to help them in utilising life threatening health services during and after delivery.

Facility delivery increased from 52% in the baseline to 65% in the endline survey. Similarly skilled attendants at birth increased from 54% to 63%. The role of women in selecting the place of delivery increased significantly from 34% in baseline to 50% in endline. Increasing trend is also observed in essential newborn care. The rich-poor gap has narrowed down for key maternal health service utilisation in the endline findings. Delivery at facility by lowest wealth quintile has increased from 37% to 50%.

Facility assessment and key informant interviews revealed that the Community Clinics were well equipped and staffed as per national policy. The major challenges faced by Community Clinics are drugs stock-out and suboptimal participation from family planning staff. Community Clinic management has developed a fundraising system by taking user fees and donations. The most successful project activities recognised by the key informants included the community scorecard meetings, community dialogues, mothers gatherings, establishment of community clinic corners at the sub-district hospitals, birth planning sessions, local fundraising, and supportive supervision by district and sub-district CORE team members. Most of the respondents recognised that CARE's IMIHB project had significantly contributed to improving maternal, newborn and child health status in the project areas. They were confident that they would continue most of the activities by their own efforts and resources beyond the end of the project. The key stakeholders and informants suggested that the project could have emphasised further on issues such as nutrition, adolescent health, male engagement, and referrals with NGO and private hospitals.

It is recommended that CARE Bangladesh take initiatives to document the successful elements of the project (community dialogue, community scorecard, mothers gathering, referral corner at the sub-district hospital, CORE team for supportive supervision and local fundraising) and develop comprehensive guidelines and standard operating procedures for implementation at a larger scale. CARE should work with the government Community Based Health Care (CBHC) program to scale up the successful elements of the project nationwide. CARE can consider continuing a small-scale presence in Gazipur district for another year or two to mainstream the selected successful activities within district and sub-district MOHFW systems. In future program design, missed opportunity services such as nutrition and adolescent health should be incorporated in community based service packages. In addition to Community Clinics, Family Welfare Centres should be targeted in future programs at union level as they provide better service provision and infrastructure. Community Support Group (CSG) members should be engaged in conducting of birth planning.

In conclusion, the uniqueness of the IMIHB project is its community health system strengthening approaches, which produces not only impressive results but potentially a sustainable system as the project has been successful in fostering societal partnerships, improved governance and built capacity of community level health workers and managers.

1.2 Introduction

Bangladesh made impressive progress in improving maternal and child health status in recent years and is on track to achieve Millennium Development Goal (MDG) 4 (reduce child mortality by two-thirds) and MDG 5 (improve maternal health by three-quarters). Despite this encouraging trend, neonatal mortality in Bangladesh is still 28¹ per 1,000 live births. An estimated 54,943 newborns die every year in Bangladesh. The maternal mortality ratio is 194 deaths per 100,000 births. This means that about 3,819 women die from pregnancy or childbirth related complications every year - more than ten every day.

These high mortality rates are underpinned by the fact that 73 per cent of women give birth at home, most with unskilled attendants or relatives assisting, resulting in a high death rate of children less than one month old. Almost 68 per cent of neonates do not receive postnatal care from a trained provider within two days of birth. In addition, there is a huge equity gap in skilled healthcare access. In the highest wealth quintile, 73 percent of deliveries are attended by medically trained providers, while only 18 percent in the lowest wealth quintile. Only 6.8 percent of births in the poorest quintile were delivered through a C-section, which is a proxy indicator of access to emergency obstetric care.

The three other key factors (also known as Three Delays) which are leading to high maternal death or disability are: delay in taking decisions to seek Emergency Obstetric Care (EmOC); ensuring transport to reach the health facility; and receiving quality treatment at the health facility.

To address this inequity in basic maternal and child healthcare access and to bridge the gap between the poorest households and the health facility, CARE Bangladesh has implemented a number of projects since 1999 to test a model called “Community Support System (CmSS)”. An impact study in 2010 revealed that CmSS is associated with a reduction in the wealth disparities of key maternal health outcomes, with 71% antenatal care access among lowest wealth quintile compared to 30% in non-CmSS areas.

¹ Bangladesh Demography Health Survey (BDHS) 2014

Considering the success and effectiveness of the CmSS, the Ministry of Health and Family Welfare (MoHFW) adopted the CmSS model as an approach for community mobilisation and decided to replicate the model countrywide as Community Support Groups (CSG) through its existing grassroots level service facilities called Community Clinics (CC).

Based on this experience, CARE Bangladesh designed and implemented a project titled "Improving Maternal and Infant Health in Bangladesh (IMIHB)" with financial support from Target Australia and the Australian Government through the Australian NGO Cooperation Program (ANCP). The project aim was to improve the maternal health status of urban and peri-urban marginalised women, including workers of the 'ready-made garment (RMG)' factories in Bangladesh, and the health of their children along with other family members.

1.3 Health Care System of Bangladesh

Bangladesh has a well-structured healthcare delivery system, particularly at the community level. At the sub-district (average population 250,000) level, there is a 31 to 50-bed hospital staffed by qualified physicians, nurses and other allied health workers (World Health Organisation, 2015). At the union level (average population 30,000), there is a Union Health and Family Welfare Centre (UH&FWC) staffed by two-three paramedics with 18-36 months of pre-service training; these facilities provide outpatient preventive and limited curative care services to mothers (antenatal care, Tetanus Toxoid (TT) immunisation, normal delivery, postnatal care, family planning) and children (immunisation, treatment of childhood illnesses and referral). The MOH&FW has two categories of frontline community health workers, Health Assistants (HAs) and Family Welfare Assistants (FWAs), to work at the community level. These workers usually work as a team. They make home visits once every three months to maintain a list of women of childbearing age, identify and register all pregnant women, record all births and deaths, and counsel pregnant women on preventive care (danger signs during pregnancy, delivery and postpartum; newborn and child healthcare; and care seeking from health facilities). The government of Bangladesh (GoB) has established about 13,000 Community Clinics (CC), one for every ~6,000 people (which is also the catchment population of a HA-FWA team. The Community Clinics are staffed by a community health care provider (CHCP) with at least 12th grade education and six months of pre-service training. Each CC is supported by one community group (CG) and three community support groups (CSG). The community group is responsible for monitoring the operation of the clinic and its activities; ensuring cleanliness and security of the clinics; and raising local funds to improve services at the CC. The community support groups members are responsible for promoting the utilisation of services from the CC by educating community people on health and care seeking from CC (CBHC, 2016). These groups meet once a month to review their progress and make plans for the following month.

1.4 Brief Description of the IMIHB Project

The overall goal of IMIHB project is to further improve the health status of vulnerable women aged 15 – 49 and children under 5 in Gazipur district, including female readymade garment (RMG) factory workers, by strengthening the CmSS. The project has five outcomes:

1. Communities' access to and awareness of sexual, reproductive and maternal health (SRMH) services increased;
2. Referral numbers of women and children to health services increased by establishing stronger links between communities and healthcare providers;
3. Local level planning, coordination and data collection for decision-making in 163 community health clinics strengthened to improve service quality and performance;
4. Communities' knowledge of and support for sexual and reproductive health and rights of women strengthened; and

5. Community Support System (CmSS) strengthened to improve local planning, mobilise local funds, raise awareness and establish linkages with health facilities.

The project seeks to reduce the number of mothers dying from childbirth-related causes, newborn babies dying within the first 28 days of life, and children under the age of five dying, and seeks to facilitate increased participation of women in their communities.

The project had undertaken the following activities, which contributed to achieve the project goal and objectives:

- Enhanced the capacity of district and sub-district health staff to strengthen their engagement with the CmSS;
- Increased coverage and quality of care at Community Clinics (CC) and 29 Family Welfare Centres (FWC);
- Involved communities through community groups (CG) and community support groups (CSG) to increase community referral mechanisms that directly reduced delays in accessing healthcare (including delay in decision to seek care, delay in reaching care, and delay in receiving adequate healthcare);
- Built awareness related to sexual, reproductive, maternal health issues and concerns regarding violence against women (VAW);
- Strengthened Community Group and Community Support Group members' (CG and CSG) capacity for promoting inclusive health governance, to increase the health system's responsiveness; and
- Conducted capacity building activities to increase skilled birth delivery and gender-sensitive healthcare.

The project worked closely with local and national level government policy makers, health service providers and health facilities. The project also worked closely with the existing Community Support System (CmSS), an integral part of community health system in Bangladesh, to ensure accountability of the Community Clinics, and to mobilise local commitment to improve maternal and child health. For example, the project developed a strategic partnership with Community Based Health Care (CBHC) as it aims to improve accessibility to health services of pregnant women and children under 5 through Community Clinics (CC) which operate at the community level. The project worked with local frontline service providers such as Community Health Care Providers (CHCPs) and Family Welfare Visitors (FWVs). FWVs are based at the union/grassroots level as qualified service providers of maternal health (including antenatal care (ANC), post-natal care (PNC), safe delivery, neonatal care, and family planning services), since this group are the first-line, skilled birth attendants based at the Union level. Community Clinics refer non-complicated pregnant women there rather than the Upazila Health Complex. CHCPs were provided on-the-job training on counselling, birth planning, screening of disability and nutrition. The FWVs and Sub-Assistant Community Medical Officers (SACMOs) received on-the-job training on nutrition counselling, including ADG nutrition, importance of Iron and Folic Acid (IFA) and screening of disability and referral by the project. Through the partnership with MoHFW, ongoing capacity building of health and family planning managers and other officials, an effective monitoring and supervision system was developed to ensure quality of care in Community Clinics and successful functioning of Community Groups and Community Support Groups.

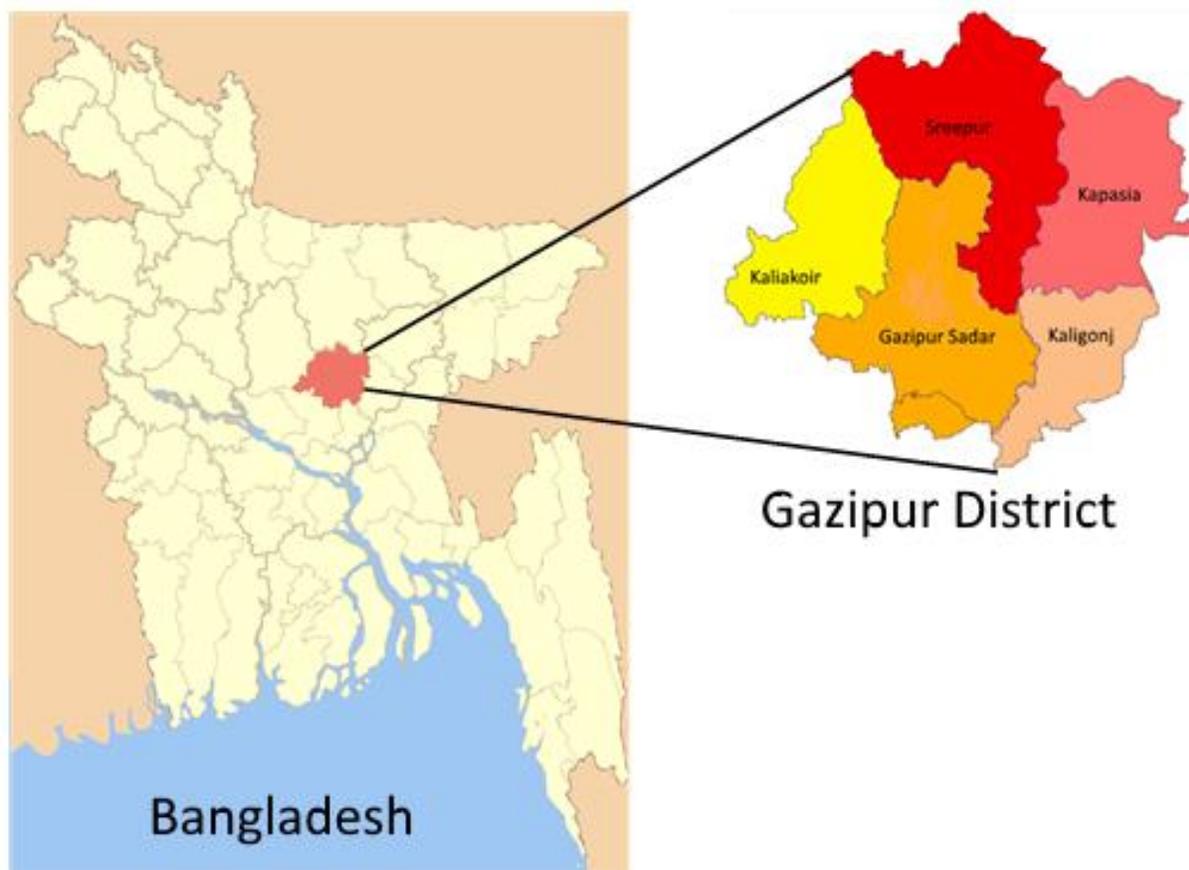
The project also developed partnerships with local organisations such as Marie Stopes, Smiling Sun Clinics, and BRAC to form a referral health service delivery network. The project facilitated establishment of a referral corner at each Upazila Health Complex and built capacity of referral facilitators to promote community referral system and introduced a referral slip along with monitoring system so that referred patients are being addressed properly and receiving quality service care. In addition, project conducted

phase out meeting at Upazila and district level with CORE Team and relevant stakeholders to develop exit plan considering sustainability.

These collaborations were made to ensure primary health services are accessible in the target groups' communities. The referral system has been strengthened so that families gain access to health services either free of cost (via a public facility) or at a reduced/subsidised cost from selective private health facilities.

These proven community engagement approaches, strong government health system involvement and awareness raising activities will ensure the sustainability of the project interventions.

Figure 1: Map of Gazipur District



1.5 IHIMB Project Area and Target Beneficiaries

- IMIHB project was implemented in four sub-districts (except Sreepur) of Gazipur district.
- IMIHB project worked with 163 Community Clinics, 163 Community Groups and 489 Community Support Groups.
- Target of ~32,000 pregnant women and children under 5 benefit directly from the project annually.
- Target of ~350,000 people to be reached by the project indirectly each year including 75,600 pregnant women and 60,000 children under five.

- Target to reach and work with 4,250 Community Support Group members and 375 government health and family planning service providers.

1.6 Performance Indicators of the IMIHB Project:

The annual project targets included:

- 32,000 pregnant women received antenatal check-ups.
- 20,000 pregnant women experienced deliveries conducted by skilled birth attendants.
- 20,000 women received post-natal care.
- 3,600 women with complicated pregnancies received life-saving support.
- 22,000 newborn babies received essential newborn care.
- 20,000 children under five years of age received healthcare for childhood illness.

1.7 IMIHB Project's Approach

The IMIHB project worked in close collaboration with the MOHFW officials at the district and sub-district level. The project deployed few staff (one at the national, one at the district and one at each sub-district levels) to facilitate the project activities through the MOHFW system. The project developed capacity of CORE team comprising of MOHFW officials at the district and sub-district levels. Each CORE team was comprised of eight members. The sub-district CORE team was responsible to supervise, monitor and support functions of community clinics and community groups, while the district CORE team supported the activities of the sub-district CORE teams. The CARE staff supported and facilitated the project activities through the CORE teams.

Section 2: Endline Assessment of IMIHB Project

2.1 Context and Scope of the Endline Assessment

The IMIHB project conducted a baseline assessment at the beginning of the project to assess the status of the health facilities and community systems and administered a population survey to measure the coverage of key maternal, newborn and child health services. An endline assessment was conducted to evaluate the impact of the IMIHB project by measuring the current status of the health systems and service coverage in the population.

2.2 Key Objectives of the Endline Assessment

The study had four overall objectives:

1. Evaluation of Community Health System, such as Community Clinics, Community Groups, and Community Support Groups; to promote self-care and birth preparedness at household level.
2. Population survey to collect data from the community.
3. Compare the indicators with respective baseline data and examine the contribution of the IMIHB project in improving health systems and key services coverage in the project areas.
4. Examine the sustainability of the IMIHB approaches and strategies.

2.3 Specific Objectives of Endline Assessment

A. Assess the Community Health System (Health Facilities and Support Systems):

1. Assess the service utilisation of Community Clinics for MCH services including ANC, PNC, delivery, treatment of complications, neonatal care, Infant health, child health, in the preceding three months by socio-economic status of people.
2. Assess the status of Community Health and Support System including Community Clinics, associated Community Groups and Community Support Groups.
3. Assess the approach of covering all households with pregnant women with birth planning tools and messages using existing community health system.

B. Population Survey:

1. Evaluate MCH services coverage including obstetric care services (such as ANC, PNC, skilled birth attendants for delivery, institutional delivery) by women who had a delivery in the year prior to the study; ENC and postnatal care for the newborns and other SRMCH service like use of FP methods by eligible couple.
2. Estimate the number and proportion of pregnant women especially poor pregnant women supported by the community support mechanism.
3. Evaluate level of satisfaction, perception on quality of service, and scope to provide feedback to the received services and community support for the poor pregnant women and families.
4. Evaluate knowledge, attitudes and practice on safe motherhood issues, such as birth preparedness, maternal and newborn danger signs, ANC, PNC, delivery assistance by skilled personnel and neonatal care, health rights and entitlements, among women who delivered one year prior to the survey.

C. Compare key indicators with that of the baseline report and also national health and demographic survey data, as appropriate, to assess the attribution of the project.

D. Examine sustainability of IMIHB project approaches and strategies by reviewing the capacity and extent of institutionalisation of tools/methods by Government Health and Family planning departments as well as community-based organisations/groups.

2.4 Key Evaluation Questions

The following questions were answered using the findings of the study.

1. Were the CORE team strategies effective in achieving the project objectives?
2. Did the key service provision in the 163 Community Clinics and other health facilities increase due to project contribution?
3. To what extent did the Community Groups and Community Support Groups become functional due to project facilitation and contributed in addressing three delays in receiving timely and quality maternal and child health services?
4. To what extent did the level of knowledge, attitudes and practice of community for safe motherhood services increase, especially in poor segments of the community?
5. To what extent the IMIHB approaches and tools are institutionalised within community health system and structures.

The key evaluation questions were answered in respect to effectiveness, impact and sustainability as described below.

2.5 Effectiveness:

- Determine the extent to which the project achieved its overall goal, end of project outcomes, and specific objectives.
- Determine the extent to which each outcomes was achieved.
- Compare the result against the baseline findings
- What were the major factors influencing the achievement or non-achievement of the objectives?

2.6 Impact:

- To assess the intended and unintended impacts of the project.
- To assess the impact of the project on Maternal and Child Health indicators of working areas, specifically:
 - a. Impact of the project interventions on pregnant women benefiting from IMIHB project, as well as the effect of their participation to gender relations/dynamics at households and community level.
 - b. Impact of the project interventions on children under five years benefiting from IMIHB project.
 - c. Identify and document key lessons and strategies that will inform CARE's future maternal and child health related programming as well as health system strengthening.

2.7 Sustainability:

- What is the effectiveness of the CORE team strategy to maintain oversight of the quality of community clinics once the project ends?
- What is their capacity to sustain achievements once the project ends?
- What were the major factors, which influenced the achievement or non-achievement of sustainability of the project?

2.8 Methodology

2.8a Study Design

The study used a cross sectional design for the endline assessment. The key indicators of the endline findings were compared with that of the baseline study already conducted. Both quantitative and qualitative data collection approaches were employed in this study.

2.8b Study Site and Population

The study was conducted in the project areas that included four sub-districts (Gazipur sadar, Kaligonj, Kapasia, and Kaliakoir) for the population survey and the health system and facility assessment.

Study Procedures and Activities

The evaluation consultant carried out the following activities to accomplish the endline assessment activities.

1. Reviewed IMIHB project documents including the project proposal, strategic paper, project logical framework, project monitoring and progress reports, annual project report, and other relevant documents.
2. Reviewed baseline report and questionnaires to understand findings and methodologies followed in the baseline assessment study. Evaluation incorporated baseline questionnaires and methods in endline study to ensure endline findings were comparable. Additional questions or methods were added considered important in consultation with CARE project management.
3. Consultation meetings with CARE officials were held to obtain their suggestions and participation in the evaluation process. The key areas that were addressed through this process were as follows:
 - a. Project logical frame to understand the planned inputs and activities and the actual achievements during the project period.
 - b. Project's milestones.
 - c. Definition of CORE team strategies and proposed indicators to measure the success.
 - d. Understand key system inputs provided to the community health and support systems.
 - e. Definition of standard functional status of target health facilities and support systems set by the project.
 - f. Key maternal, newborn and child health indicators that were targeted for improvement.
4. We developed data collection tools consistent with the project M&E plan and baseline questionnaire. The data collection tools included:
 - a. Population survey questionnaire
 - b. Health facility assessment tools
 - c. Guidelines for qualitative data collection
 - i. Key Informant Interviews with health service providers (CHCP, FWA, HA, FWV, SACMO and MO) and managers (UH&FPO, UFPO, Civil Surgeon, DD-FP and officials at CBHC)
 - ii. In depth Interviews with CG and CSG leaders
 - iii. Focus Group Discussions (FGD) with CG and CSG
 - iv. FGD with recently delivered women (in the preceding one year)
 - v. Key informant interviews with IMIHB project staff
5. Recruitment and training of data collectors and supervisors

We recruited experienced data collectors for the survey and qualitative interviews and supervisors with extensive field experience. Data collectors and supervisors were trained on data collection tools for three days by the investigators. Field Supervisors provided on-the-job training in the field during data collection.

6. Quality control procedures. We designed and implemented a comprehensive quality control system for data collection
 - a. Direct observation of interviews
 - b. Random spot checks
 - c. Re-interviews by supervisors
 - d. Field editing of the filled in questionnaires
 - e. Protocol for consent taking, handling refusals and absence of respondents
 - f. Data editing and validation methods

2.8c Sample Size for Data Collection

Population survey

Sample size of the quantitative survey was calculated for desired precision of estimates of key indicators in the endline survey and for 25% increase in key indicators compared to baseline estimates. Assuming lowest coverage of 35% for 4+ ANC in the baseline and expected coverage of 45% (28% increase) in the endline assessment, we required 625 respondents considering 80% power, 5% significance level, 1.5 design effect and 5% non-response.

Sampling procedure

We employed a cluster approach for identifying respondents for the population survey. We used a two-stage cluster sampling approach for identifying the clusters. In the first stage, CC catchment areas served as the sampling unit and we randomly sampled 30 CC areas for conducting the survey. In the second stage, we randomly selected one village/ward from each selected CC. For identifying households and respondents for the survey, we used a modified EPI coverage evaluation survey approach. We detected the middle point of the village/ward with the help from local residents and identified a direction by randomly spinning a pen on the clipboard. Up to 10 households (HH) in that direction were numbered and one HH was randomly selected as the starting household. Next, HH's were selected based on the nearest distance and the search for respondents continued until 21 respondents were reached.

Health facility assessment

We collected facility assessment data from randomly selecting ten community clinics (2-3 from each sub-district).

Qualitative data collection

Key Informant Interviews were conducted with service providers (CHCP, FWA, HA, FWV, SACMO), sub-district and district CORE team members and CARE staff.

For qualitative and facility assessment data collection, sample size was adjusted based on the data redundancy. Once emergence of newer information ceased, we stopped data collection in that respect.

2.8d Data entry and analysis

All quantitative data were entered in personal computer by trained data entry operators. After data cleaning was performed by the experienced statisticians, data analyses were done using Stata statistical software. Descriptive statistics were computed and presented in tables or figures. Comparison of endline data with baseline findings are presented in tables and figures.

Qualitative data were transcribed and summarised by experienced researchers with experiences in qualitative data analysis.

Section 3: Results

During May-June 2017, quantitative data was collected from 659 respondents by 11 trained interviewers. We employed two data collectors for collecting data from ten community clinics. Two data collectors experienced in qualitative data collection were engaged in conducting FGDs and key informant interviews.

3.1 Findings from quantitative survey

First, we presented the key findings from the quantitative survey and compared with that of the baseline findings. Table 1 shows the demographic and socio-economic profile of the respondents and households of endline survey in comparison with the baseline findings. Age structure of the respondents are very similar to the baseline survey respondents with two-thirds being more than 20 years of age.

Table 1: Basic and socio-economic status of the respondents

Characteristics	Baseline (n=1059)		Endline (n=659)		P Value
	Number	Percent	Number	Percent	
Age of the respondents					
Less than 18 years	30	2.8	32	4.9	0.091
Between 18-20 years	257	24.3	174	26.4	
Between 21-25 years	375	35.4	215	32.6	
More than 25 years	397	37.5	238	36.1	
Religion of the respondents					
Islam	899	84.9	589	89.4	0.009
Others	159	14.1	70	10.6	
Education of respondents					
No formal education	66	6.2	32	4.9	0.000
Class 1 to Class 5	304	28.7	140	21.2	
Class 6 to Class 8	282	26.6	225	34.1	
Class 9 to Class 10	297	28.0	176	26.7	
Higher secondary and above	110	10.4	86	13.1	
Education of respondent's husband					
No formal education	158	14.9	54	8.2	0.002
Class 1 to Class 5	297	28.0	201	30.5	
Class 6 to Class 8	201	19.0	131	19.9	
Class 9 to Class 10	239	22.6	162	24.6	
Higher secondary and above	164	15.5	111	16.8	
Marital status of respondents					
Currently married	1046	98.8	644	97.7	0.095
Divorced	13	1.2	15	2.3	
Occupation of respondents					
Housewife	1003	94.7	599	90.9	0.000
Service	28	2.6	34	5.2	
Business	16	1.5	26	3.9	
Day labor	12	1.1	0	0.0	
Involved in income generating activities					
Yes	75	7.1	40	6.1	0.414

No	984	92.9	619	93.9	
Occupation of respondent's husband					
Service	290	27.4	155	23.5	0.000
Business	230	21.7	141	21.4	
Day labor	180	17.0	113	17.2	
Oversee employee	115	10.9	93	14.1	
Agriculture	102	9.6	57	9.6	
Transport labor	101	9.5	23	3.5	
Unemployed	36	3.4	12	1.8	
Others	4	0.4	65	9.9	
Average family members per family	-	5.4	-	5.4	0.97
Monthly average income of family					
≤5000 BDT	69	6.5	36	5.5	0.150
5001-10000 BDT	341	32.2	184	27.9	
10000-15000 BDT	222	21.0	143	21.7	
>15000 BDT	427	40.3	296	44.9	

Religion of the respondents are also comparable with 89% being Muslims compared to 85% Muslims in the baseline survey. Education level of both women and their husbands is slightly higher than the baseline respondents. There was a slightly higher proportion of endline respondents working and involved in income generating activities compared to the baseline respondents (9.1% in endline as opposed to 7.1% in baseline). Distribution of husband's occupation between baseline and endline is fairly comparable. Average family size was 5.4 and exactly same as the baseline survey households. Proportion of higher monthly income households (<15,000 BDT) are slightly higher in the endline survey compared to baseline (45% to 40%), although not statistically significant.

Table 2 displays the reproductive health information of the respondents in comparison with baseline data. Age at marriage of the endline respondents is lower than the baseline respondents. About 60% of endline respondents had their first marriage before the legal age of 18 whereas 48% of baseline respondents were married before the legal age of the country. Distribution of gravidity, parity and living children are comparable between baseline and endline respondents. Proportion of caesarean section of the last deliveries among the endline respondents is significantly higher (52%) than the baseline respondents (41%).

Table 2: Reproductive health information of the respondents

Characteristics	Baseline (n=1059)		Endline (n=659)		P Value
	Number	Percent	Number	Percent	
Age at first marriage					
<18 years	514	48.5	400	60.7	0.000
18-19 years	379	35.8	156	23.7	
>=20 years	166	15.7	103	15.6	
Total number of pregnancies (Gravida)					
1	423	39.9	243	36.9	0.253
2	342	32.3	210	31.9	
3	194	18.3	146	22.1	
More than 3	100	9.4	60	9.1	
Total number of children given birth (Para)					
1	459	43.3	283	42.9	0.328

	2	366	34.6	231	35.1	
	3	162	15.3	113	17.1	
	More than 3	72	6.8	32	4.9	
Number of living children						
	1	488	46.1	285	43.3	0.442
	2	378	35.7	246	37.3	
	3	143	13.5	102	15.5	
	3 or more	50	4.7	26	3.9	
Mode of last delivery						
	Normal Vaginal Delivery	628	59.3	317	48.1	0.000
	Cesarean Delivery	431	40.7	342	51.9	

Table 3 compares the pattern of decision-making for respondents' own health and their children's health as well as ability of the women to visit health centres for their own illness and children's illness. Participation of the respondents in decision-making has increased significantly in endline compared to baseline data. Figure 2 shows that as far as the women's own treatment is concerned only 29% respondents had participation in decision-making (12% self and 17% together with husbands) among the baseline respondents, as opposed to 52% participation among the endline respondents (9% self and 43% together with husbands). Similar increase was also observed in case of child's treatment. However, surprisingly the ability of the respondents to visit health centres outside home for their own and children's illness by their own has been decreased in the endline survey compared to baseline survey (Figure 3). The reasons for decline in ability of the respondents visiting health centres outside home is a concern but probably correlated with younger age of the endline respondents compared to the baseline respondents as older women are more likely to have greater decision-making ability (Haque et al., 2012).

Table 3: Decision-making ability for healthcare seeking

Characteristics	Baseline (n=1059)		Endline (n=659)		P Value
	Number	Percent	Number	Percent	
Decision maker for women's own treatment					
Self	128	12.1	60	9.1	0.000
Husband	548	51.7	234	35.5	
Husband & wife together	183	17.3	282	42.8	
Other family members	200	18.9	83	12.6	
Decision maker for child's treatment					
Self	168	15.9	57	8.6	0.000
Husband	470	44.4	228	34.6	
Husband & wife together	239	22.6	269	40.8	
Other family members	181	17.1	105	15.9	
Ability to visit health centre for own illness					
Yes	552	52.1	272	41.3	0.000
No	507	47.9	387	58.7	
Ability to visit health centre for children					
Yes	569	53.7	274	41.6	0.000
No	490	46.3	385	58.4	

Figure 2: Participation of respondents for their own and children's treatment

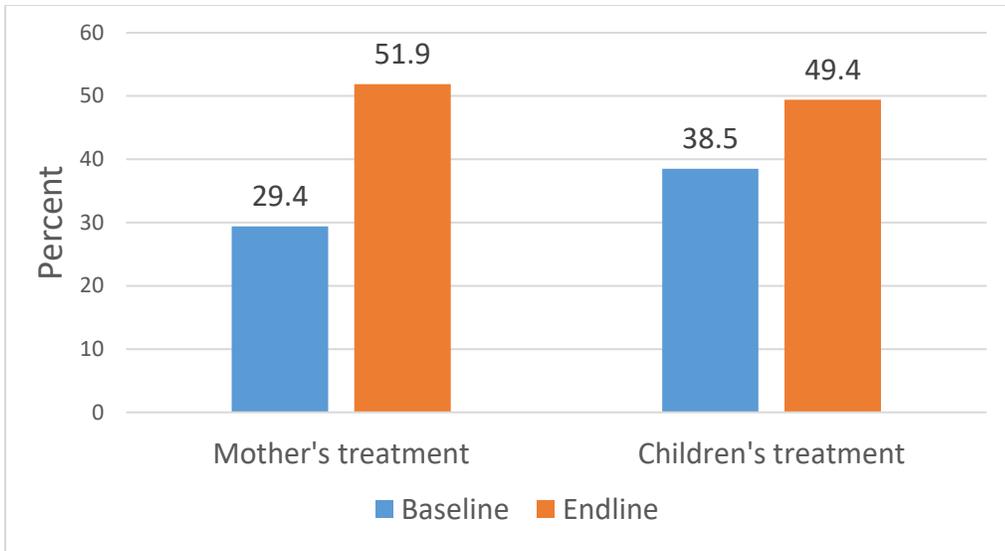


Figure 3: Ability to visit health centres for their own and children's illness

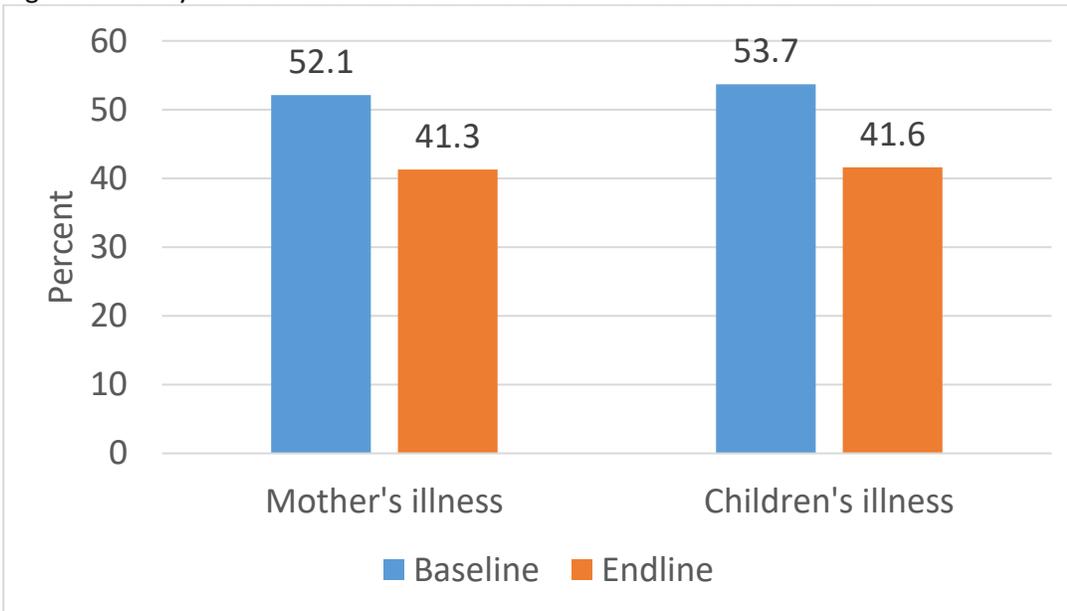


Table 4: Use of antenatal care in the last pregnancy

Characteristics	Baseline (n=1059)		Endline (n=659)		P Value
	Number	Percent	Number	Percent	
Received any ANC during the last pregnancy					
Yes	936	88.4	564	85.6	0.90
No	123	11.6	95	14.4	
Number of ANC received during pregnancy					
One	125	11.8	115	17.5	0.000
Two	154	14.5	137	20.8	
Three	176	16.6	119	18.1	
Four and above	481	45.4	193	43.7	

Places of first ANC received from					
At home	110	11.8	16	2.8	0.000
Primary health care centre	57	6.1	118	20.8	
Secondary health care centre	42	4.5	25	4.4	
Tertiary health care centre	9	1.0	1	0.2	
NGO clinic (Non-profitable)	205	21.9	37	6.5	
Doctor chamber/Private clinic	486	51.9	332	58.7	
Others	27	2.89	36	6.5	
Provider of first ANC					
Skilled providers	757	78.6	444	78.4	0.004
Unskilled providers	178	18.5	117	21.1	
Others	28	2.9	3	0.5	

Table 4 shows the use of antenatal care by the respondents during their last pregnancies and compares the findings with the baseline results. The proportion of women receiving any antenatal care slightly decreased from 88.4% in baseline to 85.6% in endline but this change is not statistically significant. However, proportion of first antenatal care received at home has significantly decreased from 12% in baseline to 3% in endline. Receipt of antenatal care from primary healthcare centres including community clinics has remarkably increased from 6% in baseline to 21% in endline. This increase is largely contributed by the provision of ANC services in the community clinics. Proportionately ANC from NGO clinics has decreased. Antenatal care from physicians has also increased from 52% in baseline to 59% in endline (Figure 4). Overall, the proportion of ANC received from skilled providers remains same.

Figure 4: Source of first antenatal care in the last pregnancy

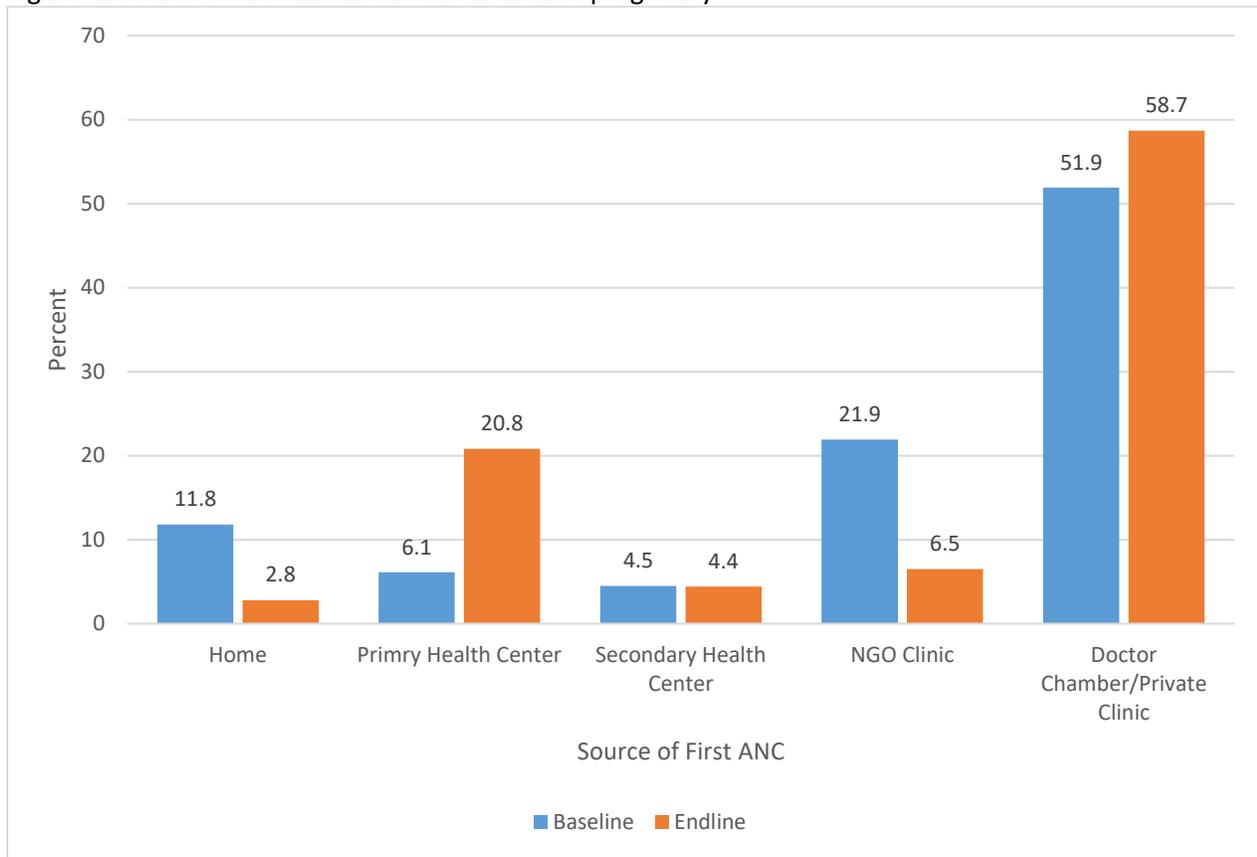


Table 5 depicts the practice related to birth planning during the last pregnancies by the respondents and their families. Participation in a birth planning session by the respondents has increased significantly from 7% in the baseline to 46% in the endline. Among the service providers, the role of CHCPs and doctors in organising birth planning sessions has increased remarkably. During baseline period, 16% doctors and 5% CHCPs were involved in organising birth planning sessions compared to 37% doctors and 15% CHCPs being engaged in the endline period. A significantly higher proportion of endline respondents adopted different components of birth planning compared to baseline respondents except selection of blood donors (Figure 5). Selection of health facilities in case of emergency remains very low in both baseline and endline findings.

Table 5: Practice related to birth planning

Characteristics	Baseline (n=1059)		Endline (n=659)		P value
	Number	Percent	Number	Percent	
Participation in any birth planning session					
Yes	75	7.1	294	45.5	0.000
No	984	92.9	365	54.5	
Who arranged this session					
NGO worker	607	57.3	21	7.1	0.000
Doctor	169	16.0	108	37.0	
FWV	71	6.7	16	5.4	
CHCP	56	5.3	43	14.7	
Nurse	56	5.3	16	5.4	

Others	99	9.3	90	14.7	
Types of birth planning did you take part*					
Selected delivery place	373	35.2	300	45.5	0.000
Saved money	405	38.2	453	68.7	0.000
Prepared transportation for emergency	164	15.5	152	23.1	0.000
Selected skilled birth attendant	139	13.1	153	23.2	0.000
Selected Blood donor if blood needed	126	11.9	84	12.8	0.602
Selected health facility in case of emergency	18	1.7	6	0.76	0.175
Selected person to accompany	8	0.8	1	0.15	0.092
Collected Delivery Kit	75	9.5	39	5.9	0.346

Figure 5: Type of birth planning adopted by respondent in the last pregnancy

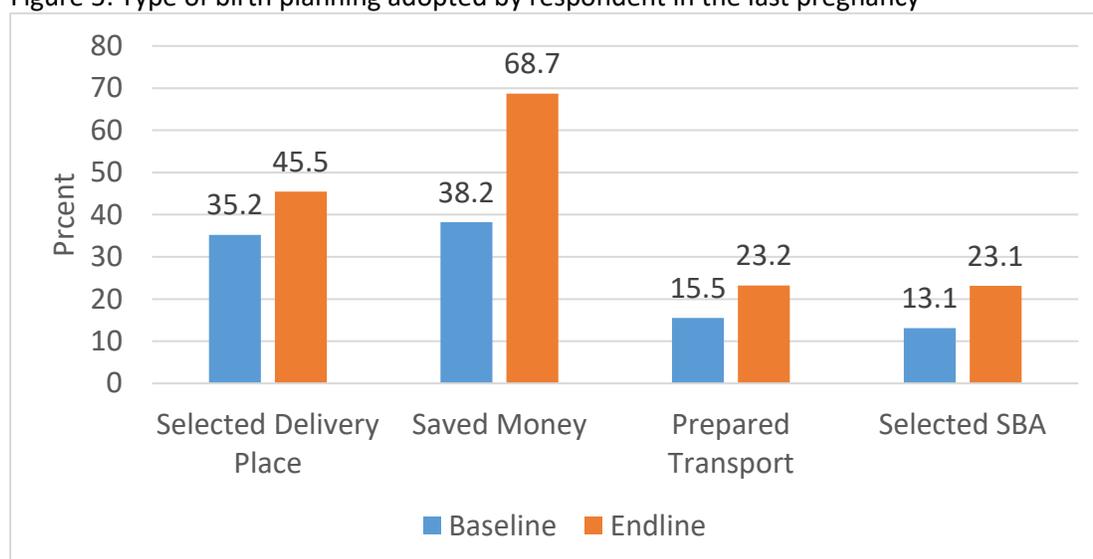


Table 6 shows the patterns of delivery care at the last birth. Facility deliveries and deliveries by skilled providers have significantly increased from baseline statistics. Facility deliveries has risen from 52% in the baseline to 65% in the endline, whereas deliveries by skilled providers has increased from 54% in the baseline to 63% in the endline. The joint decision (wife and husband together) making ability in selecting pace of delivery has been significantly increased from 18% to 42% during the project period, and overall decision-making role of women has increased from 34% in the baseline to 50% in endline (Figure 6).

Table 6: Practices related to delivery care

Characteristics	Baseline (n=1059)		Endline (n=659)		P value
	Number	Percent	Number	Percent	
Place of last delivery					
Own home	218	20.6	112	17.0	0.000
Parent's home	145	13.7	63	9.6	
In-laws home	91	8.6	56	8.5	
Govt. Hospital	73	6.9	74	11.2	
Private clinic	399	37.7	315	47.8	

* Multiple answer question

	NGO health centre	119	11.2	39	5.9	
Place of delivery						
	Home delivery	513	48.4	231	35.1	0.000
	Facility delivery	546	51.6	428	64.9	
Birth Attendant						
	Skilled providers	568	53.6	417	63.3	0.002
	Unskilled provider	451	46.4	242	36.7	
Decision maker for selecting place of delivery						
	Women herself	163	15.4	49	7.4	0.000
	Husband	357	33.7	167	25.3	
	You and your husband together	196	18.5	277	42.0	
	Father in law	34	3.2	18	2.7	
	Mother in law	111	10.5	50	7.6	
	Mother	87	8.2	46	7.0	
	Father	36	3.4	14	2.1	
	Others	75	7.1	38	5.8	

Figure 6: Use of facility delivery and skilled attendant at last delivery

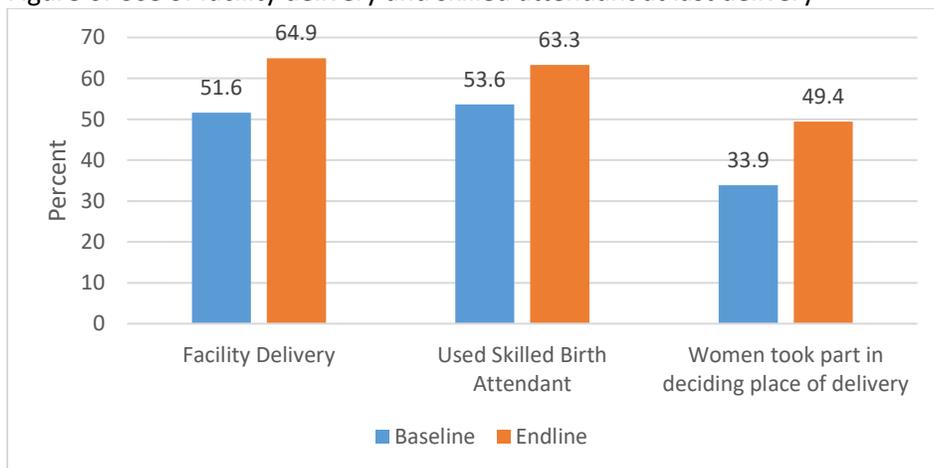


Table 7 depicts the pattern of postnatal care use for the women. Very little change is observed in utilisation of PNC from baseline findings. Postnatal care for women has slightly decreased in endline survey compared to baseline, while proportion of women receiving PNC from skilled provider did not change significantly. Table 8 shows patterns of essential newborn care. Bathing the newborn within 24 hours of birth has slightly but significantly decreased from 39% in the baseline to 35% in the endline. Immediate administration of colostrum (initial thick and yellow milk) has increased a little but significantly from 81% to 85%. Initiation of breastfeeding within 30 minutes has dramatically increased from 19% in the baseline to 53% in the endline. Timing of shaving newborn head did not change much.

Table 7: Postnatal care seeking for mothers

Traits		Baseline (n=1059)		Endline (n=659)		P value
Received any PNC after the last delivery		Number	Percent	Number	Percent	
	Yes	588	55.5	318	48.2	0.003
	No	471	44.5	341	51.8	
Provider of the first postnatal care						

Skilled provider	537	91.3	283	89.0	0.360
Unskilled provider	50	8.5	35	11.0	
Unknown	1	0.2	00	0.0	

Table 8: Essential Newborn care

Characteristics	Baseline (n=1059)		Endline (n=659)		P Value
	Number	Percent	Number	Percent	
Time for bathing of the newborn					
Within 24 hours	414	39.1	232	35.2	0.004
Between 2 to 6 days	392	37.0	275	41.7	
After 7 days	237	22.4	152	23.1	
Don't know	15	1.4	00	0.0	
Colostrum administered immediately after birth					
Yes	856	80.8	562	85.3	0.018
No	203	19.2	97	14.7	
Timing of initiation of breastfeeding					
Within 30 minutes	203	19.2	349	52.9	0.000
Between 31 to 60 minutes	348	32.9	45	6.9	
Between 2 to 24 hours	308	29.1	265	40.2	
After 1 day	141	13.3	00	0.0	
Don't know	59	5.6	00	0.0	
Timing of shaving of head of the baby					
Just after birth	5	0.5	1	0.1	0.000
< 24 hours of birth	2	0.2	6	0.9	
Second day	8	0.8	11	1.7	
Third day to one month	772	72.9	514	78.0	
One month later	253	23.9	109	16.5	
Don't remember	8	0.8	3	0.5	
Yet to shave	11	1.0	15	2.3	

Table 9 shows the contraceptive use and method mix among the respondents. Although contraceptive use has declined from the baseline findings, the role of women in deciding the methods for contraception has improved greatly. In the endline, 85% women had participation in the contraceptive decision compared to 66% in the baseline.

Table 9: Use of family planning methods

Characteristics	Baseline (n=1059)		Endline (n=659)		P Value
	Number	Percent	Number	Percent	
Use of contraceptive methods by type					
Female sterilization	26	2.5	26	4.2	0.001
Male sterilization	1	0.1	2	0.3	
Pill	401	37.9	185	29.8	
IUD	4	0.4	3	0.5	
Injectable	71	6.7	26	4.2	
Implant/Norplant	6	0.6	3	0.5	
Condom	147	13.9	80	12.9	

	Safe period	28	2.6	16	2.6	
	Withdrawal	7	0.7	2	0.3	
	Nothing	367	34.7	278	44.8	
Decision maker for the contraceptive use						
	Women herself	172	16.2	30	7.8	0.000
	Husband	163	15.4	34	8.9	
	Both husband and wife	525	49.6	299	78.1	
	Others	199	18.8	20	5.2	

Table 10 show key indicators by household wealth quintile. The wealth quintile has been created using information on ownership of durable household assets, source of drinking water, type of latrine and characteristics of dwelling house using principal component analysis (Vyas et al., 2006). Pattern of at least one ANC coverage by wealth quintile is similar to the baseline results. Highest vs. lowest quintile ratio is 1.15 in baseline survey compared to 1.16 in endline. However, the highest vs. lowest quintile ratio has significantly decreased for ≥ 4 ANC coverage (2.4 in baseline vs. 1.8 in endline). The distribution of proportion of Cesarean section by wealth quintile has also improved in favor of poorest people, the highest vs. lowest ratio has decreased to 1.6 in endline compared to 1.8 in baseline. Although the overall proportion of skilled attendance at last delivery increased in the endline survey, the highest vs. lowest quintile ratio remain the same at 1.6 in both survey. The rich/poor ratio for facility delivery has significantly improved from 1.8 in the baseline to 1.5 in the endline.

3.2 Findings from Community Clinic Assessment

We assessed 10 randomly selected community clinics in the project areas to evaluate their functional status. Six of the CHCPs were females and four males. All the CHCPs received basic training as well as additional training of short duration during their career. However, only one of the six female CHCPs received Community Skilled Birth Attendant (CSBA) training so far. All respondents mentioned that the clinics were open 6 days a week approximately from 09:00 am to 03:00 pm daily.

All the CCs were found to provide key maternal, newborn and child health services including ANC, PNC, Newborn care, childcare, family planning services, EPI vaccinations, and limited curative care. Organisation, cleanliness and display materials of the visited CCs were excellent. Table 11 shows the monthly average number of patients received various service in the assessed community clinics. We did not find any report of deliveries conducted in any community clinics in the last three months. All other services described in table 11, were provided in all the community clinics we assessed. A major improvement from the baseline is that all the community clinics we assessed provided all the services except delivery care in the preceding three months, while a substantial proportion of community clinics in the baseline either did not provide many services or did not keep records of the services provided. There is an increase in monthly average number of various services from baseline numbers.

Table 10: Use of antenatal care by wealth quintile

Indicators		Baseline (n=1059)	Endline (n=659)
Received any ANC			
	Lowest quintile (%)	81.0	78.8
	Second lowest (%)	86.8	84.1
	Middle (%)	92.9	82.6
	Second highest (%)	87.7	90.9

	Highest (%)	92.9	91.6
	Overall (%)	88.4	85.6
Received ≥4 ANC visits			
	Lowest quintile (%)	28.7	33.3
	Second lowest (%)	36.4	38.6
	Middle (%)	52.3	44.7
	Second highest (%)	66.7	41.7
	Highest (%)	69.4	60.3
	Overall (%)	45.4	43.7
Cesarean section at last delivery			
	Lowest quintile (%)	29.4	40.9
	Second lowest (%)	36.8	43.9
	Middle (%)	47.6	51.5
	Second highest (%)	36.8	59.1
	Highest (%)	53.1	63.4
	Overall (%)	40.7	51.9
Skilled attendance at last delivery			
	Lowest quintile (%)	41.2	49.2
	Second lowest (%)	51.9	51.5
	Middle (%)	58.0	62.9
	Second highest (%)	51.9	76.5
	Highest (%)	65.4	76.3
	Overall (%)	53.6	63.3
Facility delivery			
	Lowest quintile (%)	37.0	50.0
	Second lowest (%)	47.9	53.0
	Middle (%)	54.0	65.1
	Second highest (%)	53.8	81.8
	Highest (%)	65.4	74.8
	Overall (%)	51.6	64.9

Table 11: Average number of monthly services provided by a community clinic in the last three months

Type of services	Monthly Average (Baseline)	Monthly average (Endline)
Antenatal Care	8	12
Postnatal Care	2	5
Delivery Care	0	0
Newborn Care	1	3
General Child Care	54	114
General Health Care (Male)	-	154
General Health Care (Female)	-	263
Oral Contraceptive Pills	-	64
Condom	-	5
Injectable Contraceptive	-	2
Referral for obstetric patients	2	5
Referral for newborn patients	-	4

Referral for under-five children	-	9
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All the required registers and documentation tools were found in all CCs. All ten CCs had a bank account and regular source of income. The average savings at the time of data collection was BDT 19,094/= (3,100-78,000) with average income and expenditure in the preceding one year was BDT 20,637/= (3,100-67,000) and BDT 13,004/= (1000-35,000) respectively. The major sources of income were user fees, private donations and allocations by the local government authorities.

Table 12: Average monthly savings, income and expenditure in community clinics

Type of services	Monthly Average (Baseline)	Monthly average (Endline)
Average savings in account in BDT	BDT3,500/=	BDT 19,094/=
Average savings in AUD	AUD 57/=	AUD 312/=
Average monthly income in BDT	-	BDT 20,637
Average monthly income in AUD	-	AUD 337/=
Average monthly expenditure in BDT	BDT 2050/=	BDT 13,004/=
Average monthly expenditure in AUD	AUD 34/=	AUD 212/=

All the CCs had formal community group and community support groups and regular meetings were held in the last year. Discussions and decisions of the meetings are duly documented and endorsed. The community group formation during the baseline assessment was approximately 100% and regular meeting organisation was 91%.

3.3 Findings from key informant interviews with providers and CORE team members

The CHCPs and other providers of the CC (FWA, HA and FWV) were fully aware of the CARE's IMIHB project, its aims, strategies and approaches. Majority of the respondents acknowledged the values added by the project to the quantity and quality of the services they provided in the CC. They recognised that the supports they received from the MHFW sub-district and district level officials, local government authorities and particularly the community were possible due to facilitation of the CARE's project staff. One female CHCP stated,

“Although I know that I am required to work in the CC as a government staff, but the truth is that before the CARE's project I did not open the clinic regularly and did not maintain the clinic hour as per rule. My clinic environment was not good at that time. Now I am happy to serve people in my clinic and it happened due to the CARE's project.”

In response to what approaches of the project were helpful and effective, the respondents identified the following activities almost universally.

- 1. Community Score Card:** The majority of the respondents mentioned that the community scorecard, developed by active participation of all the stakeholders, was an excellent approach. In this approach, all concerned stakeholders of community clinics are invited in an open meeting and asked to rank different components of CC activities between 0 and 10, with 0 being very poor and 10 outstanding. Total scores for each component were added and that gave an idea which areas needed improvement. This helped all concerned to understand the exact functional status of specific components of community clinic activities and identified supports and solutions to overcome the shortcomings. Majority of the problems could be solved at the local level including community, sub-district MOHFW officials and local government authorities. Only few issues were required to refer to the district officials.

2. **Community dialogue:** Community dialogue was another successful strategy involving all concerned in the community clinic activities. Community members were invited to make comments, express opinions and commitment for supports to improve identifies problems. Using these two approaches, several problems related to CC were successfully solved. For example, installation of solar panel, renovation CC building, installation of tube well, repair of approach road, construction of toilets etc. were done in the CCs of the project areas. In some places, local people were employed by the CC group for security that also created employment in the locality.
3. **Mothers gathering:** The mothers gathering at the community was very effective in raising awareness about the community clinics and the available services in these clinics.
4. **Special community clinic corner at the referral hospital:** One stop referral corner for patients from community clinics at the sub-district hospitals was a highly innovative and effective approach to enhance community clinic activities. This activity identified one room in the sub-district hospital and one support staff to receive all patients referred from CC and help them with registration and treatment in the hospital. This has improved the referral from community clinics to sub-district hospitals significantly.
5. **Birth planning:** Birth planning sessions with pregnant mothers and their families are extremely helpful for increasing care seeking during pregnancy, childbirth and postpartum period. Previously birth planning was not performed at all. Now introduced by CARE's project, FWAs, Has and CHCPs conduct birth planning session in an organised manner.
6. **Local fundraising:** Fundraising activities by the CC gave financial sustainability of the CC activities to a great extent. These funds are spent to support poor families to arrange transport to reach referral centres and purchase services from referral centres if needed.
7. **Supportive supervision:** Supportive supervision by union and sub-district level supervisors introduced by the project was very helpful in proving CC activities.

District and sub-district CORE team members in the IMIHB project are extremely helpful in making the community clinics functional. Many of them underscored the unique contribution of CARE in developing community support system for community clinics during the project period. The CORE team approach to enhance CC activities was fruitful and needs to continue to sustain the achievements. However, frequent transfer in government setting was a challenge to maintain the same level of efforts. A facilitation approach throughout the country by an independent organisation may be helpful to eliminate this transfer effect. They also said that the standalone CORE team approach for CC activities needs to be mainstreamed gradually under the routine supervision and monitoring system.

At all levels, involvement of family planning workers and supervisors are less than optimal in the CC activities. This appeared to be a systematic issue, but in some places the FP involvement is excellent and perhaps due to individual interests.

Majority of the respondents opined that CARE's IMIHB project had a significant contribution in improving maternal, newborn and child health status in the project areas. However, they expressed their concerns that the phase-out of the project activities was little pre-mature and it should have been continued for at least another two years to mainstream all the project activities within the MOHFW system. However, they were

confident that they would continue most of the activities by their own efforts and resources. They suggested that the MOHFW, particularly the Community Based Health Care (CBHC) authority should take the initiative to scale up the successful elements of the IMIHB project at the national level.

3.4 Findings of the focus group discussions with CSG members

CSG members informed that CARE's IMIHB project activities were extremely helpful for them to contribute meaningfully to improve health of the local people, particularly women and children. Before the initiation of CARE's project the community support groups were mostly in pen and paper. CARE's colleagues demonstrated hands on how to form a committee involving the community people while organising and implementing various activities to raise awareness about improve healthcare seeking from community clinics and sub-district hospitals. The CSG members are actively engaged with the community people to identify and track pregnant women through social mapping; develop and implement community action plan (CAP); and regularly hold monthly meetings of the groups. The mothers gathering, community dialogue and community scorecards are few activities that helped immensely in awareness raising and improving services at the community clinics. The one stop Community Clinic corner in the sub-district hospitals has improved the referral from the CC and referral compliance by the patients. Majority of the CSG members expressed that they felt honoured to be able to contribute for a noble cause for their own community.

The CSG members informed that the experience of working together for the community clinic activities has also been extended to address other social issues including a campaign against child marriage and violence against women.

3.5 Findings of the focus group discussions with recently delivered women

Focus group discussions with recently delivered women revealed that the quality of services in the community clinics had improved a lot in the last 2-3 years. The CCs are now open for 6 days a week and from 09:00 am to 02:30 pm. Now antenatal and postnatal care for women and EPI vaccinations for children are available in the CC. Majority of the respondents participated in mothers gathering organised by the CC and union council authorities. They certified that in the recent years they witnessed many development works in the CC such as toilets, water supply, renovation works and approach roads. The respondents also informed that the community groups helped many poor women to receive healthcare from referral hospitals by providing financial supports and transportation. One young mother told:

"We are poor people and I received financial support from the community group of my locality last year for having my delivery in a hospital. I had a number of complications and without the help of the group, I would not have been able to afford the cost of my delivery in that hospital. I and my family are highly grateful to the group."

Section 4: Discussion

The IMIHB project implemented by CARE Bangladesh in four sub-districts in Gazipur district of Bangladesh shows important achievements in a three year period. The project strategies are found to be effective, had impact on the population of the project areas and likely to be sustainable beyond the project period.

4.1 Effectiveness

The project has been effective to demonstrate positive results against key indicators for all the objectives that were determined at the outset of the project. About 80,803 women were directly reached with project interventions and benefited during the life of the project. In addition to increased service uptake, there are evidences of capacity building and installing new systems and tools to improve the effectiveness and efficiency of the existing community health system. The following table elaborated the effectiveness with findings for each of the objectives of the IMIHB project:

Project Objectives	Study Findings/evidences
<p>Communities' access to and awareness of sexual, reproductive and maternal health (SRMH) services increased</p>	<p>During the project period, there was significant increase of service uptake by the targeted community, comparing the baseline study, ANC and PNC service utilisation in Community Clinics have been increased 50% and 150% respectively. In addition, births conducted in health facilities has been increased 13%; The project also successfully address the inequity in accessing health services such as comparing to baseline, facility delivery by women from lowest wealth quintile has been increased 37% to 50%.</p> <p>Women awareness on maternal health issues have been increased significantly. For example: participation of pregnant women and their families (husband and in-laws) in birth planning session during pregnancy has been increased 7% to 45% comparing to baseline.</p>
<p>Referral numbers of women and children to health services increased by establishing stronger links between communities and healthcare providers</p>	<p>Referral from Community Clinics to higher facilities for maternal and child healthcare have been increased comparing to baseline findings. Referral of women with delivery complications increased from 2 to 5; newborn patients 0 to 4 and children under 5 was 0 to 9. In addition, referral from Community Clinics for all services has been increased 34%</p> <p>The project successfully established referral Corner at each of the Upazila Health complex (sub-district level hospital) for smooth facilitation of referral services without any unnecessary delays.</p> <p>The introduction of referral corner positively contributed to seeking referral services, increase client satisfactions and tracking compliance of referrals by community groups.</p> <p>The Ministry of Health recognised the referral corner as best practices to replicate other sub-districts in Bangladesh.</p>

<p>Local level planning, coordination and data collection for decision-making in 163 community health clinics strengthened to improve service quality and performance</p>	<p>The project built capacity of 1803 Community Support group members and 446 health and family planning staff and supervisors and 163 community clinic healthcare providers for improving service quality and performance.</p> <p>The knowledge, attitude and skills of both service providers and community peoples have been increased significantly that reflected in quality counselling, service delivery; and proactive & supportive roles of community members in health promotion and delivery (constructive feedback and community contributions for timely referrals).</p> <p>Most of the community clinics (90%) and all sub-district level staff/managers organised regular local level planning, coordination and performance review meetings that were evidence based and incorporating feedback of community members with a follow up mechanism.</p> <p>All these system-strengthening efforts positively contributed to optimum utilisation of Community Clinics services, such as per day average service contact of Community Clinic has been increased tremendously from 67 to 640. In addition, 100% CC maintained timeliness of report submission with no or minimum error.</p>
<p>Communities' knowledge of and support for sexual and reproductive health and rights of women strengthened</p>	<p>Evaluation findings revealed that, women and family members' participation in different reproductive and maternal health discussions/events/activities both at community and facility level have been increased comparing to baseline findings.</p> <p>Qualitative findings revealed that the husbands and in-laws are more supportive to pregnant women, especially carrying water, taking rest after lunch, accompanying to health facilities and providing better food, and support in child caring. For example: decision-making role of women along with husband in selecting place of delivery has been increased from 17.3 to 42.8%</p> <p>Birth preparedness has been increased from 7 % to 45 %. ANC from primary healthcare centres which has increased by 15%. Practice in essential newborn care also increased. For example: bathing of the newborn after 72 hours increased 5%, initiation of colostrum within 30 mins increased 34%</p>

<p>Community Support System (CmSS) strengthened to improve local planning, mobilise local funds, raise awareness and establish linkages with health facilities</p>	<p>Qualitative findings revealed most of the key informants from community recognised that in the recent years they witnessed positive changes in Community Clinic management and service provisions such as construct toilets, water supply, approach roads and renovation works. The respondents also informed that the community group members helped many poor women to receive healthcare from referral hospitals by providing financial supports and transportation. All Community Clinics have bank account and their average savings has been increased from \$AUD 57 to \$AUD 312</p> <p>Increased numbers of facility delivery and referral services for the women with obstructive complications further proved the effectiveness of community support system.</p>
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One of the important and effective approach of the IMIHB project was its CORE team development and strengthening at the district and sub-district levels. As the members of core team from government health and FP supervisors and managers, it enabled them to continue the key activities beyond the project period. After receiving the capacity building and coaching support from project staff, the CORE team members successfully provided guidance and supportive supervision supports to the community clinics and community support systems to plan, implement and monitor its activities. All the project inputs were channelled through CORE teams. The performance of community clinics and community support groups have remarkably improved compared to baseline findings. Women’s role in health related decision-making, participation in and adoption of birth planning components, facility delivery and skilled attendance at delivery increased from baseline findings. This happened due to variety of IMIHB project activities including mother’s gathering, introduction of Community Score Card and Community Dialogue, pregnant women identification and social mapping by CSG, establish one-stop referral corner at the sub-district hospitals, supporting supervision by the CORE team members, and engagement of local government bodies in community clinic activities.

4.2 Impact

As the increased utilisation of key maternity care services (ANC, skilled delivery, met needs for obstructive complications and PNC) are key determinants to reduce maternal and newborn mortality, it can be concluded that the IMIHB project had positive impacts on improved maternal and child health in Bangladesh. Increased coverage of key maternal and child health services ensured service utilisation by additional mothers and children and saved their lives and prevented complications and thereby improved quality of life. The project had indirect impact on all women, children and general people of the project areas, as a functional community health system is now available at close proximity of the peoples of targeted community. In addition, the project success can have broader impact on the national health program and system by documenting and scaling up the successful elements of IMIHB project nationwide. This requires careful documentation of successful elements of the project, develop standard protocols, guidelines, and advocacy efforts for scale up at the national level.

4.3 Sustainability

The question of sustainability in the context of IMIHB project is critically important. The sustainability can be viewed from different angles. One of the important and effective approach of the IMIHB project was its CORE team development and strengthening the health department at the district and sub-district levels. As the members of CORE team from government health and Family Planning supervisors and managers, it enabled them to continue the key activities beyond the project period.

The skills and competencies developed in the involved people due to the project efforts will sustain automatically in the long run. For example, the knowledge and service seeking behaviour of the community people will sustain as family and social norms in the project areas. The technical skills achieved by the service providers will sustain the quality of services provided by them. The community support systems developed will sustain as the community people and local government bodies are actively involved in these approaches.

In addition, the project works closely with local and national level government policy makers, service providers and health facilities to build their capacity to provide better maternal and child health services for their local communities. The project also worked closely with the existing Community Support Systems (CmSS) which are an integral part of the community health system in Bangladesh to ensure accountability of the community clinics and to mobilise local commitment to improve maternal and child health. Project also raised awareness to improve the healthcare seeking behaviour of the targeted population and established the referral linkages with service facilities. These proven community engagement approaches and strong government health system involvement as well as awareness raising activities which are related to sustainability of the project interventions. For example: project organised phase out meeting to develop an action plan with participants from government and community at Upazila and district level. In that workshop, participants' identified some activities, such as facilitation of bi-monthly Community Group meetings, mothers' gatherings, Growth Monitoring and Promotion, cross learning visits, and Community Clinic maintenance, will be carried forward by them. Moreover, project provided training to CORE team and community groups members on governance tool, such as Community Score Card for strengthening service responsiveness for long run.

4.5 Challenges

Despite tremendous success of the project during the short period, there are several challenges that were mentioned by respondents of key informant interviews and FGDs. Majority of the challenges were from the supply side including shortage of drugs in the community clinics, limited clinic opening times, inadequate training of the CHCPs, and irregular payment of salaries to the CHCPs from the government. Effective involvement of communities in CC activities depends on the high level of motivation of the participating community members, such as members of the CSG.

1. Service utilisation in Community Clinics has increased due to community people's awareness on Community Clinic's services but ensuring quality services and client satisfaction are sometimes questionable due to scarcity of drugs, logistics and service providers.
2. Ensure 24/7 services and information from Community Clinic since it is the only service option for grassroots community.
3. CHCPs are only trained to provide limited services in the community clinics. More training to CHCPs or deployment of more trained providers are needed to optimise the service provision in CCs.
4. Limited availability of mobile network in remote project areas posed a challenge to timely sharing online reports.
5. Ensure female participation in decision-making processes of their own and child's health since it has significant impact in women and children's health status.

6. Ownership development and clear understanding of Community Health System among different stakeholders, such as Health/FP department, local government, and local communities.
7. Inconsistence in government commitment to frontline service providers to keep them motivated to provide quality service.
8. Establish community referral system with inadequate preparedness of all levels of public health facilities.
9. Limited focus on nutrition and adolescents health services despite of huge and increased community needs.

4.6 Limitations of the Evaluation

The major limitation of this evaluation is the lack of comparison areas to determine the direct attribution of the project activities to the improved coverages of the key maternal and newborn services. The evaluation consultant attempted to understand the project's attribution qualitatively from the respondents.

4.7 Best Practices of IMIHB Project

The IMIHB project has several successful elements and should be considered as the best practices and are described below.

1. **Effective Community Referral System:** The project has been successful to establish a functional referral system from community to the Upazila Health Complex (UHC). For that purpose, the project built capacity of ~215 most potential and proactive community members through providing training on community diagnosis, pregnant women tracking with social mapping, recognition of danger signs during pregnancy, childbirth and postpartum period, and referral tracking. Thus Community Support Group (CSG) members are capable to identify and register pregnant women in the community and track the pregnant women (PW) household through social mapping and refer the emergency patient with referral slip to respective UHC. They are also capable to ensure transportation and financial support for poor families through resource mobilisation at local level. In addition, the Project enhanced CHCPs' (Community Health Care Provider) capacity on referral through introduction of a screening tool and referral mapping. As a result, each community clinic has a referral map including service information of referral health facilities and contact numbers. Moreover, project facilitated establishment of a referral corner and one referral facilitator in Upazila Health Complex to ensure service of the referred patient with record keeping which also affected increased institutional delivery.
2. **Enhanced utilisation and quality of services at Community Clinics:** The IMIHB project used a CORE Team approach at district and sub-district levels and facilitated capacity building of selected CORE team members and first line supervisors through formal training and on-the-job support to establish supportive supervision and monitoring of community clinics and CSG activities. Thus, the CORE Team members and other first line supervisors are now capable to conduct community clinic visits using a checklist. They analyse, discuss and share their findings with respective providers and their immediate supervisors for continuous quality improvement. In addition, they conduct necessary technical training sessions and share monthly progress in CHCP monthly meetings to refresh their knowledge and improve quality of care.
3. **Institutionalised evidence-based planning at Community Clinics and Upazila Health Complex:** The project facilitated capacity building of Statistician and CHCPs by imparting formal training and on-the-job support to improve reporting quality, appropriate data analysis, and utilisation of findings. As a

result, the IMIHB project areas are consistently performing well in online report submission. Civil Surgeon and UH&FPOs take decisions based on the monthly Management Information System (MIS) data which is reflected in increased service utilisation in CCs.

- 4. Increased participation of women in decision-making for maternal and child health seeking:** The project facilitated high quality birth planning sessions with pregnant women and their family members by service providers and CSG members. Efforts were made to ensure participation of women in different community events, such as mothers gatherings, street dramas, learning visits, community dialogues, and community scorecard meetings, etc. These activities significantly contributed to increased participation of women (through joint decision-making by husband and wife) in family level decision-making process on maternal and child health seeking and practice.

- 5. Increased access to health facilities by lowest wealth quintile and decreased quintile disparity in baby delivery conducted by skilled birth attendant:** The project activities resulted in increased maternal and child health service utilisation by lowest wealth quintile households members due to provision of transport and financial support to poor families and facilitation of referral by establishing a referral corner and referral facilitator at the hospitals.

4.8 Lessons Learnt

The project learnt a number of lessons that can be useful for consideration in future maternal, newborn and child health programming in Bangladesh.

1. The CORE team approach is highly successful in leading the project activities and building supportive supervision and monitoring for a health program, which gives ownership to GoB and sustainability beyond the project period.
2. Engagement of community people and local government bodies in health programs is highly effective, and directly contributes to strengthening the health system through fostering societal partnerships.
3. Establishment of a one-stop referral corner at sub-district hospitals for community clinics is effective in increasing client satisfaction and referral compliance of the community.
4. Health system approach applied by the project has an impact on issues beyond the project goals as it improves the responsiveness of the community health system.
5. Coordination among relevant stakeholders is key to ensure consistency in service quality.
6. Effective facilitation of birth planning session targeting husband and family decision-makers, as well as the pregnant women, significantly increased the number of births conducted by skilled providers.
7. Improved tangible health performance is one of the key motivation factors of Government of Bangladesh health and family planning staff to make them more proactive for ensuring quality service from community clinics.
8. Investment to address social deterrents such as gender, early marriage, governance, social norms is important to improve maternal and child health outcomes.

4.9 Recommendations

1. CARE should take initiatives to document the identified successful elements and develop comprehensive guidelines and standard operating procedures (SOP) for implementation. This documentation should be done by involving all stakeholders and preferably facilitated by an external consultant. The potential successful elements are as follows:
 - Community Score Card Exercise

- Community Dialogue
 - Mothers Gatherings
 - One-stop community clinic corner in sub-district hospitals
 - CORE team approach for supportive supervision and monitoring
 - Identification and tracking of pregnant women using social mapping by Community Support Group
 - Local fundraising by community clinics and support groups.
2. CARE should make systematic efforts to disseminate the results and lessons learned with relevant stakeholders including MOHFW.
 3. CARE should work with the CBHC to scale up the successful elements of the project nationwide.
 4. CARE can consider continuing a small-scale presence in Gazipur district for another year or two to mainstream the selected successful activities within district and sub-district MOHFW system.
 5. CARE should prioritise nutrition, adolescent health while designing new community health system strengthening projects through community clinics.
 6. CARE should also provide supports to Family Welfare Centres since they provide improved service provision and infrastructure.
 7. CARE to explore new strategies to further increase the coverage of birth planning and counseling sessions, preferably by engaging community support groups and community volunteers.

Section 5: Conclusions

CARE's IMIHB project has achieved remarkable progress in improving maternal, newborn and child health in the project areas with its innovative and comprehensive program design and effective implementation. The major successes of the project are improved service quality at the community clinics, establishment of an effective community support system, establishment of a functional linkage with referral hospitals, ensured engagement of community members, including local government bodies, and enhanced supportive supervision from sub-district and district government health officials. The project should systematically document the successful elements of the project and work with the national level Community Based Health Care (CBHC) unit of the MOHFW to scale up these nationwide.

In conclusion, the uniqueness of the IMIHB project is its community health system strengthening approaches, which produces not only impressive results but potentially a sustainable system as the project has been successful to foster societal partnership, improved governance and built capacity of community level health workers and managers.

Section 6: References

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